

THE UNIVERSITY OF NEWCASTLE AUSTRALIA



CONFERENCE PROCEEDINGS

APEIC 2005

Educational Integrity: Values in Teaching, Learning & Research

2nd Asia Pacific Educational Integrity Conference
Newcastle, Australia

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of NEWCASTLE
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University of Newcastle

2rd - 3rd December 2005.

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ACKNOWLEDGEMENTS

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PREFACE

The University of Newcastle is proud to host the 2nd Asia-Pacific Educational Integrity Conference for the Asia-Pacific Forum on Educational Integrity. Along with all educational institutions, the University is keen to stay at the forefront of good practice in academic integrity. To achieve this, the educational community must engage fully in the debates and discussion on educational integrity. The range and quality of the papers presented at APEIC 05 offered this opportunity.

In education, as in other professions, “life is short but the craft is long” (Hippocrates 460-377 BC). However, we may be forgiven for thinking that we are passing through a few lifetimes in one as we witness the speed of change in teaching, learning and research and find ourselves adapting quickly to changing environments. In the context of change, the educational community (all education sectors from school and college, through to vocational education and university) needs strong leadership and whole-of-institution backing to maintain and increase integrity and thus the standing of its accreditation.

The conference addressed issues on academic integrity, values and ethics in teaching, learning and research:

- Education for citizenship
- Professional development and educational integrity in teaching, learning and research
- Values in assessment and teaching practice
- Teaching and learning technologies in supporting educational integrity
- Institutional leadership and educational integrity
- Educational integrity and online, distance and trans-national teaching
- Educational integrity in research training.

The keynote speakers set a high standard well sustained by refereed and other presenters over the two days. Dr Gordon Barnhart from the University of Saskatchewan, demonstrated how leadership can provide the necessary framework for academic misconduct, through new policies and procedures, complemented by an ongoing program against academic misconduct. Professor Tom Angelo from Victoria University of Wellington closely examined our academic values. He considered “how cultural values such as educational integrity are learned and taught and why they are so resistant to change” and how research into students’ values and behaviours can guide more effective policy and practice.

The themes of APEIC ’05 were wide-ranging: values in teaching, learning and research in all education sectors from schools through to university. Contributions to the discourse were motivated because many have found that values which we espouse in the educational context must be made explicit, and yet there is also a certain degree of fuzziness when these values are put into practice no matter how explicit the values, policies and procedures. This conference engaged participants in the “fuzziness” of applying values in many different contexts and will now engage a wider audience of readers.

Welcome to the discourse of the 2nd Asia-Pacific Educational Integrity conference. I encourage you to engage in the discussion through the Asia-Pacific Forum on Educational Integrity (www.unisa.edu.au/educationalintegrity/index.htm) and contribute research to the IJEl: *International Journal for Educational Integrity*.

Charmian Eckersley
APEIC 2005 Conference Organiser.

KEYNOTE SPEAKERS

Dr Gordon Barnhart

University Secretary (2000-2005), University of Saskatchewan, Canada.

Dr Barnhart has been instrumental in creating an environment at the University of Saskatchewan in which academic integrity is maximised.

Gordon Barnhart was born and raised in Saskatchewan. He received a BA (1966), BA Hons (1967), MA (1977), and PhD (1998), all in History. He served as Clerk of the Legislative Assembly of Saskatchewan from 1969-1989 before serving as Clerk of the Canadian Senate and Parliament for five years. In 1994, he returned to the University of Saskatchewan to complete his PhD. He became a senior administrator at the university and lecturer in the Department of Political Studies. He retired as University Secretary in June, 2005 but continues to teach at the University of Saskatchewan.

THE INTERNET AND ACADEMIC INTEGRITY: A modern challenge to an old problem.

Abstract

With the invention of the internet and the ease by which students can steal information and include it in their academic papers without proper credit, universities around the world have had to renew their efforts to protect the academic integrity of their degrees. In 1999/2000, the University of Saskatchewan (Canada) approved new rules regarding academic integrity and independent appeal procedures at the College and University levels. Dr. Gordon Barnhart, University Secretary from 2000-2005, was charged with the implementation of these new rules and procedures. He also led a proactive campaign on three levels to encourage students not to cheat. Dr. Barnhart will outline the new procedures and the promotion used for academic integrity. He will also address the philosophical question: "If the number of cases of cheating is reduced, does this mean there are fewer students cheating or are the professors less vigilant in catching the infractions?"

Dr. Thomas A. Angelo

*Professor of Higher Education &
Director of the University Teaching Development Centre,
Victoria University of Wellington (New Zealand).*

Prior to joining Victoria University's staff in 2004, Tom Angelo had served as teacher, academic developer, academic administrator and/or researcher at several U.S. institutions, including the University of Miami, the American Association for Higher Education (AAHE), Boston College, the University of California at Berkeley, and Harvard University. The best known of his thirty-plus publications is *Classroom Assessment Techniques: A Handbook for College Teachers* (with K. Patricia Cross, 1993), with more than 70,000 copies in print. He has been a consultant on teaching, assessment, evaluation, and learning improvement at more than 200 post-secondary institutions (including more than two dozen Australian universities) and given keynote speeches at more than 75 higher education conferences in sixteen countries. Tom Angelo earned his BA with Honours in government from CSU Sacramento, an MA in political science and second master's in education from Boston University, and his doctorate from Harvard's Graduate School of Education.

TREATING EDUCATIONAL INTEGRITY AS AN ACADEMIC CHALLENGE: Useful Insights from Research on Learning and Teaching Values.

Abstract

While it is tempting and understandable to treat educational integrity primarily as a legal or administrative problem, such responses may be both inadequate and ultimately damaging to the academic values they seek to protect. In this session, we will consider how cultural values such as educational integrity are learned and taught -- and why they are so resistant to change. Recent research provides potentially useful, if sometimes surprising, insights into students' values and behaviors and suggests guidelines for more effective policy and practice.

INVITED SPEAKERS

Dr John Atkins

Griffith University.

John Atkins is a philosopher specialising in Wittgenstein and the Philosophy of Science. He also teaches courses on Ethics, Metaphysics, the History of Modern Philosophy and Environmental Philosophy. He has taught at numerous campuses in Australia, including University of Queensland and Newcastle University, as well as Rhodes University in South Africa. His intellectual interests have led to research and lecturing at a number of colleges of the University of Wales in the UK as well as the Wittgenstein Archive at the University of Bergen in Norway. He currently works in the Science Faculty at Griffith University where he teaches courses mainly dealing with ethical and philosophical issues arising from the application of modern science and technology.

Dr William Herfel

University of Western Sydney.

With a PhD in philosophy, Bill Herfel has been researching chaos and complexity in scientific models for twenty years. Specifically he has applied complex dynamics to scientific methodology and practice and the interaction between technology and markets as well as the theory, practice and research methodology of Chinese medicine. He taught logic, philosophy and Western cultural values at Temple, Drexel, Rutgers and Penn State Universities in the USA from 1986 to 1990. He joined the University of Newcastle in 1991, where he taught for 12 years. There he developed a wide-range of courses in the philosophy program including social studies of science, critiques of modernity, philosophy of human sexuality and non-Western philosophy. He also coordinated large interdisciplinary courses for engineering, psychology and commerce. In recent years his largest teaching responsibility has been Technology and Human Values, required of all engineering students at Newcastle. He also delivered this course at Newcastle University's Singapore engineering program from 2002 to 2005. Currently he is working at the University of Western Sydney's Centre for Complementary Medicine Research.

Helen Marsden

University of South Australia.

Helen Marsden is a graduate of the University of Canberra where she earned a first class honours degree in Applied Psychology and she is presently a PhD candidate at the University of South Australia. Her research interests include factors that influence students' engagement in dishonest academic practices, particularly personality factors and aspects of social strain. Helen was convenor of the inaugural Educational Integrity conference (Adelaide, 2003) and is the founding Chair of the Asia Pacific Forum on Educational Integrity. She is also co-editor of the *International Journal for Educational Integrity*.

REFEREED PAPERS



COUNTING BEANS IN THE DEGREE FACTORY

(Some Practical Meta-Ethical Reflections on Academic Integrity in Australian Universities)

John Atkins and William Herfel

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Abstract

This paper examines how material conditions constrain the capacity to act with academic integrity, particularly in the context of severe resource limitations within Australian higher education. It describes the current situation in Australian universities drawing on statistics as well as the authors' experiences. Drawing on the recent report on plagiarism at the University of Newcastle produced by the St. James Ethics Centre, it shows how policies and procedures can run aground due to resource scarcity. It also explores the breakdown of traditional academic culture and its impact on integrity making reference to the University of Maryland Student Honor Code. Finally, the paper raises the question of what constitutes ethical action when resources become stretched to the breaking point.

Preamble

We were invited to facilitate a workshop on ethical dilemmas arising from situations involving questions concerning academic integrity at the 2nd Asia-Pacific Educational Integrity Conference. At the outset let us state that neither of us has any special expertise in the field of academic integrity, at least not in the sense of having dedicated enormous amounts of time researching and publishing in the specific area. However, as professional philosophers, we naturally have a strong commitment to pondering the question Socrates asked in the *Gorgias* "How should one live?" In ancient Athens, as arguably it should still be now, this issue was of paramount importance to the academy. So, whilst we are not specialists in ethics, as such, both of us teach courses with a substantial ethics component. Most of our combined forty years of academic experience has been teaching at the coalface: as lecturers and tutors in sessional and contract work. Our academic experience provides ample material upon which to construct realistic scenarios for such a debate.

Our discussions in preparation for this paper revealed a wide range of concerns. However, two major issues seemed to underlie them: structural changes (somewhat euphemistically labelled as "reform") over the past decade-and-a-half increased both the occurrence and the difficulty of ethical dilemmas concerning academic integrity, and current strategies aimed at addressing these problems expeditiously may, paradoxically, compound the growing crisis in the long term. Thus we have produced these "practical meta-ethical reflections" as a prolegomenon to any future discussion of these issues in an Australian context, including our workshop. The irony of such a label is not lost on us. In contemporary philosophic discussions "meta-ethics" concerns foundational issues, e.g. what is the basis for ethical reasoning. However, this is not our concern here. In our view, applied ethical judgment requires a *practical* meta-ethics as well. That is, we must understand the current state of play of our practical situation in order to make sound ethical decisions. It is on these practical foundations that we will focus.

Introduction

The changes that have taken place in Australian higher education over the past 15 years are well documented. A good overview was presented in the recent ABC *Four Corners* documentary "The Degree Factories" (see Fullerton 2005). Trends over the last decade (1990-2000) and their implications are discussed insightfully in the 2001 report to the Chifley Research Centre, *The Comparative Performance of Australia as Knowledge Nation* (Considine, Marginson and Sheehan 2001). Insofar as the ABC documentary reflects the current reality, the

trends identified in the Chifley Centre report have at best continued, but most likely have accelerated. In the first section of this paper we will present a schematic of this situation supplemented by observations from our experience of this transition.

No doubt the “WIRA incident” at the University of Newcastle has been a provocative stimulus to initiating the discourse about academic integrity in our context. Although it does display features that would be grist for our mill, the notoriety of this event is one of the reasons we do not want to *especially* focus on it. The other reason is its extremity: we hope that most of us will never be involved in a situation that will land us in front of ICAC. Instead we want to focus on issues concerning academic integrity that we all face periodically. Nevertheless, one of the results of the Newcastle episode was a report which the university commissioned the St. James Ethics Centre to produce, *Independent enquiry: plagiarism policies, procedures & management* (Longstaff *et al.* 2003). Given its ethical orientation, the report raises many of the problems we have experienced. The second section of our paper will show how a selection of the issues raised in the St. James report can only be addressed in the context of the higher education reforms cited earlier.

Recently in Australia there has been interest in creating and enforcing plagiarism policies, as well as improving plagiarism detection (Carroll 2004; Eckersley & Stokes 2004; McCabe 2004). In contrast to these “enforcement strategies” there is the rather quaint notion, common in some US universities, called an “honor code” (sic). Whilst we do not necessarily advocate an honour approach to academic integrity for Australia, we do think that aspects of that system are worth more than a passing inspection. *Prima facie* from an ethical perspective, honour codes have two advantages: they are based on “honour”, arguably a fundamental human value, and secondly, they give students ownership (through participation) of process of enforcement. Section three of our paper will briefly examine the *University of Maryland Student Honor Council Code of Academic Integrity*.

We do not seek to suggest how to redress the many and complex problems concerning academic integrity in contemporary Australia, trying to pin-point just a few of them is our major focus. What we do hope, however, is that this paper will provide some background that will aid discussion of these issues in the future. The paper will conclude by raising one crucial question for academics: How can we be ethical in the face of diminishing resources?

The Changing Face of University Education in Australia

Here we are forced to be schematic, nevertheless most of our audience will be familiar with this story. Since the Dawkins’ reform of higher education in the late 1980’s universities in Australia have been in a perpetual state of “re-organisation”. In general, total student numbers have doubled, whilst government expenditure in the university sector declined. The difference has come from several sources. The largest new contributions to university funding have come from the introduction of HECS and a massive increase in full-fee paying students from overseas. The proportion of staff involved in teaching has declined. There has been a trend toward increased numbers of casual teaching staff. Student/staff ratios increased dramatically.

Here are a few statistics to fill out the picture:

- Total student numbers: 485,066 (1990) rose to 695,485 (2000)
(Considine *et al.* 2001, p. 16)
- Government Funding per student: \$8724 (1989) fell to \$6826 (1999)
(Considine *et al.* 2001, p. 27)
- Percentage of Funding from Government sources: 1989: 70% 1999: 49%
(calculated from data from Considine *et al.* 2001, p. 27)

- Overseas student Numbers: 1990: 24,998; 2000: 95,607
(Considine *et al.* 2001, p. 16)
- Proportion of Staff involved in teaching: 1990: 42.7% 1999: 37.6%
(Considine *et al.* 2001, p. 18)
- Proportion of teaching staff time provided by casual labour: 1999: 21%
(Considine *et al.* 2001, p. 18)
- Student staff ratio: 1987: 12:1 2004: 21:1¹

To some extent the numbers speak for themselves, but they do not tell the whole story. The ways in which these structural reforms have been implemented have placed pressures on delivering education in ways not immediately obvious from the numbers. Take the experience of one of the authors as typical. He joined the lecturing staff in the Department of Philosophy at the University of Newcastle in 1994 when the Dawkins' reforms were well underway. In 1997, in order to rein-in costs, the university was restructured (in the corporate sense) by offering approximately 200 academics early voluntary retirement. In 2001-2 another "restructure" was undertaken. Whilst this time no staff were lost, the actual structure of the university was radically reformed: faculties were re-organised going from eleven to four but, more significantly, departments were abolished replaced by schools. It was not entirely clear what the purpose of the reform was. If it was designed to save money, it failed miserably: in 2005 a deficit of more than \$20 million² was reported at the same time it was announced that another restructure was imminent, this time requiring over 400 job losses.

This sort of incessant change causes a certain amount of stress for a university's staff, and this stress inevitably will have some impact on individuals' ability to tackle issues of integrity. In this case, and we do not believe the experience at Newcastle was atypical, repeat reform, and its accompanying on-going administrative burden, has clearly impeded the accomplishment of academic tasks and this, we argue, has led to an undermining of academic integrity. The most significant example was restructuring departments into schools. Prior to the amalgamation into schools, the department was the fundamental administrative structure for dealing with such day to day academic activities as teaching documentation, examination, curriculum, workload, etc.. Plagiarism cases were generally handled through informal consultation with the head of department with (rare) serious cases referred to the dean of the faculty. This process appeared satisfactory, particularly in a small department with a solid sense of community and with sufficient familiarity between its members to enable consistent judgements on departmental policies. But as a result of the 2000 reform the academic unit of the department no longer existed. Despite a massive effort creating procedures and documentation — mostly documentation — for necessary administrative functions dealing with teaching, how to carry out these once straightforward activities was now unclear. It was during this time that many of the policy documents - sharply criticised for their inconsistency in the St. James report - were created.

We feel this strikes to the heart of the problem. "Formalised strategies" quite clearly are convenient for policing: they create a paper trail and offer certain high-ranking administrators a level of protection from litigation or the charge that they may not be doing their duty. Yet the very creation of these policies has undermined the general perception of the academy as being a community for the community and reinforced the perception that academics are now just out for whatever they can get (presumably just like everyone else in the business world?). Contrast this with the, admittedly piecemeal, communal and informal approach which preceded it. For all its weaknesses it appeared to be working and, even if less than perfect, at the very least was more effective than current solutions or even more radical proposals such as plagiarism detection programs.

Thus we can identify several factors from the structural reform of higher education that can and have impacted on academic integrity, particularly on plagiarism detection and enforcement:

1. The increase in student/staff ratio places more burden on staff.
2. High numbers of overseas students may not be familiar with Australian standards of scholarship.
3. Casual staff may have less experience in detection of plagiarism.

These are compounded by restructuring that increases staff administrative workloads, at the same time making policies less clear and procedures more difficult. The most intangible, but perhaps most significant, factor could be a radical change in academic culture in Australia during the past two decades. Simon Marginson describes the situation this way:

In Australia, especially when per student public funding declined after 1996, business functions became the driver of development, more than academic capacity. Attention focused on revenues, efficiencies, marketing, administrative modernisation and economies of scale. Institutions grabbed every potential source of public and private finance. When HECS-place funding for domestic participation stopped growing, institutions (even sandstones like Melbourne and Sydney) stepped up high volume medium quality coursework programs for international students in business and IT (Marginson 2005).

Of course here Marginson is focussing on the instrumental aspects of the reform. But was this shift in emphasis from education for its own sake to education for profit perhaps not also accompanied by a shift in *ethos*? We will revisit this issue of institutional norms in the final section, but first we will look at some issues raised by the St. James review.

Ethics in Action

Section “3.3 Finances and Universities” of the St. James enquiry (Longstaff *et al.* 2003) briefly canvasses some of the issues raised in the earlier section of our paper. They (Longstaff *et al.* 2003, p. 43) state, “A number of allegations regarding plagiarism at the University of Newcastle and within the University [*sic*] domain in general relate to funding / financial distress.” Then in four paragraphs they make the following points:

- This situation brings about the temptation to use questionable means to bring about desirable ends.
- “Tight fiscal constraints”³ may play a part in “questions from the media about double standards in relation to the treatment and assessment of international students.”
- “Australian Universities [*sic*] are becoming increasingly under-resourced ... yet have maintained a reputation for high quality courses and graduates.”⁴
- The universities are a huge asset to Australia with overseas student revenue worth \$947 million (10% of the 2000 total student revenue); “the cost of failure” (of under-qualified overseas students) can negatively impact on the reputation of Australian universities. (Longstaff *et al.* 2003, p. 43)

Despite the obvious ethical focus of their document, they fail to explicitly note the ethical issue that concerns us here: material conditions can often constrain the capacity to act ethically. These constraints occur in a variety of ways for there can be no doubt that in an under-resourced environment there is both more motivation and more opportunity to act unethically. Also under certain material conditions other forms of unethical behaviour other than plagiarism may be present for example, fraudulently presenting, or *inventing*, experimental

findings. Lack of resources can lead to overwork, and overwork can limit one's ability to detect, and hence react appropriately to, unethical behaviour.⁵ Furthermore, cultural change, e.g. a shift in focus to efficiency and competition from such traditional academic values as truth and honesty, can erode — or at least alter — the basis for ethical action.

Within the comments made in the focus groups forming the basis for much of the St. James enquiry, the issues we address here were raised. However, the report never flags the impact resource limitation has on individual ethical action with respect to academic integrity as an issue. In particular, whilst it canvasses the issue of "Finances and Universities", the report does not cite the fact that student/staff ratios have grown from 13:1 to 21:1 in just over a decade. Obviously, and *a fortiori*, it fails to raise the ethical implications of such growth. We cannot hope to provide an exhaustive review of the focus group comments here, but we will provide a few examples before moving on to address the larger ethical point in more detail.

Exploring the issue of "gaps between stated policy and lived reality" the St. James enquiry evoked the following comments⁶:

"The issue of plagiarism is difficult and involves a serious amount of stress for staff and students involved. In addition it will involve a serious amount of time, effort and paperwork. It is probable that in a living situation a plagiarism situation can be either ignored or diluted to the extent that it can be passed over. This could be done to limit the stress/workloads involved."

"wonder [*sic*] how much plagiarism either goes undetected or ignored particularly by part-time or casual lecturers. This could explain why students in senior years are angry when they are asked to account for or explain why their work or parts of it are plagiarised. They often ask why no one else has raised this with them when they have been preparing assignments like this the whole time they have been at University [*sic*]." (Longstaff *et al.* 2003, p.52)

Of course our ethical response to these statements varies depending upon material context. One set of responses is appropriate if the individuals involved are being well looked after by the institution; another is appropriate if this is not the case.

In another section the report states, "The groups [composed of both lecturers and students] were asked to summarise the high-risk areas [of plagiarism]..." (Longstaff *et al.* 2003, p.59) Three of the issues on a long list were:

Teachers handing out the **same** essay **topics** and assignments **every year**. "It's easy for them to mark and easy for us to cheat." (student)

Large classes, heavy work load—"Students know the lecturer is not going to check every word and every reference—he/she has three hundred assignments to mark—There is a perception in the student culture that its easy to get away with it." (student)

"Academic remuneration is not earth shattering — you need outside work — how much time can you spend checking every reference or following up on your suspicion." (lecturer)

(Longstaff *et al.* 2003, p.59)

When evaluated from within a material context, the situations described here could, depending upon point of view, be indicative of individuals cutting corners or the institution cutting corners. Our ethical assessments toward the individuals involved would vary accordingly. In the course of the enquiry, staff were surveyed on the following question: "What are some of the obstacles (e.g. situations, politics, procedures ambiguities and complexities) which make it difficult to achieve best practice and policy in the management of plagiarism?"

(Longstaff *et al.* 2003, p.63) Some responses were:

“high teaching loads (currently 14 hours of face to face teaching plus administration in the department in which I work), heavy marking loads (I marked 400 items of assessment in the month of June)”

“Ludicrously heavy workloads BOTH staff and student”

“It is time-consuming to track down evidence to support a case of plagiarism and workload pressures increasingly limit the time available to do anything but the bare essentials to keep the place afloat.” (Longstaff *et al.* 2003, p.63)

These responses reinforce some of the points addressed above. Additionally, the comment indicating that students currently suffer additional workloads under the new regime serves to emphasise a vicious positive feedback cycle: overworked students have more incentive to cheat whilst overworked markers are less likely to detect their efforts. It is worthwhile to perform some rough calculations to illustrate the point.

Assume you are responsible for marking the work of 50 students (i.e. 12.5 student/staff ratio) in one semester. Further, assume a plagiarism rate of 1%. If it takes 6 hours on average to investigate, document and enforce a plagiarism case, you will correspondingly spend 6 hours per year or <1% total teaching time⁷ so doing. Contrast this with the situation many of us find ourselves in: 200 pieces of marking, with say (very) conservatively, 5% plagiarism rate. This yields 60 hours per year (or 6.5% total teaching time – no doubt actual figures will be considerably higher!).

The St. James report (Longstaff *et al.* 2003, p. 4) opens with the following observation:

An important part of [the] context [of the enquiry into plagiarism policies procedures and management controls at the University of Newcastle] is the high degree of popular scepticism (if not outright cynicism) about the conduct and motives of individuals and organisations. In general the public tends to assume that the demands of self-interest are often opposed to and ‘trump’ the consistent application of principle. Given this, there has been, in recent years, a growing acceptance of increased regulation and surveillance in the hope that such measures will be a practical alternative to untrustworthy and unreliable regimes of self-regulation.

This is a succinct account of public perception. However, regulation and surveillance we believe can never eliminate the need for human judgement. Regulation may require academics to report all instances of plagiarism. But what if the academics do not see them? Turning a blind eye is most efficacious at the chalkface. Perhaps surveillance will help? If we take the words of the focus groups seriously resources are so stretched at the University of Newcastle (and there is no reason to believe Newcastle is unique in this regard) that markers hardly have time to track down *any* cases of plagiarism they suspect. Where will Australia find the resources to invigilate the invigilators? This is a serious problem. However it gets worse: as the focus groups have pointed out, when systems of regulation and surveillance become cumbersome and unwieldy individuals subject to them are even less likely to cooperate with them. When a system becomes dysfunctional, at what point does it become un-ethical to turn a blind eye? When does ethics give way to pragmatism and when does such pragmatism begin to undermine traditional institutional values?

One more remark from the St. James focus groups is worthy of mention. One “of the obstacles ... which make it difficult to achieve best practice and policy in the management of plagiarism” was

“Treating education as a marketable commodity” (Longstaff *et al.* 2003, p.63)

This remark, coupled with the foregoing discussion, lead us to a final point.

Honour vs. Enforcement

Resource scarcity *per se* causes problems for the detection of plagiarism and the enforcement of integrity policies. By now we hope that we made clear that government education policies, particularly those aimed at funding, have decreased resources available for higher education. However, here we want to revisit the issue of the change of *ethos* that has occurred within the academy over the past two decades. Not only has the Australian government cut its per student contribution to higher education, it has put into place policies that encourage, to borrow the words of our earlier anonymous focus group participant, “treating education as a marketable commodity”. These policies, as well as their results and implications, have been discussed at length in the documents cited above and elsewhere. So, more damaging to integrity than lack of funding is the response of universities to scarcity. Australian university education has been aggressively marketed overseas to such an extent that it has become a thousand million dollar export commodity. Such effort engenders a specific value system. Academic excellence gives way to economic efficiency. Plagiarism detection and enforcement policies and strategies now become seen as sensible ways to preserve the value of the Australian university brand, at least as it is currently being promoted. What these stated aims conceal, though, is an underlying malaise.

Some universities in the United States employ a different strategy. Based on a tradition, dating at least back to 1784 at the College of William and Mary, many universities adopt an honour code. The *University of Maryland Student Honor Council Code of Academic Integrity*⁸ is prefaced as follows:

The University is an academic community. Its fundamental purpose is the pursuit of knowledge. Like all other communities, the University can function properly only if its members adhere to clearly established goals and values. Essential to the fundamental purpose of the University is the commitment to the principles of truth and academic honesty. Accordingly, *The Code of Academic Integrity* is designed to ensure that the principle of academic honesty is upheld. While all members of the University share this responsibility, *The Code of Academic Integrity* is designed so that special responsibility for upholding the principle of academic honesty lies with the students (University of Maryland Student Honor Council).

This may seem a rather quaint statement. However, it illustrates two points:

1. It is still possible to at least create the illusion that academic integrity at a large state university is based on traditional academic values.
2. Students can be (and *are* in some communities) entrusted to play a role in upholding academic integrity.

Students are required at the University of Maryland to sign an honour pledge and there are clear procedures for penalising violators. However, students actually make up a majority of the voting members of the board that enforces the code. Perhaps the highest value in a free market system is competition. Certainly competition plays a healthy role in traditional educational systems. Nevertheless a system based on market values alone, in the absence of traditional academic values, we think is a recipe for disaster. Economic efficiency can lead to pedagogically dubious practices. Perhaps a threshold has already been crossed whereby economic efficiency has overtaken educational integrity. The question needs to be asked whether this transition is reversible and, perhaps more pragmatically, whether it is sustainable?

One central value in traditional academic communities is the student-teacher relationship. In the section entitled “Student Lecturer Relationship Distance” of the St. James enquiry report (Longstaff *et al.* p.80) is explored the

hypothesis that “the wider the distance between student and lecturer the greater the temptation to plagiarise.” After canvassing a few opinions on the issue they summarise as follows:

It seems to make sense that plagiarism is more likely if you do not personally know your lecturer: students are less likely to ask for guidance; teachers are less likely to know they need it; and being found plagiarising by a “stranger” is perhaps not as great a concern as being discovered by someone you know and respect.

So... this *simply means* more care and caution is needed in these situations. (Longstaff *et al.* 2003, p. 80⁹)

Of course, no one would deny a duty of care with respect to academic integrity within the context of the delivery of any course — independent of the “distances” involved. However, the issues raised by over-reliance on large classes and distance delivery, compounded by a material culture which trivialises the student-lecturer relationship, is not a simple matter of exercising extra care and caution. Care and caution require financial resources. Individuals ought not to be put in a position where they must perform beyond the call of duty on a continual basis. Without proper resourcing this is what institutions of higher education require of their academic staff. This is an ethical issue for individual staff members. It also gives rise to an ethical dilemma at the institutional level: *ceteris paribus*, large classes and distance delivery are efficient, in the economic rationalist sense, so long as all goes well. Even if we leave to one side issues of intellectual quality and academic values, universities are stuck in a bind: without pushing the envelope on economic efficiency they risk failing due to competition from institutions willing to cut corners.¹⁰

There are obvious questions of political economy raised by our analysis. However, addressing those in detail is beyond our brief. We want to raise a narrower question of personal importance to practitioners within academe: on the assumption that our characterisation of the material situation is roughly accurate, how does one act ethically within such a system?

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Endnotes

- 1 This statistic reflects the view from a number of sources. It can be extrapolated with some certainty from Considine 2001; Cf. Marginson 2005.
- 2 The exact amount is unclear. University documents have stated a range from \$15 million to \$28 million on various occasions.
- 3 Here citing a document by Brendan Nelson.
- 4 The second part of this passage sourced from a report by the Group of Eight.
- 5 It is perhaps ironic that the WIRA incident, which was the main reason for the St. James enquiry, is a counterexample of the issue we are raising here. If not for the diligence of the lecturer involved in spotting and referring on the allegedly plagiarised work in the first place there would have been no problem. Had the lecturer been so overworked that he overlooked the transgression, there would have been no WIRA incident at all.
- 6 This material is a bit tricky to reference. In the responses the St. James report mixes summary with direct quotation, using inverted commas to distinguish the quotes. Hence we will indent responses from the report (whether they are long or not), and inverted commas in the indented sections are from the original document.
- 7 Based on 924 total teaching hours per year (35 hrs/wk X 48 wks/yr X .55, where the expectation is that 55% of a full-time academic's job is teaching). Readers may substitute their own numbers if they feel they are more representative. The general point remains the same.
- 8 We have chosen the University of Maryland rather than say the more traditional College of William and Mary as an example quite consciously. Whilst William and Mary is a small elite private institution, Maryland is a large public university.
- 9 Ellipsis in original; emphasis ours.
- 10 Perhaps a marketing niche opens for some of those academies that chose not to go down this path, but currently this would be a very risky strategy to all but the highest profile institutions.

EMBEDDING PLAGIARISM EDUCATION IN THE ASSESSMENT PROCESS

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Abstract

Lessons on paraphrasing and citing sources can only be partially effective if they are not perceived as immediately relevant to the individual student. We used electronic plagiarism detection tools to help students understand correct academic practice in using source material. In order to produce an essay on a specified topic, students were required to summarise a number of research papers. The 182 students who took part in this exercise were studying one-year Masters programmes in Computer Science, Automotive Engineering, and Electronics, mainly from China, India and Pakistan and new to the University. These students should have been building on previous study both in subject matter and study skills, but before they tackled the assignment, a series of lectures gave guidance on finding and summarising sources, and reminded students about what constitutes plagiarism. The students' essays were submitted to Turnitin and Ferret -- a straightforward, but resource intensive process -- and the resulting reports used to give individual feedback to students on how original their words appeared to be. This was effective in helping the students to understand plagiarism, because the reports identified passages in their own work. Using a threshold of 15% of matching text, we found 41% of students had submitted work identified by Turnitin as possible plagiarism but this reduced to 26% on inspection by academics. After a second submission, incidence of plagiarism dropped to 3% overall. We found that the degree of matching text found correlated with a student's programme of study, but not with nationality.

Introduction

One of the strategies that a university can use as part of its approach to the problem of plagiarism is to deploy electronic plagiarism detection software that can identify identical passages of text in one or more documents. This software can be used to verify a lecturer's suspicions that a particular piece of work is plagiarised, or it can be used to process whole batches of coursework to enable the screening of submissions from entire groups of students. A demonstration of one of these software tools can also be effective in deterring students from plagiarising.

We have investigated another way to use such software, namely to directly link the use of the reports produced by the detection tool to the education of the students in the correct way to use source material. Electronic detection can also be very effective in detecting collusion, but that is not the focus of this study.

Perceptions of plagiarism detection

In a trial at the University of Auckland (Gulik and Tippin 2003), 60% of instructors estimated that Turnitin would be effective in improving student referencing or writing practices. On the other hand, Savage (2004) found that students were worried that the use of electronic detection would not differentiate between "inept citation" and "intentional plagiarism", though they also felt that its use would be an incentive to improve citation skills. Students can fear that they may unwittingly use ideas that they have adopted as their own (Ashworth, Bannister and Thorne 1997) and be unclear about what is common knowledge (Park 2003), and in these situations accidental or unintentional plagiarism arises. Unintentional plagiarism can also be through poor citation practice, inadequate paraphrasing or summarising, and vague referencing. This may be more of a problem for international students than home students because of cultural differences and the requirement to write in a second language. In a survey of 42 international students Errey (2002) found that most had a

theoretical understanding of plagiarism, yet 69% of these felt that cutting and pasting passages of text was acceptable if the source was correctly cited. Lake (2004) describes cultural differences in Chinese writing, and found that more than half of the Chinese students he surveyed had no previous experience of acknowledging an author in academic writing. Cases of unintentional plagiarism, even with first year undergraduates, should be brought to the student's attention (Errey 2002), and also stated by Carroll (2002) as "delaying action on plagiarism is probably ineffective as well as misleading".

In contrast, for a number of students, cheating is an acceptable option (Underwood and Szabo 2003) with fear of failure and time management problems given as reasons that a student would cheat. For other students plagiarism is "no big deal" (Park 2003). In a scale of offences, copying without reference comes out as not very serious (Franklyn-Stokes and Newstead 1995, Dordoy 2002); for these students, the risk of detection would be a deterrent (Savage 2004).

Method

Our study arose from a belief that "telling" students about plagiarism and collusion is not enough. The students don't relate to these issues until they need to be applied to an assessment, and even then the advice should be personalised. This piece of action research was carried out by submitting a complete batch of students' work to electronic plagiarism detectors and showing each student the detection report produced for their work. The students whose work was found to be plagiarised were given a second chance at the assessment. The incidence of plagiarism found at the first and second submission was measured. Some analysis of the students' previous educational background was undertaken and related to the plagiarism found.

The limitation of the study is that it is not possible to give a quantitative measure of the effectiveness in terms of subsequent plagiarism attempts, for example by comparing this cohort of students with previous years, because there are many variables that can affect the detection rate. The plagiarism detectors can also find evidence of collusion between students, but in the event, no collusion was found in the assessment undertaken as part of the study. We focus on plagiarism from Internet sources.

This exercise is similar to that carried out by Culwin (2003) with first year undergraduates, which found that the primary purpose of involving the students in a practical activity to educate them about academic misconduct appeared to have been satisfied.

Participants

The 182 students who took part in this assessment exercise were studying in a one-year Masters programme, either in Computer Science, Automotive Engineering, or Electronics. They were from a variety of backgrounds, both in their previous degree and country of origin, so we could not assume a common understanding of plagiarism issues. The students were predominantly international students mainly from China, India and Pakistan, with small numbers from other countries including the UK. The experience from previous cohorts on this programme is that there is a wide variation in ability to write an academic dissertation.

Design of the assessment

These students take a compulsory "Research Methods" course, in which one of the first assessments was to write a short summary on one of a number of given topics, based on journal papers and conference proceedings. Marks were to be awarded for the selection of literature to be reviewed, and for the production of a clear,

well-structured report that demonstrated the student could critically review, summarise and use references appropriately. Ideally this should have been a totally formative assessment, but we choose to allocate marks worth 10% of the overall assessment to ensure all students took part and could benefit from the experience, especially in terms of the opportunity to understand what constitutes plagiarism.

Procedure

Before students tackled the assignment, a series of lectures introduced the techniques of information searching and retrieval and gave guidance on summarising information from sources. Students were also reminded about what constitutes plagiarism but were not told that their work would be submitted to a plagiarism detector. It is worth noting that most staff would consider that this was more than adequate warning, and that any plagiarism would be culpable.

Once the students had submitted the assignment, these were processed through the electronic plagiarism detectors Turnitin (1998), and Ferret (Lyon, Barrett and Malcolm 2004) to produce a report for each student on how original their words appeared to be. Our plan was to combine these tools in order to get a more fine-grained measure of how much text re-use was taking place. The Turnitin product was good at relatively large-scale verbatim quotations from the Web and other sources. We were using the UK JISC Plagiarism Advisory Service's detection facility (JISC 2004) which, as well as the Web, has a substantial database of material contributed by staff and students at UK institutions. In contrast, Ferret will detect a quotation as short as three words, but has no database: it compares files submitted in one detection run and is good at detecting collusion. We therefore used Turnitin to identify the sources that students had used, downloaded these, and then used Ferret to identify overlaps between a student's submission and *any* of the sources. The aim was to detect even moderately reasonable paraphrasing, and particularly to avoid revealing to the students just how little needs to be changed to avoid detection by Turnitin. During a subsequent tutorial, students were given feedback on their work, both on the academic content and their ability to use sources correctly. The visual reports, with sections of plagiarised text highlighted in a different colour, were effective in helping the students to understand plagiarism because the reports identified passages in their *own* work. Students who had plagiarised were given the chance to resubmit and the detection process was repeated. The maximum mark that these students could achieve was capped at a bare pass so that they would not be advantaged by the resubmission opportunity.

Results

The extent of plagiarism found

A threshold of more than 15% of the work matching Web sources (or other students' work) was used. This percentage was determined by inspection of reports to identify where the borderline cases occur. Any threshold is somewhat arbitrary: the CAVAL study (quoted in Carroll 2004) used a higher figure, 25%, as a threshold, and screened 1770 pieces of work from five Australian institutions finding just 8.8% of unattributed Web-based material. Turnitin grades work by the percentage of text that matches another source, colour-coding the matching text. We found that 74 out of the 182 submissions (41%) were above the 15% threshold. On inspection of these 74 Turnitin reports, it was found that a number could not be considered to be plagiarised for various reasons: perhaps the text was properly in quotation marks, references were a good proportion of the overall word count, or students had included parts of the assignment specification. The final count of plagiarised work which was passed to the tutors was 26% of total submissions.

In addition, five students who didn't carry out the assignment the first time were allowed to submit with

the second submission, with the interesting result that three of those five students submitted plagiarised work. Ignoring these five, the results are shown in Table 1 below. This shows the percentage of students who submitted work that was identified as unacceptable, either because of unattributed work or because of inadequate citation, in each of the three subject areas. These percentages are expressed as a fraction of the total number of submissions in a subject area. The final column shows the overall percentage of students found plagiarising on the first and second submissions.

Table 1: Percentages of plagiarism found in each subject area, and overall, after the first and second submissions

Subject	Comp.Sci		Automotive				All students	
Number of submissions	90		38		54		182	
Number flagged by Turnitin	44		8		22		74	
Number confirmed by staff	31	34%	7	18%	10	19%	48	26%
Number of re-submissions	30		7		10			
Number flagged by Turnitin	7		0		8		15	
Number confirmed by staff	4	4%	0	0%	2	4%	6	3%

The experience

The process was straightforward, but fairly resource-intensive. One member of staff downloaded the files from the University's Managed Learning Environment, checked submissions against class lists, removed duplicate submissions, processed late submissions, submitted the files to Turnitin, and colour printed all reports. Two members of staff made the initial decisions on whether the similarity found by the detection tools represented a problem or not. This was done to minimise the workload on individual tutors, but it also provided consistency in the treatment of plagiarism, whether intentional or not on the student's part.

One thing to note is that Turnitin can only give a measure of *possible* plagiarism, on inspection there were many false positives. In many cases it was found that in students' bibliographies, lists of references partially matched those in other documents on the web. We also found properly quoted and cited extracts from journal and conference papers that are available as Web documents, and many students had included parts of the assignment brief, and this too was flagged by the software. This "downside" to Turnitin has been identified elsewhere (Evans 2004, Gulik and Tippin 2004) and suggests that the use of automatic detection could even result in more work rather than less for lecturers.

