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Good Teaching and Learning in the Academy.

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Abstract.

This paper is based on original research at five Queensland Universities. It compared the teaching strategies of law, education and science academics in an attempt to discover any relationship between teaching strategies and subject matter. It also examined the teaching policy at each university, specifically university definitions of good teaching and its relationship to use of technology. The purpose of this research was to determine whether or not specific understandings of good teaching in the academy prevailed, and whether or not this (dis)advantaged certain faculties.

From an initial case study of QUT, the basic findings from our research were as follows:

- good teaching was found to have two central features: it was student centred and technologically innovative,
- irrespective of discipline, all lecturers espoused the importance of student centred learning as integral to good teaching, even though, in practice, teaching style appeared to be largely determined by subject matter,
- the most innovative and technological units were the least student centred

We conclude that what counts as good teaching is both contested and context bound. This has major implications for monolithic definitions of good teaching as espoused by university policy and teaching units. It also has clear ramifications for university measures of effective and innovative teaching and thus standardised procedures for both academic promotion and teaching practices across the university.

Introduction

We have argued elsewhere (Tait and Carpenter 2000a, 2000b; Carpenter and Tait 2001) that in the modern university, not only is a good teacher defined as an effective user of technology, but technology is seen as necessary for student centred learning to occur. After all, universities now have increasingly high levels of expectation about the use of information technology in both delivery and learning. The outcome is that rote learning, a failure to use a variety of visually stimulating resources (anything from OHTs to advertisements) or simply reading lecture material, are all positioned as inappropriate for the student (and teacher) of the new millennium.

At all Queensland universities, staff are encouraged to be good teachers through extrinsic means such as rewards for good teaching, which include personal promotion, awards for outstanding contribution, teaching and learning grants and professional development programs. Such extrinsic rewards for good teaching are intertwined with teaching and learning plans which emphasise flexibility and technology (*QUT Teaching and Learning Plan 1998-2000; Griffith University Teaching and Learning Management Plan 1999-2001; The University of Queensland Teaching and Learning Enhancement Plan 2000-2002; University of Southern Queensland Strategic Plan 2001-2004; James Cook University Quality Support for Teaching, Learning and Research 1999-2000). This is because 'technological advances open up opportunities for adding newer and more innovative methods to the spoken lecture and face to face seminar (QUT 1998:12). After all, universities deem the modern student to have increasingly high levels of expectation about the use of information technology in both delivery and their learning.*

This relationship between student centred learning and technology is well demonstrated in the various learning plans. And while it is acknowledged that technology is one of a range of tools available for improving teaching and learning, flexibility through the use of technology account for two thirds of the programs offered in the course of the year at QUT, for example (Wallis 1999). At Griffith University, flexible learning is a primary teaching and learning goal and it is recognised that information technology is a core technology of flexible learning (T and L Plan 1999-2001, p1). At the University of Queensland it is argued that the university's move to the flexible delivery of its teaching methods will build on the application of leading edge technologies (Teaching and Learning Plan, p20). This link between technology, flexibility and new and better learning experiences will be addressed in the first part of this paper.

Student centred learning and good teaching

Good teaching is teaching that helps students to learn. It promotes active engagement with the subject matter, motivation to learn, desire to understand, independence, confidence and sustained effort (Griffith Institute for Higher Education 1994:67).

'While good teaching is teaching that helps students to learn ... none of this implies that good teaching will always result in high quality student learning. There is no direct relation between what teachers do and what students learn'. (Griffith Institute for Higher Education 1994:67)

There are masses of information in educational journals, teaching texts, university policy documents, professional development programs, and staff development units that are explicitly about good teaching and its relationship to effective student learning. Terms such as surface versus deep learning, lower and higher cognitive qualities, and active and passive learning, suggests a dichotomy between effective and ineffective teaching and learning techniques. In the university, this translates into the unilateral support and advocacy of student centred learning. Paul Ramsden (1993:95-96), who is positioned as an expert in student learning, is an exemplar of this position. He provides in his writing on the subject, a dichotomy not only between good and bad learning but also between the progressive and instrumentalist views on education itself – an issue addressed later in this paper. He states that 'we are surrounded in the higher education of the late twentieth century by those who ... constrain the fresh, the progressive and the genuinely innovative in teaching' (Ramsden 1993:95-96). This support for the values of progressive education, is contrasted with the instrumentalist view of educational rationalism, which, according to Ramsden, has come to dominate university teaching policy in Australia. While progressive education policies are regarded as leading to an increase in student responsibility in learning, through the recognition that different students prefer different learning styles, instrumental education can only focus on the dissemination of information, the measurement of effects, and the categorisation, reward and punishment of the learners (Ramsden, 1993).

The issue here is that the progressive and instrumentalist movements are positioned as diametrically opposed. However, the implications go beyond this simple binary. In actual fact, the binary is really between progressive/modern/good teaching and instrumental/traditional/bad teaching. At this point, it is important to note that this is primarily an *historical* argument, not one founded upon someone's ability to grasp the true essence of what constitutes good pedagogy.

Humanism and Progressive Education.

Its [education] practices are grounded in rational belief systems, 'regimes of truth', which have common reference points relating to the basic values of western culture. These are the values of humanism and the pursuit of knowledge and understanding ... broadly the agenda of Enlightenment thought. (Preston and Symes 1992:xiii)

We have argued elsewhere (Tait and Carpenter 2000a, 2000b; Carpenter and Tait 2001) that in the modern university, student centred learning (and teaching) is defined as requiring not only technological proficiency and freedom of choice, but also a particular understanding of the student. Terms such as 'life-long learner', 'learner control and choice', 'student centred teaching', have a certain image of the student persona in mind. 'This is a conception of the person as a self developing subject, who learns through freedom, and for whom the school is thus only an instrument of the person's own self-realisation (Hunter 1994, p145-146).

This humanist understanding of the student is the foundation of the progressive education movement. While the impact of progressive education was most keenly felt in the preschool and primary school in the early post war period, the ideals of progressive education are now the mainstay of all forms of education, including tertiary education. The progressive belief in process rather than content learning, and active and interest-centred learning, are based in the belief that 'learning occurs through encounters with self-knowledge related to the quest for personal meaning and identity' (Preston and Symes 1992, p62). In such a context, the learner 'is in control and the teacher performs a subsidiary role in the educational process ... helping individuals to grow and reach higher levels of self actualisation' (Preston and Symes 1992, p61).

The idea that material has to be meaningful to the student to be easily apprehended is a relatively recent one (Kendall 1991). What is now taken for granted—the necessity for teaching to engage the attention of the student—required an historically located reorganisation of the ethical and technical character of the teaching situation. As Kendall (1991) has argued, this is the moment when a psychology of the learner was invented. Previously, the internalisation of knowledge was a psychologically unproblematic activity, but by about 1750 a variety of obstacles were seen to impede the process – such as the interest of the text or the motivation of the learner.

Thus, toward the end of the 18th century, new ways of organising and understanding the status of citizen within western societies had the contingent effect of producing new protocols for teaching and learning. These protocols, in continual tension with traditional forms of instruction, formed the basis for 'progressive' education. From this time, the lecture theatre and the seminar room became places for a new type of knowledge acquisition predicated not only upon discipline, as the learner was subjected to more and more thorough assessment and examination, but also upon dialogue, with the student becoming part of the principle of their own education (Hoskin1993).

While tension exists between educational theorists as to the role of schooling and society (education versus training, liberal versus vocational principles, mental versus manual capacities) the ideals of progressive education are rarely questioned. This is due in large part to the reflex acceptance of its most fundamental, underpinning domain assumption—a humanist notion of the self—an assumption which has been

seriously challenged in the wider fields of social and philosophical debate (Foucault, 1988; 1990; Mauss, 1973; 1985). The issue here is that universities espouse this monolithic understanding of good teaching irrespective of faculty or subject matter. This has both extrinsic and intrinsic implications for academics: extrinsic in terms of promotion; and, intrinsic in terms of one's own practices as a teacher.

Teaching and Technology in Queensland Universities

In 2000, a survey of all law, science and education academic staff in five Queensland Universities was conducted (Griffith University, University of Queensland, Central Queensland University, James Cook University, University of Southern Queensland). The survey asked respondents to comment on their use of technology, their training in technology and their justification for technology use. 670 surveys were posted with a response of 283 for a response rate of 42%. For the purposes of this discussion, analysis will be confined to differences between faculties only (differences between universities or between faculties will not be examined at this time)

With regard to technology usage, academics were asked to comment on a wide range of technologies, from the traditional overhead projector, to powerpoint and audio/teleconferencing. Across all faculties, the most used technology is still the overhead projector (education: 93%; law: 76%; science: 84% use always or frequently) and the least used technology for education academics is CD ROMS and research packages (12% and 13% use always or frequently); for law academics is teleconferencing and research packages (4% and 8%) and for science academics is discussion lists and teleconferencing (8% and 8%). Thus while there is some overlap in usage, law academics are the most likely to use powerpoint in their teaching (42% vs 37% for education and 32% for science); science academics are the most likely to use research packages in their teaching (21% vs 13% for education and 8% for law) and education academics are most likely to use teleconferencing and discussion lists in their teaching (15% and 26% vs 4% and 18% for law and 8% and 8% for science). This suggests that technology is used differently in different faculties with the least interactive being most used in law, and the most interactive being most often used in education.