The three parallel subject areas used different methods to return the students' marked work and the detection reports. In one cohort all the work was returned in a classroom situation, but unfortunately the full advantage could not be taken of the opportunity because of lecturers' reticence to identify "bad" students and these students had to be followed up after the tutorial. For the second cohort the work and the reports were given back outside the tutorial, but this had the disadvantage that not all students then attended the subsequent tutorial; further evidence of the general problem that some students are only interested in their mark rather than feedback. For the third cohort, the students who had plagiarised were asked to an interview with the tutor before the tutorial. Some students who may have been prepared to deny that there was a problem capitulated when they saw the evidence. The disadvantage of this method is that, without care, the emphasis will be on plagiarism detection rather than student education. Despite these difficulties, the tutorial in which "cut-and-

paste” writing and plagiarism detection were examined was successful, with students being able to relate the discussion to their own work rather than more detached exhortations about plagiarism.

Structured interviews were held with a number of the tutors to ascertain their views on the value of the exercise. The overwhelming response was enthusiasm for tackling the students’ difficulties, against a backdrop of some despair both at the extent of poor writing skills and at the plagiarism that results either from this inadequacy or from deliberate intention to cheat. The exercise provided a united front in tackling potential plagiarism; we note that peer-support for lecturers has also been found helpful in programming assessments (Barrett and Rainer 2004).

An analysis of students’ backgrounds

As can be seen from Table 1 above, it seemed that the Computer Science students are more likely to use others’ words in their work than those from Automotive Engineering or Electronics. Some of the possible reasons for this finding are that the Computer Science group might be academically weaker students, that they are more adept at using the Internet, that a greater proportion of academically relevant Computer Science material is available online, or that less Automotive Engineering and Electronics material is in the Turnitin database.

We also investigated the students’ previous backgrounds, looking at previous educational institutions. We checked the previous education of the Computer Science students, and grouped them by nationality. We observed that the Indian, Pakistani, and Chinese students had been found out in roughly equal proportions, but we did note that the others (which included home students) showed a lower incidence of unoriginality.

Although the number of home students in our sample is rather low, it did seem from our results that overseas students were much more likely to use unoriginal text than home students. With this in mind, we wanted to see whether previous study in UK higher education reduced the degree to which students used unoriginal text in their answers. Most of the Indian and Pakistani students had come direct from bachelor’s degree study in their home countries, but it turned out that amongst the Chinese students there were two reasonably large sub-groups who had previous educational experience in the UK. Of the 22 Chinese nationals, 12 had come direct from China, but nine had done one or more years of undergraduate study in the UK and 11 had done a bridging course of between three and 12 months duration. The results are shown in Table 2:

Table 2: Percentages of plagiarism found in the submissions of Chinese nationals, grouped by previous study

	Direct to Masters study	International Bridging study	Undergraduate study
Total number of submissions	12	11	9
Number confirmed by staff	4	2	8

Discussion

This exercise was an addition to the teaching plan of the course. The lectures, tutorials and type of assessment were largely unchanged, including the lectures and the plagiarism prevention resources available to students. In previous years there had been a high incidence of plagiarism detected amongst students in this programme, including some in the final dissertation. It was intended that the emphasis on plagiarism education rather than

detection would allay students' fears of accusations of culpable plagiarism through their inability or ignorance. As one colleague put it, being a weak student is not a disciplinary offence. In the event, we had very positive informal feedback from the students. There is a rich source of plagiarism help for students on the Internet, but perhaps many of the exercises on paraphrasing and citation do not seem as relevant to technical students as this exercise appears to have been. We also suspect that there was a strong element of deterrence in seeing the effectiveness of electronic detection at first hand, shown by the improved reports on the second submission. The final overall results for this cohort, including those for the final dissertation, are not yet available, but despite our optimism we regret to say that some students who successfully negotiated this exercise were found guilty of plagiarism in a later assignment.

A high percentage of students had submitted work that was unacceptable, but most of these students were new to UK higher education, and most were from overseas. We believe that for the majority of these students this was due to difficulties in writing in their own words or in quoting sources correctly. The students were post-graduates, but in technical disciplines in which reports and essays may not have been the predominant way of assessment.

After some of the students were required to repeat the exercise, producing a second report which was analysed in the same way, far fewer were found to have a substantial amount of copied text. This could be interpreted as an indication that students can work out how to apply referencing techniques from the teaching and lecture notes (together with the example from their first submission). Just 3% of the group was unable to write a sufficiently original report even after a second opportunity. For these students, the assessment exercise served as a "wake-up" call, and for all students it reinforced the ideas of academic integrity in assessment.

Conclusion

The use of electronic plagiarism detection in a formative assessment can help in two ways.

Firstly, plagiarism education is made relevant to the individual student by using their own work as an example; students who have plagiarised can be given a chance to redo the work. It may also be that a demonstration of electronic detection of plagiarism acts as a deterrent.

Secondly, staff do not need to fear the possibly draconian consequences if they identify that students have submitted text which was not written by them. By operating in a team, a consistency of approach is ensured, and no one is tempted to minimise the seriousness of the problem.

As a by-product of this exercise, we were able to investigate whether any particular group of students was more prone to text re-use and poor citation practices than any other. Work needs to be done to more completely analyse this data, but clearly some surprising findings have been uncovered. At this stage the main observations are that there were quite large differences between subjects, but little difference from one nationality to another.

We also conclude that the ranking of reports by amount of plagiarised work through an electronic plagiarism detector needs to be treated with caution, and manual inspection is essential.

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"PLAGIARISM" AND THE CONFUCIAN HERITAGE CULTURE (CHC) STUDENT

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Abstract

This paper presents the results of a survey into students preferred learning styles and their propensity to cheat. The survey was conducted in a large Australian University with a high proportion of international students. Anecdotal evidence suggested that students from CHC backgrounds were more likely to cheat and more likely to use surface learning strategies than their westernised peers. The results demonstrate that this is not true of all students and further that perceptions of what constitutes cheating are not the same across cultures.

Perceptions of the Problem of Plagiarism

The issue of plagiarism is not new. It is however, extremely difficult to study. The problems begin with the difficulties involved in educating students from a wide variety of backgrounds (and educational philosophies) about forms and conventions, as well as developing systems for policing and finally punishing those caught breaching the rules. Murray (1996) introduces us to a study which shows that 20% of academic staff ignore cases of cheating and do not report their evidence to the university authorities. The raising of accusations of cheating against students can cause significant amounts of stress to both staff and students (Ketchell, 2003; Smith, 2003). The rules of evidence in Australia suggest that the person is "innocent until proven guilty". This implies that the case must be "proven" before it can be presented to the university authorities. The time and effort it takes to "prove" a case of plagiarism may be substantial and academic staff have limited resources with which to research and report on suspected cases of cheating (Howard, 2001). Consequently, as suggested by Pincus & Schmelkin, (2003) and Maramark & Maline (1993) much suspected cheating is ignored in the interests of time and stress management. Students also prefer to have the issue of cheating handled informally (Jendreck, 1992). The pervading belief held by both students and academics is that "everyone cheats" (Houston, 1976, p. 301) cited in (Bjorklund & Wenestam, 1999) or that cheating is a normal part of life (Baird, 1980). Bjorklund and Wenestam suggest that academic honesty seems somewhat limited if you compare the notes of (Baird, 1980; Jendreck, 1992) who cite cheating rates as high as 85% and detection rates as low as 1.30%. In addition, there is a belief that academic dishonesty is not punished and is, in fact, rewarded by the system (Davis, Grover, Becker, & McGregor, 1992 p17).

The methods used by students who cheat are varied and as illustrated by Bjorklund & Wenestam (1999), they can range from direct copying from another student to handing work done by another person. The influence of the WWW on the capacity of the student to cheat has increased. However, it is not known if the incidence of cheating has increased as a result of the WWW, although anecdotally this seems to be a problem.

Reasons for cheating include (all from Bjorklund, et al who cite various authors):

- Student perceived workload
- Stress and pressure
- Too little time
- Culture of cheating
- Low risks of getting caught.

In addition to these reasons, Anderman et al. identified that student's learning styles had an influence on propensity to cheat in examinations and assignments (1998). Their study showed approaches to study which resemble the deep and surface learning strategies as identified by Marton and Saljo (Marton & Saljo, 1976). In addition to Anderman et al, studies by Akande (1998), indicate that students who believe that the purpose of study is to gain a credential (as opposed to learn a skill) are more likely to employ surface learning strategies and to believe that cheating will lead to less intellectually demanding work and a decrease in academic workload. Those who do not cheat are more likely to utilise deeper learning strategies.

While these features are not necessarily limited to CHC students, there may be some unique characteristics which lead to CHC students being more or less prone to plagiarism than their westernised peers.

The CHC Student and their Learning Styles

According to Biggs (1996), students from a CHC educational system, such as those found in China, Taiwan, Singapore, and Hong Kong, face large classes which are highly authoritarian, and use expository teaching methods focused on preparing the students for their examinations. The examinations are highly competitive, creating stress and pressure on both teachers and students and assess low level cognitive goals. The emphasis on examinations has led to a strong reliance on memorisation and rote learning as described by *The Economist* (*The Economist*, 2003).

Ng (2000) and Jones, Robertson, & Line, (1999) believe that the focus comes about because of the reliance on examinations to assess knowledge. According to Jie (2000) the most important innovation of the Emperor Yangdi was the imperial examination system; this was a method by which young men of good families could compete to enter the service of the Emperor (Keenan, 1998). Students who are assessed by examinations are trained from a young age to seek only that knowledge which is important in passing (McKellar, 2002).

In Confucian systems, education forms the basis of an individual achieving personal development, that is, sagehood. Sagehood occurs when an individual develops their potential to the fullest extent. As everyone can become a sage, this reflects the belief in human perfectibility, which forms the basic optimism and dynamism towards education in the Confucian tradition. Sagehood requires effort. In Confucianism, education and learning are always associated with effort, and the driving force of efforts is will power. (Lee 1996 pp25-32).

According to Tu cited in (Lee 1996 p34),

The purpose of learning is therefore to cultivate oneself as an intelligent, creative, independent, autonomous, and what is more, an authentic being, who is becoming more fully human in the process of learning. The process of learning is therefore an inner directed process.

As seen above, the Confucian tradition of learning is more aligned to a deep approach to learning rather than a surface approach. This contradicts the belief that many western teachers have, that students with a CHC background are surface learners.

Anecdotal evidence suggests that CHC students are surface learners more likely to attempt to remember everything than they are to learn deeply. In addition, Biggs (1996 pp 46-47) identified several teachers who were concerned about their CHC students' ability to learn using deep strategies.

In my discipline they all want to rote learn material rather than think...

Students from Malaysia, Singapore, Hong Kong appear to be much more inclined to rote learning. Such an approach does not help problem solving...

While these characteristics are evident in the assessments of some students, many CHC students perform at high levels of achievement, and studies by Biggs (Biggs, 1996 p 49) indicate that CHC students prefer a high-level, meaning-based learning strategy.

Therefore, the anecdotal debate that suggests that rote learning leads to blatant copying of texts and websites does not appear to be supported by the evidence. We must therefore look to other possible reasons for apparent plagiarism.

The CHC Student in the Westernised Learning Context

One of the circulating anecdotes about CHC students in the western system is that they appear unaware of the culture of learning in Westernised countries, in addition to being unaware of the culture within their host country. For the purpose of this paper the authors have chosen to use Hofstede's (2001) cultural dimensions. It could be argued that academic staff educated in Westernised systems are likely to be so enculturated that they will not necessarily see the implications of culture on plagiarism issues. For example, see Hofstede's (1994b) discussion on the implications of westernised thinking on research design. The following uses Hofstede and Bond's (1988) (and others) cultural dimensions.

Individualism

Individualism (promoting self-efficiency, individual responsibilities, and personal autonomy) is the level to which people have learned to act as individuals within their societies (G. Hofstede, 1994a). In contrast, collectivism (promoting in-group harmony and individual sacrifice for the good of the group) refers to the level of cohesiveness within the culture of the society (G. H. Hofstede, 2001). Westernised cultures are more likely to value individualism, while the CHC student is likely to come from a collectivist culture. Consequently, while the westernised academic writing genre idealises the individual's achievement in producing an original piece of work, the CHC student comes from a culture that doesn't necessarily understand the concept of working alone to achieve academic goals in the same way. CHC students trained in a system which is based on inner and outer circles of mastery (Ng, 2000), may find working completely alone very difficult. The concept of developing original ideas, different from and in opposition to the Masters of the inner circle is against the basic premise of their cultural background. According to Ng, CHC students are often trained from an early age to respect teachers as Masters of all essential knowledge and to repeat back to the Master what is necessary to pass the examination; an examination which may be undertaken alone but which is an outcome of collaborative study with a Master. Thus, the westernised system(s) of individuals competing with and surpassing the Master in the development of knowledge may be a cultural shock to some who are expecting to be told what they should know and how they should convey that knowledge (1996). The fear and anxiety generated by not knowing what is expected in individualised assessment tasks may lead to some students seeking answers from "inappropriate" sources such as the internet (Ashworth & Bannister, 1997). Methods of ensuring that individuals achieve individual success via others are accepted practice in CHC teaching traditions (1999). However, anecdotally, the line between collaboration and collusion is often crossed by CHC students (and others) thereby generating claims of plagiarism. In deeming a piece of work plagiarism, we must first understand if the student understands concepts of individualism, and the implications for academic writing in Western cultures.

Uncertainty avoidance

Uncertainty avoidance is another of Hofstede's (1998; G. H. Hofstede, 2001) dimensions of culture. UA measures tolerance toward uncertainty and ambiguity. High scores on this measure indicate that people do not like uncertainty and ambiguity; they prefer strong social conventions, formalised behaviour, and rules to make it clear how they should behave. Such cultures tend to enforce conformity, and are guided by the belief that what is different is dangerous. The cultures from which CHC students arrive are often high on UA. Therefore, it is easy to see why these students seek to conform to previously written assignments and are seen to be unoriginal and non-critical in their thinking. They are so concerned with getting it "right" that to be individual and original (different) is that antithesis of everything they have learned in the past. For example, Saywell's (2000) article demonstrates the difficulties faced by Singapore in attempting to change from a Confucian style educational system to one of critical thinking and analysis. Carmee Lim's comment "We only ask for the right answers. That stops the brain thinking." (p 62), is indicative of the societal pressure to produce students who have the right answer in a system which relies on examinations for measures of success (Jie, 2000; Ng, 2000). Worse, for higher UA cultures (our CHC students), communicating with someone from an unknown culture can be uncomfortable because such situations are both uncertain and unpredictable (Gudykunst & Kim, 1997). Thus, discussing their concerns with lecturers and/or tutors is very difficult. CHC students are most comfortable in structured environments, where the teachers are supposed to have the right answers. Akande (Akande, 1998) demonstrates that learning is not necessarily uniform across cultures. Sometimes, simply getting the "right" answer, by any means, is most important, even if the student does not understand why the answer is right.

Power distance

Another cross-cultural issue identified by Hofstede (1998; G. H. Hofstede, 2001) is Power Distance (PD). PD relates to the issue of inequality, which is present in every culture to some degree. PD is the extent to which the less powerful members of the institutions and organizations within a country expect and accept that power is distributed unequally. In cultures with large PD (from which CHC students studying in Australia largely derive) people accept strong hierarchy-based on inherent differences in status. They easily defer to other people who have higher status and more power in the hierarchy. This causes clashes of culture with teachers who are attempting to get students to criticise and challenge materials rather than simply memorise them (Akande, 1998). Students from cultures with large PD have been trained to believe that those in power KNOW the right answer, and if they do not know the answer – the student had better not expose their ignorance. In a high PD culture teachers are treated with respect. There is supposed to be a strict order in the classroom. Teachers are expected to initiate all communication, and students speak up only when invited. Thus, challenging, criticising and actively discussing are not easy for CHC students. The skills required to produce an original piece of work in the western tradition absolutely require the ability to challenge, criticise and speak up when a mistake appears to be made. This is the converse of what their culture and training has empowered the CHC student to do.

This research comes about because there is strong anecdotal debate about CHC students learning styles and their cultural heritage. In addition, there is a pervading assumption that there is a "plague" of plagiarism (Howard, 2001). In order to examine these issues the following research questions were developed: 1) Students' from CHC prefer to use traditional (Confucian) methods of learning 2) CHC students *propensity to cheat* is associated with their preferred methods of learning.

Methodology

The development of the quantitative instrument began with a review of the relevant plagiarism and learning styles literature, followed by a focus group discussion held with 10 students from a variety of CHC backgrounds. The

exploratory information collected via these preliminary techniques aided in the construction of the quantitative research instrument, and the development of research hypotheses. A structured questionnaire was developed as the primary measuring instrument. Hofstede's measures were not included in the questionnaire primarily because the students were known to come from CHC backgrounds and Hofstede (2005) cautions against the use of the dimensions at the individual level. It was decided to use students self-reported activities rather than use a pre-existing instrument, as it was hoped that this would be more "real" to the students and validation within the context was not required for preliminary exploration of the issues. The sample frame consisted of first-year, undergraduate students enrolled in either a business or information technology degree studying marketing theory and practice at an Australian university. The questionnaire was distributed to 190 students during their marketing theory and practice lecture. The number of completed questionnaires returned was 125 representing a response rate of 66%.

Table 1: Data for preferred learning strategies

(sorted by the means of CHC students preferred learning styles)			
<i>Item</i>	Means		<i>Sig</i>
Listening to audio tape or CD	1.71	2.01	0.23
Watching videos	2.04	2.29	0.54
Participating in field trips*	2.61	2.53	0.74
"Surfing" the internet	2.63	2.59	0.66
Working with others on projects*	2.84	3.20	0.10
Participating in debates and discussions*	2.86	2.84	0.95
Actively talking to my lecturer	2.98	2.92	0.79
Having my teacher tell me the right answer so I can remember it	3.00	3.38	0.11
Seeing how others make things work*	3.10	3.16	0.79
Immediately applying my knowledge to something practical*	3.10	3.47	0.11
Interpreting and criticising*	3.14	2.97	0.47
Discussing the issues with my friends in small groups*	3.20	3.30	0.80
Using workbooks to focus my study	3.24	3.00	0.30
Making things work for myself*	3.27	3.55	0.18
Seeing pictures and making images from words in order to make sense of them			
	3.33	3.29	0.87
Creating summaries of written material to remember	3.35	3.66	0.18
Using a computer	3.37	3.00	0.13
Reading text books	3.39	3.89	0.01
Researching for essay writing	3.41	3.63	0.25
Actively thinking of questions to ask the teacher	3.41	3.09	0.17
Actively talking to my tutor	3.53	3.36	0.39
Attending and listening to lectures	3.54	3.76	0.25
Understanding the patterns in the topics I am trying to learn*	3.55	3.75	0.26
Learning facts about things	3.65	3.47	0.40
Solving problems rather than trying to memorise everything*	3.82	3.89	0.69
Finding real world examples of what I am trying to learn*	3.84	3.66	0.41
Attending and listening in tutorials	4.21	4.20	0.95

Outcomes

Hypothesis 1: Students' from CHCs prefer to use traditional (Confucian) methods of learning

The data in Table 1 indicate that CHC students employ a wide range of learning strategies. The asterisks indicate those that are considered by the authors as deep learning strategies based on Marton and Saljo (1976), and Biggs *et al* (1996). While CHC students have a preference for strategies that are considered “traditional”, they are not apparently unwilling to engage in the western styles of learning applied within the Australian higher educational context. Thus, hypothesis 1 is not confirmed, students from CHC cultures do not differ significantly from their westernised peers.

Hypothesis 2: CHC students propensity to cheat is associated with their preferred methods of learning

In order to measure “propensity to cheat”, a number of questions were asked in relation to the stress of studying and the likelihood of seeking an “easy alternative” such as finding an assignment on the internet. These items were analysed using correlation analysis. The student’s preferences for learning activities were categorised as conventional or informal (Table 2).

Table 2: Correlation matrix for preferred style of study factors and stress

	Informal	Conven- tional	Stayed up	Used others	Not gone out	Special consid	Style of study	Internet	No help	Copy paras	50 hrs
Informal	1										
Conventional	0.097	1									
I stayed up all night doing assignments	-0.042	-0.050	1								
Used someone else's work	0.121	0.054	-0.029	1							
Decided not to go out in order to study	-0.006	0.130	0.270**	-0.068	1						
Requested special consideration for an assessment	0.111	-0.063	-0.142	0.092	0.038	1					
Felt stressed as a result of the style of study	0.120	0.170	0.178*	-0.034	0.309**	0.178*	1				
Searched the internet for a pre-written assignment	0.242**	0.101	0.080	-0.010	-0.011	0.338**	0.206*	1			
Felt as if I could not ask the lecturer for help	0.220*	0.077	0.084	-0.051	0.186*	0.214*	0.198*	0.313**	1		
Typed up paragraphs from text books in an effort to get it right	0.221*	0.025	0.126	0.208*	0.275**	0.200*	0.390**	0.296**	0.293**	1	
Spent more than 50 hours a week in class and studying	0.176	0.221*	-0.026	0.104	0.398**	-0.040	0.337**	0.189*	0.163	0.381**	1
Tried to find a previously written assignment	0.131	0.025	0.093	0.338**	0.244**	0.122	0.325**	0.333**	0.284**	0.382**	0.333**
* Significant at 0.05 level ** Significant at 0.001 level											

As indicated in Table 2, while these correlations may not be representative of the population at large, it is apparent that students who prefer “informal” methods of learning are also more likely to take academic short cuts such as searching the internet for previously written assignments and typing up paragraphs from text books in an effort to get it right. It is significant that these students also feel as if they cannot approach their lecturers for assistance (PD). Those who prefer conventional methods of learning would appear to be less likely to take short cuts and more likely to work long hours. The few differences there are between the students learning styles and their propensity to cheat are statistically significant. However, they may not be of practical significance to educators attempting to improve their assistance to students from CHC backgrounds.

Conclusion

Important questions arise when observing the other relationships within students’ propensity to cheat. Students who believe that they are under stress are those more likely to work longer, type up paragraphs from texts and try to find other assignments as well as searching the internet. In addition, they are also more likely to stay at home and “work” at memorising rather than studying effectively. Thus, we develop a picture of “the cheat” who is overwhelmed by the learning environment and is socially isolated. While this might seem like an apology for the cheats, Howard (2001) may have had a point when she suggested that students who are overworked and stressed search for easy alternatives. The data show relationships between activities, which would be called cheating by educators, and students’ levels of stress as well as their ability to approach the lecturer for advice and support. In addition, the data show that CHC students’ learning styles are not as shallow as anecdotal evidence suggests. Furthermore, CHC students who prefer conventional styles of learning appear to be less likely to cheat in the sense of seeking previously written assignments from the Internet or others. This is in direct contradiction to the anecdotal “evidence” and shows, at least from an exploratory perspective that the debate is not ended.

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IMPLEMENTING PLAGIARISM POLICY IN THE INTERNATIONALISED UNIVERSITY

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Abstract

This paper reports on the findings from interviews with 14 academic staff members from 10 Australian universities regarding the implementation of student plagiarism policies, particularly in relation to international English as a Second Language (ESL) students, within the context of internationalisation. Emerging from the data were two sets of factors, institutional and personal, which need to be considered for the development of effective plagiarism policy. In this paper, institutional factors will be discussed. These included: the importance of separating academic issues from financial considerations; the need to provide clear definitions and explicit procedural guidelines; the requirement that academic staff are involved during the Appeals process; the responsibility to provide adequate training, staff development and support to staff; and the need to recognise workload and stress issues for staff involved in pursuing cases of plagiarism. Respondents unanimously agreed that international ESL students are more likely to be accused (although not necessarily penalised for) plagiarism.

Research context: Internationalisation of Australian Higher Education

The term “internationalisation” is both contextual and contested. However, writers generally agree that it is the combined effect of a range of international activities relating to students, staff, institutions and curricular (see Back and Davis cited in de Wit 1995 p. 121). It is a process that ideally infuses all aspects of higher education, with the aim of “fostering global understanding” (Francis 1993, cited in Savage 2001, p. 1).

In practical terms, “internationalisation” in Australia has been a direct result of decreased federal funding on education in the tertiary sector. Matthews (2002) claims that the recruitment of fee-paying students “has generated far more investment, interest, and enthusiasm than policy appeals for associated structural, curricular, and pedagogical change”. In his analysis of the context of Australian higher education, Marginson (2003) is also sceptical of any rationale for policy changes in the higher education sector beyond a “faith in markets and the business model”. Other writers agree that the focus on students as a means of financial income has provided the framework for the internationalisation of higher education in Australia (Alexander & Rizvi 1993; Dobson 1998; Stark 2000; Feast & Bretag 2005). Despite rhetoric alluding to the teaching and learning environment, it could be argued that generally the institutional focus has been on recruiting students for the fees they will provide (more than \$3 billion worth in 2001 according to Matthews [2002]), rather than for the potential two-way educational exchange.

Literature review: Perspectives of plagiarism

A number of researchers claim that many instances of “plagiarism” in student academic writing is the result of poor academic literacy, particularly for students struggling in a second language (Green, Williams & Van Kessel 2003; Counsell 2003; Raj & Jayathurai 2003). Other researchers argue that plagiarism occurs when students, regardless of linguistic background, lack the academic skills necessary to synthesise a range of texts into a coherent argument. Most educators agree that plagiarism can be significantly reduced if students receive adequate training in academic literacies (Chanock 2003; Bell and Cumming-Thom 2003; Clerehan and Johnson 2003).

There is a generally held perception in Australian higher education that Confucian Heritage Culture (CHC) students do not understand plagiarism because the concept does not exist in their culture (Ballard & Clanchy 1997; Leask 2004; Singh 2003). However, Bloch (2001) is sceptical of commonly held stereotypes about Chinese learners of CHC background. Research by Bloch and Chi (1995), and Li and Xiong (1996) indicates that plagiarism is as repugnant in China as in the West, especially in academic research (cited in Bloch 2001, p. 215). Belcher and Hirvela (2001) conclude that there is “contradictory evidence about the influence of culture that makes any definitive statement about ESL students’ attitudes to plagiarism rather difficult to defend”. Another perspective is that some people use the recognition of “cultural differences”, when discussing plagiarism, to denigrate students’ learning backgrounds or even to be discriminating or racist (Bradley 2003; Leask 2004).

Plagiarism is most often viewed as an issue of academic integrity. Deller-Evans, Evans and Gannaway (2003) refer to plagiarism as a “fraudulent educational practice” (p. 105) and Kennedy and Hinton (2003) state that it is a “basic concept of academic honesty” (p. 138). Pecorari’s (2001) plagiarism policy survey of 140 universities (with 54 responses) from USA, UK and Australia found that nearly all of the policies examined assumed a universal view of plagiarism as an academic crime. This “crime” has become “scandal” with the media at the forefront in reporting of plagiarism cases in recent years (Buckell 2002; Illing 2003; Karvelas 2003). In 2003, the subject of numerous media reports was a scandal at an Australian university where a contract lecturer “blew the whistle” when senior colleagues overturned his “fail and resubmit” penalty to a group of offshore graduate students who had plagiarised significant portions of an assignment (Giglio 2003; Sinclair 2003). The Nine Network reported the story on the *Sunday* program (3 August 2003), contextualising the issue within the corporatisation/marketisation of Australian higher education.

Some researchers are beginning to focus on issues of university governance in universities increasingly characterised by managerialism. Pyvis (2002) highlighted a case at Curtin University where the media reported that an international student had graduated despite the fact that she had failed a course (as a penalty for plagiarism). The Director of Teaching and Learning had over-ruled the academics’ decision, ostensibly because of the fee-paying status of the student. How to manage plagiarism is the subject of a significant body of literature. Devlin (2003) makes nine recommendations to prevent plagiarism relating to language, academic preparation, assessment, training, information, support and administration. Carroll (2003, p. 19) provides a useful framework for determining penalties for plagiarism, with four criteria, given in descending order of priority: extent of the plagiarism, the student’s year level, the student’s knowledge of the institution’s academic conventions and regulations, and the rules of the specific discipline. Researchers have provided practical recommendations at the institutional level, and strategies at the individual teacher level to deal with plagiarism, and many of these suggestions overlap. However, there are many obstacles to managing plagiarism. Carroll (2003, p. 16) has provided a list of commonly cited reasons for not pursuing plagiarism formally:

the time it takes to pursue a case; fear of looking bad compared to a colleague; feeling it isn’t fair to punish if students haven’t been taught the skills; lack of confidence that senior management will support them; the pressure of all the other tasks they must take on as teachers/lecturers; [and] not wanting the often negative feelings which cases generate to impact on their relationships with students.

Devlin (2003) has also reported on the perceived obstacles to changing plagiarism management, including a

concern that following through with cases of repeated plagiarism that may lead to student expulsion might damage the international reputation of the faculty or university and a further concern that such damage to reputation may result in reduced international enrolments.

Method

This research project explored the issue of plagiarism in Australian higher education, in the context of internationalisation and particularly in relation to international ESL students. The research used semi-structured interviews of between 40-60 minutes with 14 academics from 10 universities representing all Australian states, plus the Australian Capital Territory (please see the Appendix for the list of questions which guided the interviews). The participants included an equal number of men and women, six lecturers, four support staff (three learning advisers and one instructional designer) and four Deans. Staff were approached because of their expressed interest in plagiarism issues and their experience with international students. All interviews were taped, transcribed and then imported into a central database using the qualitative data analysis software program Nud*ist (N6). Interviews were then coded into themes and sub-categories in an attempt to draw out the major issues. Throughout this paper, interviewees are referred to by an abbreviated number. For example, Interviewee 1 is referred to as Int01, Interviewee 2 is Int02 and so on.

Findings

The findings are discussed in full in my Doctor of Education research portfolio (Bretag 2005 unpub). For reasons of brevity, the key findings as they relate to the literature review are summarised in the table below.

Table 1. Summary of findings

Literature review	Respondents' views
Plagiarism as an ESL issue (Counsell 2003; Raj & Jayathurai 2003; Green et al 2003)	All respondents agreed that international ESL students generally do not have adequate English for tertiary level study, and that this potentially impacts on issues of plagiarism.
Plagiarism as an issue of academic skills (Chanock 2003; Bell & Cumming-Thom 2003; Clerhan & Johnson 2003)	All respondents agreed that inadvertent plagiarism is an issue of academic skills, although Int05, who had taught a foundation course covering these skills, still found that students plagiarised.
Plagiarism as a cultural construct (Ballard & Clanchy 1997; Leask 2004; Singh 2003)	This topic was raised by every respondent, with 13/14 interviewees stating that different cultural backgrounds played a role in issues of plagiarism. Int03 stated that this idea was "patronising" to international students.
Accusations of plagiarism as a form of racism (Bradley 2003; Carroll 2003; Leask 2004)	This issue was raised by two respondents: Int06 and Int14. It was not a common theme throughout the interviews.
Plagiarism as an issue of academic integrity (Deller-Evans et al 2003; Kennedy & Hinton 2003; Pecorari 2001)	The issue of academic integrity was raised by 50% of the respondents (Int02, 06, 08, 09, 11, 12 & 13). These same respondents, plus Int01 also talked about "cheating".

Plagiarism as media scandal (Buckell 2002; Illing 2003; Karvelas 2003; <i>Sunday</i> program 2003)	Only three respondents discussed the role of the media (Int 02, 09 & 11). Despite the fact that the first 11 interviews took place at around the same time as a publicly debated university controversy, this did not emerge as a central concern.
Plagiarism as an issue of governance (Pyvis 2002; Senate Committee Enquiry 2001)	50% of respondents were critical of university processes, stating that the process of dealing with plagiarism broke down at the Appeals level (Int 03, 06, 09, 10, 11, 12, 14). Int11 spoke of senior managers intimating that he should “turn a blind eye” to plagiarism, particularly by fee-paying students.
Responses to plagiarism (preventative & punitive) (Carroll 2003; Devlin 2003)	13/14 respondents agreed that both local and international students should be treated in the same way for inadvertent plagiarism (education), and deliberate plagiarism (serious penalties). Only Int06 suggested that the issue was especially complex for international students and may require specialist investigation.
Obstacles to managing plagiarism (time and effort; lack of support; emotional work). (Carroll 2003; Devlin 2003)	10/14 respondents agreed that workload was an impediment to pursuing plagiarism; 8/14 stated that they did not have enough support from their institution (only Int07 stated that she felt supported); 7/14 respondents discussed institutional pressures to pass fee-paying students (every respondent mentioned the issue of money or fees in the course of the interview, despite there being no direct question about this topic); and all of the respondents who had pursued plagiarism (8/14) discussed stress-related issues.

Discussion: Institutional issues for developing effective plagiarism policy

The interviews used as the basis for this research explored the implementation of plagiarism policies in Australian universities in the current context of internationalisation. The ultimate aim of the research was to develop guidelines for policy that is culturally sensitive to the needs of international students, but firm, fair and transparent so that Australian academic standards are not undermined. While the issues for the development of such a policy can be divided into two aspects, institutional and personal, the constraints of space permit discussion of only the first aspect. The following discussion and recommendations therefore draw on the last three categories tabled above (plagiarism as an issue of governance, responses to plagiarism, and obstacles to managing plagiarism).

1. Separation of academic issues from financial considerations

One theme that clearly emerged from the data was the context of commercialisation in higher education and how this has a direct impact on the ability and/or willingness of institutions to implement plagiarism policies. Every respondent stated that international ESL students are more likely to be accused of plagiarism, but those respondents with experience in pursuing suspected cases of plagiarism (even the most blatant academic misconduct) stated that the fee-paying status of the student directly affected the outcome of the process,

particularly at the appeals level. This outcome is perhaps not surprising, given the argument presented by De Vita and Case (2003) that inherent to the increased commercialisation of education is a new paradigm of students as customers of education.

The findings in this research demonstrated that lower English language proficiency and plagiarism are inextricably connected. When Australian universities accept students with less than adequate English to complete tertiary study, they are opening the door to academic practices that also fall short of the appropriate standard. If students are not provided with the necessary support to improve their linguistic and academic literacy, staff may feel compelled to take the pragmatic approach advocated by Int01, and simply turn a blind eye to falling standards and even academic misconduct.

2. Clear definitions and explicit procedural guidelines

Interviewees spent considerable time attempting to distinguish between deliberate and unintentional plagiarism. Clearly, as Carroll (2003, p. 12) states, “definitions matter and agreeing to a good one is harder than you think”. What emerged from the data was the need for academics from a range of positions and disciplines to spend time discussing and formulating workable definitions, and then communicating these to both faculty and students.

A definition however, is only the beginning. With the exception of Int06 (arguably the most experienced person in the sample, in terms of following plagiarism policy to the highest level), all respondents (including Int01 who refused to engage with the policy) expressed the need for clear procedural guidelines. Carroll’s reasons for not pursuing plagiarism (2003, p. 6) were corroborated by the interviewees, with time it takes to pursue a case at the top of the list. A step-by-step guide, beginning with the first suspicion of plagiarism through to the Appeals committee, needs to be provided to staff during their first semester induction.

3. Adequate training, staff development and support to staff

Both Devlin (2003) and Carroll (2003) highlight the need to provide adequate training to staff once a university policy has been developed. However, as Int13 stated, staff development requires more than an understanding of plagiarism policy. Inherent to the process of reducing student plagiarism is the need for academics to have training and support in designing curriculum and assessment. Qualified instructional designers, working respectfully and collaboratively with academics, could facilitate improved curriculum and reduce the opportunities for students to plagiarise.

Most importantly, in addition to induction and training, those academics who identify cases of plagiarism must be supported, encouraged and guided by their supervisors and heads of departments. This was a key theme to emerge from those respondents who had actively followed their institution’s plagiarism policy, but who felt that their efforts were undermined by senior staff with a different agenda. Even more disturbing were the experiences highlighted by Int09 and Int11, both of whom had been admonished by their supervisors and told that their continuing vigilance would be regarded negatively.

4. Recognition of workload and stress issues for staff involved in pursuing cases of plagiarism

A key theme to emerge from the data was the need to recognise the workload inherent in pursuing a suspected case of plagiarism. As those who had followed their own institution’s policies reported, completing the necessary paperwork and attending the numerous meetings associated with a plagiarism case required many hours of

(unrecognised) work, which one respondent likened to “torture”. Furthermore, Int09, a respondent who had scrupulously followed his own institution’s policy, was skeptical that he would ever succeed in implementing fair penalties for deliberate plagiarism, because of his belief that there would always a technical detail on which the student could appeal (and win). This sense of powerlessness led to high levels of stress for Int06, Int09 and Int11, who intimated that they were constantly doing battle, not with plagiarising students, but with their own institutions.

Another type of stress, which largely goes unrecognised as an occupational health and safety issue, was the anxiety experienced by staff members who were concerned about their students’ situations. Respondents spoke about the student behaviour they had witnessed, which included crying, pleading and emotional entreaties. However, as noted by Int06, throughout the inquiry and appeals process students receive advocacy but the staff are not protected. If pursuing a case of plagiarism takes upwards of 20 hours of unrecognised work, causes the staff member to feel anxious or intimidated and results in an inconsequential penalty for the student, it is little wonder that some staff are reluctant to follow up suspicions of plagiarism.

5. Academic staff need to be involved during the appeals process

Finally, the data suggests that students who deliberately plagiarise will ultimately not be penalised if they appeal (and according to the audit at Int06’s institution, appeals are made almost exclusively by international, fee-paying students). Interviewees with experience of the appeals process agreed unanimously that it was at this level that policy failed, largely because the staff member making the charge of plagiarism had little or no input. It was noted by respondents (particularly Int06, Int10, Int09 and Int11) that the fee-paying status of the student has a direct impact on the outcome of the appeals process. This perspective is supported by Pyvis (2002) (and the Senate Committee Enquiry 2001 cited in Pyvis), who is openly critical of university governance processes that enable senior staff (such as Deans or Registrars) to overturn academics’ decisions, largely for commercial reasons. It was generally agreed that the Appeals Committee to date has taken a student-oriented approach, being careful to allow advocacy for the student (including an interpreter where necessary), and access all pertinent information concerning the student’s personal circumstances.

Conclusion

Priest and Quaipe-Ryan (2004) blame the imperatives of commercialisation for the focus on cost-effectiveness, efficiency and market reach in Australian higher education, and call for educators to look critically at the culture of the university in which they work, and “identify...policies and practices that foster enchantment and those that stifle it” (p. 305). This research was an attempt to do just that by exploring how universities around Australia manage the issue of student plagiarism in the highly complex internationalized and commercialised environment of higher education in the new millennium.

What has emerged from this relatively small but representative sample, is that plagiarism policies in Australian universities have undergone a radical overhaul in the last three years or so, and are now largely well developed, and generally culturally sensitive. The findings indicate that lecturers working with international students conscientiously try to balance Australian academic standards with recognition of students’ diverse cultural and learning backgrounds. However, according to seven of the fourteen respondents in this research, these efforts are too often undermined by a system that has at the heart of its internationalisation a short-sighted commitment to filling funding shortfalls.

With international students comprising up to 50% of many Australian university courses, all respondents spoke openly of the need for a genuine understanding of international students' learning needs and the concomitant resources and infrastructure to support them. All respondents agreed that international ESL students are more likely to be accused of plagiarism, largely because second language writing makes plagiarism easier to identify. However, the research findings indicate that these fee-paying students are also more likely to have their penalties reduced on appeal than are local students, even for serious cases of deliberate academic misconduct. The data indicates that the commercialised imperative of internationalisation is one factor that hinders the effective and equitable implementation of plagiarism policies across the higher education sector. The first response to the recommendations of this paper needs to be for universities to reclaim their traditional role as places of research, teaching and learning rather than as profit-making businesses.