With regard to the justification for use of technology, options included colleague, employer and student expectation, enjoyment, student learning and participation. All academics were in agreement that using technology gave variety to teaching (94% in education; 97% in law; 91% in science), a majority agreed that technology aided student learning (75% education, 69% law and 68% science), and that students expected technology in their learning experience (63% education, 67% law and 64% science). Employer expectation ranged from 56% in education and law to 50% in science while colleague expectation ranged from 50% in education, 47% in science and 39% in law. This is in contrast to the predominance of technology use articulated in teaching and learning plans.

These findings demonstrate that the reasons for using technology are remarkably similar across the three faculties in the five Queensland universities. However, it is in the more in-depth analysis of an interview that the interesting differences between faculties, noted in the type of technology usage above, become apparent. A case study of QUT effectively demonstrates this.

Being a Good Teacher at QUT.

The general aims of a programme in higher education include 'the development of students' intellectual and imaginative powers, their understanding and judgement; their problem solving skills; their ability to communicate' (Council for National Academic Awards, U.K., cited in Margetson 1994:7).

The dominance of progressivism in education—irrespective of teaching philosophy or economic imperative (classes may be bigger but the student must still be engaged)— has implications for definitions of good teaching and effective student learning. This was particularly evident in a series of interviews conducted with 24 academics in the faculties of law, science and education at QUT in 1998 (Carpenter and Tait, 1998). An initial survey on the use of technology in teaching included all 345 academics in the three faculties (124 science, 139 education and 82 law), for a response rate of 35%. Of those who responded to the survey, (42 science, 45 education and 32 law) 42 self-selected for an in-depth interview on the how and why of teaching strategies, including, but not limited to, technology (12 from science, 19 from education and 11 from law). Of those who self selected, eight from each faculty were chosen as representative across the demographic variables of time at the university, gender and academic status.

Three findings emerged from this research that are relevant to our discussion here. The first is that the philosophy of progressivism is dominant in the ways in which academics understand good teaching. The second is that despite such a philosophical commitment, the progressive model of teaching suits some knowledge areas better than others. The third is that the use of new educational technology, seen as axiomatic to effective teaching and learning, rarely corresponds with the progressive model.

The Dominance of Progressivism.

When asked to explain the domain assumptions that underlie their teaching philosophies, academics at QUT were consistent in their articulation of both the logic and rhetoric of progressive education. First and foremost, good teaching was best conceptualised through the medium of the learner.

'Good teaching is about helping your learners' (Assoc. Lecturer, Education). 'Good teaching results in students learning a lot' (Lecturer, Education). 'To sort of induce in them a desire to learn information for its own sake' (Snr Lecturer, Science). 'Good teaching practices are ones which enable the learners to learn' (Assoc.Pro, Education). 'Good teaching practice basically has the outcome that students are efficient learners' (Lecturer, Law).

However, this calculus of good teaching was not deemed to be primarily a function of the successful production of measurable learning outcomes (ie. pass grades). Rather, it could best be assessed through the ability of a good teacher to develop interest, curiosity and ideas in students. Furthermore, it was about the development of a particular kind of relationship between teacher and learner.

'The most important thing a teacher can do is to excite and stimulate the students' (Professor, Science). 'The basis of good teaching is the relationship between the teacher and the learner' (Snr Lecturer, Education). 'I view good teaching as making students enthusiastic about ideas' (Lecturer, Education). 'Its about having good relationships with the students' (Snr Lecturer, Education). 'Good teaching practices are those which create and promote a relationship between the teacher and the learner' (Snr Lecturer, Law). Without exception, and irrespective of faculty affiliation, all the QUT academics interviewed clearly articulated a teaching philosophy based upon the ideals of progressive education. That is, they articulated a student centred, humanist pedagogy which positions the learner as an active participant in, and determinant of, their own education, and which places learning at the heart of the good teaching problematic. This understanding of good teaching correlates directly with QUT's own stated teaching philosophy.