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Appendix: Interview Questions

1. Have you personally had any involvement with cases of plagiarism at your institution? Please provide details and/or examples.
2. In your professional role, are you satisfied with the institution's *policy* regarding plagiarism? Please provide details and/or examples.
3. In your professional role, are you satisfied that the institution *consistently follows its own policy* in relation to plagiarism? Please provide details and/or examples.
4. In your experience, are international ESL students more likely to be accused of plagiarism than local students? Why/why not?
5. Do you perceive any differences between the way that your institution deals with international and local students regarding plagiarism?
6. In an ideal world, would you have any suggestions for improving the institution's policy and/or processes in relation to plagiarism?
7. In your opinion, are there any special considerations that need to be given to international students in relation to plagiarism?
8. How might these considerations be incorporated into policy/processes?
9. Any other comments?

INTEGRITY IN PLANNING POSTGRADUATE CURRICULUM: Developing research degrees in writing that work

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Abstract:

This paper outlines a possible program for postgraduate research degrees in creative and professional writing with the aim of generating further debate on the topic. Such postgraduate programs, this paper suggests, may provide a framework for not only the timely completion of research candidates' theses, but also for a broader education of students, including in professional and vocational areas. Other benefits include the potential to reduce anxiety for candidates and, by promoting a more collaborative, "community of practice" teaching and learning environment, the facilitation of a range of additional benefits for supervisors and the higher education institution as a whole.

This paper outlines a possible program for postgraduate research degrees in creative and professional writing with the aim of generating discussion on the topic. Such postgraduate programs may provide a framework for not only the timely completion of research candidates' theses, but also for a broader education of students, including in professional and vocational areas. Other benefits include the potential to reduce anxiety for candidates and, by promoting a more collaborative "community of practice" environment (as described in Lave and Wenger's theory of legitimate peripheral participation situated learning, 1991), the facilitation of a range of additional benefits for supervisors and the hosting higher education institution. This exploration is grounded in my own working context as a postgraduate supervisor, examiner and designer of degrees in writing since 1999, and particularly, in developing new research MA (Hons.) and PhD courses in writing this year for the School of English, Communication and Theatre at the University of New England. While taking into account a range of candidates including experienced researchers (who are often attracted to postgraduate study in writing) and those who progress at a relatively young age from undergraduate to postgraduate work, this paper will not consider professional doctorates or coursework programs including those with a research component or portfolio. My teaching practice is Australian, but the informing research for this paper includes material from the USA where the structure and purpose of postgraduate research degrees in writing are currently provoking lively discussion.

Although in the recent past research student enrolments largely determined funding, government support for such study currently relates directly to completion rates, as does the performance-based formula that determines the allocation of research places to institutions (AVCC, 2003, p. 16). Candidates' scholarships and other sources of funding are also now tied to specific time frames, while successful completions enhance supervisors' promotion prospects. Without arguing the case for, or against, whether the allocations of time to complete these degrees are adequate (or even realistic) or if, given such timelines, already overloaded academic staff can offer sufficient supervision, current economic and other pressures dictate that postgraduate candidates complete their work within the required time. In the process of developing new research degrees in writing, however, I found that while an aim of assisting research students and their supervisors to meet the necessary goals in the available time was central, considering the wider purpose of such degrees and what the research students I have known, or supervised, wanted from their experience could not be ignored.

The professions into which postgraduate students of writing will move upon completion of their degrees was a major motivating factor behind this thinking, and is an issue which has been of concern to writing program coordinators in the US for some time. In 1997 the MLA Committee on Professional Employment drew attention to the “disparity between the expectations ... that most graduate programs inculcate in their PhD candidates and the actual work most of those candidates will do” (p. 23). Commenting also about the US, Radavich (1999) found “no profession for which an MFA or PhD in creative writing provides direct training” (p. 112), but the situation is little different in Australia: students complete these, as many other postgraduate, degrees with advanced competency in areas in which there are few career opportunities – writers in a world in which few can survive on their creative work alone (Throsby & Hollister, 2003) and highly-specialised practice-based researchers seeking entry into an academy with not only a small number of entry-level permanent or tenure-track vacancies, but which increasingly offers contract and/or casual positions (AVCC, 2005). Although the motivations for undertaking research degrees in writing vary, I have not encountered a single candidate who did not want to achieve publication of their final work in some form and then pursue a career as a writer and/or work in a related professional sphere such as publishing, academia, teaching or the creative industries including in arts administration. In such a climate, I believe the only way of offering such research degrees with integrity is to recognise the necessity of assisting students to enhance their future opportunities as an integral component of their candidatures.

Moving beyond perceiving the successfully completed thesis or dissertation as the sole outcome can, moreover, assist candidates and staff to work together towards a set of outcomes that benefit not only students, but also the teaching staff and other personnel involved. Of course, the candidate’s work will be original and their own, but the learning process to that end can be one of Lave and Wenger’s “co-participation” (1991, p. 13) where both supervisors and candidates are “co-learners” (p. 15). The Australian Vice-Chancellors’ Committee’s “Guidelines for maintaining and monitoring academic quality and standards in higher degrees” (hereafter, AVCC Guidelines) in their December 2002 policy statement, *Universities and their students: principles for the provision of education by Australian universities*, offer some direction about shared responsibility:

Research training at a university involves the active participation of both staff and students. The responsibility to ensure that it is conducted in the most efficient and effective manner is shared by all parties: the university, its academic units and staff, and the students, all have obligations to each other. (p. 19)

Co-participant co-learning can, however, move well past this sense to real joint cooperation and provides a useful model for the sometimes-problematic relationship between writing student and teacher at the postgraduate level. Dibble and van Loon (2004) characterise this complex and, at times, awkward relationship as a “three-legged race”, acknowledging that “[w]here it is most exhilarating is when they become equal partners with different learning and production goals” (n.p.). Nightingale (2005) has even suggested that the term “advising” be utilised in preference to “supervising” as the latter term implies an unequal power relationship. But equality between partners is not a necessary part of productive collaborative work (Brien & Brady, 2003) with a recent study suggesting the most successful postgraduate supervisory relationships are those in which the obvious power differentials are openly acknowledged (Neumann, 2003, p. 139). I would add, “but valued equally” (Winer & Ray, 1994, p. 25), as in the apprenticeship systems discussed by Lave and Wenger.

While research students may, for instance, leap-frog their supervisors in terms of content-related knowledge during the candidature, supervisors continue to have much to offer candidates at a time when these students

are attempting to join scholarly and/or professional communities as entry-level members. Postgraduate writing supervisors, for example, usually have personal and/or professional relationships with some or all of the following: publishers, printers, editors, agents, manuscript assessors, journalists and other members of the media, translators, indexers, multimedia producers and bookshop owners, as well as individuals in a range of positions in arts administration from their local writing centres to funding bodies and politicians. Supervisors are usually also experienced undergraduate instructors, conference participants and job applicants, as well as writers of peer-reviewed, professional and mass circulation articles, grant and other funding applications and published creative works. They are also often seasoned performers at festivals and other public airings of their own work, editors and publishers of others' texts, and members of peer review and other expert panels. This substantial list is certainly not exhaustive, but includes much experience and expert knowledge that many postgraduate students of writing would like to gain throughout their candidatures. Most of this more future-relevant knowledge is not, however, examinable, and therefore, the sharing of such information and experience is not seen as a necessary part of many postgraduate research degrees in writing. The lengthy AVCC Guidelines (2002), indeed, mention the candidate's future only once – the final of supervisors' ten responsibilities that of "providing career advice and assistance as appropriate" (p. 21).

Given that many higher degree students already feel under pressure to complete their theses in the available time (Elphinstone & Schweitzer, 1998), it may validly be asked how a research program can realistically include any of the above, however worthy. The central rationale underlying the program outlined below is that everything required of the candidate relates to his/her final thesis and/or any employment (paid or otherwise) the student is already undertaking (or plans to undertake), so that all requirements directly assist the timely completion of that thesis while enhancing each graduand's portfolio of professional skills, achievements and knowledge. Many of us know, anecdotally, that busy people are often the most productive, but the suggestion that a wide range of activities is associated with higher levels of accomplishment is also supported by well-known studies that show involvement in a wide range of projects, activities and hobbies relating directly to scientists attaining more significant outputs in their scientific work (Finkelstein, Scott & Franke, 1981; Root-Bernstein, Bernstein & Garnier, 1995).

Outline of a possible program for a research PhD in writing

Many Australian universities, faculties and disciplines provide only a brief (and often generic) statement of the standard and/or type of work a research degree in the creative arts requires students to complete. This is understandable on one level, as there is no mention of curriculum in the AVCC Guidelines (2002). However, it is also accepted that a clear understanding of what is expected of students and academic staff, at whatever stage of their university careers, is a basic contributor to learning and teaching success (see, for example, Ramsden, 2003; Toohey, 1999) although this is not always taken up in practice, even in undergraduate courses. I believe, therefore, that at the very minimum, a postgraduate program should include an unambiguously expressed inventory of responsibilities, hurdles, milestones and the quantity and quality of work required by students, their supervisors and other staff involved, although I have not attempted this in the following brief outline.

As an added bonus, any program (if clearly expressed) will provide an opportunity to minimise one source of anxiety commonly experienced by higher degree students. Although there is research that maintains a manageable level of stress is motivational and productive (University of Cambridge, 2004), it is also commonly accepted that excessive stress (however one perceives this) is destructive. A formal statement of exactly what is expected, and when, from students and all those involved in their learning can do much to help create an environment where successful learning and teaching can occur.

Although the ultimate outcome of this program is the externally-examined thesis, a progressive program of formative assessment urges candidates towards completion in a structured manner while encouraging the accumulation of professionally-focused skills and experiences. As, under time pressure, many students will strategically focus their energies on assessed work, these formative tasks are “milestone” or “hurdle” requirements. That is, students cannot progress beyond that stage of the course until the requirements are successfully completed. While some of the below elements are already elective or compulsory components of research degrees in writing at a number of universities, this combination and its mandatory progression stages is unique. Due to space constraints the below focuses on the PhD, but I have a corresponding program of progression for a MA (Hons.) program in writing as well as part-time students in both degrees.

Three commencing PhD students have expressed interest in undertaking such a program from the beginning of 2006, forming a valuable case study and a basis for future evaluation and refinement. The students and I have discussed the pilot nature of this program and have agreed to progressive reshaping as necessary.

Introduction to Postgraduate Study Module

This module outlines the responsibilities of all those involved in each candidature. Course administration, assessment tasks, supervision arrangements and reporting procedures are discussed and negotiated, as are the roles of candidates, supervisors and other staff. Candidates and supervisors jointly determine a set of milestones for the production and giving a workshop of the thesis and begin to discuss possible components of the Professional practice module (detailed below). Candidates will also receive the detailed guidelines by which their theses will be examined, and agree on responsibility for tracking any changes in these. Although this sounds obvious, many candidates and supervisors in the relatively new creative arts disciplinary areas have experienced the regrettable situation of having examination guidelines only developed when a thesis was ready to be examined, or finding that guidelines had changed significantly since they enrolled.

Writing students often unrealistically expect their supervisors to be therapists, personal writing mentors, close editors and/or agents. Although Lepore and Smyth (2002) show how writing can be therapeutic in the hands of the psychologist, such curative skills are highly specialised and lie outside those which can reasonably be expected of the writing supervisor. Similarly, although Krauth and Baranay (2002) have identified some students as strongly motivated to apply to work with a famed writer primarily because they are seeking the “focused experience” provided by mentorships outside the academy (n.p.), most supervisors are not willing to engage in such an intensive process over the life of a postgraduate degree. This module stresses that postgraduate degrees are structured, formal programs of research and writing, and how a range of feedback and support mechanisms are an integral part of the program.

Confirmation of candidature seminar and report

Confirmation of candidature should be completed within the first semester of candidature. At a one-hour seminar, candidates present a statement of their research question, description of methodology to be employed, plan of the research program for the remainder of the candidature, ethics clearances obtained, work already completed, and answer questions regarding their project and progress. This material should be produced by candidates in association with their supervisors and student peer group (see below). Candidates also prepare a written report including a literature review and completion timeline. The seminar should be open to the university community and the public, and presented before a review panel selected with a view to their ability

to offer useful feedback. The purpose of the seminar and report is to provide a forum, relatively early in the candidature, for candidates to present thought-through statements of their projects and work plans to an audience, gain experience in presenting their research in public, and receive detailed formative feedback on the above.

Research paper and thesis workshops

At least once a year, each candidate produces a paper for the academic area's regular postgraduate research seminar, research conference or equivalence. This paper should contribute to the final thesis as well as being suitable for external conference delivery and publication in a peer-reviewed journal. In preparation for this presentation, a workshop is held in which the papers are critiqued by candidates' peers, at which time all supervisors present can also offer comments. If required, there can also be a workshop on presentation and public speaking strategies and techniques. In the same manner there will be regular workshops by peers/supervisors on other components of the candidate's thesis.

This process delivers a range of benefits. The candidate has a progressive series of production deadlines to meet and a wide range of feedback to help improve and refine this work (which is an integral part of his/her thesis), while workshop participants learn assessment and editing skills of wide use in scholarly and industry contexts as well as in their own work. These workshops also set up, and encourage the maintenance of, invaluable peer support groupings, while supervisors see each candidate in the context of the larger postgraduate cohort, have the opportunity to offer their expert knowledge to a range of candidates and, by meeting regularly, can readily share supervision strategies and other information.

Research paper delivery and submission for peer-reviewed publication

The delivery of research papers should mirror the practice of academic and professional conferences with formal panels of presenters, question time, public audiences and a firm deadline for written paper submission following delivery. To these submissions, candidates append a list of at least 2 conferences and 3 peer-reviewed publications for which the paper is suitable, with contact addresses and submission guidelines. This paper will be returned with suggestions for improvement and recommendations for the most suitable conference and publication submission. Following this process, candidates submit at least 2 papers for peer-reviewed publication during their candidature. While this submission is the hurdle requirement, students whose work is not accepted will be urged to seek publication elsewhere. The benefits of publication for candidates and institutions in terms of research output are obvious, but other elements – such as the psychological boost successful candidates will gain and the increased knowledge of a range of publication and conference possibilities for supervisors – are more subtle. The above-noted benefits of feedback and networking for candidates and supervisors also apply but, for the vast majority of writing students who want to publish their final work with a mainstream or academic publisher, and continue to work and develop as a writer, building a CV of publications in their area of expertise is essential.

Professional practice module

This module can comprise an internship, study elsewhere in the institution and/or research in a professional area. Two elements are important here: that the learning/work in this module enhances candidates' prospects upon graduation while also providing research and/or other material for their theses. The main goal is to focus the effort candidates are already expending on thinking (and worrying) about their futures into their postgraduate working schedules. The benefits for undergraduate students of internships or otherwise gaining professional

knowledge are persuasively argued (Tovey, 2001) but such knowledge and experience is often of even more relevance to postgraduate students in writing. As well as gaining resume-improving experience, pinpointing transferable skills gained through education and other work, and gaining organisational/institutional knowledge that can only be accessed in the workplace, interns have access to industry-based contacts and knowledge which not only directly increases their publication and/or employment prospects but is also valued (and rewarded) by universities and funding bodies. The workplace benefits from the accumulated skills, maturity, advanced education level and cutting-edge knowledge of the postgraduate intern, and gains access to university staff and other students in programs in its professional area. Supervisors make (or maintain) industry contacts and gain up-to-the-minute knowledge of a range of professional contexts, while also increasing their access to possible future guest lecturers, research partners, consultancy work and other opportunities, while the institution benefits by meeting strategic goals in the areas of professional/industry linkages and the enhancement of work-readiness in their graduates. Dual recruitment pathways are also formed whereby the intern may progress to more lasting work arrangements with a particular workplace, and individuals from that workplace may be attracted to study at the intern's university because of their personal contact with the intern.

Supervisors and their higher education institution's career advisors will help candidates identify the professional areas for which they are most suited and qualified. Just how the professional experience, learning and research from these experiences are incorporated into theses will involve students, supervisors and the other individuals involved in collaborative, and sometimes lateral, creative thinking processes. A student who wants to work in publishing, for instance, could complete a study of some aspect of the industry involving an internship (perhaps regarding the possible market for, or genre of, their creative work) the results of which would then become incorporated into his/her thesis. Others may want to set up a small business as a literary consultant, manuscript assessor, editor, indexer or agent and would benefit from taking units in the Business and/or Law areas and mining information from these experiences for their theses. The student presentations detailed above could be combined into conference-type events, assisting with which would provide candidates with hands-on experience (which could be supported with other study) in professional areas such as events management, professional writing, marketing and publicity. Many postgraduate students fulfill casual teaching roles at their universities with little, or no, discipline-specific training (Ritter, 2001), and such a module could provide teaching mentorships or other professional teacher training through the institution's infrastructure. Arts administration attracts many graduates from writing programs and a honing of skills and increasing networks in this professional area will benefit these candidates. All writers aspiring to publication benefit from gaining a working knowledge of the publishing industry and building industry-based networks.

Conclusion

While this program proactively takes responsibility for assisting with the timely completion of the final thesis while helping prepare candidates for their futures, it also complies with Delors' (1996) stipulation that beyond "providing a skilled workforce ... [b]ringing out the talents and aptitudes latent in everyone fulfils ... the fundamentally humanist mission of education" (p. 80). Mezirow (1991) suggests transformation is one of the foundational dimensions of adult learning, whereby more mature learners reflectively transform their "beliefs, attitudes, opinions, and emotional reactions" (p. 223) but while such transformation is usually discussed in terms of student cohorts, the above outline suggests that the postgraduate experience can be transformational for all involved in the process. In such a postgraduate degree structure, everyone involved teaches, and learns from, each other and, at its most productive, this experience will be positively transformational for all involved.

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STUDENT PERCEPTIONS OF THE EDUCATIONAL QUALITY PROVIDED BY DIFFERENT DELIVERY MODES

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Abstract

Increasing technology use is dramatically changing the way that education is produced and delivered, raising questions about the extent to which education should be technology-based or technology-supported, the effect of delivery mode on educational outcomes, and whether bricks and mortar universities can and should continue to flourish. A service orientation was adopted for the study, and our students, as consumers, were asked to discuss (online) their perspectives on the future of on-campus programs. Content analysis was performed on 118 scripts. A strong belief was found that on-campus programs will always be necessary. This was true even of students who were currently studying online due to practical considerations related to their lifestyles. Content analysis of their responses identified eight themes that were important in assessing the relative merits of online as opposed to on-campus delivery. Key reasons for retaining on-campus education included the need for interaction to enhance the effectiveness of different teaching methods in some courses, and the extra dimension added by face-to-face interactions with fellow students. Students believe that the trend to increasing electronic delivery in most tertiary courses will provide them with more options and choices, but that fully online educational institutions may suffer from a credibility problem.

Introduction

Rapidly increasing use of technology to deliver more of the educational experience creates a challenge for universities. They must deliver quality education in an equitable way to students who access it by diverse modes. Quality education reflects the integrity of the university as a service provider. Indeed, one of the major roles of quality monitoring is to ensure the integrity of higher education (Harvey, 2002). Given this context, we interpret educational integrity broadly. We argue that educational integrity requires a dual perspective and should focus on the actions and responses of both students and providers. It should give assurance that educational objectives will be met, and the manner of meeting them will reflect the honesty and reliability of the university. Using online technologies for teaching and learning may change the ability of the university to deliver its promises. That is, the quality of the service provided to students may reflect a different reality to that which is expected, and one which detracts from the integrity of the university. We commence our discussion by considering the reasons that have been suggested for the increasing use of online delivery of education, and then consider how this change has been reported to impact on both students and universities.

Increase in online delivery

Trends in the delivery of education reflect broad developments in industry. Increasing technology use is dramatically changing the consumer interface in services. Online delivery is becoming increasingly common in both business and higher education institutions, and is important in the marketplace for training, retraining and pursuing advanced degrees (Anstine & Skidmore, 2005; Smith & Rupp, 2004). Consequently, many education encounters are shifting from “low-tech, high-touch” to “high-tech, low-touch” with staff being removed from them and students accessing the service at a time and location of their own choice (Bitner, Brown & Meuter, 2000). Almost a decade ago, Ives and Jarvenpaa (1996) suggested that the need of students to interact physically with each other and with a teacher will decrease as electronic spaces begin to supplant

physical spaces. This trend raises questions about the extent to which education should be technology-based or technology-supported, and whether bricks and mortar universities will retain the enduring physical presence that they have demonstrated in the past (Ives & Jarvenpaa, 1996).

The development and use of online courses in recent years has been influenced by the advantages that technology provides with respect to flexible learning and potential cost savings (Scheines, Leinhardt, Smith & Cho, 2005). Online business education provides a means of increasing access and meeting the demands of a growing and demographically changing student population (Smith & Rupp, 2004). It often produces a better fit with the lifestyles of students and faculty members when compared to traditional courses, with advantages including lowered costs, convenience, security, flexibility, and the ability to ignore time differences and geographic distance (Ives & Jarvenpaa, 1996). However, universities are using online programs not only for student flexibility, but also to achieve efficiency and productivity gains, and the implications of increasing technology use are complex and diverse. Referring to online service environments, O'Neill, Wright and Fitz (2001, p. 402) stated that [while] "Often viewed as a means of improving operational efficiency and the service delivery mechanism, this move from extremely "high touch" to "high tech" service has obvious ramifications far and beyond bottom-line calculations." We are interested in the manner in which online and face-to-face, once different markets, are now merging and, in particular, what this means for students and universities of the future.

What does the increase in online delivery mean for students?

While education is a complex service industry with many stakeholders, its overall objective is clear. In the words of Zhu and McFarland (2005, p. 72) "learning is the ultimate goal of the education experience... Assurance of learning requires us to adjust our thinking from an internal model of curriculum development to an external model of learning effectiveness and education accountability". With this focus in mind, in this section we consider student learning outcomes, the learning environment and the quality of the educational experience.

Despite considerable interest and many studies, conflicting findings continue to emerge about how online course delivery compares to traditional forms with respect to objective measures of student learning (Scheines et al., 2005). In their investigation of online business education for professionals, Smith and Rupp (2004) found that online courses produced higher grades than traditional classroom courses. Similarly, in a series of experiments involving more than 600 students, Scheines et al. (2005) found that students who replaced lectures with online modules did as well, and usually better, than those who attended lectures, independent of their lecturer, tutor and gender. Other scholars support "no significant difference" (Finlay, Desmet & Evans, 2004) or find the online environment substantially less effective (Anstine & Skidmore, 2005). In a study in which they compared students' attitudes to online and face-to-face delivery, Finlay et al. (2004) found that students in the online environment expressed higher levels of satisfaction and participation but there was no significant difference in outcomes with respect to their self-reported critical thinking. Another issue contributing to the debate is that methodological differences exist between studies, restricting their generalisability and interpretation. For example, Finlay et al. (2004) noted that the literature mainly uses asynchronous instruction and few studies compare online (synchronous) with face-to-face delivery.

As universities continue to adopt online technologies, we need to understand the environment so that good learning outcomes are ensured. This means addressing questions of the quality of experiences for students. However, online quality is unclear and elusive. Barbera (2004, p. 13) stated "The promise of distance education

through virtual environments being able to provide high quality education has yet to be realized.” Barbera’s argument is based on education that enhances true student interaction and in which development and support staff are required. In their study, Scheines et al. (2005) attributed students’ success in the online version of their course to frequent voluntary engagement with interactive comprehension checks, made possible by technology but difficult in traditional, passive lecture situations. Finlay et al. (2004) concluded that both the technology and the instructor matter, stating that effective student interaction in their study arose because instructors managed the virtual environment well. Overall, scholars appear to support the view of Maki and Maki (2003) that it is the design and pedagogy, not the computerized delivery, which produces differences favouring web-based courses.

Learning outcomes are not only inextricably tied to the quality of the learning environment, but they also depend on the student’s ability to adapt and learn within that environment. For example, Scheines et al. (2005) gave students the opportunity to print online modules, which meant that interactive material and comprehension checks were removed. They found that students who printed material tended not to return to the interactive environment and their performance in final exams suffered accordingly. These authors conclude that “We need to build online environments that support students, not only with content and interactivity, but also in how they are using the environment itself (p. 22).”

Although students need to learn how to use the online environment effectively, it can produce high-quality experiences for them, which are not always available in face-to-face situations. Smith and Rupp (2004) claim that, when compared with traditional classrooms, distance education has more scope to build collaborative relationships, and develop global thinking and creativity in problem-solving, and strong team-building. They also allege that rich discussion online can draw out the quiet person much more efficiently than face-to-face situations. It is clear that many scholars believe that technology offers the opportunity to change learning to an active pursuit, to give immediate and frequent feedback to learners, and maintain a high level of participation and engagement in a group. Hence, we question where online technology is likely to lead education, and what the future role of the bricks-and-mortar university will be.

What does the increase in online delivery mean for universities?

Some scholars paint a challenging, if not gloomy, path ahead for universities. Teichler (2001) cites the rapid spread of new technologies as one of three major challenges facing higher education. He believes that this challenge will lead to rapid turnover of knowledge, changes in learning behaviours and competencies of students, and possible shifts in the role of the teacher in higher education towards advisory and feedback activities. Further, Teichler (2001) suggests that greater technology use may reflect increasing pressure for standardisation of knowledge, a stiff pecking order between institutions according to their roles, and a cost explosion in higher education.

The potential cost explosion seems likely to be accompanied by greater competition. Ives and Jarvenpaa (1996) stated that business schools and universities face considerable competitive pressure from private providers, such as publishers and software houses, who can develop multimedia products to be delivered on a self-serve and just-in-time basis. Ives and Jarvenpaa (1996, p. 34) suggested that “the emerging electronic infrastructure will require that the business education establishment make radical changes. Implementing a radical change, in turn, requires a shared vision of the future of business education.” This study explores where the current trend to online delivery is likely to lead our institution and why. We have adopted a service orientation and asked consumers, our students, for their perspective.

Aims of the study

1. To explore students' views on the future of on-campus delivery, and consequently
2. To identify students' perceptions of the educational quality provided by different delivery modes.

Methodology

In keeping with its exploratory nature, a qualitative design was adopted for the study (Creswell, 1994). Two different cohorts of tertiary students studying at the University of Newcastle were asked to respond to the question "As the possibilities widen for electronic delivery of education, will there still be a place for on-campus programs?" Data were collected online via discussion forums.

The first cohort consisted of second year, on-campus undergraduate students studying either Information Systems or Business ($n=40$; 50%). Students attended one two-hour lecture and one one-hour tutorial each week and participated in online discussion forums (via Blackboard). Five of the 40 respondents contributed to the discussion twice. The second cohort consisted of postgraduate students studying various postgraduate management or information technology degrees, predominantly MBA and MIT ($n=59$; 45%). Students in this group were situated all over the world and all interaction was by electronic discussion forums and e-mail. Of the 59 respondents, 52 contributed to the discussion only once while the other seven students contributed two to five times.

Content analysis of the qualitative data was performed in accordance with the recommendations of Miles and Huberman (1994). It consisted of the three major steps: data reduction, data display, and conclusion drawing/verification. The data reduction step involved content coding the text to identify and label what participants talked about. This step was performed by two of the authors working independently. They read the 118 scripts, generated a list of topics and then all three authors met, compared the lists, and agreed on themes (clusters of topics) and their definitions. Data were displayed according to the themes (Table 1). Frequency counts of the number of times each topic was mentioned were used to obtain a sense of the relative strength of the themes. The third step, conclusion drawing and verification, involved interpreting the meaning of the data and testing its plausibility by revisiting the transcripts to confirm the conclusions in their original context.

Results and discussion

Students' responses to the question "As the possibilities widen for electronic delivery of education, will there still be a place for on-campus programs?" suggested that they believe that on-campus programs will always be necessary. However, their comments were invariably qualified by reference to specific areas. To clarify these areas, data were content analysed and summarised as outlined above. Eight major themes were identified from 41 topics that were discussed. Table 1 provides a summary of the themes, their description and typical comments, arranged in order of the relative strength of the themes.

As a means of interpreting the data, the Services Marketing Pyramid is used. This pyramid was originally conceived as a triangle, with the three vertices representing the organisation, employees and customers, and marketing priorities shown between each pair. Subsequent work by Parasuraman (1996, cited in Bitner et al., 2000) extended the triangle to a pyramid with technology as the fourth vertex. Adapting the pyramid to the education context provides a model which facilitates greater understanding of the complex interrelationships between the university, students, staff and technology. In this context, the service model requires attention to

three major marketing systems: the external promises made to students and society; the interactive systems between students and staff which help turn promises into reality, and the internal processes which enable staff to deliver the promised product. Together these systems constitute a whole which, ideally, ensures that the quality of service reflects the integrity of the university. Figure 1 shows this interpretation and positions the major themes identified in the study on the pyramid, and in accordance with students' responses. Below, the themes are further discussed:

The University

Staff

Students

Technology

External marketing (promises)

Internal marketing (enabling employees)

Interactive marketing (promises to reality)

A – Learning support

D – Reputation and image

B – Personal needs

C – Physical presence

Major interacting relationships in the study:

A Relationships between Students, Staff and Technology

(Themes: 1 Teaching methods; and 5 Learning environment)

B Relationships between Students and Technology

(Themes: 2 Practical considerations; 6 Cost; and 8 Individual characteristics)

C Relationships between Students and the University

(Themes: 3 Social aspects; and 7 Facilities)

D Relationships between Students, the University and Technology

(Themes: 4 Credibility).

Table 1. Summary of themes emerging from the content analysis

Theme (Strength*)	Description	Typical comments
1. Teaching methods (23%)	The effectiveness of different teaching and learning methods	Face-to-face necessary for quality education; face-to-face lecturers must add value to slides; on-campus more interesting; face-to-face discussion quicker, more vibrant, more thorough; perception of lower quality on-line
2. Practical	Practical considerations important to students including flexibility, work, travel, family and time	Difficulty in getting to a classroom; online good for those with families; online more flexible; would prefer face-to-face but pragmatic choice is online
3. Social aspects (14%)	Social interaction and engagement not associated with specific academic outcomes	Build networks for the future; online don't know others in class; discussions in the bar with fellow students are part of the learning experience
4. Credibility (11%)	Overall perception of quality, and the benefit of building on traditions and past values	On-campus and online are complementary forms of education; established bricks and mortar existence gives credibility to online offerings; interaction between bricks and mortar and community [is important]
5. Learning environment (9%)	Learning support in terms of the intellectual environment that facilitates outcomes such as participation and collaborative learning	On-campus students stimulate each other; exposure to different points of view; on-campus better for development of teamwork; tutorials most valuable aspect of on-campus
6. Cost (9%)	Students' perceptions of cost and value	Danger of university education becoming too expensive for masses; fees for online should be lower because fewer uni resources are used; perception that online delivery is cheaper for uni than on-campus; students want value for money
7. Facilities (8%)	Learning support in terms of the facilities provided and the physical environment	On-campus necessary for hands-on, practical work; campus provides resources that students couldn't buy; size limits on physical institutions
8. Individual characteristics (6%)	The demographics, characteristics and attitudes of students, including their judgments about what suits them	Online requires self-discipline; online requires motivation; students have different learning styles; bricks and mortar unis are in comfort zone; mature students OK online; on-campus best for undergraduates

* Based on the proportion of total comments

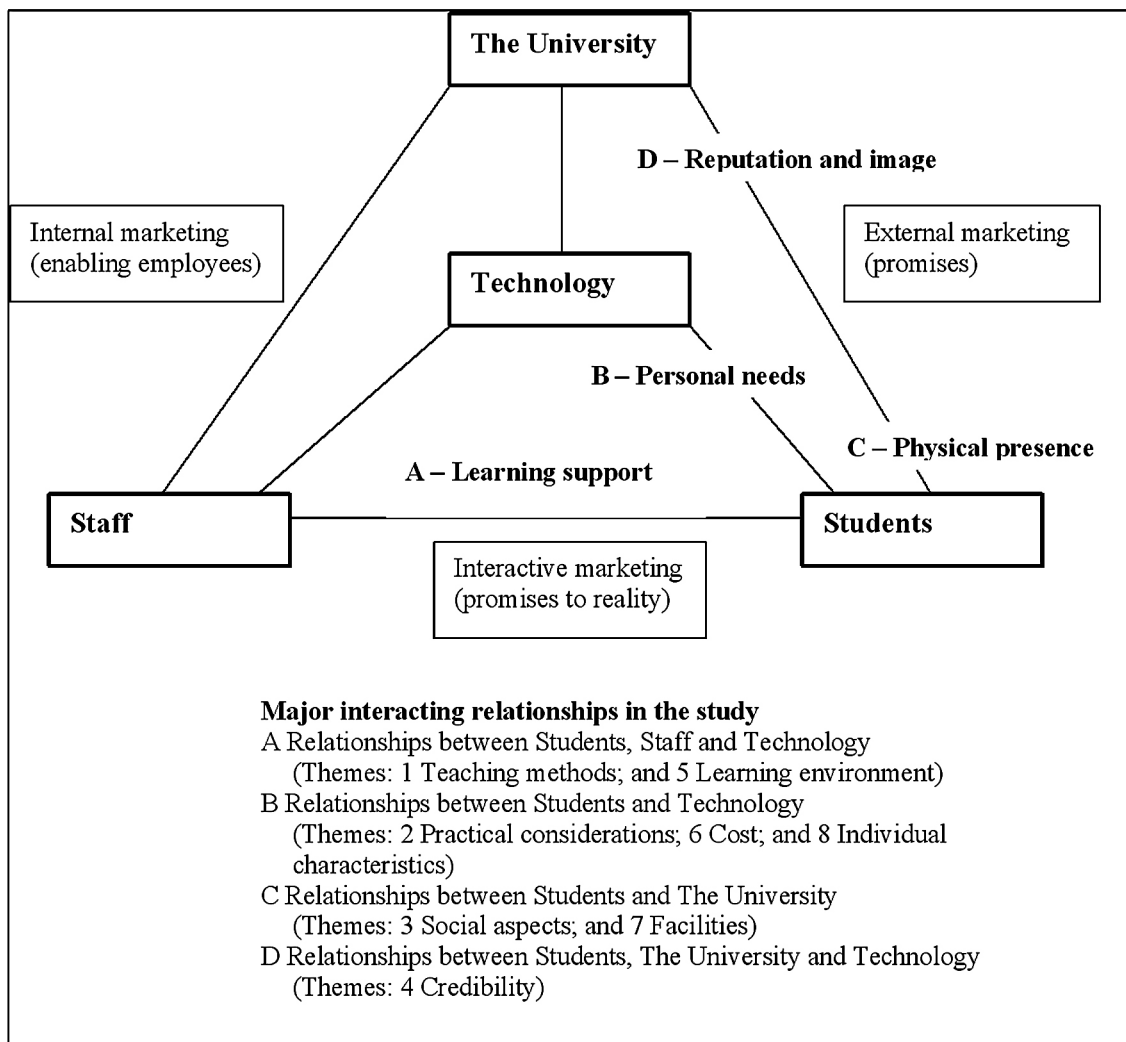


Figure 1 Interpretation of the themes using the Services Marketing Pyramid (developed from Bitner et al., 2000)

Learning support for students

Interactions between students, staff and technology (area A in Figure 1) were reflected in Teaching Methods, the strongest theme, and the closely related theme, Learning Environment. Note that percentages quoted are as a percentage of references to sub-themes; student scripts each contained an average of 2 sub-theme references.

Teaching Methods

There was strong feeling (15%), particularly among the undergraduate class, that certain aspects of education, to be effective, require face-to-face interaction; however, they would choose tutorials over lectures as the best face-to-face teaching mode, and generally see little value in lectures if the lecturer doesn't add value beyond reading out the lecture slides. The online postgraduate group was particularly aware that hands-on experience is difficult to provide online. Undergraduates suggested a number of areas in which face-to-face interaction was of benefit, for instance, developing oral communication and presentation skills; developing team skills; making it easier to get alternative explanations of difficult concepts; enabling discussions to be quicker, more vibrant,

more thorough, whereas written discussion is slower, and more laborious (but does give more opportunity for critical thought prior to contributing); in stimulating interest and getting students in the right frame of mind for learning. There were relatively fewer contributions from the postgraduate class, possibly because they had already mastered some of the skills that undergraduates were aware of needing to develop. There were comments from both groups that no single teaching delivery method would suit all topics and all situations.

The Learning Environment

This theme was also concerned with learning support for students. Postgraduates studying online seemed far more aware of the limitations of the online mode. They suggested that on-campus students stimulate each other more directly, and have better opportunities for development of oral presentation skills and teamwork skills. There was a suggestion that tutorials are the most valuable form of on-campus interaction. However, online delivery was seen to have some advantages including forcing improvement of written communication skills, allowing longer consideration of contributions to discussions, and potential exposure to a wider variety of different points of view when students are drawn from all over the world.

Students' personal needs and preferences

Interactions between students and the technology (link B in Figure 1) emerged with respect to three themes: Practical Considerations, Cost, and Individual Characteristics. These are considered in turn.

Practical Considerations

Both groups recognised that online study options can solve problems that would otherwise prevent them studying at all; not surprisingly, the group of students who were already studying online mentioned practical issues more often than the on-campus group (14% of total comments compared to 6%). Most commonly cited advantages of the online mode were geographic separation from a suitable source of education, the need for a flexible timetable, work commitments, family commitments, and time constraints. Two disadvantages of the online mode were also mentioned: the necessity for the student to provide and maintain his or her own equipment, and the difficulty of dealing with distractions at home (undergraduates). Some postgraduates commented that they now could work effectively at home. These comments partly explain why students choose online approaches, but not what constitutes an effective online experience for them.

Cost

Students commented on the high cost of university education in general and the need to obtain value. They speculated on the relative costs of development and delivery of online courses as opposed to on campus, including noting that the university provides fewer physical resources (e.g. computers, lecture theatres) to online students.

Individual Characteristics

The postgraduate students felt quite strongly (7% of postgraduate comments) that they would not have had the self-discipline and motivation to study successfully online when they were undergraduates. There was almost no mention of these two characteristics by the current undergraduates but, as noted above, this group was concerned about distractions at home – an interesting indication that at least some postgraduates have learned that distractions can be overcome by the development of self-discipline.

Physical resources and presence

The third strongest theme was concerned with students' feelings about the importance of social interaction,

achieved by being on-campus. This theme is considered in terms of the interactions between students and the university with respect to the physical environment and its implications (link C in Figure 1). Thus, we discuss facilities in this section as well.

Social aspects

Both groups commented on the greater opportunity, when on-campus, for social interaction and engagement that is not associated with specific academic outcomes. However, the online postgraduate students were notably regretful of their reduced opportunities to develop interpersonal skills through informal social interactions with fellow students. They also commented on their reduced opportunities to develop networks that would be useful in their future careers. Clearly they would support the suggestion by Smith and Rupp (2004, p. 102) that “The social dynamics of online and distance education demand that these emotional bonds of group support and trust be treated as a serious topic for future research.”

Facilities

Like social aspects, this theme was more an issue in the minds of the postgraduate students already studying online. They were very conscious of the unsuitability of some topics as online offerings: “How do geology students learn how to identify minerals or rocks, or complete field mapping?”

Reputation and image of the university

Interactions between students, the university and technology, with respect to tradition and quality emerged as a clear theme of importance (area D in Figure 1). We have labelled it credibility.

Credibility

The majority of comments on this theme came from the online group. A common theme was that there is generally a negative perception of online education. Many students (7% of comments) felt that there is a value associated with tradition, and the place that a university has established in a community; it was felt that students in an entirely online university would be unlikely to develop a sense of belonging, or a definable university community and tradition. Stakeholders, including students, look for signs of prestige – for instance, age is often seen as an indicator of standing. Students suggested that online courses offered by an established bricks and mortar institution are likely to have more credibility than those from an entirely online organisation. Some students pointed out that the online mode benefits from the long standing acceptance of distance education programs, and can be a considerable improvement on traditional distance education because it adds the facility for interactive discussion between all participants. Students felt strongly that no matter what the delivery method, universities should be focusing on providing an education, and opportunities for personal development, rather than on vocational training, and should not be driven by commercial pressures.

Conclusion

The current study suffers from some limitations. For example, the question was very open and failure by a group to raise some issues may simply have been that they didn’t happen to occur to anyone. Additionally, the process of discussion was not taken into account, and it is unclear whether the first person in the discussion “set the tone” and inadvertently limited the direction of subsequent discussion. A further limitation of the study was that the students who participated were all studying towards vocationally oriented degrees; further work will be necessary to clarify whether students from different academic disciplines (e.g. the humanities) share their views. However, the findings from these two cohorts indicate a strong belief that on-campus

programs will always be necessary. This was true even of students who were currently studying online due to practical considerations related to their lifestyles. Key reasons included the need for interaction to enhance the effectiveness of different teaching methods in some courses, and the extra dimension added by face-to-face interactions with instructors and fellow students.

Students qualified their support for the importance of face-to-face interaction by indicating that poor face-to-face delivery of material is no better, and possibly worse, than online delivery. Support was strong for some online delivery, again qualified by recognition that certain teaching activities are hard to do well online, and are therefore often done badly. It seems that students would generally agree with Barbera (2004, p. 13) "The promise of distance education through virtual environments being able to provide high quality education has yet to be realized." Barbera suggests that virtual education environments are failing to meet the promises made because they focus on technological and aesthetic criteria over educational criteria, and they confuse supply of information with knowledge-building processes. Students' comments indicated that they believe that supply of information online is the easy part; developing deep understanding via online interaction is much harder.

Overall, students believe that the trend to increasing electronic delivery in most tertiary courses will provide them with more options and choices, and that a "clicks and mortar" strategy will allow best advantage to be taken of the strengths of each mode. In the present study many students indicated that they want learning and they also value social engagement and development. Academic achievement may be the ultimate, necessary goal but the question emerges about the extent to which it is sufficient. Educational integrity must ensure that all educational objectives are met, and will be reflected in the manner by which they are met. We have interpreted integrity in terms of the honesty and reliability of the provider. This means that the university must have the systems in place to deliver its service product in accordance with its image and reputation, and its specific promises to students. To do so, we need to understand the relationships that influence students' experiences and then fulfil our obligation to ensure that our people have the resources and expertise to deliver accordingly. Our study suggests that increasing the use of electronic delivery raises issues of service quality, access to learning support, and equity of educational outcomes. To keep our own educational integrity intact, we need to identify our goals in applying technology and ensure that we monitor and act upon our students' responses. At the end of the day they are our primary ambassadors.

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INSTITUTIONAL CHANGE TO DETER STUDENT PLAGIARISM: What seems essential to a holistic approach?

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Abstract

To date, there has been little published research relating to institutional practice on student plagiarism and no comparative data available of the effectiveness of either current or newly-developed holistic approaches to the problem. This paper outlines a study conducted to examine the motivators for change in dealing with plagiarism in 9 UK academic institutions and the lessons that might be learned from their experiences. All of the institutions surveyed had revised, or attempted to revise their approach to plagiarism in the preceding five years. Where respondents viewed the changes in the approach as effective and integrated in the institution, a common factor was the presence of enthusiasts willing to put energy into implementing and embedding the new approach. The endorsement of senior management in the institution was also a crucial factor in the successful adoption of the revised approach. The nature of the events, which triggered recognition of the need for change within the institutions, were disparate, but were frequently used by the architects of the new approach to maintain momentum for the process. Amongst the recommendations for institutions considering adoption of similar approaches to plagiarism, foremost was the considerable time needed to revise existing policies and procedures and a plea to put pedagogy at the heart of all changes in approach. Finally, this study highlighted that whilst it was possible to adopt a holistic approach to student plagiarism further evaluation is necessary before the effects of the approach are fully appreciated.

Background

The literature on student cheating, including that on plagiarism, has grown substantially post-2000. Interested individuals have no difficulty finding descriptions of the problem or the characteristics of plagiarists; nor would they need to look far for suggestions for dealing with the issue. Authoritative advice is available in academic journals and a number of specialist conferences have been devoted to the topic (including the one for which we have written this paper). The guidance available is becoming ever more specific and as research on the topic develops, contributions are moving beyond advice and suggestion to investigation of the effectiveness of the suggested remedies (Culwin, 2005; Ahearn, 2005).

Much of the available literature concentrates on actions and issues at the level of students and teachers, whereas published research at the level of institutional practice is noticeably harder to find. Yet the two are clearly connected. Simon et al (2003) state that they could find “little attention on the possible connection between organisational characteristics and the efforts made by faculty to deter student academic ethics violations” (p.193). A search for institutional-level investigations elicits general guidance on institutional issues connected to student plagiarism (see, for example, Walker, 1998; Carroll & Appleton, 2001; Carroll, 2002; Larkham & Manns, 2002; Longstaff, Ross & Henderson 2003; Carroll, 2004; Pickard, 2005). Park (2003) produced an often-cited literature review on student plagiarism that concludes,

“There is a growing need for UK institutions to develop cohesive frameworks for dealing with student plagiarism that are based on prevention supported by robust detection and penalty systems that are transparent and applied consistently.” (p. 484)

Addressing this gap in 2004, Park described his own institution's changes to policy and procedures to accommodate the changing nature and frequency of plagiarism cases. He offers the example as "...a contribution to the emerging national [i.e. UK] debate ... to save others from having to invent the same wheel" (p.304). In 2005, in the same spirit, the *Plagiarism Advisory Service* produced a document they call *The Road Map* (2005) which describes the actions required for dealing effectively with student plagiarism at an institutional level. The Road Map lists 83 actions and suggested interventions, a seemingly daunting range of requirements on tertiary education institutions, which are already facing a well-documented number of changes and challenges.

It is the authors' belief that plagiarism is a complex issue that requires a complex response and we have argued elsewhere for a holistic approach to tackling the problem (see Macdonald and Carroll, in press). Whilst the holistic approach advocated is widely accepted in the literature and gave rise to the publication of the Road Map, the opposite view is still held by many practitioners. We, the authors, regularly encounter those who describe a limited number of causes (e.g. "it's all because of the web" or "it's because we have lowered our admission standards") and an equally straightforward solution (e.g. "Give them a lecture on avoiding plagiarism" or "We should go back to 100% examination-based assessment"). The holistic approach, on the other hand, requires consideration and implementation of a range of activities such as those described in the Road Map.

We embarked on the study described in this paper to discover whether specific institutions employed a holistic approach already and could confirm the appropriateness of the Road Map's suggested multi-layered approach. We wondered what triggered the change(s) (if any) in institutional policies and procedures where institutions had begun to adopt approaches like that advocated by the Road Map. What lessons might be learned from institutions already embarked on the "journey" to effective management of student plagiarism to avoid Park's "reinvention of the wheel"? Finally, we wondered whether the literature on change management, which suggests that certain actions are necessary for achieving successful institutional change, was relevant in this instance. For example, Proctor & Doukakis (2003) note the importance of early involvement of staff, effective communication and creating a "readiness for change" (p. 275). Did these elements appear in the experience of institutions attempting to deal with their students' plagiarism? By documenting practice, we hoped to be able to offer informed guidance to institutions about to embark on the development of institutional policies and procedures designed to deter and deal with student plagiarism.

Methodology

We were interested in changes over the last five years because this coincides with the growing number of factors, e.g. access to electronic resources, increasing class sizes, decreasing contact time with students and an increasingly diverse student population, that are said to account for the rising number, nature and variety of cases.

We, therefore, approached institutions where we were either aware that changes had been made in their policies and procedures in this timescale, or, in the case of institutions that had been involved in the pilot projects for the JISC electronic plagiarism detection software (Chester, 2001), conducted to gauge the suitability and relevance of access to institution-wide plagiarism detection software, and, therefore, where we anticipated that changes had occurred. We acknowledge the inherent bias in the data collected during the study, however, as the focus of the study was on gathering information about actual changes and lessons learned the selection of respondents can be justified on this basis.

Initially, we contacted 13 potential respondents by letter or e-mail, and follow-up e-mails and telephone calls were made to individuals who did not respond to the initial request. In a number of cases the request was passed

on several times before reaching the appropriate person. We were seeking an interviewee with wide knowledge of the institution and sufficient seniority to be able to describe what and, more importantly, why things had happened. All but one of the participants matched this description. Positive responses were received from 10 individuals and a further two respondents, from one institution, were identified through personal contact with one of the authors.

Two potential interviewees were unable to schedule interviews in the time available, therefore, 10 interviews were eventually conducted with participants representing nine institutions.

Interviews were conducted by phone and face-to-face, using a semi-structured interview plan of 16 questions (Appendix 1). Respondents were assured of anonymity, thus, details that would enable identification of participants have been removed from all quotes in this paper. Interviews lasted between 40 minutes and an hour and all were completed during July, 2005. Transcriptions of the interviews were inspected for common themes and responses compiled for each group of questions.

The interview results

Nature of the institutional change

Eight of the 10 respondents stated there had been significant changes in the way their institution managed plagiarism over the last five years; one said changes were partial and incomplete and one did not cite actions beyond attempts to change others' views on plagiarism, so far apparently unsuccessfully. The chart below lists institutions by number, which were allocated randomly but consistently throughout this paper. Quotations from interviews are followed with the same institutional number in square brackets [], again used consistently through the paper.

Questions 4, 5 and 6 asked about the nature of changes made in the previous five years. All interviewees could name specific changes though these varied between institutions:

Table 1. Institutional changes

	1	2*	3	4	5	6	7	8	9	10
Revise policy	x	x	x	x	x	x	x	x	x	x
Set up a working group				x	x	x		x	x	
New written info for students		x	x	x	x	x	x	x		
New teaching activities						x	x			
New info for staff			x			x	x	x		
Internal survey and/or pedagogic research	x	x		x		x	x	x	x	
Adopting specialist officers / conduct officers	x	x		x		x	x	x	x	x
Revision of punishments	x			x			x	x	x	
Central record kept						x	x	x	x	

* These changes do not apply to the whole university as yet and are described by the interviewee as partial and incomplete.

** There was a change in one school, which "appears to have been very successful" and extension to the whole university is planned.

Trigger events for institutional change

Questions 7 and 8 asked interviewees what triggered the changes in how the institution managed student plagiarism. Questions 9 and 10 asked the three participant institutions who had participated in the 2001 pilot project that provided access to Turnitin text-matching software about the impact of participation. Respondents mentioned a range of events that prompted change.

Table 2. Trigger Event

	1	2	3	4	5	6	7	8	9	10
“nothing specific”, general concern				x	x					x
Awareness of inconsistency	x							x	x	
Research or survey to document one aspect of the problem	x	x		x	x			x		
Input from an external “expert”	x						x			
Complaints from students	x	x								
Participation in JISC pilot			x							
One “keen” person encouraging change	x		x	x			x		x	
Concern about workload under current procedures					x					
Specific request from someone more senior than interviewee					x	x		x	x	
One poorly-handled case	x							x		

Many, especially those who had been active for most of the previous five years, could see the direct connection between the “trigger” event and subsequent change and had little difficulty generating a “story” in answer to this question:

Back in 2002, we knew this bad case was coming so it encouraged us to think about it and we did an initial year of tinkering with assessment regulations then we had xx in and we started a review and built the new regulations in 2003/4 that came into effect in 4/5. In some ways, it was perfectly timed because we had seen the case coming forward. It was messy. There was recognition that we really don’t want to be in this position again and how do we avoid it? [1]

Five years ago, we saw it [plagiarism] as rare and as something that happened to other people. I had a case and felt it was not handled properly. I was unsupported and the student was unsupported. We were just reactive – when it happened. Now the changes are sort of woven into the fabric of the place. [7]

None suggested that participating in the JISC study was instrumental in subsequent activities though one said:

...it had a profound effect on our reputation as an example of good policy and for me to be known around the area and the [institution] to get the kudos. [3]

This is not to say that the introduction of TurnitinUK nationally was not useful – four institutions which were not in the pilot had planned to introduce or had already adopted TurnitinUK and those who had done so stressed its usefulness as part of the overall approach. However, the early participants seemed to remain

isolated within the institution and were not encouraged to take further action once the project ceased.

Problems encountered when making changes

Questions 11-13 asked interviewees about any problems encountered during the changes made to deal with student plagiarism and what, if anything, had been done to resolve them. Four could not identify any general difficulties though they often described the apparent lack alongside anticipatory efforts to deter them:

It went relatively smoothly and I think people are happy with what we were proposing to do [1]

I have not been aware of any difficulties. We did work quite hard on publicity and making sure that Course Organisers and Convenors were aware what was happening. It's the perennial problem of getting information out....it really seems to have gone quite well. [4]

No problems. It's been very smooth because everyone was in the same place in their thinking about dealing with the problem. [7]

I think we didn't have problems because we had a university-wide working group and we made sure that people who needed to be there were on it and we took external advice and we ensured both academics and admin people were represented. We consulted and consulted and did more internal research and fed that evidence in so evidence was always at the centre. The results were evidence based. [8]

Others described a mixed picture:

There are always muttering from staff, and they still have to get the student in to hear a case no matter what they do. They complain they have to give the student the evidence before the meeting, which I think is just as it should be. They didn't have to do that in the past. They still, in a lot of cases, want to deal with it at school level even though it's not allowed. [5]

No problems with the introduction of Faculty Academic Conduct Officers but I suspect that formalising procedures has made it more difficult for lecturers to deal with cases of poor academic practice rather than outright cheating. [10]

A range of other difficulties were mentioned, listed below in order of frequency:

Four respondents mentioned difficulties with ensuring the newly-created specialist role, variously named as Conduct or Misconduct Officer, appointed in all cases to increase the student's chances of being treated consistently.

Three mentioned variation between the way lecturers saw the issue of plagiarism as a problem as well as their general wariness of the policy changes.

Two referred to dissatisfaction amongst lecturers relating to their perception of penalties as too lenient and colleagues finding the procedures were still too onerous despite the redesign to make them less so.

Other issues raised individually included:

- Schools continuing to manage cases under the old regulations rather than using the new ones which included use of a specialist officer
- Changes being localised and partially applied
- Having to re-write the code of practice several times
- Not using Turnitin or having its use supported by the institution
- Disinterest from senior management
- Blocking by senior management
- Handling poor academic practice cases.

Evaluation of the impact of changes

When asked about evaluation (Q14), many cited efforts to monitor, review and track the effects. Some efforts offered as evaluation are more accurately aimed at quality enhancement.

Table 3. Monitoring and review activity

	2	3	4	5	6	7	8	9	10
Monitoring of statistics on individual cases		p			p	x	x	x	
Adapting in response to suggestions			x				x	x	
Monitoring specialist officers'/panel decisions	x					x		x	
Regular meetings with all specialist officers/panels	x		x			x	x	x	
Working group continuing to meet and discuss	x		p	x					
Submission of reviews or reports to university committees	x				p	x		x	
Commission of studies in response to monitoring data already in hand					p		x	p	
Activity to enhance the changes									
Briefing and inducting of specialist officers			x		x			x	x
Recording suggestions for future revisions				x					
Requiring school-based induction of students			x						
Soliciting informal e-mails from all staff as a reality check						x			

p = planned

Several of the institutions were described as still being in the first year of the range of changes they had implemented so evidence of impact remained anecdotal or anticipated. Others with longer experience cited monitoring and review activities as above but these apparently did not result in data. In two cases, local research was planned: in one case, to identify whether the perception that international students were being caught more frequently was correct and if so, whether this was because they plagiarised more or for some other reason; in a second case, the interviewee was speaking after the first year of the new specialist officer system, noting:

We have lots of qualitative data and some quantitative data, lots of positive responses about the changes but I'm not sure yet whether we have consistency between schools. Of course, no one worried about that before, consistency, but now we can show trends so what are they? Is it

fair? Is it fair to international students? We need to publish our stats so people don't just use the grapevine and I need to write a report for some committee somewhere I think. [6]

One, responding to question 14 on evaluation of impact, described how an idea arose from the annual meeting of the Academic Conduct Officers.

...to have a new cover sheet for submitted worka set of tick boxes for the various items that come up again and again [in plagiarism interviews]. That students are doing that they shouldn't. So the reminder is not just hidden away in a handbook or in some regulation but is there in front of them every time they hand in their work. Have you given credit for all the diagrams? Tick. Have you referenced properly? Tick. That sort of things, ten items. We [ACOs] can put this out as good practice. It's not mandatory but we do have considerable clout in saying things like look, this is what you really should do. [4]

Advice to others contemplating institutional changes

The final question (Q. 16) asked for advice to anyone contemplating institutional changes. Many positive comments made during interviews were not reiterated as "advice". None suggested **not** following their approach and most said something similar to the view expressed by [4]: *I would certainly recommend going down the sort of route we have taken*. Much of the advice was common across the interviews and is summarised below (number of respondents in brackets).

- (5) Spend considerable time on revising the policy itself. *"both rigorous and flexible which sounds like a contradiction but isn't"*. [1]
- (5) Put pedagogy at the centre of your thinking.

There's a danger of too much focus on punishment. Now, teachers are starting to trust the process and they can answer questions with "yes" from external examiners about "do you do this?", "do you do that?". [7]

- (5) Convene a group, and use the group to seek ownership of the changes across the institution._
- (4) Ensure the process is iterative,
- Other suggestions included:

Go for a bottom-up approach where you build from the needs of individual teachers. [7]

Make sure whatever you learn along the way gets fed into university committees and decisions.

[1]

Train your students. Make sure they know how to use academic conventions. [4]

Explain to staff how much evidence they need to construct a case. How much is enough. [5]

Discussion

The interviews showed that adopting a holistic approach to deterring student plagiarism was possible and that where it seemed to be happening, was seen as very desirable by those interviewed. Several of the institutions contacted were clear that their own case illustrated the holistic approach and one used the word without prompting to describe their efforts. Institutions adopting a holistic approach were undertaking some but in no instances, all of the actions advocated by the Plagiarism Advisory Service Road Map. This seems to confirm the appropriateness of this document.

We then tried to identify factors common to institutions which had implemented successful change (Q's 7 & 8). The first and most obvious was the presence of enthusiasts willing to put energy into the change and support others to do so. These enthusiasts were even more effective if they identified and documented issues and above all, if they could influence future actions.

It just happened that when I was Associate Dean, I did a survey in science and engineering to find out how plagiarism was being handled. It was a feeling cases were not being handled in a fair way so I decided that I would find out. I made the results known to [the Dean] and she spotted this as an opportunity to take it forward [4]

It's because of that person [the Academic Conduct officers' co-ordinator] that it works as well as it does and that it has a direct impact. Without her, the system just wouldn't work and without me [an Associate Dean] it would work lots less well. [7]

Enthusiasts without data and access to power was not sufficient. A second crucial factor seemed to be ensuring that senior managers and official decision-making channels were involved, either as instigators or, if a bottom-up approach was used, as endorsers of others' actions.

Well, after that incident [a poorly managed case] I started talking to people and it went on for three years. I nearly always met with support but there was no action. I was seen as personally obsessed – I ran workshops, responded to requests for help, I talked to anybody who would listen but they couldn't change things. But then the Registrar was replaced by someone new and the new one saw it was an issue. By then I had an idea of what to do and briefed her. She got the lawyers to make it a formal policy and it went to Senate for approval. It was College policy. Usually these things are top-down but this was bottom up and people are with me. They stop me everywhere I go and suggest things and I show them activities they can do with their students. That's not happened here before, I think. People own it I think. Now we have a new Learning and teaching Director, too, and she is interested and she is advocating research and bringing externals in and making sure there is some pedagogy behind the process but the issue is still getting beyond the converted. I e-mail everyone once a year about their experiences and get loads of responses. Opinion and facts and it's clear they are not all [following the new procedures]. [7]

We worked together as ACOs for three years then in 2004, the Dean of Learning and Teaching was brought in as group co-ordinator and made sure the ACOs wrote annual reports for their schools. He published an overall review that went to committees and the senior executive. Then they started to take notice. [9]

Where this link with decision-makers was missing or where the support did not engender strategic action, there was frustration and discouragement, even if the trigger event was identified:

We are rolling out a whole new policy and procedures [describes the problems that prompted this] and there's apathy. They [lecturers] say "we barely have enough time to do our jobs and now this". We piloted the detection service and have academic conduct officers because staff were overwhelmed by the amount of time it took but the role is not defined. Unfortunately it

hasn't worked because the wrong people were appointed or just, told, "You are it". Pushed rather than volunteered. So they didn't come to the training. We have to work on that and re-appoint and last week, we sent another reminder out to ACOs to remind them of their role and to come to another awareness-raising session in August. It's not working as well as I would have liked but we are addressing the issue, which we weren't a year ago. [2]

A third factor that seemed significant was the multi-faceted nature of the change. Whilst statements like that above demonstrate the effort involved in changing many aspects of practice and policy at the same time, the effort was nevertheless seen as worthwhile. In contrast, institutions implementing a small number of single-focus actions viewed the process as a struggle. All respondents in answer to Q. 11 about difficulties could cite them but in two cases, participants said the problems were sufficient to stop change. One of the two spoke only of revised regulations and one interviewee's efforts seemed isolated from the rest of the institution, describing his work as "*not integrated into the main college system*"[3]. This was a surprising development: not only was the holistic approach desirable, but respondents who did not operate within a wide-spread and generalised pattern of change perceived the institution as not successfully adapting to the issue of student plagiarism. Others, operating within a more holistic approach, acknowledged that there were threats to the overall changes made. In three cases, respondents mentioned too strong an emphasis on punishment rather than pedagogy and one said "*apathy*" [2] was a threat. However, change continued.

A fourth factor that emerged from reviewing transcripts was the importance of local research and documentation. The effort to record and confirm local circumstances was frequently mentioned as significant, even where local data replicated findings published elsewhere. Local studies were often cited as a "trigger event" for starting the whole process and where they occurred along the way, as key elements in keeping up the momentum and ensuring the wider institution "bought in" to the changes. Like publicity for local studies, one-off events such as a badly-handled or a particularly "messy" case could be instrumental, but only if the experience of handling the case was shared with a wide range of influential people, or set in train a personal willingness to advocate for change. The interviewee who was most dissatisfied with the institution's approach describes a badly-handled case that hardened rather than shifted others' views about change.

A final factor that seemed important in stimulating and maintaining a holistic approach was identifying and using developments as they occurred. One spoke proudly of reducing the regulations from 15 pages to seven regulations, adding, "*We really have done a big job on that.*" [4] One enjoyed the external publicity of becoming a national spokesman for colleges such as his own. Another described the adoption of a new cover sheet for student work. These unexpected spin-offs appeared to encourage momentum and bolster the interviewees' energy.

Conclusion

This study shows that, not only is it possible to have holistic change in an institution but that without the holistic approach, change does not happen and often, leaves those trying to encourage it frustrated. Those considering whether or not to embark on a similar "journey" can be reassured that the Plagiarism Advisory Service Road Map identifies actions which have proven to be effective in some institutions over the previous five years. No clear "trigger event" common to the institutions surveyed was identified so it would appear that any point in the Road Map would be equally appropriate for embarking on change as long as the intention was to ensure all or most of the suggested activities would be addressed. This is also a useful reminder for institutions contemplating introducing one aspect such as electronic detection software without addressing other aspects

of the need for careful consideration of the merits of a holistic approach.

The study also showed that holistic change, whilst possible, nevertheless proved challenging. Participants' experience suggests useful ways in which institutional change can be enhanced and momentum maintained. The factors that emerged are largely similar to those cited in the generic change management literature. In particular, it seems useful to:

- **Ensure institution-wide ownership** of the process by using whatever mechanism matches the local context. Often, this entails setting up a representative group to collect and discuss views and to inform and consult senior managers with perhaps one named as responsible for progress.
- **Nurture and support enthusiasts.** Plagiarism seems to be an area that attracts interest and draws in people with energy and value-driven commitment to students or fellow academics.
- **Commission and publicise local research and investigations.** These often confirm or encourage further development and should be widely communicated.
- **Provide additional resources** to support the change. Participants mentioned appointing specialist officers, introducing electronic detection software, hiring researchers, and taking issues to university committees for consideration.
- **Remain patient.** In all cases where holistic change was happening, respondents spoke in terms of years of effort. Changing something as complex as a university or college does not happen quickly.
- **Collect data** for evaluation and monitoring of the impact of changes.

Holistic change by its nature requires sustained, evidence-based activity by a number of individuals across the institution. In the case of deterring student plagiarism, future evaluation and monitoring of the effects of changes on staff and students will allow us to judge whether the holistic approach can have a positive impact on the students' experience as learners and on their behaviour. Those interviewed had not yet collected data to show the impact of their efforts. Further evidence is required before we can be assured that a holistic approach can enhance students' learning and change the amount and type of behaviours where they pass off others' work as their own, but the findings from this study suggest that most of the institutions surveyed are confident that they have at least made a considerable step towards that aim.

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Appendix 1

Interview plan for institutional change research

Brief introduction of researcher and research aims and reassurance that all responses provided will remain anonymous. Permission to record interview requested.

1. Request general outline of institution size, location and type.
2. General question about the individual's role and seniority in the institution.
3. General question about the institution's current policy and procedures for dealing with plagiarism and the mechanisms used to inform and evaluate student understanding.
4. Has the approach changed in the previous five years, and if not, request information about future plans?
5. If so, to what extent and in what form has the approach changed?
6. Are the changes applicable throughout the institution?
7. Was there a specific occurrence that highlighted the need for change in the institution?
8. If "no" to the above, who or what instigated the change process within the institution?
9. If the institution was involved in the JISC pilot projects, was this a factor in the changes made?
10. What effect, if any, did participating in the pilot project have in the institution?
11. What problems have there been in gaining acceptance of the changed approach?
12. How have these problems been resolved?
13. Have they been resolved?
14. What evaluation, if any, of the new structures have been / will be made?
15. Is there any record of the impact that the changes have had on staff/students?
16. What advice would you give to anyone contemplating a similar change within their own organisation?

ASSESSING THE COMMUNICATIONS AND TAKE-UP OF ACADEMIC VALUES, CODES AND CONVENTIONS:

An empirical study of a first-year unit for undergraduates

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Abstract

This paper reports an empirical study into the communications of academic values, codes and conventions within a foundation studies unit for undergraduates at a regional university. In this unit, one of the foci was teaching students about issues of plagiarism; assessing how students reflected upon and took up those ethics. The entire unit and its assessment tasks were conducted online. A cyclic process of action research involving a large cohort of first-year students, facilitated insights into value communications through student's material and discursive practices, and academic skills development over the semester. A preliminary qualitative analysis of students' communications within online assessment tasks and anonymous survey, as well as the value discourses articulated by students and staff, reveals most students were highly receptive to information on plagiarism and intent upon avoiding it through developing academic skills.

Introduction

Academic integrity is increasingly in the spotlight in contemporary western societies. In Australia, recent public concern about academic standards has been driven by media reports on "soft marking" of international fee-paying students' work and allegations of students buying examination papers; issues serious enough to warrant investigation by the Independent Commission Against Corruption (ICAC) (Thompson 2004; Kelly 2005). While these media reports raised public awareness of incidents of plagiarism and cheating, they merely added to a growing body of academic literature over the past decade which cites a growth in plagiarism (Walker 1998; Carroll 2002, p. 13; Marsden, Carroll & Neill 2005). Put simply, plagiarism can be defined as "passing off someone else's work, whether intentionally or unintentionally, as your own for your own benefit" (Carroll 2002, p. 9). Concerned with preserving their reputations and maintaining their enrolments in the competitive tertiary sector, universities have responded by refining their integrity policies and making explicit the penalties for plagiarists. They have also been pro-active in approaching plagiarism as a learning and communication problem and implementing foundation studies courses for first-year undergraduates as a counter-measure.

This paper reports on research conducted during one foundational first-year core unit *Learning and Communication*, at a regional university during the Unit's inaugural delivery in first semester 2005. Delivery involved a large student cohort (n=784) who represented multiple Schools across multiple campuses, including offshore, as well as external enrolments. The online learning environment was heavily utilised in an attempt to provide equitable learning opportunities for such a diverse student population. The assumption was that students enrolled in this foundational unit were novices and, therefore, unfamiliar with disciplinary skills and expectations. Unit designers sought to map a conceptual framework to facilitate students' understandings of academic integrity, and to provide ample learning opportunities in a requisite skills training program encompassing learning, research, critical thinking and communication. This paper will critically discuss the communications and take up of academic and ethical values within the Learning and Communication environment, identifying factors

that enhanced, and those that created noise in, the communications of students and staff. The focus will be upon students' communications within the context of online assessment tasks and anonymous survey feedback, as well as the value discourses articulated by students and staff within the learning environment.

Reviewing the prevalence of plagiarism

The abundance of literature produced in the United States on plagiarism suggests that students' cheating is a relatively common experience for tertiary educators (Walker 1998; Cizek 1999; Lathrop & Foss 2000). A typical example is a survey of 200 American business students which revealed that 80 per cent cheated regularly and 20 per cent had plagiarised (Walker 1998). Similar patterns have emerged in other western countries. In the United Kingdom, a review of undergraduate students' ethics in the mid-1990s revealed that 72 per cent had copied coursework, 66 per cent had plagiarised and 54 per cent falsified references (Franklyn-Stokes & Newstead 1995 cited in Carroll 2002, p. 12). A recent Australian study showed 81 per cent of undergraduates had plagiarised and 41 per cent acknowledged cheating in an examination (Marsden, Carroll & Neill 2005).

Multiple factors associated with rapid technological advances and structural changes are suggested as contributing to increased plagiarism. It has been linked to the advent of the Internet and the World Wide Web and the easy access students have to cut and paste the electronic work of others (Morgan, Dunn, Parry & O'Reilly 2004). Some theorists point to the significant rise in the number of overseas students studying in western countries and the differing cultural perceptions they may hold toward plagiarism (Hayes & Introna 2003). However, the incidence of plagiarism does not necessarily mean a decline in ethics; it may reflect a widespread deficit in learning and communication skills (see Carroll 2002; Briggs 2003). In today's user-pays system, many students have less time to study because they are busy working in order to finance their studies (Kember 1999; Darab 2005). Furthermore, the widening staff to student ratio also limits the time staff can spend discussing writing practices and dealing with students on an individual basis (O'Donaghue 1996).

Learning and Communication: pedagogy and structure

Online learning is acknowledged as being student-centred rather than teacher-focused (McLoughlin & Luca 2001). In this course, the online learning environment was utilised to facilitate experiential learning and help establish habits of ethical practice. Students were expected to participate in online tasks involving interactive tutorials, exercises, and quizzes mirroring the content of the unit – learning, research and communication. For example, students were directed to the university's online plagiarism policy and to activities in paraphrasing and referencing in relation to avoiding plagiarism. In the cyclic process of experiential learning, students were to critically reflect upon their learning, describe and document it in their learning portfolio so that they could use that understanding to inform the way they approached their next online activity (Gibbs 1992). As Schon (1987) explains, reflective practice involves understanding learning as an iterative process that entails both action and learning from that action. Moreover, Gibbs (1992) argues that experiential learning encourages a high level of involvement, which is likely to motivate students and raise awareness of their existing knowledge base.

In a bid to maintain motivation and encourage disciplinary skill development, assessment was integrated with students' performance of authentic tasks and the associated research processes (McLoughlin & Luca 2001). The tasks were authentic in two ways. Firstly, student responses were about their personal experience of each task and secondly, that experience was a real-life problem they faced in managing academic requirements.

For example, many students chose to talk about the difficulties they encountered in doing the paraphrasing activities and the strategies they had found useful in developing this skill.

Course resources included two prescribed textbooks (Baker, Barrett & Roberts, 2002, Summers & Smith 2004) and the print-based study guide (Darab & Phillips, 2005) which provided websites for relevant online activities and an alternative set of activities for students without Internet access. Students had a choice of one of three journal articles available for critical evaluation. These articles included a common focus upon cultural differences in relation to plagiarism (Hayes & Introna 2003), work/ life values (Dolan et al (2004), and cross-cultural differences in creativity (Westwood & Low 2003).

The three assessment tasks: (1) a report, (2) learning portfolio, and (3) critical evaluation of a journal article were customised to reduce the likelihood of plagiarism. Assessment tasks one and three were linked to the same journal article. In the first task, students reported on the research they had conducted in preparation for the third task of writing the critical evaluation essay. Both the progressive structure and individualised responses in the second assessment task, the learning portfolio, minimised the risk of plagiarism. Fail-grade assessments were double marked and resubmit opportunities offered in a first fail-grade assessment. Table one depicts only the referencing assessment criterion which was intended to encourage students to model ethical behaviour.

Table 1. Assessment Criteria Relevant to Referencing

Assessment Task	Final Weighting	Criterion Used
(1) Report	15%	<ul style="list-style-type: none"> • Correct referencing in-text and in reference list • The ability to integrate references with the discussion • Critical discussion of the credibility of selected references.
(2) Learning Portfolio	50%	<ul style="list-style-type: none"> • Correct referencing format in-text. • Precise referencing format in annotated bibliography.
(3) Critical Evaluation of Journal Article	35%	<ul style="list-style-type: none"> • Correct referencing in-text and in reference list • The ability to integrate references with the discussion • The ability to select relevant references.

Specifically, the Learning and Communication unit seeks to address the identified deficit in ethical values and disciplinary procedures at the first-year level. In providing such learning experiences, it was anticipated that staff members in other units would have to spend less time on these issues. The unit incorporates a time-management component and a heavy focus upon cultural differences and ethical issues both in course content and assessment.

Methodology

The iterative nature of *action research* made it the most appropriate methodology for this study. Action research methods allowed cycles for planning, acting, observing and critically reflecting upon initial curriculum design and impact of delivery (Smith, Thompson & Carter 1999; Dick 2002). The initial cycle of design and

development commenced in second semester 2004 as a cross-schools' initiative by the School of Commerce and Management and the School of Social Sciences. The design involved collaboration with an educational designer from the Teaching and Learning Centre and library staff, as well as ongoing support from Blackboard specialists in the Online Information Systems Team.

The unit was delivered across multiple Schools and campuses to 380 domestic distance students and 404 on-campus students and involved a staffing ratio of six and seven tutors, respectively. Table 2 provides details of on-campus students' locations and computer labs which commenced in week two of semester. For distance students, three six-hour computer labs were held at two NSW campuses on consecutive weekends and 48 students attended.

Table 2. On-Campus Students and Staff Location and Computer Labs

	NSW Main Campus	Satellite Campus A	Satellite Campus B	Victorian Campus	Overseas Campus	Total
On-Campus Students	129	122	68	29	56	404
On-Campus Staff	2	2	1	1	1	7
2-hour Computer Labs per week	6	6	6	6	6	30

This study represents the cycle involved in the delivery, observation and critical evaluation of the unit in first semester 2005. One strength of the action research methodology is that it facilitates the correction of obvious anomalies concomitant with delivery. However, it is in the current cycle of strategic planning that the unit designers have time to critically reflect on the delivery and to analyse student and teacher feedback and assessment outcomes. In this way, it is possible to develop strategies and further refine the curriculum to accord with the diversity of educational needs. The preliminary analysis focuses upon qualitative data gathered online during semester, which includes students' assessments as submitted for grading (coded as initials) and anonymous survey responses (coded as numerals), as well as markers' feedback.

Sampling Procedures

To get the broadest possible views of students in this unit, quota sampling was used to ensure each cohort was adequately represented. Three students were randomly chosen from each of the five possible grade categories (F,P,C,D,HD) for their first piece of assessment from each of seven tutors. Five of the tutors represented all the on-campus locations and two tutors represented the domestic distance students. Once a student was selected, their subsequent assessment items became part of a single data set. It is acknowledged that students may not go on to score a similar grade in their next assessment item. In total, 105 data sets were analysed.

In keeping with the spirit of qualitative research, the data were not quantifiable and the researcher was not intent upon hypothesis-testing. However, the researcher has provided rich, thick description in an attempt to capture the lived experience of the students and to enable replication of the study (Lincoln & Guba 1985). The students' responses are not assumed to provide an objective account of reality but rather to provide a snapshot of their learning experiences in one unit across one semester.

Discussion

This study sets out to examine learning about ethics at an introductory stage, which precludes making claims about the possibility, or endurance, of acquired values over the long-term. The following discussion centres upon student responses and receptivity to the ethical values and codes of conduct promoted in the Learning and Communication environment. Analysis focuses upon students' demonstrations of disciplinary skills in assessment tasks and the value discourses articulated by students and staff within the learning environment.

Performance in initial assessment task

The report was the first assignment task due in week 5. Around two-thirds of students chose the article on alienation and plagiarism (Hayes & Inrona 2003) to research for their later critical evaluation essay. The work/life values article (Dolan et al. 2004) attracted around 20 per cent of students, many of them business students who expressed interest in the "work ethic within the globalised environment". Among the remaining group of students, a number reported their choice on cross-cultural differences as being "close to the heart of the writer" (Westwood & Low 2003). In this task, students were engaging with ethical issues across academia, business, arts and social life.

With regard to the popularity of the plagiarism article, one student said:

This choice was based on three major factors, firstly, interest in the topic of plagiarism, secondly the written language used in the abstract was easy to comprehend, and thirdly the assumption that the writer could easily relate the points raised by Hayes N. et al. to current issues within Australian Universities (Jl:SS).

As well as identifying the value of a clearly written article, the student implies previous knowledge of plagiarism which will serve as a base for future learning. She conveys a sense of confidence in her capacity to apply the knowledge and complete the task. Conversely, most students chose the article as the starting point for learning:

The main reason for choosing this topic is because of Plagiarism. I never knew that copying other people's work was a serious offence. Now that I am aware, I want to do an in-depth research on it in order to know more about it so I can avoid it in my report writing or essay assignments (EE:VD).

Researching the article on plagiarism was identified as an avoidance strategy, an attempt to minimise an unexpected risk to study progression. Like this student, many claimed that plagiarism was a relatively new concept of direct and immediate relevance to them and that it was in their best interests to research it. What stood out was that even with little prior knowledge, most students were aware of plagiarism and concerned that it constituted a "serious" and immediate risk to be managed. One student at an overseas campus explained:

As this Institute experienced an increased number of students plagiarising last year resulting in a lot of awareness given by lecturers on the issue, I have decided to research the article titled "Alienation and Plagiarism"...which can be access online at www.lums.co.uk/publication (EE:CL).

It seemed that the message of plagiarism was circulating in multiple discourses across universities. Students and staff generally were keen to avoid it. However, this is not to suggest that all students were unaware of

plagiarism. For some students, the article simply represented the best choice in a limited range. In the later anonymous online survey, some students expressed a distinct preference for disciplinary-specific material. To quote one student: “while the report and essay were a valuable learning tool, I would have preferred to spend time researching a relevant topic for my major” (22028CH).

At this early stage, most students had yet to develop proficiency in referencing skills, particularly in-text, as can be seen in the above student quotes. However, there is abundant evidence in the reports that most students (around 85%) did attempt to reference their sources and support their arguments, drawing mostly from course resources and online library tutorials that had guided their research efforts. Most students were attempting to act in an ethical manner and markers praised their attempts, as well as offering detailed feedback. Around 10 per cent of students failed and an unusually high number (20%) declined the opportunity to resubmit. Students reasoned that a resubmit “was not worth the effort for a few extra marks”. It may be worthwhile to consider increasing the weighting of the task (15%). Such a step would better reflect the time demands involved and encourage the most at risk group of students to do the resubmit and further develop their skills.

There was a breach of conduct in this task. One case of plagiarism was reported. Two students submitted identical research reports, ironically, on the topic of plagiarism. With multiple markers and a large external student cohort, the duplication could easily have gone unnoticed but the students had the misfortune to be allocated to the same tutor. The case was addressed following university procedure. The reports were marked by the tutor and unit assessor, then referred to the Head of School who confirmed a zero grade and informed the students of their rights of appeal. As Briggs (2003) has noted, dealing with plagiarism is a time-consuming and joyless exercise which often ends up alienating students. This case was no exception: the students chose to withdraw from the unit.