However, the situation was shown to be considerably more complex when the *practices* of teaching were discussed. It soon became very clear that the teaching techniques considered appropriate for two of the three faculties were not determined primarily by any underlying pedagogic philosophy, but rather by the nature of the discipline itself, and the material the students were required to learn.

Subject Area and Progressive Education.

The relationship between teaching philosophy and practice is especially interesting and demonstrates both of our contentions: the dominance of progressivism and the difficulty of putting it into practice in certain subject areas. As demonstrated above, the philosophy of progressivism is articulated across all three faculties, and our study revealed that this was irrespective of age, gender, ethnicity, time at the university or position. However, many academics in law and science also openly demonstrated their allegiance to more traditional forms of teaching.

'My teaching style in lectures is probably best described as a traditional one.' (Snr Lecturer, Law). 'But the lectures are pretty formal, there's not much interaction from students' (Snr Lecturer, Science). 'Well my teaching style is very boring. I stand there and talk

and talk and talk and talk (Lecturer, Law). 'I'm not very good at that participatory style' (Lecturer, Law). 'Mine is very traditional. Present the material to the students in an organised and comprehensible way' (Lecturer, Science). 'Everyone gives straight lectures' (Lecturer, Science).

The lack of overt support from education academics on this issue may suggest a number of things. First, it may well be that education lecturers, almost by definition, are more experienced in, and knowledgeable of, a diversity of 'progressive' pedagogic techniques, and hence do not need to 'resort' to the traditional one-hour, direct delivery lecture. A second explanation may lie in the fact that the subject areas covered in law and science do not lend themselves as easily to progressive, interactive styles of teaching as does education. Finally, there is the issue of the students themselves, and their own expectations.

Lectures tend to be traditional ... at the end of the day, that is what the students want. They want you to get through the material. (Lecturer, Law) 'Students know that they've got certain methods in law, that's what they've learned from the beginning. It makes structure for everyone' (Lecturer, Law). 'My philosophy is ...you shut up and listen to me—that's my expectation of you ... in return, they expect me to be prepared and organised and to explain things clearly (Lecturer, Science). 'I've tried using videos and things ...they see it as a lazy option, a waste of time' (Lecturer, Law).

It is interesting to note that academics across the three faculties argued for the importance of traditional forms of learning (such as rote learning) as a necessary prerequisite for the student centred learning advocated by progressive education. In particular, academics from law and science stressed the importance of traditional, passive-learner pedagogic techniques. Certainly, law requires the memorising of vast quantities of case histories, and science depends upon the memorising of 'facts'. The most productive way to present this information, according to the majority of the lecturers themselves, is simple recitation.

'A lot of law is, I suppose, the rote learning of elements' (Lecturer, Law). 'I don't discount rote learning ... I think it has a place' (Lecturer, Law). 'So you'd have to say there is a fair bit of rote learning ... we feel that we can't start doing realistic things until they've got a large body of knowledge' (Snr Lecturer, Science).

Surprisingly perhaps, lecturers from the education faculty also stressed the importance of rote learning, although with reservations.

'There's always an element of rote learning I guess ... some things are learnt by rote and understood later (Lecturer, Education). 'The more I come back to a discipline basis the more I think that there is a lot to do with rote learning' (Assoc Lecturer, Education). 'Rote learning is still very important at the early stages I think ...there has to be some sort of that basic information inculcated' (Snr Lecturer, Education).

This somewhat reluctant admission that progressive education may actually be underpinned by a more traditional way of teaching and learning suggests that student centred learning should not be the only valued teaching and learning technique in the university. It appears from these comments that student centred learning, as the mainstay of progressive education, may in fact rely on a bedrock of passive learning. Thus, while these traditional ways of teaching are criticised for providing poor learning outcomes, they may actually be required for active student centred learning to occur. This has significant implications for tertiary teachers, not only for the vast majority who try to implement good teaching practices into their own courses, but also for those hoping for promotion on the basis of their teaching, (ie. having to couple the currucula of their discipline to the progressive teaching protocols of the wider university). At QUT, technology has been proffered as the answer to this dilemma.

Progressive Education and the Use of Technology.

Technology has been touted as the most effective way of increasing the activity and learning capacity of students. The support from QUT for such technologically driven projects can be seen in the successful teaching and learning grant applications funded in the past three years. 75% are using technology to increase student learning outcomes. Furthermore, the majority of lecturers felt under pressure from the university to use technology in their teaching, irrespective of its outcome for learning. They suggested that there is now a general perception within the university of a direct correlation between good teaching and technologically-based teaching.