Progressive development

In the Learning Portfolio task submitted in week 12, students reflected upon examples of their regular learning practice and demonstrated their increased capacity for research, critical discussion and referencing over the semester. Most students did well in this task, working through activities in all topics and developing higher-order cognitive skills. Their effort was reflected in their marks. Failure to complete each section of the task was the main reason for resubmit invitations, almost all of which were taken up in this heavily weighted task (50%). There were no reports of plagiarism. Markers reported students were referencing sources, though often incorrectly in this task, tending to include websites in-text instead of the author-date system. It was suggested that the large number of websites embedded in the study guide had served as a poor model for in-text referencing.

Student attempts to acquire ethical skills are visible in their reflections throughout the task but particularly strong in the research component. The following quote is exemplary of many students’ reflections at this stage:

I learnt in the following website www.library.ualberta.ca/guides/plagiarism/ the ethical issue...in the increase of internet researches that I have been doing I need to consider the cyber-plagiarism aspect of it because it is easy to commit this offence. The site made me think about my other assignment if I can truly say to myself that I didn’t plagiarise (JI:JT).

This reflection offers some support for Gibbs’ (1992) belief in experiential learning engaging students at a high level. The student does take a deep approach to learning. She is receptive to the plagiarism messages and

using higher order skills to apply them to her own practices and a task beyond the interactive tutorial. Like this student, many were working to grasp the complexities of referencing and citation. Another student reported

I feel I am still not 100% sure of how to reference an Author's work when it appears in a different Author's work. Do you put: such and such, such and such (John Smith, 2000. in John Doe 2004 pp 1)?? ...NB: I completed the My SCU library and general computer tutorials after I had typed this section. My concerns in the above sections had been resolved through information provided in these tutorials. I now feel competent in both situations (JL:KW).

The student was acting independently sourcing his own answers, confident in his capacity to use his referencing skills. Despite variation in the rates of skill development, at the end of this unit most students conveyed a similar sense of confidence in the online survey, claiming they had developed "a heap of skills" in this unit including "some good critical analysis and time management skills & I have a great understanding of plagiarism and referencing now" (26466U).

Dealing with ethical issues

There was insufficient time between the last two assessments to allow students to receive and incorporate markers' comments on incorrect referencing. Overall, most were consistent in referencing sources and to an appropriate standard so that plagiarism was no longer a concern. Apart from the inclusion of websites in-text, the most common problems were associated with style deviation: mixing style of brackets, commas, full-stops; using et al. instead of providing full authorship. These nuances in author-date disciplinary styles of different schools served to confuse and frustrate markers, as well as students, in this large scale unit.

However, there is ample evidence of value communications in the students' critical evaluations. Many were engaged in exploring and discussing ethical complexities beyond markers' expectations in this task. To examine both the content and the structure of the article, it was expected that students would use their research training and writing techniques to discern if the authors had stated the aim of the study, defined key concepts, backed up their arguments, used credible sources, provided clear tables and so forth. For example, it was anticipated that students would identify Hayes and Introna's (2003) failure to define the key concept of plagiarism. What was unexpected, however, was the large number of students who were highly-critical of Hayes and Introna's (2003) perceived failure to clearly articulate the link between ethics and plagiarism. International students studying in Australia were particularly scornful, as the following quote exemplifies:

Regard of definition of plagiarism, Hayes and Introna raised the argument about the root of plagiarism came from the culture confliction. They use survey and referencing from other literatures to support their points. They pointed out the reason of plagiarism, including English language problem, culture confliction and inability to complete the research. However, there is one very important reason about plagiarism that Hayes and Introna mention but not express much clearly. the root of plagiarism is ethic problem. The point about the reason of plagiarism that Hayes and Introna made in the article cannot explain why UK student also cheat... (SD:YY).

The student is taking a deep approach in questioning the assumptions of the research, making a strong counter-argument of significant personal relevance and offering a contribution to a broader ethical debate. The cultural difference focus, he says, distracts attention from the "the root" of what is an ethical problem. In general, research does not support the notion that cultural differences increase the likelihood of plagiarism among international student groups. International students are aware of rules about plagiarism from their own

country but, as can be seen in this study, a lack of formal English and disciplinary skills often hinder students' efforts to enact requirements (Carroll 2002). Domestic students were also sceptical about the value of Hayes and Introna's (2003) research. To quote one student:

Hayes and Introna (2003) have failed to mention that plagiarism is an immoral action in any field in the world. For example, Australia's best-selling author, Jessica Adams, has been accused of plagiarizing noted crime writer Agatha Christie...Her reputation and status are destroyed because she has been unethical. This cautions us that if we do plagiarise, it may not only destroy our study life, it will also destroy our future work prospects. (DN:WJ).

This student articulates a moral discourse that highlights the serious long-term risk plagiarism entails for students. She too cites the cross-cultural prevalence of plagiarism and the need to address it as an ethical dilemma if the risk is to be minimised for students. There are many examples in the students' critical evaluations of similar levels of student involvement and discussions of values in relation to business practice and research methods. The majority of students had developed competency in writing and referencing skills to pass this unit and to enact disciplinary requirements in future work. High resubmit offers at this stage of semester mostly involved students' failure to critique the article, choosing instead to write a well referenced essay on the topic. One case of plagiarism was detected and, again officially dealt with.

Conclusion

This study provided insights into value discourses, ideas, beliefs, and concerns in relation to students' learning progression over one semester. It cannot be inferred that raising awareness of ethics will result in students internalising these values as part of their own moral code. However, it can be argued that the level of academic skills students developed in this unit will equip them to be ethical in their academic practices, if they choose to enact them.

The communication of academic values within the learning environment can be seen in the students' progressive development in modelling ethical conduct and demonstrating academic skills within assessment tasks. The success of the communications may be gauged by students' strategic attempts to avoid plagiarism which included them using higher order skills to reshape their practices accordingly. The heavy focus in course and assessment content meant that students had to engage with ethical considerations to some extent. Many excelled and took a deep approach in investigating and analysing ethical concerns of direct personal interest. Students' receptivity to the communications of value discourses was high when the topic was of personal and direct relevance. Nonetheless, many students demonstrated preferences for discipline-specific material (both in their choice of the work ethics article and in survey comments) that are not easily addressed within the customised critical evaluation task. Tutors' limited reading time clearly prohibits expanding the range of discipline-specific articles. The current curriculum development cycle, however, does offer the opportunity to address the weaknesses in this unit that are identified in this paper.

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OBLIGATORY INTERTEXTUALITY AND PROSCRIBED PLAGIARISM: Intersections and contradictions for research writing¹

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Abstract:

The continuing difficulties at both individual and institutional levels in defining and consequently avoiding plagiarism indicate strongly that the issues are not as straightforward as they may sometimes appear. In this paper, I propose that a key factor underlying these difficulties is an overlap between the obligatory intertextual practices of academic communities and the proscription of plagiarism. The disjunction this produces must be accounted for in order to coherently integrate a more workable approach to plagiarism with the practice of membership in the academic community.

Introduction

If defining and avoiding plagiarism were simple matters, then well-informed students would not unintentionally plagiarise, higher penalties for both students and teaching staff who transgressed their responsibilities would be a sufficient motivating factor to eliminate plagiarism, and forums for academic debate such as the Educational Integrity Conference would have already passed beyond their life expectancy.

That none of these things is the case implies strongly that we are not dealing with simple matters. Instead, rigorously specified, practical definitions of plagiarism are quite elusive, which is one (though not the only) reason for the difficulties encountered at individual and institutional levels in avoiding it.

In this paper, I propose that one of the key factors underlying these difficulties is a significant overlap between what is explicitly proscribed in research writing and what is, often implicitly, required (see also Crocker and Shaw, 2002, for a survey-based study of a related idea). The idea that the elements I will be discussing are obligatory in various ways is by no means new. Rather, in the rapid increase of focus on the threat of plagiarism, it appears that the academic community has lost track of the implications of intertextuality, as a necessary aspect of the creation and communication of meaning. Reincorporating these established understandings of intertextuality, then, will offer a balancing function in our attempts to make sense of plagiarism issues.

I will first highlight some definitional questions evident in a sample policy statement on plagiarism, by way of an anchor to which to return. I will then set the ground for the focus of this paper by briefly revisiting some classical and practical definitions of intertextuality, and their relation to research degree candidature. The discussion section returns to the anchor point, making problematical any attempt to clarify the definitions previously highlighted in the light of the necessarily intertextual processes of research and research writing. Some aspects of frame analysis are seen to be useful at this point. The possibilities which emerge require the incorporation of actual practices of research and research writing in the various research sub-communities as a baseline for any workable definitions of and practices around plagiarism.

Plagiarism

Definitions

The definitions of plagiarism in university regulations are functionally – and, I would argue, necessarily – vague. The extracts below are reproduced from the policy statements of the University of Adelaide, but they are representative of the general approach found elsewhere.

Among the stipulations in these policy statements can be found the following:

No student will submit for assessment any piece of work which is not entirely the student's own, except where either:

- (a) the use of the [work] of others is appropriate and duly acknowledged, or
- (b) the assessor has given prior permission for joint or collaborative work to be submitted.

No student will assist any candidate in any piece of assessed individual work, and no student shall accept assistance in such a piece of assessed individual work, except in accordance with approved study and assessment schemes (University of Adelaide, Division of Student & Staff Services, 2004).

The crucial definitional questions at issue here include what is considered to constitute (a) a researcher's "own" work, (b) "appropriate" acknowledgement, and (c) "assistance" in a piece of assessed individual work. It is my contention that each one of these is not only under-defined, but as they stand, undefinable, in the light of the intertextual conventions of research writing practice.

Intertextuality

Definitions

In using the term *intertextuality*, I am referring to the collaborative process of meaning production, as organised in and by the practices of a particular (sub)culture – in this case "the academic community", and its sub-communities in particular discipline areas. For the purposes of this paper, I will be assuming a characterisation of the academic community as it is broadly understood in the Australian context.

An important component of the earliest versions of intertextuality theory was the tripartite construction of meaning, by "writing subject, addressee and exterior texts" (Kristeva, 1969/1980, p. 66). For the present purposes, however, I will be minimising the role of the "addressee", as standard current academic practices have left this factor so far outside of considerations of text/meaning ownership that it would take up the whole of this brief article to justify its reincorporation. One aspect of this element which cannot be completely disregarded, however, is that the writer is necessarily also addressee, in the chain of research writing in which they actively play a part.

This caveat aside, what I will be focussing on is the relations between writer and exterior texts – in particular, on their status as obligatory relations, and the conflicting overlap between what is required, and what, from the perspective of plagiarism regulations, is proscribed.

Fairclough (1992) analyses intertextuality into two types: *manifest* (after Authier-Révux, 1982 and Maingueneau,

1987) and *constitutive*. The former can be defined briefly as the employment of *content* from existing texts in the creation of a new text, while the latter can be summarised as the use of *structures* from existing texts.

The point I wish to make about both types of intertextuality is that they are in several ways *obligatory* – at some levels formally, and at some levels discursively. By *formally obligatory*, I mean that universities overtly specify such intertextuality as an evaluation criterion for the student's work. By *discursively obligatory*, I mean that the student is compelled to develop an intertextual basis for their writing as a condition for gaining membership in the target research community.

It should be noted that Fairclough's definitions are functionally restricted to a narrow definition of text as stretch of language (whether written or spoken). For a full understanding of the extent of intertextuality in research practices, it will be necessary to broaden this definition to include communicative, social and semiotic conditions at various discursive levels within the scope of "exterior texts".

Formally obligatory intertextuality

A research student is formally obliged to demonstrate the lineage of their research from existing literature: which traditions of thought their research is overtly connected with; what is the nature of its relation to other realisations of these traditions (*oppositional*, *supportive* or *adaptive* – Fairclough, 1992); what consequential threads of this discursive web are anticipated. This is manifest intertextuality. At the same time, s/he is obliged to produce an *original contribution* as evidence of their worth as a candidate. It appears, then, that there are degrees of originality, within which it is possible to be "too original".

Secondly, the research student is formally obliged to follow the conventionally established formats for submission of their work: this marks it as an instance of the genre the student is targetting. Here, the requirement for constitutive intertextuality is so overt, that a meta-language for its realisation has become commonplace, and made readily available in style guides developed for the various convention sets.

These requirements are integrated sufficiently in the life of universities to be locatable in formal lists of staff responsibilities:

Responsibilities of staff...to assist students to practise and learn the academic language and conventions required for their assessment tasks (University of Adelaide, Division of Student & Staff Services, 2004).

In terms of both manifest and constitutive intertextuality, then, there are strong and explicit requirements for the research student to reproduce (and in so doing to further strengthen) the conventions already established.

Discursively obligatory intertextuality

The underlying goal of the graduate research degree is not to graduate *from* the degree, but to graduate *to* membership in the academic (sub)community. In order to succeed in this rite of passage, the student must acquire the discourses of their target subcommunity: its language, its criteria for determining what is and is not an appropriate line of research, its systems for linking certain types of questions and procedures and not others, and so on. Only by this means can the student gain the membership in the subcommunity to which their enrolment in a research degree is implicitly targetted. This level of intertextuality is the very fabric and framework for the continuation of research in a given discipline:

...how much we all “borrow from existing texts, how much we depend on membership in a community for our language, our voices, our very arguments.” (Hull and Rose, 1989, as cited in Currie, 1998, p. 1)

To undertake graduate research, then, is to take on a subject position that acquiesces to and works within the principles set out by the discourses of a particular academic subcommunity. The alternative is, quite simply, not to be doing scientific work. Lyotard, using Wittgenstein’s notion of “language games” (Wittgenstein, 1957/1968) to describe the workings of scientific discourse, explains this as follows:

“Who decides the conditions of truth?” It is recognized that the conditions of truth, in other words, the rules of the game of science, are immanent in that game, that they can only be established within the bounds of a debate that is already scientific in nature. (Lyotard, 1979/1984, p. 29)

In the justification of a research project, this is realised in the form of quite specific conventions about *what* can be accepted as “existing literature”:

Each community and every subcommunity within it has its own *system of intertextuality*: its own set of important or valued texts, its own preferred discourses, and particularly its own habits of deciding which texts should be read in the context of which others, and why, and how (Lemke, 1995, p. 10).

The requirements of manifest intertextuality in a given academic subculture significantly constrain the possible topics and directions of research, in that only those questions justifiable from within the same subculture can be validated. *Lineage*, then, is entirely the appropriate word for this requirement: the research must not only be framed within the discipline formed by the discourse; it must also be shown to follow a coherent line of development already pre-empted in the discipline.

Although, one might object, it is clear that many kinds of research not already legitimated within academia are possible, and indeed, carried out, it remains the case that these lines of research are not available to the graduate student. For her/him, it is axiomatic that only research which can be assessed as competent by the target subcommunity can be considered. The production of meaning in the graduate thesis is constrained, then, at two levels of obligatory intertextuality: a lineage of *content*, and a lineage of *community membership*. In other words, the discourse requires that (i) meaning production is coherent on the basis of a lineage already validated, and (ii) the validation criteria are those established by the persons, conventions and/or institutions of the target subcommunity.

A second caveat is necessary at this point, as it may seem that I am implying that new ideas are impossible within this framework, which is patently not the case. In fact, the theory of intertextuality entails that meaning is always new and creative, because texts are always recombined and hybridised, in an infinite set of connections of layers. Again, this is not an area of the theory which can be adequately discussed in the present context, as my present aims necessitate a focus on the *centripetal* forces (tendency to reproduce) rather than the *centrifugal* (tendency to change) (Fairclough, 1995: see this work also for a useful explication of the balance of these forces towards creative productivity).

Disjunctions for research students

I will now return to the crucial definitional questions posed earlier: What is considered to constitute (a) a researcher's "own" work, (b) "appropriate" acknowledgement, and (c) "assistance" in a piece of assessed individual work?

"Assistance" and a researcher's "own" work

In the light of the intertextual processes of research and research writing outlined above, it is not surprising that the identification of text "owner" is commonly a point of negotiation. For example, it is standard practice in laboratory work, when publishing findings, to negotiate who will be the authors, and in what order. The need for negotiation on this point itself indicates strongly that there is no clear-cut relation here between who physically writes up the findings, who has developed their content, and who holds responsibility for the ideas communicated. In the terminology of frame analysis, we can talk about these roles as *animator*, *author* and *principal* respectively (see Goffman, 1974, and elsewhere). The view of plagiarism as a violation of authorial text ownership assumes a clear-cut relation between these roles. As Scollon (1995) points out –

The concept of the unified animator/author/principal, presupposed in most discussions of plagiarism, is not an entity easily found in normal discourse (Scollon, 1995, p. 8).

A good example of disjunction on this point can be found on the University of Adelaide website:

It is perfectly legitimate to study together and discuss your assignment with others, but ensure the work you submit is your own (University of Adelaide, Division of Student & Staff Services, 2004).

Here, the role of Goffman's *author* can be clearly seen to be shared among several people. What seems to be crucial in labelling the work of one person is the conflation of the roles of principal and animator. But this is not so in the above-mentioned case of laboratory-based publications, in which the most crucial function appears to be the designation of principals. The identification of authors (those who have developed the content) is not at all straightforward, given the shifting of roles among various projects at various times in the laboratory environment. The animator is sometimes a research assistant whose name may be, but is not necessarily, included in the authorial list – this, of course, is also the case in many other, less obviously collaborative, situations. Similar negotiation of authorship is practised in grant applications – for which the selection of a principal is even more crucial, given the research record that must be demonstrated to secure the grant. For reasons such as this, the designation of principal may not always be strongly identified with authorship of the work as such.

All of this simply exemplifies standard practices of collaborative research and negotiated authorship as accepted by the membership of the academic (sub)community. The question now becomes: in a culture in which collaborative research is the norm, how can the student's "own" work be definable? In regard to a research thesis in particular, the assessor *never* gives "prior permission for joint or collaborative work to be submitted" – yet in many university subcommunities, this is *always* what in fact happens. Similarly, it is hard to know what "no student shall accept assistance in any piece of assessed individual work" could possibly mean in practice.

"Appropriate" acknowledgement

At institutional level, it often seems that the requirement to demonstrate the lineage of one's research is clarified by the apparently matching requirement to acknowledge one's sources. There are many reasons for the importance of careful acknowledgement practices, from contextualisation of the work within the various lines

of thought in a given field through to respect for the contributions of various types of participants. Nonetheless, in the context of standard intertextual practices of research communities and the conditions of membership within those communities, there are limits even to the appropriateness of source acknowledgment.

The first point of disjunction is that established knowledge is freely recycled within a discipline. This kind of intertextuality is frequently constitutive, in forms ranging from conventions for the representation of a given type of data (such as the periodic tables), to standard structures and phrases used for commonly described features of the object of study (such as participant inclusion and exclusion criteria, or the phonology of a language). However, the intertextuality is also manifest, in the form of facets of the field considered to be common knowledge within the subcommunity. The point here is that if a student *were* to cite a source for any of the above, this would immediately position them as a non-member of that target community. The seamless incorporation of these standard forms and content elements is the unmarked identifier of the full member. Citing sources to justify the “choice” of items covered in a participant inclusion and exclusion criteria list could only be an indicator of student status. In this light, then, it becomes quite difficult to interpret the concept of “appropriate” acknowledgement. If the ultimate goal is full membership of the academic community, then appropriateness will necessarily mean *not* citing sources for all information and ideas used – a recommendation rarely found on university websites.

Secondly, given the collaborative processes and, frequently, apprenticeship elements of research degree candidature, it can often be quite unclear as to when it is necessary to mark a given idea, organising criterion or terminological innovation as “the work of others” and when it is not. The lack of clear boundary-marking between the work of different people is not only evident in overtly collaborative research situations such as described above. It is evident also in contexts including discussions of varying degrees of formality in the student’s Department, at conferences, and with friends. Add to this the widely varying degrees of involvement in both the research and the writing process by supervisors of various persuasions, then contributions made by not only colleagues, but also research participants (such as patients, clients or interviewees) and editors – and the picture as a whole becomes one of a wide-ranging, productive, unbounded network of exterior texts (see Evans and Deller-Evans, 2002, for discussion of the potentially contentious role of editors). Although an acknowledgement section at the outset of the thesis is standard – and becoming more heavily standardised as the threat of plagiarism rises ever higher – this requirement does not begin to approach the detailed citation of sources stipulated at universities for more readily traceable sources of information and ideas. This under-citation of general “sources” is also merely standard practice, and is directly attributable to the accepted degree of collaboration in the production of meaning – but is entirely at odds with the broad mandates of plagiarism regulations. Moreover, in the process of their advancement to membership status in the academic community, it will not have escaped most students’ attention that designated authorship and the requirement or otherwise to acknowledge sources is as much a function of seniority and academic standing as anything else (see Martin, 1994, for further discussion of this point).

As my third and final caveat, many readers will have observed that I have avoided altogether the broader cultural issues surrounding intertextuality conventions – that is, conventions that vary between “cultures” defined on a larger scale, as discussed by Pennycook (1996), amongst others. My primary concern in this restricted space has been to point out what is problematical in what sometimes appears to be straightforward. If even considering the Australian university environment as if it were an idealised monocultural space still allows me to highlight points at which intertextuality and plagiarism issues are not at all straightforward, then how much less straightforward they must be in the “real world”.

A concluding example

By way of a closing illustration, I would like to briefly consider some of the ways in which the obligatoriness of intertextuality and the proscription of plagiarism have intersected in the writing of the present paper. I will focus here on manifest, rather than constitutive, intertextuality, as it is the overlap between plagiarism and manifest intertextuality that presents the most visible concern for most.

As stated above, it is a formal intertextual requirement for research writing that I demonstrate the lineage of my research from existing literature. From a plagiarism avoidance perspective, it is also required that I do so by clearly citing my sources. Have I done this? I have referenced quotes (although note that these quotes have been selected from a *range* of sources. Had I quoted repeatedly from only one, I would have fulfilled the requirements of correct citation – but it could have been questioned whether I was making “an original contribution”). I have referred to a selection of additional sources where a related issue is only briefly touched on, and acknowledged researchers working in complementary directions. If you are reading this paper at all, the review process assures us that I have fulfilled the requirements for academic integrity.

However, it is quite clear both from sections of text in this paper and from the knowledge that we as an academic community share about our own research practices, that the lineage of my research is more extensive than this. In the first place, readers are unlikely to assume that the very restricted reference list I have provided constitutes the sum of my reading on and around my topic. In addition, it is highly likely that, given my self-nominated affiliation with a research education unit, I have benefited from many fruitful discussions with my colleagues.

Looking at specific text sections, initiates will recognise that language of the type

its criteria for determining what is and is not an appropriate line of research, its systems for linking certain types of questions and procedures and not others

carries markers of a post-Foucauldian tradition – yet nowhere in this paper (until now) is Foucault mentioned. Early in the paper, I noted that the policy statements of the University of Adelaide “are representative of the general approach found elsewhere”. This suggests some unspecified knowledge sources. If you as reader have accepted the statement, then I have correctly categorised it as “common knowledge” for this particular subcommunity, thereby not requiring citation.

At a number of points during this article, I am clearly addressing an imaginary audience – signalled by terms such as “caveat”, or even “one might object”. It seems that at some level this paper is construed as a conversation, rather than as an address: I am answering a range of likely responses and positions held by my addressee(s). Here the tripartite construction of meaning comes into play retrospectively – my reading and conversations in the past have been projected into the present (or, strictly, future) so that exterior texts are re-analysed as addressee contributions.

Clearly I have not cited all sources of manifest intertextuality in rigorous detail. In fact, the list could continue almost indefinitely. What of discussions I might have had in my home life? How far back in my professional history can the lineage of this particular research interest be traced? How wide is the circle of sources which have informed my ideas and positions? Do they include the novels I read or the political discourses I take part in?

In short, the construction of meaning represented in this paper is collaborative, relying on many kinds of exterior texts, and traceable through my varying roles as writer/author. I have, it would appear, some reason to consider myself a member of the academic community. But my membership status is enacted and demonstrated at least in part by the degree to which I have made myself judge of what is and is not necessary to cite – that is, by counting myself among those who determine “the conditions of truth”. What, then, will we tell the students?

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Endnote

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PLAGIARISM IN THE SCIENCE CLASSROOM: Misunderstandings and models

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Abstract

Honesty and academic integrity are key values in science and science education. It is important, however, to recognise that student failings in these areas may be an expression of confusion and poor skills rather than a cynical disregard for academic standards. This study investigates first year science students' understanding of what constitutes plagiarism and, through a compulsory first year science communication course, trials two approaches to teaching skills related to use of secondary sources. Findings show that students overestimate their understanding of what constitutes plagiarism, and that they are insufficiently prepared to use these skills at the completion of their secondary schooling. This study confirms that a multiple-strategy education programme is needed to teach these skills, and that a tutor clinic is a useful part of such a programme. It provides a three-part model by which a College of Sciences (or equivalent) can ensure adequate teaching of these skills for tertiary level science students.

Introduction

Ethical conduct and academic integrity exist at the heart of science education. The implications of a weakening of these values are vast, ranging from questions of integrity in research through to issues of public safety (Kline, 2003). In the United States, the National Research Council (1992, cited in Kline, 2003) saw honesty (including plagiarism) as a core value in scientific ethics, defining misconduct as: "fabrication, falsification, and plagiarism in proposing, conducting, and reporting research." For colleges or faculties of science within the tertiary sector, the question of how to approach issues relating to academic integrity, and particularly plagiarism, is problematic.

Academics often respond strongly to incidents of plagiarism in their students' work. This comment from Kolich (1983, cited in Hall, 2005, p.7) may seem extreme, but anecdotal evidence suggests that it is not an idiosyncratic response:

I have always responded to plagiarism as a personal insult against me and my teaching...
.[P]lagiarism cuts deeply into the integrity and morality of what I teach my students, and it sullies my notions about the sanctity of my relationship to students. It is a lie, and although lies are often private matters between two people, plagiarism is never merely private because it breaches a code of behaviour that encompasses my classroom, my teaching, my university, and my society.

Hall (2005, p.2, p. 7) considers this response to be representative of a perspective that plagiarism is: "a crime that offends the basic values of the academic community.... [It] is a cynical act, expressing contempt for the whole academic enterprise" .

While continuing to view student plagiarism as a matter of criminal deviance, others have shown a more measured response. These academics focus on re-aligning student values with those of the scientific and academic communities (Malouff and Sims, 1996), categorising offenders (see Cummings et al, 2002; Walker, 1998), and designing policies relating to penalties (Carroll and Appleton, 2001).

There are, however, problems with this normative perspective on plagiarism. In particular this approach to

the problem of plagiarism assumes that:

- Students understand what plagiarism is and the value it has for the academic/scientific community.
- They then cynically decide to work outside that value system.
- The point of educating students about plagiarism is to convince them to adhere to academic and scientific values.
- Definitions of plagiarism are constant.

These assumptions have all been challenged in the literature. Soto and McGee (2002), for example, show that even those students in a first year science classroom who think they are familiar with the concepts of plagiarism do not understand its complexities. Hall (2005) shows that students plagiarise for a multitude of reasons, most commonly related to lack of confidence in their handling of academic or scientific language. In these cases, education which aims to convince students of the worth of certain value systems is unhelpful because it does not address the root of the problem. And Price (2002) amongst others has established that definitions of plagiarism are not constant, either through history or across disciplinary boundaries.

Our research was developed in part to consider whether first year science students understand the complex meanings of plagiarism and whether evidence of plagiarism in their work is a result of a cynical rejection of academic and scientific values, or rather a need for more instruction in how to integrate secondary source material into their writing. The purposes of this study, then, were three-fold: to establish whether in-coming first year New Zealand science students understand what plagiarism is; to develop an educational programme for a first year science class to teach these essential skills and to establish whether face-to-face support makes a difference to levels of plagiarism; and to propose a model for science programmes to ensure students acquire and then sustain essential skills in academic integrity and scientific values, specifically as they pertain to plagiarism.

The study took place at Massey University, New Zealand in 2004-2005. Very few studies have been published on plagiarism in New Zealand universities (Walker, 1998; Goddard and Rudzki, 2004; Emerson et al., 2005), and none of these studies pertain specifically to science education. We have based our research, therefore, on overseas studies and drawn conclusions that may apply to New Zealand science programmes and beyond.

Background

In 2004, as part of Massey University's revision of its academic misconduct regulations, a trial of the plagiarism detection system, Turnitin, was undertaken. Pedagogically wary of the imposition of a simple detection device, we conducted a study of one group of science students' understanding of the issues surrounding plagiarism and trialled a multi-faceted pedagogical approach. The study had three aims. The first was to establish what in-coming tertiary-level science students understand to be plagiarism. The second was to develop an educational package which would be effective in educating students on the complexities of using secondary source material in their assignments. The third was to develop a model of how to deter plagiarism within a tertiary-level science curriculum.

The research was undertaken with a first year communication in the sciences course at the beginning of semester 1, 2004 and 2005. The 13-week course is compulsory for all students enrolled in a science qualification through

the College of Sciences. Student numbers in each cohort (the course is offered in every semester and as a distance course) range between 180 and 250, and demographically each cohort is similar and homogenous with an even gender split, and very low numbers (5-12%) of ESOL¹ (English as a Second or Other Language) students. More than 90% of students in the internal course are usually recent high school graduates. The inclusion of a compulsory communications course within a science degree was controversial at the time of development, but senior management of the College have a strong commitment to developing science students' communication skills in the face of stated employer concern about their need for employees with strong communication skills (Anderson, 1995; Gray, Emerson & MacKay, 2005) and designed the course under a writing across the curriculum pedagogy. The course is designed to provide a baseline of essential communication skills and academic writing skills for science students, and referencing skills and use of secondary source material is considered a critical aspect of the curriculum. Prior to the research, the course coordinator had concerns about (unquantified) levels of plagiarism in the course, and hence also the efficacy of her approach to teaching these skills.

Part 1: The Survey

The aim of the first part of the study was to establish a profile of students' level of understanding of plagiarism prior to the educational programme. A short survey was conducted with the 2004 class. The survey was not repeated in 2005 because cohorts of this class have, historically, not significantly differed demographically. 132 students in the class participated in the survey, a response rate of 92%.

The survey was based on Soto and McGee's (2004) survey of science students, modified to meet a New Zealand context. The survey gathers basic demographic data, particularly pertaining to the students' language backgrounds. It then asks a series of specific questions relating to what is and is not plagiarism, and then a final question establishes whether they were taught these skills at high school and whether they feel clear about how to reference material. Student responses were analysed using SAS (SAS, 2003).

The vast majority of the class (85%) were first year students who had English as a first language (89%). As preliminary analyses did not detect significant differences in question responses between first year and other levels or between ESOL and non-ESOL students, the data were pooled for the subsequent analyses.

The majority of students (69%) rated their understanding of plagiarism as either good or very good. This perceived confidence was in spite of less than 14% of students who were taught how to reference material at secondary school feeling that they understood the principles, and 56% of students reporting that they were not clear about how to reference despite having covered the topic at school. Their answers to the more specific questions further belied their perception of their skills (Table 1). Although most students could correctly answer simple questions about plagiarism irrespective of their own perception of understanding, they had more difficulty with the more complex questions and showed particular confusion over paraphrasing and the distinctions between correct formatting for paraphrasing and quoting. This suggests that students understand the broad definition of plagiarism but are not entirely clear about acknowledging sources.

Most students (over 92%) correctly identified that including copied text without a citation is plagiarism. However, only 12% of students correctly identified that copied material needs to be formatted correctly (in quotation marks) as well as referenced with a citation. When we analysed this further in relation to the question concerning understanding of plagiarism, we found that of those who felt their understanding of plagiarism was good only 11% answered this question correctly, and of those who said their understanding of plagiarism was

very good only 19% answered correctly. Of the entire student group, only 54% of students correctly identified all three aspects of paraphrasing.

Table 1. Percentage of correct responses to survey questions according to the students' perception of their own understanding of plagiarism and as a class total.

Survey question	Perception of understanding				Overall class
	V good	Good	Fair	Poor	
Including copied text from a paper or digital source without a citation in an assignment is plagiarism	100	98	85	50	92
Including copied text from a paper or digital source with a proper citation in an assignment is plagiarism	19	11	12	0	12
Including copied text from a paper or digital source within quotation marks with a proper citation in an assignment is not plagiarism	89	80	71	38	77
Including a quote without a citation in an assignment is plagiarism	100	88	76	50	85
Proper paraphrasing involves summarising, synthesising and citing read information in my own words	58	61	38	37	53
* Percentage of students within each perception ranking was 20, 49, 25, and 6% respectively; $n=132$					

This group, then, was insufficiently prepared by secondary school to use secondary sources with confidence. They initially over-estimated their skills, and showed that, while they understood the broad terms, they had insufficient knowledge of the distinctions between paraphrasing and quoting, and of how to acknowledge sources. This survey showed that a large number of first year science students may be insufficiently prepared to use these skills at a tertiary level. Education and training is essential.

Part 2: The Educational programme

A core observation about plagiarism is that it may emerge either from a lack of discipline-specific writing skills (Price, 2002) or from a sense of being alienated from the discourse community in a large class because of lack of personal contact with teaching staff (2005). Our study addressed these issues in a two-stage education programme.

The first stage of Part 2 of the study, which was conducted in Semester 1 2004, involved instigating a plagiarism education strategy prior to a major assignment, a 1200-1500 word report on a topic related to science and ethics. The education strategy included only in-class lectures and exercises as follows.

First, students attended a 50 minute lecture on using secondary sources and APA referencing conventions. Part of the lecture included a definition of plagiarism, reasons why it was ethically unacceptable, scientific values, and how to integrate sources into a scientific text. Ten minutes of the lecture were spent discussing and illustrating the differences between quoting and paraphrasing, and methods of effective paraphrase. Particular attention was paid to how references are used in scientific writing.

This was followed, in the same week, by a compulsory two-hour tutorial where students worked on APA referencing. This included interactive exercises using science-based texts that were designed to illustrate the

differences between paraphrasing and quoting in science writing. During this week tutors talked the students through the purposes of the assignment and answered any queries or concerns. The following week, students engaged in a peer review exercise on the assignment, and some of the questions and discussion focused on each student's use of sources.

Students also had available to them a 10 page chapter in the study guide on integrating sources in science and applied science texts and using APA referencing, and this was referred to in the interactive teaching sessions.

The second part of the study took place for a similar assignment in Semester 1 2005. The education strategy was the same as for 2004, but also included a 10-15 minute individual interview for each student with a tutor to discuss the student's assignment and their use of secondary sources. During the interview, the tutor filled in a tutor review form and asked a series of questions. Questions included: "Have you used any unacknowledged quotations in your work?" and "Do you understand the conventions of APA referencing – is there anything you would like to discuss about this?" Tutors summarised students' responses to these questions on the tutor review form, and each student was required to write a reply to their comments, explaining how they would review or change their assignment if needed.

Assignments for both the 2004 and 2005 cohorts were processed through Turnitin, a system of identifying copy from electronic sources, and the individual reports scrutinised for evidence of plagiarism. Assignments were categorised into four categories: no plagiarism, minor plagiarism (less than six sentences of consecutive or inconsecutive copied material with no form of in-text citation, or quotations treated as paraphrases, i.e. quoted with an in-text citation), moderate plagiarism (six-eight sentences of consecutive or inconsecutive copied material with no form of in-text citation), and major plagiarism (nine sentences or more of consecutive or inconsecutive copied material with no form of in-text citation). Our expectation, based on the findings in Part 1 of the study that students had problems distinguishing between formatting requirements for quotations and paraphrases, was that the amount of minor plagiarism would be substantially higher than the other categories. However, there was no difference between moderate and minor rates of plagiarism across both cohorts (Table 2).

Table 2. Occurrence of students (n, %) within three levels of plagiarism for two cohorts in 2004 (n=142) and 2005 (n=171) for the same assignment.

Plagiarism level	2004	2005
severe	5 (3.5)	1 (0.6)
moderate	9 (6.3)	5 (2.9)
minor	9 (6.3)	5 (2.9)
Total	23 (16.1)	11 (6.4)

While it was not possible to determine whether plagiarism rates had fallen as a consequence of the introduction of the education programme for cohort 1, since there had been no quantification of earlier rates, this study clearly demonstrated a change in rates following the introduction of the tutor clinic. The result indicated that the introduction of the tutor clinic had a substantial impact on the rate of plagiarism detected in the class, effectively halving the rates of plagiarism across all categories and having a substantial impact on cases of severe plagiarism.

Two more specific findings also emerged from these results following analysis of the tutor review sheets in the

second part of the project. The first finding was that students who experience problems with the less severe forms of plagiarism may be exhibiting errors in the academic writing process, rather than misunderstanding how to use APA conventions. All the students who were identified as having plagiarism problems had attended a tutor clinic prior to submission of their assignment. However, all but one had attended with an incomplete assignment draft and had been identified by their tutors as not having completed in-text citations. Tutors discussed the issue with these students, who assured the tutor that they would attend to the needed in-text citations. The fact that they were identified in this way, and that they did not successfully complete in-text citations, suggests an error not of understanding but of technique. Most writers of academic documents would complete in-text citations, and identify quotations, while writing the document, rather than adding them in after the draft was completed. This finding has implications for the teaching of referencing skills to tertiary-level students.

Second, the tutor clinic appeared to have a substantial impact on the outcomes for ESOL students. Four of the five students classified as having major plagiarism problems in Part 1 were ESOL students, but none of the students in the second cohort showing plagiarism problems of any kind were ESOL students. Instead, ESOL students were more likely to show over-extensive use of quotations. While this over-use of quotations is something that needs to be addressed, since quotations are not extensively used in scientific writing, it is interesting that the introduction of the tutor clinic, rather than the introduction of an educational strategy and detection device, proved to be the decisive factor in almost eliminating plagiarism in our (admittedly small) sample of ESOL students. We were unable to establish, through analysis of the assignments and tutor clinic sheets, why the tutor clinic was successful in addressing plagiarism amongst ESOL students. Two possible reasons are that tutor-student discussion in tutor clinics addressed ESOL students' understanding of referencing conventions or, that the tutor clinics motivated them to undertake correct identification of source material. Further research is needed here.

Discussion

Soto and McGee (2002) found in their survey of science students' understanding of plagiarism that "most of our students reported that they had developed a basic understanding of plagiarism before enrolling in our courses, [but] their responses to the survey questions indicated that many ...actually did not know what constitutes plagiarism" (p.8). Our findings concurred with these observations. While students did show a basic understanding of some aspects of plagiarism, a substantial proportion felt unsure about aspects of what constitutes plagiarism, based on their secondary school education, and even those who felt they had a good or very good understanding of the key terms showed errors in distinguishing between paraphrasing and quotations, and how to appropriately format types of secondary sources. The problems relating to student understanding of paraphrasing are particularly important for science educators, since scientific discourse primarily incorporates secondary sources through paraphrasing rather than quotations.

Tertiary level science colleges in New Zealand, it may be concluded, cannot assume that students, even those with English as a first language, arrive at university prepared with appropriate academic or scientific writing skills, specifically those related to integrating sources into scientific texts. It is not even safe to assume that they understand what plagiarism is. Soto and McGee (2002), Carroll and Appleton (2001) and Junion-Metz (2000) all state that the only way to reduce plagiarism significantly is to ensure that students understand what the term means and to provide strategies for avoiding this practice. Tertiary-level science programmes need to take this notion seriously, and not make assumptions about students' prior knowledge. In particular, science

programmes must recognise the need to teach students about citations and correct form for paraphrasing since this survey suggests that this skill, which is essential in scientific writing, is a specific area of confusion for in-coming students.

As an aside about methodology, this survey has confirmed the findings of Soto and McGee (2002) that simply asking students whether they understand what plagiarism means leads to inaccurate conclusions about their understanding. Students may believe they have an accurate understanding of the term but be mistaken in their belief. This was the case in both the study discussed in this paper, and in the work by Soto and McGee. Specific questions are needed to clarify whether students' perceptions of their knowledge are accurate or not.

In relation to the question of what constitutes an effective educational programme for teaching these skills to science students, part two of the study established some clear results.

First, our study confirms the findings of Vernon, Bigna and Smith (2001), Junion-Metz (2000), Carroll and Appleton (2001) and Malouff and Sims (1996) that multiple teaching strategies are required to reduce plagiarism rates. We might add to this that the teaching strategies should include material relating both to academic values and academic and scientific writing skills. Furthermore, the pedagogy should include interaction rather than simple static absorption of material through lectures or text-based resources. Two more specific observations about the teaching programme can be made from this study.

The first is that teaching about academic writing skills in relation to plagiarism and use of secondary sources needs to focus on process, not simply on conventions. Our study showed that students who plagiarised made basic errors in the process by which they wrote their assignment, by writing assignments drafts that incorporated quotations and paraphrasing without including citations. This is a fundamental error of process, which leads easily to accidental plagiarism.

The second finding is that the inclusion of a short individual tutor clinic made a substantial impact on rates of plagiarism in general, and eliminated plagiarism entirely from our small sample of ESOL students. We may speculate that the impact of the tutor clinic has two aspects. First, it has an educational benefit: it allows tutors to spend time talking with students about referencing in science writing and addressing their immediate concerns; and it provides an opportunity for students to discuss any issues they don't understand. Second, it acts as a deterrent. Research has shown (Cummings, 2002) that students are more likely to plagiarise if they are in big classes, have little contact with teaching staff, and feel anonymous. It may be easier for a student to hand in a flawed piece of work to a distant teacher with whom the student has no personal contact than to sit in front of someone who is talking about their work and say "there are no unacknowledged quotations in this assignment" when they know there is a problem. Tutors reported several incidents where students, when asked this question, looked worried and said they would check their work again, and then wrote on their tutor clinic sheets that they would address this issue.

Another perspective on the tutor clinic is that individual attention may make a difference to the way a student feels valued within the academic community. Hall (2005) discusses the alienation of students within a discourse community, that students may feel voiceless, and as if they cannot master the language required within this new social context – and how attempts to "fit in" with the discourse community may lead to plagiarism. The tutor clinic, which provides students with one-on-one attention from an academic in a context where the

student's voice is valued and attended to, may have a considerable impact on the student's confidence and attitude. This is, however, speculation. Clearly, further studies relating to individual interviews are required to confirm our finding and to clarify the reasons for the impact of the tutor clinic. And, as a pedagogical tool, the costs of such an intervention have to be weighed against the positive outcomes.

A model for teaching core scientific writing skills /academic values

So what are the implications of this study for New Zealand tertiary-level science programmes – or tertiary-level science programmes in general? The results of this study suggest a particular model for developing a comprehensive education and detection programme within a broader science curriculum.

The model proposed suggests a three-part approach to teaching and reinforcing academic and scientific values and skills pertaining to plagiarism within a degree-level science programme (Fig. 1).

The first stage of the model should provide all parties with *information* about expected values and responsibilities. It should take the form of a policy document, which sets out the responsibilities of all parties – the students engaged in a science programme, and the College of Sciences² (or equivalent body). The policy should reinforce the importance of academic and scientific values and ethical conduct, and the reasons for these standards. It should outline expectations of students – how they should respect and demonstrate these values in their conduct and assessment. Equally important is that the scientific teaching body should acknowledge its responsibility to teach pertinent skills to enable students to reach the standards required of them. The policy would include details of penalties for contravening the standards outlined in the document, with differentiated penalties for first year students (who can be seen as just learning the required standards) and more senior students who can be expected to have understood these values and learnt the required skills.

Such a policy document:

- Establishes values and standards, and the reasons for these, a factor seen as essential in much of the literature pertaining to academic integrity and plagiarism (Carroll and Appleton, 2001);
- Acknowledges that students will have arrived at the university with insufficient understanding of terms and inadequate skills
- Acknowledges that it is the Faculty/College of Sciences' responsibility to teach these skills;
- Provides students with clear expectations and penalties for not meeting these expectations.

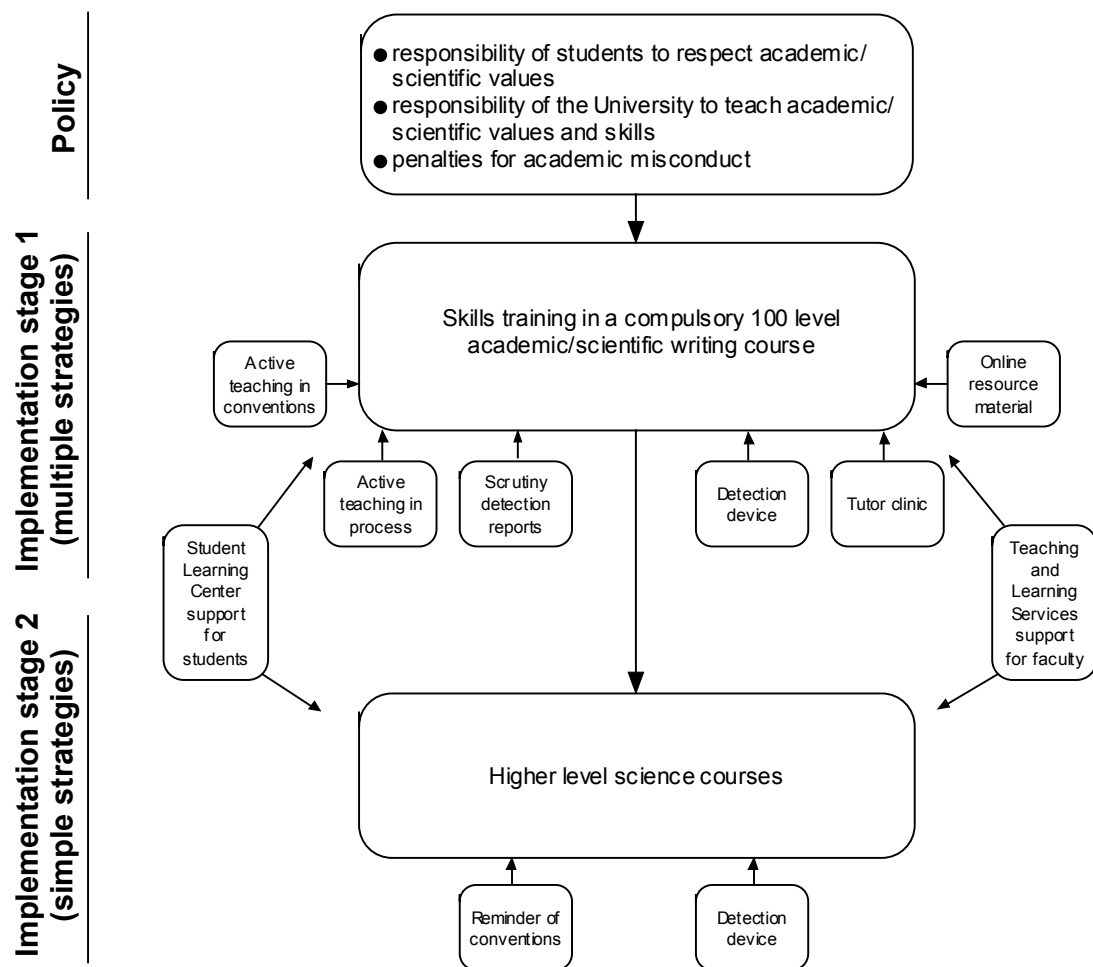


Figure 1. Proposed model for plagiarism policy in a tertiary level science programme.

The second stage of the model comprises *effective education* for students at entry. The ideal form of this stage of the model is a compulsory first year science writing paper which includes a teaching programme addressing plagiarism and use of secondary sources as outlined in this study. The purpose of this part of the model is to ensure that all students receive effective tuition (not just information) in both values and skills, and in conventions and academic/scientific writing processes when they begin their science programme. The course should be offered in the first semester of each academic year as a compulsory programme for all incoming students. Multiple teaching strategies should be employed, including a tutor clinic for an early assignment, and a detection device such as Turnitin used to deter plagiarism and to collect reliable data.

The third stage of the model comprises *reinforcement*, and includes all subsequent courses in the degree programme. These courses should employ only simple strategies such as a statement in course outlines and study guides that refers to College of Sciences' policy on plagiarism and the penalties imposed on senior students. A detection device such as Turnitin might be employed (either for student submission and checking, or for detection by staff) and penalties imposed according to the College policy.

This three part model - information and responsibility, education, and reinforcement – would provide support

for new first year science students, and reassurance for scientists and science educators, that science students are learning the values of the academic and scientific community, and the skills and practices they need to master to become members of that community.

Conclusion

“The principle of honesty is science’s most important ideal” (Resnik, 1998, p.115). Most scientists, and science educators, would agree with this statement. Yet, as Resnik also states, we must also distinguish between dishonesty and error since, even when they have the same consequences, they spring from different motives. As this study has shown, first year science students may plagiarise not from a motive to deceive but out of error, or poor process, or because they don’t have a sufficiently sophisticated understanding of what plagiarism means or how sources should be formatted and acknowledged, or because they have no-one in the scientific or academic community with whom to discuss their confusions. To treat all plagiarism as a crime, an offence against the academic and scientific community, is a failure of empathy and good judgement (Moore Howard, 1999). It is a failure in the first principle of teaching; to know your students.

This study has shown that first year science students in New Zealand arrive having had insufficient training in using secondary sources to meet the requirements of the scientific community. Colleges or Faculties of Science, therefore, have a responsibility to teach and support students these skills before they enforce penalties on those who contravene the rules of good scholarship. This study has proposed a model of education and prevention that could be used by any science education provider at tertiary level to teach both the skills and values of the academic community. If honesty is our most important ideal, and if teaching involves concern and good judgement, it makes sense that we take the time to teach and support our students in the acquisition of scientific and academic integrity, and in their hesitant learning of academic writing skills.

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Endnotes

- ¹ Note: ESOL students include international and recent permanent residents. Some Maori students might also identify themselves as having English as another language.
- ² In the discussion of this model, we use the term "College of Sciences" as a generic term to include faculties, institutes or schools, depending on the university structure.

TAKING THE MOUNTAIN TO MOHAMED:

Transitioning international graduate students into higher education in Australia

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Abstract

This paper reports on findings of evaluative research into student perceptions of a structured academic development workshop, which was specifically designed to induct and orient international students into the academic expectations of their program of study at a university in Australia. With most Australian universities engaged in the business of internationalisation of higher education, there is some debate about the adequacy of practices adopted by these institutions to familiarise their NESB international students with the Australian academic culture. While the practices of some western universities are sometimes said to be inadequate, there also appears some consternation about international students' lack of motivation to learn and their inability to master western academic conventions. Against this backdrop, the paper outlines the impetus for collaboration between the university's Learning Skills Unit and faculty staff in designing and facilitating a tailored academic development workshop for graduate students. After laying out related literature and details of the workshop, there is discussion of the data collection methods, and an analysis of the data from students. The paper makes a call for repeat workshops at the beginning of every semester, as an indispensable component of the overall content delivery strategies in the faculty's graduate program. The paper concludes by contemplating the educational integrity inherent in program and faculty staff development initiatives, which are focused on addressing the academic and cultural proclivities of an international student cohort.

Introduction

Australia's tertiary education sector places some significant reliance on an income stream generated from international students (Department of Education, Science and Training, 2005). For a time, international student fees accounted for a period of prosperity and growth in the sector, with lesser focus perhaps on the educational and cultural experience of those international students. More recently, however, contrary economic trends and stronger global competition in the international student market have, in addition to other factors, contributed to a measure of turbulence in the sector. At the same time, many Asian nations have implemented developments to their own education programs (Medew, 2005). Accordingly, some Australian tertiary education institutions now appear to give more careful attention to the predicament in which many international students find themselves as they cope with what for many of them is a foreign, if not to say alien, education system (Duemert, Marginson, Nyland, Ramia & Sawir, 2005). Not that the impetus for such careful attention to the requirements of international students need only be driven by economic factors, but the economic gains to be derived from the international student body must inevitably provide an institutional rationale for addressing the difficulties faced by international students. This sets up a moral dimension to the need for higher education institutions to attend to the knowledge and skills base of commencing international students. The thrust of this paper is that, by admitting international students into their programs, Australian universities should first recognise the need to educate those students in the local academic culture and conventions; and to do that in ways that are relevant to and consistent with the circumstances of their international students.

Commencing with a discussion of the literature, the paper threads the difficulties faced by international students

with some of the pedagogical strategies for addressing them. While universities often provide academic support and language courses for their international students, academic preparation programs especially designed for international students are still not the norm at every university in Australia (Ingram, 2005). What's more, students may not be aware of the generic academic preparation programs, or even realise their importance. Therefore, academic preparation programs which are anchored to faculty characteristics and expectations of students may have a better capacity to make a positive contribution to students' experience and learning.

The paper outlines the impetus for the collaboration between an Australian university's Learning Skills Unit and faculty staff in designing and facilitating such an academic preparation program. The resulting workshop was designed for students of the Master of International Tourism and Hospitality Management degree, a discipline-focused business management coursework program for graduate students. Almost all of the students in the program were international students, mainly from Asia or the Middle East and, with two intakes into the program each year, the cohort in any semester consisted of both new and continuing students. The paper reports on findings of research into these students' perceptions of the structured academic development workshop which was specifically designed to induct and orient them into the academic expectations of their program of study. There is discussion of the data collection methods, as well as an analysis of the data. Based on students' perceptions and evaluation of the workshop, the paper makes a call for repeat workshops at the beginning of every semester, as an indispensable component of the overall content delivery strategies in the Tourism and Hospitality graduate program.

The paper concludes by contemplating the educational integrity inherent in program and faculty staff development initiatives, which are focused on addressing the academic and cultural proclivities of an international student cohort. The conclusion proposes that this type of attention to the commencing skills base of international students constitutes a moral responsibility for Australian universities.

Related literature

"For *most* students (not just international students)" induction into the discourse of higher education "involves fundamental challenges to their values and their identity, as well as the development of new and complex skills" (Leask, in press, p. 5). Therefore new students face adjustment issues in their first year at university (McInnis, 2001). However, for international students, this transition period can be even more challenging, with isolation and loneliness of particular concern (Deumert, et al, 2005). Their prior experience of their own education culture (Biggs & Burville, 2003) where conventions of scholarship may be different from those in the Australian education system can create unique difficulties for them (Volet, 1999). Lack of skills in the western conventions of academic writing and critical thinking may lead to poor expression and unintentional plagiarism in their writing (Ryan 2000; Handa 2004) and for many of them tutorial participation can be hard and demanding (Wu, 2002; Handa, 2004). For students from a non English-speaking background (NESB), simply following the content of their subject matter in another language can be challenging (Mingsheng, 1999) too.

According to Handa (2004), "NESB international students' inability to satisfy the cultural and educational requirements of their host institutes makes their transition especially difficult" (p. 38) as their cultural background and prior learning experiences in their country have an impact on their teaching and learning expectations (Fisher, Lee & Bert, 2002). In many education cultures emphasis is placed on learning and remembering (Pennycook, 1996; Volet, 1999) and reproducing what was learnt in books or classes rather than on what the students themselves think (Cortazzi & Jun, 1996). Therefore, the notion of expressing expert voice

in their argumentative writing, the concept of borrowing ideas and words from others and acknowledging their sources may not have the same significance as it is in the western world (Pennycook, 1996; Handa & Power, 2003). Hence, poor quality of writing and lack of academic integrity in many such students could rightly be seen as just a lack of skills or a matter of not knowing the western academic conventions. Dominant literacy driven assessments and classroom practices (Mackinnon & Manathunga, 2003) as well as a lack of explicit instructions in how to accomplish them may also exacerbate their deficit.

The manner in which most students communicate and learn in a classroom situation is very much shaped by their culture (Nunan, 1988; Biggs, 1997; Littlewood, 2001) and as in many traditions more attention can be paid to written work, instead of classroom participation (Pennycook, 1996; Volet, 1999; Mingsheng, 1999; Handa, 2003) many international students may have developed a preference for working and communicating in written form, and may be unaccustomed to speaking out in class or tutorials or giving seminar presentations. Just as communication breakdowns can occur between foreign teachers and local students in eastern classrooms “when teaching methodologies developed in one educational context are exported to another educational context” (Mingsheng, 1999, p.14), international students from foreign educational and cultural backgrounds may find difficulty appreciating Australian classroom practices and can be expected to have difficulty following examples from Australian contexts (Handa, 2004). Similarly, educators who are unaware of the different learning styles of their international students may be unable to show a requisite degree of flexibility in their course delivery (Ward, 2001) and assessments. As a result, such a disjointed educational experience can lead to international students failing or even withdrawing from university altogether (Croninger, 1991; Birt, Sherry, Ling, Fisher & Lee, 2004).

It is incumbent upon universities, therefore, to acknowledge the difficulties experienced by their international students and to recognise their need for academic support and guidance especially during their transition time (Burns 1991; Jones et al. 1999; Leask 1999; Ryan 2000; McInnes 2001; Chanock 2003; Carroll 2004). What’s more academic staff must adapt “their own style of teaching” (Ballard & Clanchy, 1991, p. 109), considering the diversity of learners in today’s universities (Ireson, Mortimore & Hallam, 1999; Wu, 2002; Rayn & Hellmundt, 2003). Induction programs designed to clarify “how their programme will work, including assessment matters and early diagnostic exercises to identify those needing additional help” (Carroll, 2004, p 1) are considered valuable for all students and similar recommendations to improve the education experience of international students have also been suggested (Phillips, 1990; Ballard & Clanchy, 1991; Ramburuth, 1999, Bretag, Horrocks & Smith, 2002; Volet, 2003).

While bridging programs and orientation activities at most universities do provide new students with important information and instructions, international students are sometimes known to arrive to campus late in their semester. Therefore they miss out on these orientation activities and, like domestic students, may not immediately realise their deficit (Cargill, Percy & Bartlett, 2003, p. 91). What’s more, in a climate when higher education students generally engage in the “relentless pursuit of marks” (Maher, 2004, p. 52) and when students’ motivations and expectations are “tell us what we need to do, [and] we’ll do it” (Ottewill & Macfarlane, 2003, p. 34), the relevance of academic preparation programs can be overlooked by students, including international students. This approach can be thwarted, however, when academic preparation and support activities are built into faculty programs, and when academic reading and writing techniques are taught in the context of specific units of study (Beasley & Pearson, 1998; Weiland & Nowak, 1999). Therefore academic preparation programs embedded in their study program have been especially recommended for international students and positive outcomes have been reported from such initiatives (Harris & Bretag, 2003).

This identifies a place for a collaborative approach – between both faculty and learning skills staff involved in academic preparation – towards the delivery of academic skills preparation (Harris & Bretag, 2003) in content-driven faculty contexts. Moreover, there is further scope to create interactive, positive learning environments when such programs involve both international and domestic students, and new and continuing students. In such cases, and with something of a cross-pollinating effect, both domestic and international students can be found to benefit from each other's participation (Anderson & Baud, 1996; Cortazzi & Jun, 1997; Volet, 2003; Handa, 2004).

Rationale for the *Academic Development Workshop*

As a prerequisite for admission, students in the Master of International Tourism and Hospitality Management program were generally required to hold an undergraduate degree. Because the vast majority of these students were international students, their understanding and perception of tertiary education were garnered from their undergraduate experiences in their home countries. With such a large proportion of students in the program from Asia and the Middle East, the Australian tertiary education system and conventions contrasted with what students had previously experienced.

For this reason, the university had, as a matter of course, made available to all students, occasional training sessions and short courses to assist with the academic demands of university study in Australia. These training sessions and courses were delivered by the university's Learning Skills Unit, whose remit was to provide generic study and learning assistance for students: this was in addition to the usual discipline-focussed assistance provided by academics in the university's faculty. Attendance at the Learning Skills Unit's training sessions and short courses was on a voluntary basis, usually outside the timetabled classes in the program.

Although careful and direct invitations to attend these sessions and courses were made to these Tourism and Hospitality students, attendance was very poor. With the focus on academic preparation, analysis and writing, these sessions and courses, by their nature, were not solely and immediately connected to the students' current units of study. Anecdotally, it had been found that the generic nature of this study and learning assistance was considered by students to indicate that the assistance was a somewhat dispensable element in their learning. This led to a stronger collaboration between the academic staff in the Learning Skills Unit with those in the discipline-based faculty. A joint staff roundtable discussion drew attention to the difficulties experienced by students and staff in teaching international students. The discussion articulated an apparent discord between students' and faculty expectations of the learning experience, with differences stemming from a range of perceived factors including students' unfamiliarity with academic analysis and writing, and staff's assumptions about graduate students' ability to engage in classroom discussion.

To address such matters, the Learning Skills Unit and faculty staff further collaborated in designing and facilitating the compulsory, full-day *Academic Development Workshop*, for both new and continuing students, in the second week of the spring semester 2004. Students were specifically required to attend the Workshop, which was explained to be a "compulsory" component of their course of study (although no sanctions for non-attendance were outlined). Some 42 students attended the Workshop.

The objectives of the *Academic Development Workshop* were:

- To explain to students what was expected of them as Masters students (including class attendance, taking an independent approach to study, meeting deadlines, participating in class discussions);

- To give students some of the general academic study and learning tools and techniques that would assist them in their studies and in completing assessments; and
- At an interpersonal level, to give students an opportunity to become acquainted with other students and faculty staff.

Some of the themes of the Workshop sessions included the need to be independent learners, explanations of the various forms of assessment, and instruction in academic writing, critical analysis, referencing, plagiarism and time and stress management. Most of the sessions included a student-based activity, and the topics were supplemented by an explanatory Workbook of the material covered.

Workshop evaluation

Data was collected from students about their experience of the Workshop, and about their perceived value of it. In addition, in the last week of classes, students were surveyed again in a follow-up evaluation, for their reflective feedback, following their opportunity during the semester to apply the academic skills that had been covered in the Workshop.

Workshop evaluation consisted of these four substantive parts:

1. A rating of the usefulness of the Workshop, on a Likert scale ranging from 1 being “not much use” to 5 for “a great deal of use”, and this was followed by a space for general comment;
2. An indication of which parts of the Workshop were most useful;
3. Any suggestions for changes or improvements; and
4. Areas in which the student-respondent required further assistance.

The follow-up evaluation was similar to the one used at the conclusion of the Workshop, except that the sessions covered in the Workshop were listed, and students ticked those which they considered useful.

Analysis of the evaluative data

From the 39 surveys completed at the conclusion of the Workshop, the mean rating on the “usefulness” scale was 4.1 (with a possible highest score of 5), and with no score below 3. 46% of students provided a general comment about their rating: these are grouped into four key themes and shown in Table 1 in order of frequency (from most to least frequent).

Table 2 summarises (without exhausting) student responses on the remaining substantive parts of the Workshop Evaluation.

For the end-of-semester follow-up evaluation, responses were received from 30 students. Their mean rating of the usefulness of the Workshop was 4.1, the same rating given at the conclusion of the Workshop. At the end of the semester, however, students seemed clearer about suggested improvements to the Workshop. They identified the need for:

- More information about critical thinking and analysis, assignment writing, academic writing and referencing;
- More examples and opportunities to practise; and
- More workshops.

Table 1: Key themes mined from student responses

KEY THEMES	SAMPLE OF STUDENTS' RESPONSES
Workshop provided learning	"Workshop made the standards & requirements clear" "Clarified what is expected" "Specially useful for writing assignments".
Great for new students	"Helpful for new students to settle in" "Should be offered at the start of each semester".
Unspecific positive comments	"Workshop was perfect" "A great workshop" "Conducted with great spirit and dedication".
Negative comments	"Should be shorter" "Workshop was too late for me because it was my last semester" "Mandatory attendance was not appreciated".

Table 2: Summary of student responses on other parts of the Workshop Evaluation

MOST USEFUL PARTS OF THE WORKSHOP (in order of most to least frequent)	<ul style="list-style-type: none"> • General study & learning skills, including critical thinking and analysis, learning skills, referencing, time management • Academic writing and forms of assessment, including assignment and report writing • Group work/group assignments • General program & miscellaneous matters.
SUGGESTED CHANGES OR IMPROVEMENTS (in order of most to least frequent)	<ul style="list-style-type: none"> • Approximately 25% of students suggested changes that would require more of what was already included, for example more handouts, examples and more about assignments. • Follow-up workshops • Three responses were negative: "workshop was too long", "change the room", "too much about referencing".
AREAS IN WHICH STUDENTS REQUIRED FURTHER ASSISTANCE	<ul style="list-style-type: none"> • Academic writing and analysis • Career development • Communication skills • Research and searching for information.

The evaluative data collected from students indicates that, while academic study skills (such as academic writing, critical thinking and analysis) were areas of most benefit to students, some of these were at the same time the areas in which students continued to crave still further knowledge and skills. This appeared to be so for "seasoned" continuing students as much as for the new intake. This, coupled with the high overall "usefulness" rating by students, was taken to signal a call to conduct the Workshop every semester, and to

trial the introduction of “lunchtime seminars”, during the semester, on those topics of particular concern to the students.

Concluding remarks

In general terms, student feedback about the Workshop confirmed a level of their satisfaction about its usefulness. While the earlier “optional” generic academic preparation sessions formerly offered by the university’s Learning Skills Unit had been poorly attended, data suggested that the “compulsory” Workshop appeared to have some strong support among the students. This response may result from the Workshop’s alignment to their specific program of study, but there does seem to be some support for the notion that even when academic preparation activities are known to be useful and beneficial to them most students are disinclined to engage in these activities and that sometimes for their own good these have to be “forced” upon them. In this context, at least, the attitude of international students might not be too dissimilar to their domestic classmates.

So, at some levels, as mentioned earlier, international students can be understood to respond to the education experience much like any other student; in a pursuit of marks and attending to instruction on what to do. Yet, with their different educational backgrounds, international students are nonetheless in need of academic preparation and, like other students, left to their own devices, may be reluctant to engage in that, without some clear indication of how that might contribute to the educational outcome in the form of a passing grade. This therefore points to the need for higher education institutions, in recognition of the plight of international students, to timetable academic preparations into faculty-level content delivery strategies. In this context at least, this study finds support from literature that records the benefits for international students of such an approach (Beasley & Pearson, 1999). Thus, in admitting international graduate students into their programs, it is thought to be obligatory for Australian universities to first recognise the need to impart to these students knowledge of, and skill in, the Australian educational culture and conventions – and in so recognising that need, to impart that knowledge and skill in ways that are relevant for and consistent with students’ circumstances.

Not unrelated to this institutional responsibility is the scope for faculty staff to factor knowledge of international students’ prior educational experiences into content delivery strategies. For example, simply expecting international graduate students to engage in in-class discussions or expecting them to produce flawless written academic texts especially in the first few weeks of their course, when the students are unfamiliar with these skills, might result in unsatisfactory experiences for both students and staff. Such skills may need to be developed over a period of time, starting with meaningful induction into the new academic culture and with staged activities which enable students to explore and learn the skills required to fully participate in the classroom discussions and engage in the discourse of their discipline. This type of attention to the commencing skills base of international students – which should perhaps be no less so than for domestic students – is understood to constitute a moral responsibility for Australian universities (Srikanthan & Dalrymple, 2002), when they accept international students (and international student fees) into their institutions.

This preliminary analysis indicates scope to mine the data for richer analysis, especially for the connection to students’ performance in assessments, and to students’ course experience feedback. This additional analysis would include an understanding of the broader pedagogical implications of the Workshop, and such additional analysis suggests possibilities to extend the study longitudinally.

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I WILL SURVIVE: Strategies for improving lawyers' workplace satisfaction¹

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Abstract

Does anyone actually know whether we produce better lawyers now than in the past? So asked Professor Hugh Brayne, concerning legal education in England and Wales in 1996 (Brayne, 1996). He observed that we certainly give students more legal education, but could not answer the question because there was no consensus on what makes good *lawyering*, nor on how it could be measured. There is one measure that should be included in a definition of good lawyering: the well-being of lawyers. If lawyers suffer clinical depression significantly more than the general population, many would think that law schools should reconsider their curriculum. Some law schools might reply their brief is to teach law, not lawyering.

This paper discusses proposed research on the well-being of Australian lawyers in the workplace. It examines what we know about workplace satisfaction for lawyers in Australia, compared with the worrying findings about the legal profession in the United States. The paper examines the likely causes of dissatisfaction including how universities traditionally teach law and what students are not told about legal practice. We discuss the need to investigate the well-being and satisfaction levels among newly-admitted lawyers, and to consider ways to teach law that could help lawyers not only make wise career choices but develop strategies to cope better with stressors in their workplace. Clinical legal education could help students develop professionally as well as personally in order to improve their chances of having a happy and productive life at work.

The Problem in America

Practising law is dangerous for your health. Many studies over the past two decades show lawyers in the United States suffer poor physical health and significant levels of mental illnesses, especially depression, alcoholism and drug abuse, as well as high rates of divorce and suicidal ideation. Depression alone may be considered by some employees to be an occupational hazard of a stressful job, but it should be a concern for clients and employers as well, because it has a significantly detrimental effect on performance (Martin, 2001). Martin found that the likelihood of decreased performance was seven times higher for depressed employees. The problem in the legal profession was clearly identified in the 1980s and the blame sheeted to law schools (Benjamin, Kazniak, Sales, & Shanfield, 1986). By the 1990s the situation had deteriorated and became a concern for the American Bar Association (Benjamin, Darling & Sales, 1990).

In 1998 Professor Susan Daicoff argued there was a "tripartite crisis" in the legal profession, consisting of a decline in professionalism, a decline in the public opinion of lawyers and a decline in the wellness and satisfaction levels of practising lawyers (Daicoff, 1998). Subsequently, in 2005, Seligman, Verkuil & Kang published the results of a study that confirmed growing unhappiness among lawyers, particularly young lawyers. They consulted legal academics and practitioners including managing partners in large firms and the American Bar Foundation, and they found that the dissatisfaction stems from three causes. First, employers select lawyers for their pessimism (or "prudence") which is encouraged and is general to the rest of their lives. The second reason is that young lawyers typically hold jobs that involve high pressure and low decision-making capacity, which promote poor health and low morale. Third, adversarial legal systems are largely a zero-sum game, where lawyers must use aggression to compete successfully and one party's win is another's loss. Leading American

lawyer Sol M Linowitz (1994, pp. 107-108) concluded the single-minded drive to win in the adversarial system makes “young lawyers not only less useful citizens ... but also less good as lawyers, less sympathetic to other people’s troubles, and less valuable to their clients”.

Subsequent research has proposed ways out of the paradox, but it remains to be seen the extent that the worst perpetrators in America, the large firms, are willing to reform certain practices that impact on their legal staff in such negative ways. Until they do, the findings serve as warnings to individual lawyers, who should take seriously the risks of working for employers who, for example, impose inflexible working conditions. Typically, firms practice law as a business, not a service, and some would make no apologies for putting profit ahead of the well-being of their staff.

The Problem in Australia

In Australia and New Zealand practicing lawyers face less risk, but the situation is deteriorating (Prodan, 2003). There are some early signs of the awful “tripartite crisis” in Australia. In 2001 the president of the Law Council of Australia addressed the 32nd Australian Legal Convention with a paper that began like this:

There has been an unprecedented number of attacks this year on the legal profession characterising it variously as greedy and self-serving, as tax avoiders and abusers of the system for personal gain. In formulating these attacks, commentators have attacked all lawyers, without differentiation (Trimmer, 2001).

Unless the causes of the problems which have led to a decline in the legal profession in America can be restricted to that country, a similar crisis is likely to occur here. Stressors on the profession come from changes through growth, deregulation, globalisation, competition and technology. Often in big firms these tensions filter down to low and mid-level practitioners who have little say in the nature or amount of work they do, while needing to meet unreasonable billing targets and keep clients satisfied. And it is not only in big firms where lawyers suffer from unreasonable levels of stress.

There is a growing body of Australian data that suggests a gradual decline in the well-being of practicing lawyers. While not on the American scale it should be a concern for the profession and for law schools.

By the early 1990s the Victorian *Law Institute Journal* (1990) began an occasional series intended to encourage lawyers to look after themselves, such as the situation of lawyer “Tom” who had turned to alcohol because of work-related stress. The rate of alcoholism is a crude measure of stress but a valuable indicator that something is wrong. According to High Court of Australia Justice Michael Kirby (1995), stress among lawyers in New Zealand caused them to be placed in the “high risk” category for alcoholism.

Another signal of problems is the high rate of lawyers leaving the profession. It has been reasonable to blame inflexible working conditions that made it difficult for people with parenting responsibilities, who were and remain typically women. In 1989 one of the first empirical surveys on the satisfaction of Australian lawyers considered the reasons given by solicitors leaving the profession in Victoria (Law Institute of Victoria, 1990). The survey caused some concerns because it showed that 6% of male practitioners and 12% of women practitioners did not renew their practising certificates. The main reason given by men was “Lack of Satisfaction” (shared with “Personal/Lifestyle”). Women gave “Personal/Lifestyle” as the biggest reason, followed by “Family Commitments” then “Lack of Satisfaction”.

Another Victorian study in 1999 showed up to 30% of private practitioners were considering leaving their

jobs (Victorian Women Lawyers Association, 1999). By 2000 44% of lawyers in Sydney and Melbourne were considering leaving their present firm (Schmidt, 2000). In 2001 the Young Lawyers' Section of the Law Institute of Victoria (2001) published some "horror stories" from complaints by young lawyers over a number of years about the employment conditions in some Victorian law firms.

In Queensland in 2000 an experienced legal recruiter warned that the majority of lawyers in that state were unhappy at work and were looking for change (Lawyers' Weekly, 2000). Researchers surveying law graduates nationally in 1995 found that the most frequently used skills were oral and written communication (Vignaendra, 1998). These skills are not generally taught in law schools, except for some with good clinical legal education programs, and in 2000 another government survey of employers found that communication skills were still among the biggest deficiencies of graduates (AC Nielsen Research, 2000). The discourse continued to reflect a belief that there were two issues of concern, theory and practise. The perceived problem was that universities taught theory, but despite some minimal and mandatory practical legal training lawyers were largely expected to find out for themselves *how* to practise law.

A study in Western Australia in 1999 identified the causes of dissatisfaction of legal practitioners, and found them to be largely related to communication failures within the firm (Law Society of Western Australia & Women Lawyers of Western Australia, 1999). The study found that solicitors had inadequate control over factors which impacted on their work, there was unfair allocation of "interesting work", expectations were not communicated, there was no clear vision and direction from firm partners, and salary was inadequate compared to the level of responsibility.

Whether in professions or trades, we often consider the level of pay to reflect the level of difficulty and the importance of the work involved. The fact that some solicitors feel their pay does not reflect the responsibility expected of them could not only make them feel unappreciated but itself be a cause of anxiety and impact on self-worth. Some might feel their low pay level signals that others consider their jobs to be not very demanding, and because they find their work difficult it impacts on their self-esteem and causes a sense of hopelessness. While money is important, some research indicates raising pay levels alone is not sufficient to make a significant difference in job satisfaction for lawyers. The Western Australia research states "While very low salaries may detract from job satisfaction, research is quite clear that pay is not a significant factor for remaining with an employer." (Law Society of Western Australia et. al., 1999).

In New South Wales as early as 1991 the Law Society of NSW was sufficiently concerned about stress levels in the profession it established LawCare, a counselling service for practitioners and their families. By 1998 a study found that solicitors were working "excessively long hours", even more than in other professions, and that it impacted on their family and personal lives (Law Society of New South Wales, 1999). In 2001 however subsequent reports by LawCover and the Professional Standards Department of the Law Society of NSW found that unacceptable numbers of solicitors faced personal difficulties such as depression, alcohol dependency, gambling, stress and even serious illness (Aaron, 2001).

These difficulties impact not only on the quality of life among lawyers but on the quality of their work. Complaints about legal practitioners, including failure to respond to clients' enquiries and excessive delays in handling matters led to the creation of a new service for lawyers called the Lawyers Assistance Program Inc (www.lap.com.au). Subsequent studies commissioned by the Law Society of New South Wales from 2001 to 2004 show between 13 and 18% of responding solicitors were either dissatisfied or very dissatisfied with their jobs (Mercer Human Resource Consulting, 2001, 2002, 2003 & 2004). In 2004, 52% of NSW respondents

indicated that stress at work had increased over the previous 12 months and about a third reported experiencing discrimination, harassment, intimidation or bullying.

Law schools can never teach all the law, and are easy targets for accusations that they teach “the wrong thing”. In Australia both the 1987 Pearce Report (Pearce, Campbell & Harding, 1987) and the 1994 McInnis and Marginson Report (McInnis & Marginson, 1994) provided critiques of the slowness of law schools to introduce legal skills into the curriculum. Similarly, the Australian Law Reform Commission in 2000 called for legal education to focus on what lawyers need to do rather than traditional notions of what they need to know (Australian Law Reform Commission, 2000). In 2001 the Law Council of Australia blamed the Commonwealth Government for starving law schools from the late 1980s by placing them in the lowest funding category at a time when studying law was becoming very popular (Law Council of Australia, 2001). While practical legal training had commenced in large firms and some law schools by 2001, the Law Council complained there was no coordination or monitoring of standards.

In the late 1970s many lawyers suffered not only from high work loads but from inexperience and the frustration of knowing the theoretical answer to a client’s problem but having no idea of the procedures necessary to solve it. Since then the *Lawyer’s Practice Manual* has helped steer many lawyers in the right direction when they have a particular type of matter for the first time. The *Lawyer’s Practice Manual* is an updated looseleaf service available for most Australian States through Thomson Law Book Co. However knowing the law and knowing about legal process is not enough. As Neil Rees indicated in 1980, many lawyers suffer burn-out because they frequently work with people experiencing distressing problems and are often the harbingers of bad news in their advice; they have to communicate with people at a deep level but get no training in interpersonal skills; and some are very sympathetic with their clients but tend to overcommit and take every loss personally (Rees, 1980).

Recognition of these problems helped the growth of clinical legal education, which has made inroads in Australia since the 1980s. The first clinical legal education began through Monash University in 1975 and the second through the University of New South Wales in 1981. There are several unpublished reports on the early development of legal clinics in Australia (Rice, 1996). Many clinical programs provide students with experiences that help them develop their interpersonal skills. However the combined impact of clinical legal education so far on the Australian legal profession may not be enough to stave off a crisis.

Most academics and practitioners would agree that practical legal training helps individuals entering the profession as well as benefitting their employers and the community they serve. However, the debate has been dominated for too long by a dualist argument that perpetuates a continuum between doctrinal legal education and practical legal training. Neither of these two, nor even combining them, is likely to make much difference to the satisfaction and long-term survival rates of practitioners until law schools recognise the value of personal development as part of legal education. Practical legal education must not be confused with clinical legal education (Rice, 1996). Law schools may need to accept their task is to not only teach law and lawyering, but to do it in a way that facilitates personal development.

The Problem with Law School

The desire to prevail is natural: the need to prevail is destructive (Kreiger, 1998).

Researchers have identified many causes of depression among lawyers, however knowing the causes has not led to any significant changes in the profession or in the incidence of the illness. Early American data showed that four out of ten students who entered law schools up to 1967 failed to graduate (Miller, 1967). In 1980

the American Bar Association awarded a prize to a student editorial that abhorred the “unwarranted stress” placed upon law students at the University of Arizona and the lack of concern for them by faculty (Heins, Fahey & Henderson, 1983). The university subsequently surveyed law students and medical students at the beginning of their second year, and found that law students suffered significantly more “Academic Stress” and “Fear-of-Failing Stress” than medical students (Heins et al., 1983). Concurring with these findings was a personal account published by a graduate professor, who endured the process but found law school was marred by an atmosphere of fear, intimidation and psychological manipulation of law students’ sense of self (Halpern, 1992).