'I feel that there is a certain amount of subtle pressure upon us to use technology for technology's sake' (Snr Lecturer, Science). 'There seems to be a push to get the technology available to a greater number of students and I do think its going to come at a cost' (Lecturer, Law). 'The pressure comes from when people go for promotion and they're asked "now tell us about innovation in your teaching" and you know they're talking about technology ... (Professor, Education)

However, academics at QUT have diverse views on the role of technology in the provision of good teaching. Academics from Law and Science generally regard the use of modern technology positively.

'Technology does improve teaching' (Lecturer, Science). 'I couldn't do my style of lecturing without it' (Assoc Lecturer, Law). 'There is absolutely no doubt that technology has enhanced my teaching' (Snr Lecturer, Law). 'There are certain things that I teach that can only be achieved through some kind of technology' (Lecturer, Science). 'I see the benefits of it' (Professor, Science). 'Technology has definitely enhanced my teaching practices' (Snr Lecturer, Science) Education lecturers are considerably less enthusiastic about technology in the classroom, arguing, first and foremost, that it cannot magically turn bad teaching into good, but also that it has redefined the process of teaching—for the worse.

'Good teaching certainly doesn't have anything to do with technology' (Professor, Education.), 'I don't think it really has improved things' (Snr Lecturer, Education). 'I regard it as a constraint' (Snr Lecturer, Education). 'The main thing with bringing technology in is the additional workload' (Assoc Lecturer, Education).

Education lecturers are also suspicious of the manner in with technology is frequently utilised within contemporary teaching practice. That is, technology is regarded as allowing traditional lecturers to be more effectively traditional, in that stock material can simply be 'clicked–up' on screen and read from.

'Lecturers here are fairly worried about the use of technologies and some are very resistant because they see it as a very passive sort of medium. That you simply put content up' (Lecturer, Education). 'If you're not careful, what technology does is actually make your lecture more rigid' (Senior Lecturer, Education). 'Power-point can make your teaching inflexible because you've put so much initial investment into setting the presentations up, you don't want to muck around with it' (Lecturer, Education).

This study revealed that this concern is a legitimate one, as the more traditional lecturers are more likely to use technology than those who practise more progressive and dialogic teaching methods. Furthermore, technology is most frequently used in ways that require no active learning.

'We don't use much other than power-point ... the lectures are pretty formal. There's not much interaction with students. It's lecturer up front, spouting off... ' (Snr Lecturer, Science). 'I use the overhead projector ... walk in, read the text, walk out, end of story. (Lecturer, Law). 'Anything I present will be on power-point ...very lecture centred. I make the power-point, then I star in the power-point. It's me at the centre of attention ... (Lecturer, Law).

In addition to technology becoming an aid to traditional forms of pedagogy, technology also appears simply to be an end in itself.

'They put a quarter of a million dollars into that teaching project ... a disaster, virtually nothing useable came out of it at all (Professor, Science). 'Technology for technology's sake ... there's a lot of that here.' (Snr Lecturer, Science). 'I employ a multiple choice testing system and I produced multiple choice tests for the students ... in colour!' (Lecturer, Science). '

Conclusion.

There are three points to make in concluding this paper. The first is that in this study of Queensland academics in the faculties of law, science and education, the relationship between good teaching and the ideals of progressive education are refracted in different ways depending on the faculty affiliation of the academic. This means that science and law academics are more likely than education academics to teach in what may be termed non-progressive ways. This is not necessarily a criticism. After all, education academics also admit that more traditional teaching techniques, like rote learning, are an integral part of effective teaching and learning. The second issue, and related to the first, is that technology is most likely used in nonprogressive ways by academics who self identify their own teaching style as traditional as opposed to progressive. While new teaching technologies have the potential to reorganise the way in which knowledge can be accessed, and by whom (as seen in the success of many distance-education programmes), their deployment within the bounds of the academy itself has yet to produce any tangible changes in the directions intended. The third and final point is that universities need to address this problem for issues of equity amongst staff, especially in terms of standardised procedures for promotion and measures of effective and innovative teaching. This may mean, for example, that promotion panels need to be faculty as opposed to university based, or that procedures for the awarding of internal teaching and learning grants needs to be more nuanced toward different faculties teaching and learning strategies. If, as it appears from these results, what constitutes 'good teaching' is both contested and context-bound, then universities may need to rethink the monolithic ways in which good teaching has been framed to date.

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