In 1985 a group of American researchers criticised previous studies on law students’ stress levels because: “no study examined the longitudinal psychopathological conditions students acquire before, during, and after completing law school” (Benjamin et al, 1986). They then administered a battery of five tests to 320 students and alumni from the University of Arizona Law School over the period from 1981 to 1984. The tests were designed to check for the following symptoms: obsessive-compulsive behaviour, interpersonal sensitivity, depression, anxiety, hostility, phobic anxiety, paranoid ideation, and psychoticism (social alienation and isolation). The results could be called alarming. Prospective law students showed “normal” symptom levels, although these increased significantly during law school, and continued for 20-40% of students at least for two years post graduation (Benjamin et al, 1986). While 3-9% of the general population suffer clinical depression, 17-40% of law students were clinically depressed, and 20-40% suffered from other symptoms as well.

One study considered another arm of the tripartite crisis in the legal profession as identified by Daicoff (1998). In 1991 Janoff published her research on the influence of legal education on the moral reasoning of lawyers (Janoff, 1991). She found that the first year of law school had an insignificant effect on men’s moral reasoning but a substantial effect on women’s moral reasoning. The explanation she argued was that most women enter law school oriented towards interpersonal relationships rather than to a hierarchy of abstract principles. Legal education is more aligned to how men think and so had less impact on their moral reasoning than it did on women.

Implicit in Janoff’s conclusion is a suggestion that law schools, and ultimately the legal system itself, might benefit from ceasing its suppression of the “voice of care” or what Carol Gilligan (1982) called the traditionally feminine values of connectedness, care, and circumstance. That kind of change will remain difficult while law schools inculcate the priority of winning in the adversarial system of law. A contrary force is the rising significance of “alternative” forms of dispute resolution, such as mediation, partly driven by the shortage of legal aid funds and partly by the success of “alternative” programs such as therapeutic jurisprudence and preventative law, which call for changing the adversarial mind-set.

In 1998 clinical professor Lawrence Krieger argued the dehumanising aspects of legal practice and legal education cause the most distress for lawyers and law students (Kreiger, 1998). He and others have been particularly critical of the narrow focus of legal education, such as getting students to think “like a lawyer”:

Thinking “like a lawyer” is fundamentally negative; it is critical, pessimistic, and depersonalising. It is a damaging paradigm in law schools because it is usually conveyed, and understood, as a new and superior way of thinking, rather than an important but *strictly limited legal tool* (Kreiger, 2002 p.117). *{emphasis added}*

Research in 1999 suggested that law schools contribute to the malaise in the American legal profession as law students exhibited higher levels of depression than the general population (Dammeyer & Nunez, 1999).

Those findings were confirmed by Krieger (2002) when he and K. M. Sheldon, psychologist, found that law students who at orientation exhibited normal mental health patterns, by second year displayed significant anxiety, depression and reduced motivation.

Legal education seems to reproduce and reinforce a culture that prioritises “external” measures of success, such as grades, credentials, appearances, money, win-ratios and prestige. Legal practitioners are known for making choices that correlate strongly with needing external rewards and recognition, but which also produce high levels of stress (Kronman, 1993).

Doctrinal law schools emphasise “legal analysis” and teach that the law exists as a discoverable truth. There is no place for the uncertainty of real life when the focus is on finding the correct answer from analysing complex legislation and precedent appeal cases. Most students are taught as if law is already justice, instead of an attempt to achieve it; as if there is a correct and identifiable answer in every case. Law schools often teach in the paradigm of a perfect world where legal services are affordable by those in need and legal aid covers the rest; politicians comply with international treaties; laws are comprehensive and comprehensible; judges reason consistently and follow precedents; juries make logical decisions; police are responsible; courts are efficient; lawyers are ethical; witnesses tell the truth; and the client’s instructions are complete.

Legal process is dominated by correct form-filling and assumes the priority of winning in the adversarial system of law. Students learn little about the uncontrollable variables in every case and the role of chance that make most legal outcomes unpredictable. The messiness of real life impacts significantly on legal practice but is ignored by academia.

It is legal clinics, but not practical legal education programs, that can provide students with a taste of this chaos of life and expose them to the erratic and nuanced complexity of lawyering. Just a taste may be all they need, provided they are supported by confident and compassionate legal supervisors. Students need to learn not to panic when they don’t know the answer to a client’s legal problem. They need to develop their own way of understanding the law and procedures in the context of the myriad exceptions and contradictions that come with their clients’ experiences.

Similarly, while law schools acknowledge the importance of professionalism, they often teach it as an academic subject called “legal ethics”, consisting of rules and principles to be memorised. In clinics, students can be supported to develop “internal” criteria of professionalism such as personal values, conscience, feelings and character. Students whose academic experience provides them with no clinical exposure to develop their emotional competencies will find it harder to adjust to the surprises that await them in legal practice.

What Can Law Schools Do?

In 1983 researchers at the University of Mississippi decided it was unrealistic to entirely reduce the causes of stress in law school or in legal practice so it was important to provide law students with knowledge and skills on how to cope with the usual causes of chronic stress and maladaptive stress patterns (St. Lawrence, McGrath, Oakley & Sult, 1983). They subjected a group of first and second year law students to a stress-management program and compared their subsequent stress levels to those of a control group. Comparison of results with the control group showed that stress management training was very successful in reducing the law students’ stress levels and increased their use of adaptive stress management strategies. The report recommended the program as “highly effective”. No-one seemed to notice this helpful contribution although some educationalists continued to “stress” about the stress that law schools cause their students.

It is likely that law schools with established legal clinics are in a better position to incorporate programs to inform students about the nature and danger of stress, as well as help them to develop stress management strategies in the future. Clinics can provide an environment that encourages two-way communication between students and supervisors which can help identify the student's personal needs and begin the process of deciding how to address them. One method would be simply to incorporate a program of stress reduction and management strategies. As found by the Mississippi program in 1983, it is likely to have beneficial effects immediately on many students and provide them with strategies for coping with stress in the future. Clinical supervisors are in a good position to identify students at serious risk in which case it would be appropriate to talk with them personally about a referral for professional help.

Clinics could guide students towards understanding legal professionalism, not as a list of rules to follow, but as an attitude of careful practice. Supervised legal experiences can help students work out where their strengths and weaknesses are and help them develop emotional competencies and become more integrated to cope with stressors. Ideal clinical programs include role-plays of interviews and negotiations in preparation for supervised work with real clients. They are supported by routines and activities that encourage reflection by small group discussion, mentoring and keeping journals. There is a significant amount of theoretical validation for the kinds of personal development that can be facilitated by clinical legal education programs.

Abraham Maslow theorised a hierarchy of human needs which is often presented as a pyramid (Maslow, 1943 and Maslow, 1970). At the base are the physiological needs to enable survival, followed by the needs for safety and security, love and belonging, self-esteem and finally at the apex is the need for what he called "self-actualisation". Maslow claimed the lower levels were "deficiency needs" which people only feel when they are lacking. When each need is satisfied people feel nothing, except the next need above it in the hierarchy. In this theory, only when people reach the fully integrated level of self-actualisation have they achieved "psychological maturity".

In terms of legal practice, self-actualisation is not likely to be a product of winning cases, achieving a high billing target, getting a promotion or even becoming a judge. These are external criteria that reflect a range of needs in the lower levels of Maslow's hierarchy. Self-actualisation, like legal professionalism, is not so much a goal but something you do, or how you live your life, if you are not distracted by unsatisfied lower needs. The main determinant for professionalism is a balanced life, based on satisfaction of internal criteria. The best legal practice managers would not impose unreasonable billing targets because they would understand that satisfied lawyers tend to be more professional and professional lawyers tend to be more satisfied.

Fredrick Herzberg developed a theory of professionalism that accords with Maslow's hierarchy and its application to legal practice (Herzberg, Mausner, & Snyderman, 1959). Based on researching large numbers of employees, Herzberg concluded there were two dimensions of job satisfaction: motivation and hygiene. Hygiene refers to the overall work environment, including salary, conditions, policies and type of supervision. He considered these matters to be basic and sources of dissatisfaction if they were not adequate, similar to the lower levels on Maslow's hierarchy of human needs. What really motivated people and gave them the intrinsic satisfaction and the opportunities to develop was being trusted with responsibility for challenging tasks.

Successful lawyers in either Maslow and Herzberg's theories would require significant self-awareness, especially familiarity with one's inner-world of feelings and emotions, as well as the ability to identify or "read" the feelings of others. Since the 1990s emotional intelligence has encroached into the regime dominated for a century by the intelligence quotient (IQ) and personality theories (Salovey and J D Mayer, 1990; Goleman, 1995; Bayne,

1995 & McGuiness, Izard & McCrossin (eds), 1992). Many law firms still rely on modernist theories of IQ and personality types by testing prospective employees, however research suggests that IQ is a poor indicator of legal performance (Bligh, 1977; Brayne, 1996). It seems that a high IQ helps lawyers get jobs, while a high emotional intelligence (EQ) can help them endure and achieve.

The concept of emotional intelligence has improved our understanding of the nuanced aspects of human experience and competencies. Salovey and Mayer's 1997 model consists of four parts: the perception of emotion in oneself and others, the emotional facilitation of thinking, understanding and employing emotional knowledge and the reflective regulation of one's emotions to help personal growth (Mayer & Salovey, 1997). The 1997 Mayer and Salovey model has been recognised as a standard by "scholars working in the field of emotions" according to Australian management academics Peter Jordan, Neal Ashkanasy and Charmine Hartel (Jordan, Ashkanasy & Hartel, 2003). One of the most recent constructs is by Adele Lynn, who proposed a similar model using five components: self-awareness (and self-control), empathy, social expertness, personal influence and mastery of purpose and vision (Lynn, 2005).

What the University of Newcastle Legal Centre Does

The University of Newcastle Legal Centre (UNLC) provides clinical legal education for law students who undertake the *Professional Program* or the *Public Interest Advocacy* elective. Students can elect to enter the Professional Program (known as Option B) once they have completed a degree in another discipline and the Core Program in the Bachelor of Laws. The Professional Program leads to the award of a Diploma of Legal Practice in addition to a Bachelor of Laws. The clinical courses are integrated with the mainstream School of Law courses and provide students with opportunities to practice law in real client situations with experienced supervision. About half the graduates of the School of Law elect the Professional Program (Option B) and the remainder do only the Bachelor of Laws (known as Option A). Both are completed over the final two years of law studies.

The students who complete the Professional Program are eligible for admission to practise upon graduation and have no need for further formal training. During their clinical sessions students have the opportunity of various placements at UNLC where they conduct initial interviews with clients, research, investigations, case-planning and draft correspondence and documents in general legal advice, ongoing open-file matters as well as major public interest cases. Students may also get experience of supervised legal practice at the Many Rivers Aboriginal Legal Service, the Legal Aid Commission of NSW, a private legal firm or a public law office.

Learning Survival: Future Research

The authors are piloting a research project to investigate the effects of law school experiences on the workplace satisfaction of graduates of the Newcastle School of Law. The project aims to correlate findings of workplace satisfaction of practising lawyers with experience (or "non-experience") in clinical legal education and preliminary measures of emotional intelligence. It aims to identify the major causes of dissatisfaction among graduate lawyers.

Analysis will shed light on the effects of clinical legal education practises at UNLC, by comparing post-admission experiences of Professional Program and degree program only graduates. The project may also provide an indication of the effectiveness of clinical legal education in helping students to develop emotional capacities that would assist them as practising solicitors. Analysis of the feedback from graduates will allow us to identify the major risks for newly-admitted practitioners and decide whether clinical practices can be

oriented or developed to help students anticipate and cope better with those experiences.

The research will also allow us to reflect why we do what we do. Specifically, should we teach law to meet the needs of the legal profession, or the needs of graduates working in the profession? Or is it safe to assume it is the same thing? Should we teach law to meet academically predetermined graduate outcomes or to meet our view of the legal needs of the community, business and government sectors?

Conclusion

The diversification of legal practice makes lawyers' stress levels harder to address because of the many influencing factors. Lawyers in large firms may spend their working lives "law shaping" on behalf of their affluent, usually corporate clients, through high-level strategic lobbying, issues planning and policy development. In medium and small firms lawyers compete against each other for promotion, against non-lawyers offering similar services (eg. conveyancers, tax agents, mediators, immigration agents), and against virtual services and information on the internet (Australian Law Reform Commission, 2000; Weisbrot, 2001).

Patrick Schiltz (1999) strongly recommends we should advise students to avoid joining large firms if possible, or at least be selective on what firms to work for. However in Australia there is not enough research data yet to condemn large firms or to recommend smaller firms generally to students. In any case, the demands of the employment market and the prestige value of some firms may override caution in many students amidst the momentum of ambition, the expectations of others and the euphoria of graduation.

Our proposed research may enable an assessment of the risk factors for practicing lawyers in Australia. We hope to develop evidence-based options for clinical programs to assist law students to develop personal skills, increase their emotional capacities and adopt positive attitudes that will improve their chances of survival in legal practice without diminishing their overall well-being.

Until we know if an American style crisis is developing in the Australasian legal professions we can do a lot to improve the satisfaction levels of lawyers, avoid a decline in professionalism and improve the public opinion of lawyers. Taking seriously theories like emotional intelligence and allowing them to inform our clinical teaching practices would be a good first step to help identify the risk factors. We would then be better able to familiarise students with the risks of legal practice and to help them focus on the opportunities for personal development that good clinical programs can provide.

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Endnote

Copyright remains with the authors.

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A SCOTTISH UNIVERSITY'S CROSS-INSTITUTIONAL APPROACH TO REDUCE PLAGIARISM: First results and recommendations

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Abstract:

Research and consultations in session 2003/2004 by a University's Plagiarism Working Group uncovered a poor understanding of plagiarism and inconsistent handling procedures throughout its schools. In an effort to address both these issues, a strategic 2-year Action Plan was developed and rolled out beginning the following academic year in order to improve student support, staff awareness and more consistent practice overall. The plan included a pilot using the detection software service, Turnitin®UK, with five of the University's 14 schools. The pilot was only one of a series of university wide deliberations, others included the revision and piloting of a University plagiarism code of practice, implementation of school-based academic conduct officers, improved staff development opportunities and student support materials and events. The University's School of Computing has served as a role model of good practice throughout. Noteworthy is the school's record keeping practice since session 2001/02 of incidences of plagiarism. In the paper we present the factors such as gender, nationality and level of study that have been found linked to the incidences of plagiarism in the school. Furthermore, the role plagiarism detection software plays in addressing plagiarism is explored within the collaborative and holistic approach of the Action Plan. Finally, the challenges and resistance faced by key players throughout the implementation of the first phase of the Action Plan at the University are considered and the commitment to continuous enhancement recognised.

Introduction

Plagiarism is certainly not new to higher education, and it has been widely recognised that internet technology makes it easier to plagiarise than ever before. Academics and plagiarism experts expect the opportunities for "point-and-click" plagiarism to expand further as the internet continues to grow [Williams, 2002] [Carroll, 2005]. These findings are further borne out by a 2002 survey conducted at Northumbria University in which 40% of students and 35% of academic staff approached attribute plagiarism to the ease with which material can be copied from the Internet [Dordoy 2002], consistent with a similar survey of North American students reported by McCabe in 2003 [McCabe, 2003].

Consultation of the "academic research services" for custom written term papers in the 1960's has since evolved into diverse forms of cyber-pseudo-epigraphy facilitated by the increasingly networked research environments which include the commercial and private online availability of written academic work on seemingly any subject matter. Downloading began replacing manual transcription around the mid 1980's, and after Google's launch in 1998, the internet ultimately became a public panacea for information of increasingly dubious origin seemingly responding to steadily increasing student demand. But, plagiarism is restricted to neither student incidences nor higher education. Vice Chancellors in Australia, newspaper editors in the U.S. and established authors in Germany have been caught copying written work. Increasingly plagiarism-detection service providers are in demand outside the education sector such as by law firms, military agencies and information services [e.g., LexisNexis, 2005].

Australian and U.S. education institutions have been proactive in recording and addressing plagiarism for over 30 years, the first such U.S. study dating even as far back as 1940 [Drake, 1940]. Paper mills are found critically discussed in U.S. literature in the early 1970's [Stavisky 1973] and Australian reports on the extent of plagiarism and reasons for cheating appear a few years later [e.g. Bushway and Nash, 1977]. In 1992 *The Center for Academic Integrity* was founded in the U.S. in an effort to promote the values of academic integrity among students at a national level. Six years later John Barrie, a biophysics professor at Berkeley, founded Turnitin.com, the first commercially available software service developed to detect online plagiarism. In 2002 six Australian universities commissioned a comprehensive study of plagiarism using Barrie's detection software service and found that 14% of the 1925 student essays submitted were plagiarised to varying degrees [Foster, 2002]. Most recently a large-scale U.S. survey was conducted with 30,000 undergraduates at 34 colleges, of which nearly 40% admitted plagiarising, up from 10% in 1999 [McCabe 2005].

To paraphrase Barlow [1995, p.18], UK HE institutions, on the other hand, seem only recently beyond the stage: "Pretending that it ain't broke means you don't have to fix it." This is somewhat surprising considering the findings of the first UK survey of its kind in 1995 in which 50% of the surveyed undergraduate students admitted engaging in different forms of academic dishonesty [Newstead, et al. 1996]. The results hardly spearheaded institutional change, but after subsequent polls and surveys confirmed an increasingly worrying trend in UK higher education, the publicly-funded Joint Information Systems Committee (JISC) Plagiarism Advisory Service was established in 2001 to help handle the problem on a national level [JISCPAS]. One year earlier Oxford Brookes had developed a novel system of specialist officers (*academic conduct officer*, ACO) to assist academic staff deal with students not complying with university academic conduct regulations. Books on plagiarism by UK publishers began appearing [e.g. Carroll 2002; Angelil-Carter 2000] and the JISC-funded, US based plagiarism detection software, Turnitin®UK, was made available at no cost to all UK higher education institutions between 2003 and 2005. Though uptake by UK institutions was not systematic, the inaugural UK Conference on Plagiarism sponsored by JISC PAS in 2004, gave plagiarism in higher education in the UK a further profile [JISC PAS 2004].

Napier University's School of Computing has stood out internally since 2001 by recognising and recording cases of plagiarism over a period of 3 years to 2004/05. Their results and local educational and preventative measures enhanced the work of a University Plagiarism Working Group in the spring of 2004 in an effort to address the school's initial findings and wider concerns on an institutional wide basis. In this paper, the School of Computing's misconduct data analysis is first presented. Measures implemented by the Working Group based on the good practice modelled by the school are described. Finally, the results and challenges of the first set of university-wide deliberations to prevent plagiarism are explored.

Good Practice at Napier

Napier University, Edinburgh is a modern (post-1992) university organised into 14 schools plus an LLL department. It has 4 faculties. Some 15,000 undergraduates and postgraduates are taught by 750 members of academic staff. Nearly 30% of Napier students are mature students. Following an upsurge of interest in plagiarism in UK higher education in 2003 and recognising the limitations compared with Australasian higher education partners, a short term Plagiarism Working Group, was established by the institution's LTA committee, headed by one of the authors and with members from Educational Development, secretariat, library services, quality enhancement services, the Napier Student Association and pro-active members of the academic community, including another of the authors from the School of Computing.

The Case Study

Following the example at Oxford Brookes the appointment of an “academic conduct officer”¹ by the School of Computing in mid-session 2001/02 led to a change in approach by the school in dealing with plagiarism and associated issues. The change was prompted by the recognition that plagiarism and collusion were separate issues and were becoming a significant problem which had to be dealt with consistently.

At the end of the session, an internal report showed that there was some evidence for patterns in the occurrences, albeit based on a sample of only 25 cases. Notably:

- Males were 2.3 times as likely as females to be involved
- PG students were half as likely to be involved in misconduct as UG
- Non-native speakers (NNS) were 10 times as likely to be involved as native speakers (NS).

The first two points fit in with the pattern of “academic cheating” reported by Hart & Friesner, [2004]. Summarising research by others, including Newstead et al [1996], they noted that “cheating appeared to be associated” with males rather than females and non-mature students rather than mature. Sutherland-Smith [2005] advises caution on the 3rd area, highlighting cultural differences in terms of academic conduct.

The School used terms in the following common ways:

Plagiarism is the unacknowledged use of the words and/or ideas of another

Collusion occurs when two or more students submit joint work on an individual assignment with the knowledge of each.

There was no clear definition of major or minor misconduct in the University in the ACO’s first year . In order to establish an unequivocal definition for use in the School, the ACO proposed and implemented a very simple rule:

“First offence = minor; second & more = major”.

This applied even if the 1st offence was a major download in the Honours project. It worked in the sense that all could understand it and the School had by far the highest reporting rate of misconduct in the University in the Working Party’s later survey (see below).

The students who come to the School of Computing are typically not those well versed in essay work and citation. From comments in hearings, many come from educational traditions in which repeating the “words of a master” verbatim seems to gain most marks and in which comparing two contrasting teachers’ views and giving one’s own opinion would be unfavoured [Turner & Acker 2002].

The interpretation of these in practice means that plagiarism is only investigated if there is no attempt to cite a source for extracts of published work. A student who borrows extensively from a website and only lists its URL somewhere will fail because there is little of the student’s own work to mark but won’t be recorded for misconduct.

Other students seem to have an instrumental view of higher education and will do what it takes to get the qualification. There are further resonances here with Hart & Friesner [2004].

Cases heard by ACO

Table 1 shows details of the cases heard by the ACO, including those in which no further action was taken, i.e. the incident was “not proven” misconduct but was investigated. Also shown is the number of academic staff (from a roll of 65) who reported misconduct. Noteworthy is the observation that largely the same members of academic staff report plagiarism each year.

Table 1. Misconduct cases from 2002-2005

Cases \	2002/03	2003/04	2004/05
PG	22	21	17
UG	69	45	35
Total	91	66	52
Reporting staff	25	18	20

As can be seen, the total number of cases has fallen, reported by (approx.) the same proportion of staff. Possible reasons for this include:

- The workload and “hassle” for staff
- Better education of students on misconduct issues: posters, handbooks, Head of School talks, etc.
- Changes to the composition of the student population.

Table 2. School student population 2002-2005

Students \	2002/03	2003/04	2004/05
PG	724	536	560
UG	1460	1416	1339
Total	2184	1952	1899
M	1729	1576	1607
F	454	375	345
F as % of total	20.8	19.2	17.7
NS	1647	1441	1326
NNS	506	505	559
NNS as % of total	23.5	26.0	29.7

Student population

Details of the student cohorts were obtained from the University’s Student Record System. It was soon clear that this data was unreliable for absolute analysis, e.g. too many students who did not matriculate or who withdrew after a short period are still included. However, assuming that such errant data is spread over all types of students, the data could be used for relative analysis.

Table 2 shows details of the numbers of students taught on campus in Edinburgh in the three sessions under consideration. Two trends are clear: a) the proportion of female students is falling and b) the proportion of NNS students is increasing².

Analysis

Table 3 shows the principal results of the analysis of Tables 1 & 2.

Table 3. Relative rates of misconduct cases, 2002-2005

Factor	2002/03	2003/04	2004/05
PG/UG	0.6	1.2	1.2
M/F	3.2	0.9	2.6
NNS/NS	4.3	4.7	4.1

The interesting points to note are:

- Something odd happened to females in 2003/04, otherwise the initial finding is confirmed
- PG students have moved from being less likely to cheat to slightly more likely
- NNS are some still 4-5 times more likely to be identified as cheating than NS (lower than the 2001/02 estimate but still worryingly high). A separate analysis of UG NNS in overseas programmes confirms this result.

A further analysis of the NNS/NS figures was carried out by breaking down the overall figure by level of study. Table 4 shows the results.

Table 4. NNS/NS relative rates of misconduct by level of study, 2002-2005

	2002/03	2003/04	2004/05
PG	2.8	6.2	8.4
UG	5.2	4.2	3.2

This clearly shows changes in the pattern of misconduct by PG & UG students. It could be inferred that, whilst the education in avoiding misconduct has a chance to work with undergraduates (NNS are in the School typically for 2-3 years), this appears not true for postgraduates (typically with the school for one year).

Plagiarism Working Group Survey

The initial findings by the School of Computing clearly indicated a central role that should be played by educative measures preventing plagiarism. In light of these results, the Working Group responded by developing a 10-question survey to measure and evaluate the educative-preventive-detection and disciplinary procedures in place across the university. Response rate by the 14 schools and LLL was 100%. The results exposed three main areas of concern: detection described as ad hoc by 93% of the respondents ranging from 0 to a maximum of 91 (School of Computing) cases (noteworthy here is that the highest rate of incidence out with the School of

Computing was only 16 cases); deterrence proactively practiced in only two out of 14 schools and LLL (13%) and an overall unsatisfactory perception by staff of other staff as role models of good practice. The results reflected themes from a Napier Student Association report in which the inconsistency of awareness, school guidelines and disciplinary procedures were raised with the Working Group. It was agreed among Working Group members that the polarisation of the student experience across the schools and particularly for distance learners and the international Asian-Pacific students in terms of plagiarism contributed to lowering student experience and academic morale. Purposive, strategic action at all levels of the institution, benchmarked by good practice in the most proactive schools, was felt essential.

The Two Year Action Plan

In order to promote a threshold standard of good practice across all schools, a two year Action Plan was drawn up which included a total of 10 measures to be implemented in a stepwise fashion between the academic years 2004/05-05/06 within an educative, preventive, detection and disciplinary continuum. An extant (but little known) institutional wide definition of plagiarism was adopted as follows: Plagiarism: “unacknowledged incorporation in a student’s work either in an examination or assessment of material derived from the work (published or unpublished) of another”.

Primarily, the four strategic actions that have been taken in the first year are:

- Academic Conduct Officers (ACO’s) appointed in all 14 schools
- Educative and awareness raising seminars and workshops for staff and educative materials written for students
- Systematic Turnitin®UK service pilot
- Plagiarism Code of Conduct pilot and consultation.

All four actions were approved by Academic Board. The two pilots, running for the duration of the Action Plan, began with self-selected schools for the first session, followed by a university wide implementation. The code of practice was drafted by a small team drawn from Educational Development, two academic faculties, and Secretariat and Management services. It was circulated in three schools at the beginning of Semester I of academic year 2004/05. Together with the Napier Student Association, the original authors and pilot participants reviewed and revised the code in Semester II for renewed implementation in schools in the following academic year. The revised Code was again approved by Academic Board.

The plagiarism detection software Turnitin®UK was piloted from within Educational Development in two phases, initially on a small scale with 13 volunteers from 5 schools, expanded to 18 to include interested ACO’s. Recognising that software could only be one tool of many in the effort to deter unoriginal thought and support academic staff, the pilot’s main objectives were to:

- Assess the reliability and usability of the detection software
- Evaluate the educational potential of the service
- Evaluate the software as a staff support tool
- Address staff perception of the role detection software plays in reducing plagiarism.

The staff experience would play a key role in the decision to subscribe (or not) to the service after it became subscription-based in August 2005. Academics were inducted to the service online in WebCT self-study training

developed to facilitate and manage the pilot and support its participants. Here all software documentation and additional online resources which addressed web literacy, showcased student tutorials or linked to essay banks and ghost writing services were made available. Correspondence between the administrator of the training module and pilot participants occurred via e-mail, online discussion board or phone. Staff were encouraged to use the software as an educational tool with their students, not solely as a detection tool during periods of assessment. Staff were given the opportunity online to share with one another their experiences and advice. A comprehensive survey at the end of Semester I marked the end of phase I of the small scale pilot followed by a revised and slightly expanded pilot in Phase II.

The Turnitin®UK Pilot Survey Results

Turnitin®UK pilot participants completed a 20 question survey after the first four months of operation. Response rate was 78%. The results are summarised in the order of the above stated pilot objectives for the pilot:

- The detection software service: All active service users (7/14 respondents) agreed that the software was easy to use and required less than 3 hrs of preparation before assignment submission. The high quality of information returned in the 178 Originality Reports was identified, but long return times (>24 hrs) during peak submission periods criticised. The service was unavailable twice during Phase I, which proved frustrating. The small breadth of the database was criticised.
- The educational potential of the service: All but one respondent agreed that plagiarism was a serious problem in their school. Only 33% of active users, used the service with their students. These gave students opportunities to practice referencing by submitting drafts to the service, recognising the potential for improving the quality of student work. One respondent recommended student use be discouraged to prevent misuse.
- Staff support: Respondents who didn't use the service argued either that it was too time consuming to learn, using conventional search engines was better or that plagiarism was not such a problem that it warranted use of such a service. Active users, however, felt well-assisted, remarking that using the service saved them time and could act as a deterrent. Checking for collusion was found especially helpful. All active users anticipated using the service again and would recommend its use to colleagues. ACO's using the service commented that the additional cases of detected student plagiarism at the school since piloting the service proved extremely stressful and hard to manage.
- Staff expectations of service: In the comments section of the survey a few respondents reported disappointment with the service for failing to check for matched text from databases students had access to. One respondent criticised the need to use the service alongside other detection methods such as search engines.

Additional Survey Results

The survey exposed a recurring theme, namely the lack of extensive school support for efforts to address plagiarism. Comments by 30% of the respondents ranged from "Anything that may cause students to fail seems deeply unpopular" to "Peers have felt let down by the inaction to even gross misconduct." And cynically, "What's the use? The penalties for plagiarism appear so slight that some students perceive it worth the risk." Finally, one participant remarked "There are senior lecturers who don't seem to either care about plagiarism or want to take the time to deal with it." In personal talks with affected pilot participants one of the authors confirmed that pressure to ignore plagiarism in order to submit grades in a timely fashion or improve retention

rates was not uncommon.

Discussion

The end of the first year of the Action Plan sees the University recognising its need to continue to plan strategically and enhance its practice in this area. Additionally, it sees it in wider institutional debate about academic integrity and plagiarism. The holistic, transparent and cross-institutional approach taken by the Working Group on all fronts has proven successful in a number of ways. Academic and support staff, Academic Board, management and student communities of practice have had the opportunity to contribute to the enhancement and development. Their feedback has ensured cyclical consideration of measures and improvements to the Action Plan already within the first year. More improvements have been made for the second year based on formal and informal observations and discussions, summarised as follows:

- Academic Conduct Officers (ACO): Following the recommendations made by the School of Computing ACOs were appointed but their responsibilities were not clearly defined. Less than half of designated ACOs have regularly attended staff development seminars. Only two have regularly made use of the detection software despite repeated efforts to include all ACOs in the pilot. The increased workload of the most proactive members of the ACO team has proven controversial. For 2005/06, guidelines have been drafted for all ACOs. All ACOs will receive personal support from a member of Educational Development and development sessions will be held to facilitate understanding of procedures, exchange good practice and to encourage networking. Workload allowances are being discussed.
- The five staff development events in 2004/2005 that addressed plagiarism were reasonably well attended but largely by the same members of academic staff. The number of events has been increased to include sessions addressing problematic trends flagged by the School of Computing data, such as the apparent increases in postgraduate offences and amongst international students. A new plagiarism information website for staff and students is being developed to go live during semester I of 2005/06. New student material will include informative handouts at matriculation and entries in programme handbooks, additional to student diary and freshers' guide inserts and posters already available. Plagiarism information and useful links are included in a newly developed pilot online induction for distance students.
- The Plagiarism Code of Practice is in operation university-wide already in a revised format. Academic Board has recognised that further revisions will be required for the session 2006/07.
- Turnitin®UK: Despite the disappointing rate of actual software uptake by pilot participants (50%), positive feedback secured University wide subscription to the service for 2005/06. The breadth of the database is growing. Session 2005/06 sees weekly face to face inductions to the service made compulsory for potential users in order to promote good practice and dispel common misconceptions of the service. Its educative dimension will be stressed.

Although the lessons suggested by the School of Computing data have not yet been addressed effectively on an institutional basis, one School and Educational Development have chosen to allocate a member of staff and research money for the area. Unengaged academics continue to give overall cause for concern. This is not a local issue, as evidenced by the 2004 survey carried out by FreshMinds and JISC PAS which reported a mere 3% detection rate of plagiarism [FreshMinds 2004], a figure that, if continued, will thwart the impact of even the

most exemplary of measures to address the issue. It would seem to be in the primary interest of all University educators to engage in efforts to reduce plagiarism, but School of Computing data and the Turnitin®UK pilot survey results suggest otherwise. Why? Part of the answer can be found in the paper, “Why do professors ignore cheating?” in which Keith-Spiegel and Tabachnick [1998] link factors such as emotional stress, lack of time and institutional disinterest in traditional values to academics’ apathy. The authors advise that Napier University has chosen to engage strategically from evidence base and quality enhancement perspectives rather than to ignore. The authors further suggest that UK universities should be serious about promoting academic integrity and that in order to do this they will need to recognise and respond to the requirements of staff engaged in measures to prevent and confront plagiarism, lest resistance increase further.

Conclusion

First lessons, innovation and record keeping within the School of Computing provided a data set for wider University development and an Action Plan. The first 2004/05 phase of the Action Plan has been successful in raising awareness of the issues that surround plagiarism and in the use of a consistent strategic framework to enhance support for both staff and students. The initial uptake of that support by academic staff has been slower than hoped, the reasons for which are being currently explored in a separate study. The Working Group and pilot studies, however, have already paved a way to increase education about and reduce the incidence of plagiarism.

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Endnotes

- ¹ An ACO is a member of academic staff in a School charged with responsibility for the consistent application of guidelines on academic conduct and investigating cases identified by colleagues.
- ² Please note that the NNS category is determined by recorded “nationality” code rather than “ethnicity”. There are very few students attending the School from foreign Anglophone countries. Students with a nationality code from UK & Ireland are assumed native speakers; others are assumed non-native speakers.

NESB AND ESB STUDENTS' ATTITUDES AND PERCEPTIONS OF PLAGIARISM

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Abstract

Concern about plagiarism by students from non-English speaking backgrounds (NESB) has grown apace with the increased numbers of international students attending western institutions. We present an exploration of student attitudes, perceptions and understandings of intellectual property, particularly plagiarism and copyright, and explore potential differences between NESB and ESB (English speaking background) students. The results indicate that while NESB students are more likely have engaged in plagiarism than ESB students, plagiarism overall is very common and reflects a combination of disrespect for material from the Internet and significant confusion about what actually constitutes plagiarism.

Introduction

There hardly seems to be a day now that does not include the report of yet another incidence of plagiarism in either public or academic life. The Internet has seemingly made plagiarism attractive and readily accomplished (Ryan, 1998; McCabe and Drinan, 1999; Rimer, 2003; Kasprzak & Nixon, 2004). Of course, the existence of tools like Google has also made detection easier and this may, in part, explain the perception that plagiarism has become more prevalent. However, it remains unclear whether or not the incidence of plagiarism has actually increased (McCabe and Drinan, 1999; Park, 2003) and whether or not the Internet has contributed (Chester, 2001; Scanlon and Neumann, 2002). One such group to attract particular attention as plagiarists (for example Desruisseaux, 1999) is students from non-English speaking backgrounds (NESB).

Analysing NESB plagiarism presents significant challenges as a “mythology” of information about students from cultures other than our own has developed in the western academic tradition (Biggs, 1999; Desruisseaux, 1999). Clearly, while culture is an important aspect of understanding students’ backgrounds and experiences prior to study, it is not a rigid determinant of future capability or a predictor of plagiarism per se. Appreciation of student perceptions and values around information use is necessary if effective strategies for educating a diverse student population are to be developed. Certainly, some instances of plagiarism by NESB students are readily detected due to dramatic changes in language fluency within assessed work, but it is not clear that other, more fluent plagiarists, perhaps from an English speaking background (ESB) are not escaping detection.

Fluency of expression in English is a challenge for many students with some researchers claiming that all students need assistance when developing academic writing skills (Howard, 1995; Wilson, 1997). Not surprisingly, written expression is a particular issue with NESB students (Wan, 2001; Bretag *et al.* 2002). Evidence suggests that the needs of International and NESB students are not necessarily being well met in developing these skills (Wan, 2001) and that teaching staff need assistance in ensuring that pedagogies and materials are designed with the needs of a diverse range of cultures rather than the dominant Western tradition (Errey, 1994; Ryan and Hellmundt, 2003).

A number of contributing factors have been noted as possibly contributing to plagiarism by NESB students:

- Financial pressure to succeed (Introna *et al.*, 2003);
- A sense of alienation (Introna *et al.*, 2003);
- Cultural norms requiring assisting a friend in need (Walker, 1998);
- Cultural differences in type of understanding required from students (Burns, 1991);
- Fear of excessive loss of face and impact on family (Burns, 1991; Walker, 1998);
- Moral perception of plagiarism and its significance (Introna *et al.* 2003); and
- Language skills (Bretag *et al.* 2002).

In this paper we present an exploration of NESB students' knowledge and perceptions of plagiarism. This is part of a wider study intended to better appreciate how students understand issues of intellectual property, particularly plagiarism and copyright. An overview of the general results obtained for all students is provided elsewhere (Marshall and Garry, submitted).

Methodology

A particular challenge is to try to deal with the generally recognised problem that survey respondents under-report participation in ethically dubious behaviour, such as cheating (Scheers & Dayton, 1987). Scenarios help by providing more context as does the use of multiple viewpoints or roles – in essence dissociating the respondent from their personal position (Wood *et al.*, 1988; Emerson & Conroy 2002).

We constructed a survey questionnaire and information sheet (available from the authors on request) which provided students with a variety of possible behaviours that might or might not involve plagiarism so as to test what they actually understood plagiarism to be (Table 1). The students were also provided with fifteen different scenarios (Table 2) that involved issues of copyright and plagiarism. Students were asked to assess how serious the behaviour presented was on a scale from 0 (no issue at all) through to 5 (extremely serious) for themselves. They also were asked to indicate whether and how frequently they had engaged in similar behaviour themselves. Results were collected anonymously from students enrolled in three different first year courses at a mid-size New Zealand university. A total of 181 responses were collected from 186 students during a class session without the teaching staff present (a 97% response rate). Of the respondents, 115 identified themselves as ESB and 66 as NESB. Human ethics approval for this research was obtained from the VUW Human Ethics Committee. Aspects of this research have been reported elsewhere (Marshall and Garry, submitted).

Results

While some academics may hold that, as with pornography, they know plagiarism when they see it (St. Onge, 1998, page 51), it is not at all clear that this is true for all students, or even that there is agreement about the range of possible plagiarism types. The student participants were presented with a range of possible plagiarism and cheating behaviours (Table 1) and asked to indicate whether or not they thought these were regarded as plagiarism by the university. Bold items were determined by the authors to constitute plagiarism; others include a mix of information uses that are not strictly plagiarism.

Examination of these results indicates some disturbing issues. Behaviour that is clearly plagiarism (item 1) is not correctly identified by 4% of ESB and 11% of NESB students, while behaviour which is correct (item 13) is thought to be plagiarism by 10% of ESB and 6% of NESB students. This suggests that basic understanding

of what plagiarism is and is not eludes around 10% of the students. Worryingly, 28% of ESB and 57% of NESB students appear to feel that changing the words (item 7) is sufficient to avoid plagiarism, while more subtle forms of plagiarism (e.g. items 5 and 12) appear to be almost unrecognised by the students as forms of plagiarism. NESB students appear to have particular issues with regard to rewriting material from other sources appropriately (item 7) and also with material of an electronic form (item 10), but in general were found to share very similar (mis)understandings of plagiarism as a concept with the ESB students.

Table 1: Definitions of plagiarism (bold items describe forms of plagiarism)

		Students Responding Yes			
		ESB (n = 115)		NESB (n = 66)	
1	Copying the words from another source without appropriate reference or acknowledgement	110	96%	59	89%
2	Copying the words from another source with an acknowledgement	22	19%	9	14%
3	Resubmitting an assignment that was submitted in one course for assessment in another course	81	70%	45	68%
4	Creating a new piece of work structured according to a documentation standard, by referring to existing work of the same type	12	10%	10	15%
5	Using a published work to identify important secondary citations that make a particular logical argument and then citing only those secondary sources to support your own use of the same logical argument.	32	28%	17	26%
6	Copying the organisation or structure of another piece of work without appropriate reference or acknowledgement	57	50%	47	71%
7	Changing the words of material from another piece of work and representing it as your own	83	72%	29	43%
8	Buying a complete piece of work in order to submit it for an assignment	108	94%	55	83%
9	Copying the ideas from another piece of work without appropriate reference or acknowledgement	88	77%	48	73%
10	Copying a website and putting your own words and name into the content part of the pages	106	92%	44	67%
11	Creating a new piece of work on the same theme as an existing one but in a new context and without copying the existing one	8	7%	8	12%
12	Using another piece of work to identify useful secondary citations that you cite in your own work without reading the cited material.	30	26%	18	27%
13	Quoting from an existing piece of work with a reference to the source	11	10%	4	6%
14	Copying short sentences (less than 50 words) from another source without appropriate reference or acknowledgement	102	89%	51	77%

With such a large number of students failing to demonstrate even a basic understanding of plagiarism, it is clear that simply asking students whether or not they have engaged in plagiarism is unreliable (Dean, 2000; Park, 2003). Seven of the scenarios in Table 2 describe activities considered plagiarism. Selling an assignment online was the least prevalent (2.5% of NESB and 4.3% of ESB students) and copying from web sources the most prevalent (62.3% of NESB and 47.3% of ESB students) of activities admitted to by students. Notably, in most cases, and for all of the clear forms of plagiarism, more NESB than ESB students indicated they had engaged in that activity (Figure 1).

Figure 1 also illustrates that students plagiarise from web sources more than books and much less so from other students. This is mirrored in the answers to the questions about how seriously students regard the different forms of direct plagiarism (Figures 2-4). Plagiarism from web sources was considered generally less serious by students than plagiarism from books while plagiarism from other students was regarded as much

more serious than other forms of plagiarism. Bold scenarios in Table 2 were determined by the authors to constitute plagiarism; others include a mix of appropriate and inappropriate information uses that are not strictly plagiarism and/or copyright violations.

Figure 1: Incidence of different types of plagiarism by ESB and NESB students

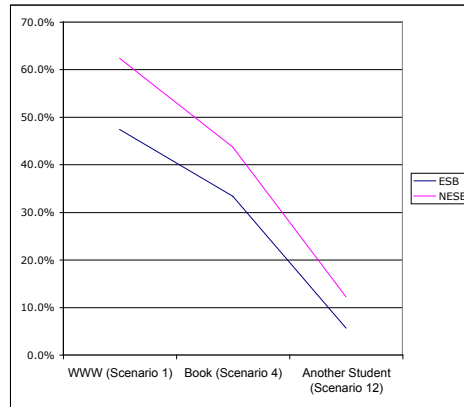


Figure 2: NESB and ESB student attitudes to copying from the web (scenario 1)

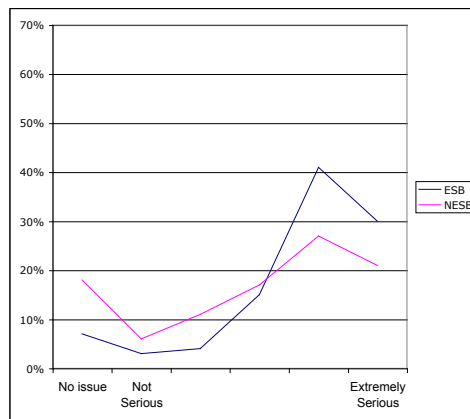


Figure 3: NESB and ESB student attitudes to copying from a book (scenario 4)

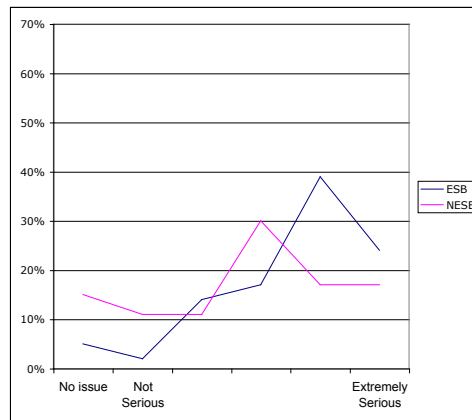
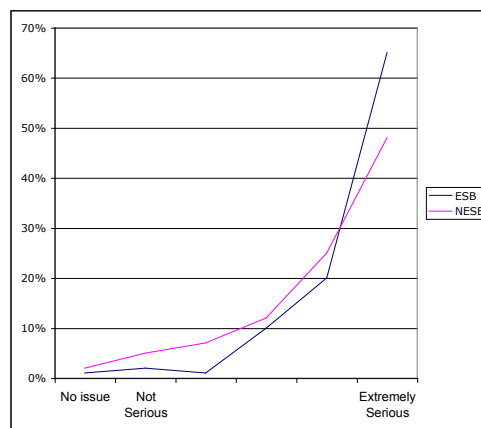


Figure 4: NESB and ESB student attitudes to copying from another student (scenario 12)



Given the lack of understanding of plagiarism noted above it is perhaps not unexpected that such a large number of students indicated they had engaged in activities that constitute plagiarism. When the results for the different scenarios are combined (Table 3) 72% of all students (65% of ESB and 83% of NESB) admitted to having engaged in some form of clear and serious plagiarism at some time. The scenarios which are grouped in Table 3 as serious plagiarism are ones which meet even the most constrained and limited definition possible, direct copying or its facilitation. By contrast, differences between NESB and ESB students were not seen in scenarios covering copyright issues. Interestingly, the use of scenarios may have resulted in students providing more honest responses than they might otherwise have done, particularly given their lack of understanding of what constitutes plagiarism.

Table 2: Scenarios and reported incidence (bold items describe forms of plagiarism)

		ESB	NESB
1	A student is working on an assignment that is worth a significant proportion of the marks for a course. They conduct a web search and discover several obscure web pages containing useful material. They copy sections of the material from the different pages directly into their assignment without citing the source. They then add additional original material linking the copied material into a whole and submit the work as entirely their own.	47.3%	62.3%
2	A student copies the installation CD for a commercial software package from their employer that is only licensed for use on the business premises. They then install the software on their home computer so they can use it to do work that relates to their courses at University.	55.0%	55.9%
3	A student submits unchanged their own originally created work, which they have previously used for another course, for assessment in yet another course.	25.9%	22.0%
4	A student is working on an assignment that is worth a significant proportion of the marks for a course. While reading a book in the library they discover a page that contains a useful block of material. They copy the material into their assignment answer without citing the source and submit the work as entirely their own.	33.3%	43.6%
5	A student copies the installation CD for the latest cool game from a friend and installs it on their computer in order to play the game.	74.8%	77.8%
6	A student who is a fan of a TV series, carefully videotapes each episode and creates a personal library of the tapes which they share with friends and retain for their own enjoyment over a number of years.	81.1%	68.5%
7	An employee preparing a report for internal use at their company discovers a similar report online using a search engine and uses as the basis of their own report, paraphrasing it and introducing additional material specific to their own situation.	24.0%	34.0%
8	A student submits unchanged their own originally created work, which they have previously prepared as part of their employment, for assessment in a course.	19.0%	25.5%
9	A student who is a fan of a particular musical group and who owns many of their CDs borrows an import CD from a friend that is not available for purchase and burns a copy for their own use.	75.8%	72.3%
10	A student and a staff member work together on a particular problem. Together they work out an interesting solution that includes a significant contribution from the student. The staff member submits the solution as a paper without the student's name listed as an author and without any acknowledgement of the student's contribution.	5.4%	14.0%
11	A student, having received a good mark for a piece of assessed work, sells the work to an online "paper mill" that they know on-sells the work to other students.	4.3%	2.5%
12	A student is working on an assignment that is worth a significant proportion of the marks for a course. While studying in the library they discover a final draft of another student's work for that assignment. They copy the material into their assignment directly and submit the work as entirely their own and without any mention of the other students name.	5.6%	12.2%
13	A student who is a fan of a particular musical group and who owns many of their CDs converts the contents to computer files which they can then sort and play in different orders while working at their computer.	78.4%	59.0%
14	An employee copies the installation CD for a commercial software package from a friend and installs it on a work computer in order to complete an important piece of work that will generate considerable business for the company and likely result in a bonus to them personally.	21.6%	21.1%
15	A student uses an existing novel as the basis of a short satirical allegory. The resulting work acknowledges the origin of the allegory and only includes short quotes or directly copied material. The student submits the work for assessment in a course as their own original work.	27.3%	25.0%

Table 3: Plagiarism incidence

	All Types of Plagiarism (Scenarios 1,3,4,7,8,11,12)		Serious Plagiarism (Scenarios 1,4,11,12)	
ESB (n=115)	85	74%	75	65%
NESB (n=66)	57	86%	55	83%
Total (n=182)	143	79%	131	72%

Discussion

Significant differences in the extent of plagiarism were observed between NESB and ESB students. The results in Table 3 suggest that NESB students are significantly more likely to have engaged in serious forms of plagiarism (83%) than ESB students (65%). Similar results are found consistently across the forms of direct plagiarism (Figure 1). This must, however, be seen in the context of the high level of plagiarism reported overall and the poor level of understanding of plagiarism demonstrated by all students (Table 1).

Sadly, and as reported by others (Park, 2003), students, particularly NESB students, do not seem to regard plagiarism as a particularly serious problem. If students are exposed to opportunities to misuse information and forms of plagiarism such as copying from the web, they are more likely to minimise the seriousness of such actions (Longenecker *et al.*, 2001) as is seen in these results. The strong negative correlation between engaging in an activity and its seriousness indicates that effective use of information needs to be addressed as early as possible if students are to be motivated to avoid plagiarism.

Clearly there is a need to convey to all of the students more effectively what is meant by plagiarism and how to avoid it. Plagiarising from web sources was the most common form admitted to by all students, consistent with other reports (Scanlon and Neumann, 2002), and this suggests that increased access to the Internet has likely increased the incidence of plagiarism. Gajadhar (1998) has described students as regarding web materials as “free for anyone to use” and students clearly regard digital information as less valuable than other forms (Baruchson-Arbib and Yaari, 2004) and are disposed to simply using it without reference or in violation of the law (Lenhart *et al.*, 2000). The disapproval shown for copying from other students suggests that students are making ethical judgements, for example regarding copying games, but these are not motivated by the same sets of values that most western academics would express.

NESB students appear to approach courses with a much stronger focus on meeting minimum requirements or standards without necessarily considering other factors that they regard as less important (Lahur, 2004) and they seem to be looking for a mechanistic rule that they can apply when using information from other sources (for example items 7 and 14 in table 1). It is clear that all students would benefit from an improved understanding of how to engage in academic writing and ethical use of information from multiple sources. International and NESB students often report that they find assessment tasks confusing and unclear (Ryan and Hellmundt, 2003) perhaps reflecting the use of cryptic language or implicit questions in assessment tasks (Errey, 1994). Clarity of objectives and expectations would be of benefit to all students.

This study is clearly only a beginning and it is intended to continue to gather data in this fashion as other initiatives to improve policy, communication strategies and assessment practices are undertaken. By establishing a baseline, we can measure the impact these initiatives are having while also avoiding an unnecessary focus on NESB students as a particular group.

A starting point for addressing the challenges raised by this data must be clarity in definitions of plagiarism (Carroll, 2002). This may present some difficulty as academic disciplines have significantly different understanding of plagiarism (Walker, 1998). Students consistently reported that they thought the university regarded plagiarism as a more serious issue than they did themselves. This suggests that strategies for reducing plagiarism that depend on deterrence are likely to be less effective than strategies aimed at improving the design of assessment and demonstrating the values we hold as academics and teachers when using information from all sources (Crown and Spiller, 1998).

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EDUCATIONAL INTEGRITY: A strategic approach to anti-plagiarism

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Abstract

The widespread perception that plagiarism is a growing problem in tertiary institutions is supported by some large-scale research studies and, indeed, by the attention the topic is attracting in the literature, the media and in the renewals of plagiarism policies to be found on websites across the tertiary sector. While guidelines that accompany some plagiarism policies “encourage” educational strategies, the focus is still firmly fixed on dealing with “offenders”. There is little detail available on educational means that have the capacity to address the incidence of inadvertent or unintentional plagiarism. In this paper an approach is suggested that attempts to redress the balance between disciplinary and educational measures. The approach is twofold. While supporting the application of penalties for plagiarism that is deliberate cheating, it advocates that students be given an explicit period of apprenticeship into the academic culture, its conventions and its multiple “languages”, in order to give innocent learners a realistic chance of understanding and learning the skills of academic writing. With such an approach adopted in mainstream teaching in order to reach all students who are in transition to university study, whether from the Australian school system, the workforce or from overseas, effort and resources could be re-directed towards dealing more confidently with the real offenders.

Introduction

A perception that plagiarism is a growing problem in tertiary institutions is voiced in academic publications on websites and in the media, and now also in conferences specifically devoted to the topic. One reason for this perception has of course been the arrival of the internet with its easy cut-and-paste facility making cheating a tempting possibility. Since information has become available in this way, academic staff can no longer be confident that they are familiar with their students’ sources. Even when they take the time to check suspect items by using a search engine such as *Google* or an electronic text-matching service such as *Turnitin.com*, there is no guarantee that cleverly concealed cheating is detected. At the same time, with the increasing numbers of international students for whom English is a second or additional language (EAL), and indeed local residents from language backgrounds other than English, the incidence of apparently unwitting plagiarism is becoming an issue that needs to be addressed in Australian universities.

The core of most definitions of plagiarism found on Australian university websites is “using the ideas, words or works” of someone else “without proper acknowledgment” (The University of Adelaide 2005). However, the interpretation of university definitions and their associated policies presents a problem for both staff and students. The simplicity of plagiarism definitions stands in contrast to the complexity of possibilities to which it is applied. Although the term plagiarism has its origins in the Greek term for “kidnapping” or “man-stealing” (Oxford Dictionary of Etymology 1966-1992), its current usage has become somewhat “rubbery”, stretching as it does across the entire spectrum from deliberate cheating and deception, to failed attempts at citing as a result of a student’s incomplete or embryonic understanding of the academic conventions, or their underdeveloped skills in the academic language required for incorporating and referencing sources.

Although guidelines that accompany some policies suggest that educational strategies be “encouraged”, the

focus of plagiarism policies still remains firmly fixed on dealing with offenders at the cheating end of the spectrum (ACODE 2005). The language of plagiarism as an “offence” makes no provision for “learning by making mistakes”. At best it allows for “leniency” or “tolerance” (Pennycook, 1996). For a strategic anti-plagiarism approach academics need to be able to distinguish between deliberate cheating and inadvertent or unintentional plagiarism. I propose that, to be effective, an anti-plagiarism approach needs to combine a fair and consistent disciplinary process with consistent and effective learning and teaching strategies during a period of “academic apprenticeship” for all students in transition to tertiary study (McGowan, 2005a).

The suggestions put forward in this paper are based on more than a decade of my theoretical and practical engagement with academic issues faced by staff and students. While they do not represent the result of an empirical study, they are the outcome of my personal reflection on many years of experience in providing individual consultations and group work for staff and students on the issues of dealing with or avoiding plagiarism. My theoretical framework derives from a combination of a variety of language learning theories and a practical application of functional grammar as developed by Halliday (Halliday 1994, Halliday & Hasan 1976) and the Systemic Functional Linguistic movement, and in particular, Genre Theory (e.g. Halliday & Hasan 1985, Swales 1990, Halliday & Martin 1993, Cope & Kalantzis 1993, Eggins 1994, Ventola & Mauranen 1996, Christie & Martin 1997), and more recently, Appraisal Theory (Martin 2000, White 2005). I have discussed the approach with many colleagues, both informally and more formally during my membership of my university’s plagiarism policy working party in 2003, and have presented it in local and national seminars and conferences.

In attempting to redress the balance of anti-plagiarism approaches, from over-reliance on a disciplinary one to a more educationally focussed one, it is easy to give the impression of being “soft on plagiarism”. However, far from condoning the dishonesty of deliberate cheats, the two-part anti-plagiarism approach suggested here should help to give innocent learners a more realistic chance of understanding and learning the skills of academic writing and incorporating quotes with “proper acknowledgment”, and by doing so, focus more specifically on identifying and dealing with the deception of genuine offenders.

Disciplinary Measures – a matter of targeting the real culprits

“Cyber-cheating” is a reality in universities, as are other forms of cheating. While fraudulent acts are damaging to the integrity of academic institutions, for students they are at best a barrier to their own learning and, at worst, acts of deception for short-term personal gain at the expense of their fellow students. The severity of penalties should be designed to act as a deterrent and to ensure that students realise the seriousness with which the academy regards ethical behaviour and values the integrity of its educational outcomes.

The US-based *Center for Academic Integrity* (CAI) provides a focus for exposing and deterring cheating of all forms, including plagiarism using web-based or other sources. The CAI website cites a June 2005 report on 50,000 students surveyed in a US-wide project conducted by CAI founding president, Don McCabe, stating:

On most campuses, 70% of the students admit to some cheating. Close on one quarter of participating students admitted to serious test cheating and half admitted to one or more instances of serious cheating on written assignments (Center for Academic Integrity 2005).

Another US-based initiative, *Turnitin.com*, confines its focus to plagiarism by providing an electronic “text-matching” service that has been adopted to varying degrees by a number of Australian universities. Results

from a much-cited 2002 trial of the service across 17 subjects in six Australian universities indicated that out of a little under 2000 students whose essays were scrutinised in this trial, 14% contained “an unacceptable level of unattributed materials” (CAVAL 2002, O’Connor 2003). Clearly, these are strong indications that problems of dishonest behaviour are serious enough to warrant stringent deterrents and to uphold the academic values of honesty, trust, respect, fairness and responsibility, as set out by the CAI. At Oxford Brookes University in the UK, the work of Academic Conduct Officers, carried out over the past five years in applying equitable means to deterring deliberate acts of plagiarism, has been used effectively to moderate and standardise decision-making processes and penalties (Carroll, 2004). This system has served as a model for at least two Australian Universities (Newcastle and New South Wales) and includes an educative function for the conduct officers (ACODE 2005). It involves a highly organised procedure and a firm commitment to upholding the integrity of the institution by enabling the institution to take firm but fair and effective disciplinary action against students whose intention is to exploit others and gain an unfair short-term advantage.

Traditional detection methods have relied on the assessors’ capacity to pursue suspect cases based on their own familiarity with their students’ sources and their ability to spot breaks in style when passages of text were incorporated badly into their assignments. An assessor’s suspicion is raised by giveaway terms or phrases that are out of step with the rest of a student’s work. They may be highly unusual or coined expressions, technical terms from another discipline or simply words of appraisal, such as “unfortunately” for example – that are not part of the argument the student is meant to develop at all, but belong to the view of the writer of the original text. Since the internet has become the preferred resource for many students, internet tools such as search engines or *Turnitin* and other text-matching services, have been used by staff to confirm their suspicions. There is a problem, however, with following up only on cases that appear suspicious because of such surface features, because the most easily spotted are the students from non-English speaking backgrounds, as their styles fluctuate between halting grammar and flawlessly academic prose, while students who are more at home in the English language, and able to modify plagiarised material successfully to present it as their own, may get away with deliberate deception. A more equitable approach to detection would obviously be to check all of the assignments of a particular batch rather than only the suspect ones.

To do so may yield some unpleasant surprises. A calculation based on results of the Australian trial of *Turnitin.com* in which 14% of the papers contained a level of unattributed material used was “unacceptable” projects a grim picture. Add to that the fact that to obtain this figure the “bar” on the quantity of unattributed material, above which it was to be labelled as unacceptable, had been put at 5% (CAVAL 2002). By extrapolating from this information, an assignment of 1000 words may have contained up to 50 words of plagiarised text (or 250 words in a 5000-word essay) but would not have been included in the figure of 14% that were considered to be “unacceptable”. It is not known yet whether the figures found by CAVAL can be projected on to the broader Australian student population, and the issue still seems to be too sensitive for much information on the results from individuals and universities using *Turnitin* or a similar service to be available for scrutiny, but we must conclude the probability is there that the numbers affected are greater than we would wish to believe.

One of the consequences of stating or implying that “all” plagiarism is “unacceptable” is that the default solution is necessarily a disciplinary rather than an educational one. Incidences of plagiarism are seen firstly as misdemeanors that require penalties, and it is in the hands of the assessor or – in the case of some universities now – academic conduct officers – to decide whether or not to show tolerance or apply leniency during an initial learning period. Students who plagiarise unintentionally are therefore, in my view, inappropriately exposed to the possibility of disciplinary procedures. Academics are also at risk every time they take a decision between

reporting and not reporting an incident of plagiarism in the face of a policy whose wording allows for a *learning process* only as a matter of *leniency*. They, and their universities can risk public exposure and the accusation of favouring certain students, and of “lowering the institution’s standards” by another assessor who may be less inclined to practise leniency, and such accusations are eagerly picked up by the media.

Educational integrity – a matter for universities

Despite wishing to be tough on plagiarism, the university sector appears to be reluctant to use the concept of “intent” to clarify the distinction between instances of plagiarism as an offence on the one hand, and as a learning situation on the other. The reason that I have heard given for avoiding the concept of intentionality in plagiarism statements is that “it is not possible to know what is in a person’s mind”. While this may be so, the question of intent is nevertheless a central element of our legal system and a deciding factor in the difference between, say, murder or manslaughter, to look at just one example from the legal system under which we all live. As there are high stakes involved in the imposition of penalties for intentional plagiarism – or in other words for cheating – and a person’s academic career prospects may be ruined as a result, it seems unreasonable to shy away from attempting to establish the person’s intention, as the unequivocal decider between plagiarism as an offence, and plagiarism as a lack of knowledge or skills.

By-passing the term *plagiarism*, and referring to *academic integrity* instead, has done nothing to solve the dilemma that comes from not *explicitly* naming intentionality, while it is to be found *implicitly* throughout the Australian universities’ policies and guidelines. The notion of intent is there by implication in the antitheses to the concepts of *honesty, trust, respect, fairness and responsibility*, the five values proclaimed by the CAI (2005), and it is there in words taken from a random selection of Australian University websites, such as *academic honesty / dishonesty* (Universities of Sydney, Newcastle, Flinders, New South Wales, Latrobe, Tasmania, Southern Cross), *academic conduct / misconduct* (Universities of New South Wales, Newcastle) or *serious offence, deception, cheating, collusion* (The University of Adelaide) to name just a few examples. It would probably be more educationally sound to change our terminology and use neither *plagiarism* nor *academic integrity*. Instead we might, as Crisp (2005) puts it, use “either cheating if it is deceptive, or substandard work if it does not demonstrate the development of skills that are considered essential in professional life”. While mechanisms for “detering, detecting and dealing with” plagiarism that is *cheating* (JISC 2005) are well described on university websites, the same cannot be said for educational strategies that might help unintentional plagiarists *develop essential skills* to raise the standard of their academic writing.

The major educational suggestions found on university websites focus on staff providing “clear information” on the rules and guidelines on plagiarism and on directing students to resources for developing appropriate referencing skills. The educational effectiveness of these measures relies on two assumptions: firstly, that all students will access and understand the information that is provided; and secondly, that they have the skills – or the capacity to develop the skills – to apply the information they are given in doing their assignments. The reality is that in many cases these assumptions are not well founded.

Many students who have, over the years, come for language and learning help in the academic development centre in which I work have indicated that they had not fully understood the need to read the guidelines that each of their courses provided for them. To give them their due, the fact is that some of the course guides may be up to 20 or 30 pages long, and in addition to these, there is a multitude of other print material as well as oral information that students need to take in during orientation and the first week or two of lectures. Much

of this material is put aside – and eventually forgotten – as students try to make sense of the confusion around them. It is doubtful whether students will sift through and read the relevant parts of their orientation handouts when they start to do their first assignments, and even if they do look up the rules, that they will all understand the requirements or have the skills to apply them in their work. Many students who come for help in our centre typically have either forgotten, or never realised, that these handouts contained important information or helpful hints. Others who have read the rules on referencing have continued to be perplexed as they try to deal with the trivia of *how many words to change* to convert a quote to a paraphrase, or alternatively, the number of words in a sequence they may use from another text before *committing* plagiarism. Such students are simply not aware that the research-based environment of a university represents a new culture with new rules and “new languages”.

Students in transition from local secondary schools may have been introduced to the concept of “argument” (or their own point of view), and the practice of providing referenced evidence of the views of others on which they base their opinions, only to find that their university courses are generally quite diverse and that they need to learn as many as four or more different sets of requirements. Students who are mature age, in the workforce and returning to study – or attempting it for the first time, perhaps after raising a family – and who have, of course, formed many opinions based on their life experiences – often find it confronting to be in a “straitjacket” as it appears to them, when they realise that their personal views don’t count if they can’t relate them to the facts and opinions of others in the literature. But the fastest growing minority is that of the international students. The fact that Australian universities have come to rely heavily on the income generated from this group should provide universities with cause for concern that of the three groups in transition, international students are the least well prepared for the complexity of our academic expectations.

With so much diversity in the educational and language backgrounds within the different student groups, staff can no longer retreat behind the objection that students should “already know” (how to reference), should “have learnt at school” (how to write an essay) or should have “learnt sufficient English” (not to have any more problems). Sending students away for remedial work is no longer an appropriate educational measure when the numbers who need it keep rising. It is becoming a matter of *educational integrity* for our tertiary institutions to *address these issues at the source*, and to place greater emphasis on *effective learning programs*, rather than to regard students’ learning needs as a remedial issue, and instances of unintentional plagiarism as offences that may in certain circumstances be allowed to be treated with understanding or leniency.

Educational measures – a matter of apprenticeship

One of the methods advocated by some universities for reducing the incidence of plagiarism is that all student work should be accompanied by a signed declaration testifying that the assignment is “their own work”. The effectiveness of this requirement in deterring plagiarism presupposes that a student’s notion of “their own” work will mean the same to them as it does to their lecturers. However, this cannot be taken for granted with new students when they are at so many different starting points educationally, culturally and linguistically. The following anecdote illustrates my point. In a one-to-one consultation with a student discussing a passage that was clearly copied, the student stated that, yes, it was her own idea because, having read it, she agreed with it! Clearly, in order to give innocent learners a realistic chance of understanding and learning the skills of academic writing, it is important that they engage with the requirements for academic writing from the very beginning of their university studies. To ensure that this takes place effectively, new students should be given explicit periods of induction or apprenticeship into the concept of evidence-based argument within a culture

of enquiry that is a basic characteristic of tertiary learning and teaching (Boyer Commission 1998). I support the view that students should be provided with this induction as part of the core curriculum within the context of their chosen disciplines, and that this is likely to be the most educationally effective manner of ensuring that they practise and gain skills in the academic conventions and written language that characterise writing in those disciplines which are most relevant to them (McGowan 2005a, 2005b).

Assessment practices

A starting point for the induction of students into the concept of constructing evidence-based writing might be to explain it directly in lectures and tutorials, but the proof that this is what is valued is most clearly recognised by students when it is reinforced by assessment criteria that explicitly include items on the use of evidence and a critical evaluation of sources used. The disciplinary requirement of students' signatures on declarations that the work being submitted is "their own" would then be appropriately balanced by an educational one. Positive criteria against which the value of the assignment would be judged could be set out as follows:

• Provides at least x references from reputable journals	excellent/good	satisfactory	needs work
• Critiques internet sources in terms of xxx	excellent/good	satisfactory	needs work
• States a personal position (or "argument")	excellent/good	satisfactory	needs work
• Answers the question set	excellent/good	satisfactory	needs work etc.

As a formative exercise, the relative weightings of these items could be varied in successive assignments in accordance with the desired emphasis of a particular aspect of academic writing.

The need for careful design of assessment practices to avoid plagiarism "by phrasing questions so that they do not invite copy / paste methods of internet copying" (James Cook University) and for giving timely and clear feedback has been advocated for some time (Carroll 2002, AUTC 2003, JISC 2005) and is mentioned repeatedly on Australian university websites. The idea, however of an explicit period of apprenticeship into the language of academic writing within mainstream teaching, in order to reach all students who are in transition, is still awaiting development and acceptance by academics.

Internet detection – educational use of *Turnitin*

Some staff already use the *Turnitin* service formatively – allowing students to submit drafts and adjust their citations in the light of the results. However, it could also be put to use in a diagnostic way – for staff to gain a realistic picture of the size of the problems their students are facing in attempting a particular assignment, and to work out educational strategies for dealing with the misunderstandings or lack of skills of their students at whole class level. Doing this could lead staff to accept that they are dealing not with a remedial strategy but one that needs to be part of mainstream teaching.

In response, staff could arrange a feedback session for the whole class and show some examples of inappropriate use of sources – provided of course, that they either obtain prior permission of the students concerned, or modify the examples in such a way that they are no longer identifiable. On the basis of such examples they could demonstrate to students how the use of downloaded material had failed to address one or other of the vital assessment criteria, e.g. "states a personal position", or "critiques the internet sources". They might then go on to brainstorm with the class and arrive at a version that better fulfils the criteria. Alternatively, the *Turnitin* results might prompt the assessor to re-visit the design of the assessment task and criteria, and adjust the design of further assessments to expect a greater amount of critical input by the students.

Apprenticeship and mastery - student questions

Much good work has already been done by Australian universities in providing students with print and website materials designed to induct them into the academic culture. The University of Melbourne's Centre for the Study of Higher Education, for example, provides an exemplary introduction to the values of evidence-based writing and scholarly practice (The University of Melbourne 2002). This information is specifically directed at international students, in answer to the question "Why do I have to use these complicated rules?" but applies equally well to all academic novices (see also McGowan 2005b).

Another question that often needs to be answered is "What is common knowledge?". The fact that this may be a matter of context and intended audience is often insufficient and may be quite confusing for beginners. A question that should also be asked, but usually is not, is "What is common language?". Variations across spoken and written language are, in my academic advisory experience, not clearly understood and only learnt intuitively over a period of time. Similarly the fact that there can be great variations in the language used in written genres of different disciplines is generally more a matter of personal intuition than explicit teaching.

Discipline-specific language

To learn to master these different writing conventions and styles requires much more than to abide by simplistic rules on how many words in a sequence may be used from a source. It means understanding that certain words and phrases are common to the language for that genre and that these may, and in fact should be re-used, as they form one of the trademarks that identifies the genre. A great deal of theoretical and practical work has been done and published on genre theory that provides a tool that can be used by students and staff to accelerate the otherwise intuitive process of acquiring the discipline-specific "languages" (McGowan 2005b).

Active learning

A vital step for new students during their apprenticeship into the academic culture, and into the languages of its disciplines, is communication, through interaction with others and by trial and error in their written work. They are helped by practice assignments and assessment criteria that highlight the value of students' critical evaluations of source materials, and incorporating them into their writing, perhaps to be contradicted, or otherwise to serve as evidence in support of the student's argument. In my view the process of active learning would best be initiated in face-to-face sessions during tutorials and lectures, and might then be continued in an online environment, for example in a structured "discussion board" program where students can be asked to respond to specific issues or raise their own questions for general discussion.

Learning by making mistakes

For effective skills development, students need an environment of enquiry in which it is accepted that students learn by taking risks, by making mistakes and receiving timely and constructive feedback. If the environment is one of fear, where mistakes which are due to an incomplete understanding of academic conventions can be construed as a lack of integrity and a punishable offence, there is little opportunity for learning to take place. I suggest that if universities embrace the concept of intent as the deciding factor for incidents that require disciplinary procedures, and clear statements are made to the effect that it is only intentional plagiarism that is unacceptable, the fear factor could be removed. Staff might then also feel encouraged to use the *Turnitin* or other text-matching detection services as diagnostic tools without fear of recrimination, and students could accept feedback on faulty referencing without fearing the loss of face associated with a lack of integrity!

Summary and conclusion: a strategic anti-plagiarism approach

In summary, I have proposed that to be effective, an anti-plagiarism strategy needs to balance firm disciplinary processes with an effective educational approach. The suggested approach is twofold. While strongly supporting the application of penalties for plagiarism that is deliberate cheating, it provides for an explicitly stated period of apprenticeship into the academic culture, its conventions and its multiple “languages”. The purpose of such a period of induction is both to accelerate student learning and to protect innocent learners who plagiarise unintentionally. Such protection is particularly important for students from language backgrounds other than English whose problems with incorporating sources are more easily identified than those of native speakers of English. I have proposed that all students who are in transition to university study, whether from the Australian school system, the workforce or from overseas, should be given a realistic chance of understanding and learning the skills of academic writing. To ensure that the academic apprenticeship needs of all these groups are systematically met, the proposed educational strategy is therefore best adopted in mainstream teaching. By this means, effort and resources could be re-directed towards dealing more confidently with deliberate offenders.

The question is: Can this be achieved? I believe that an answer must be found if we are not to make a mockery of our earnestness in defending the educational integrity of our institutions by trapping the easy prey while the big fish get away.

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BLATANT CHEATING DETECTED IN AN ONLINE EXAMINATION

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Abstract

Cheating in various forms is rife among students in tertiary education. Cheating on exams is generally considered more serious than cheating in coursework assignments, and there is some evidence of a belief that cheating is easier and perhaps more prevalent in online courses than in face-to-face courses. We conducted an experiment to detect a particular form of cheating in a remote online exam, and found that a significant number of students cheated blatantly.

How many students cheat?

Reports in the literature of academic integrity indicate that extremely high proportions of tertiary students cheat in the course of their studies. In a series of oft-cited anonymous surveys, McCabe and various collaborators have found that up to 70% of college students in the USA admit to having cheated in some way in the preceding year (McCabe, Treviño, & Butterfield, 2001). At a small private university in the USA, Kidwell, Wozniak, and Laurel (2003) found that 75% of their survey respondents had engaged more than once in one or more of the cheating behaviours that they surveyed. Lim and See (2001) came up with an astonishing figure of 94% in a comparable survey at a university and two polytechnics in Singapore, and Pulvers and Diekhoff (1999) found that at two colleges in the USA nearly 12% of students admitted to having cheated in a single specified course.

Reasons for cheating

A number of studies explore the reasons given by cheats for their behaviour. One school of thought suggests that students will be more likely to cheat if they feel detached from the institution at which they are studying, if they feel no sense of community with that institution (Buckley, Wiese, & Harvey, 1998; Pulvers & Diekhoff, 1999). While this view identifies a situation in which cheating might be considered, it would still not take place without rather more pragmatic considerations. “While there are both individual and situational determinants of academic dishonesty, the historical psychological literature has documented that dishonesty is mostly a function of opportunity . . . rather than a consistency of personality” (Landon, 1999, p441).

Given the opportunity to cheat, a further pragmatic consideration is that of cost and benefit. “Rational Choice Theory . . . states that individuals are rational decision makers and behave according to the potential risks and potential returns inherent in a decision. The decision to engage in unethical behavior is a cost/benefit function, which is rationally determined by the individual” (Buckley et al, 1998, p72). In a review of 107 published studies of college cheating, Whitley (1998, p254) found that “The greater the expected reward for success, the greater the likelihood of cheating. However, one study found that expected punishment for failure led to more cheating than did expected reward for success.” Perhaps to the surprise of many academics, the potential risk in cheating appears to be rather low. Ashworth, Bannister, and Thorne (1997, p193) concluded from a student survey of academic dishonesty that “Some cheating is felt to occur through . . . the probability of not being discovered.” Hutton (2001, p6) concurs, citing one source who believes that fewer than 2% of cheats are caught, and explaining “One of the problems with enforcement is that it requires that cheating be observed.” Likewise Landon (1999, p446): “When students believe they can get away with cheating then there will be more cheating than when they think they will likely be caught.”

Cheating on exams versus cheating on coursework

A number of surveys have sought to determine perceptions of the seriousness of various forms of cheating. There is broad agreement, for example, that having a stand-in take one's exam is far more serious than not citing one's references properly in an essay.

Franklyn-Stokes and Newstead (1995) listed 22 possible academic misbehaviours and asked both staff and students to rate each misbehaviour in terms of seriousness and of how frequently they believe the misbehaviour takes place. The six misbehaviours perceived as most serious were:

- A student taking an examination for someone else or having someone else take an examination for them
- Taking unauthorised material into an examination
- Illicitly gaining advance information about the contents of an examination paper
- Copying another student's coursework without their knowledge
- Copying from a neighbour during an examination without them realising; and
- Premeditated collusion between two or more students to communicate answers to each other during an examination (Franklyn-Stokes & Newstead, p164).

While that list includes one coursework misbehaviour, and there are further examination misbehaviours considered less serious (continuing to write after the end of an exam ranked 21st), it was clear to the authors that "items rated least frequent and most serious tended to be examination-related, whereas those rated as most frequent and least serious were, on the whole, coursework-related" (Franklyn-Stokes & Newstead, p165).

Pincus and Schmelkin (2003) conducted a survey of academic staff and subjected it to multi-dimensional scaling, which determines dimensions along which the participants appear to rank items. The principal dimension that emerged was one of seriousness, with a weaker dimension appearing to correspond to the distinction between cheating on coursework and cheating on exams. There were 28 academic misbehaviours listed in the survey. The two that emerged as most serious, sabotaging another student's work and forging a university document, are seldom considered in the literature of academic dishonesty. The next four in order of seriousness are stealing or copying a test, using crib sheets in an exam, obtaining answers from someone else during an exam, and obtaining a prior copy of an exam. Interestingly, the correlate misbehaviours of giving exam questions to someone who has not yet done the exam and giving answers to someone else during the exam were considered as rather less serious. Perhaps some of the respondents to this survey believe that it takes only one to tango.

Cheating in online courses versus cheating in face-to-face courses

We have already mentioned that the reasons given by students for cheating include feelings of detachment or lack of personalisation. In addition, Whitley (1998, p254) reported a finding that "students were more likely to cheat when they could not see the victim of the cheating". While these observations were not made in the context of online courses, they would seem to apply to those courses, in which the students are unlikely ever to meet their teachers or most of their classmates. It might therefore be reasonable to conclude that cheating is more likely in online courses than in face-to-face courses. On the other hand, Smith and Ferguson (2002, p67) argue that "contrary to intuition, current web-based online college courses are not an alienating, mass-produced product . . . Initial feelings of anonymity notwithstanding, over the course of the semester, one-to-one relationships may be emphasized more in online classes than in traditional face-to-face settings."

Colwell and Jenks (2005) list a number of ways that students might cheat in online tests or exams. These include working in pairs to pass on test content or to help one another take the online tests, and obtaining the help of people not enrolled in the course.

One reason that such behaviours are possible is that while an on-campus exam is conducted at a single specified time and place, an online exam must generally be available for an extended period, with students choosing when in that period they will take the exam. With students from all over the world in a single online course, it would not be possible to constrain them to a single timeslot.

Problems such as this have led some authors to suggest that “current assessment practices in higher education are long overdue for a re-think; they are particularly ill-suited to the digital age” (Mason cited in Ruhe, 2002, p155) and that “the success of online learning is in essence a progressive shift from summative to formative approaches and reaching a balance of both” (Lim, Hung, Wong, & Chun, 2004, p37). The opposing viewpoint is that “a class provided in a distance-education format [must] be fundamentally equivalent to a traditionally provided one” (Christe, 2003, p54), implying that so long as we use examinations in face-to-face classes we should use them in online courses.

Conducting exams in online courses

A number of authors have addressed the problems with online examinations and tests, and many provide tips and guidance for running such assessment events in the online distance context.

There is almost universal recognition (Ashworth et al, 1997; Colwell & Jenks, 2005; Rowe, 2004) that traditional supervised exams greatly reduce the opportunity to cheat. Where such exams are not feasible, authors suggest that “the final exam must be proctored by someone arranged for by the student and approved by the instructor” (McDonald, McDonald, & Dorn, 2003, p9) or that instructors consider requiring students to use a webcam (Landon, 1999), but “recognize the possibility of off-camera student activity that might [contravene] course rules” (Christe, 2003, p57). Unfortunately, when one’s students are sufficiently widely spread, and when one recognises the ease of cheating with either a student-selected supervisor or a webcam, it is clear that a traditional supervised exam is simply not an option. We wonder, too, whether those who suggest webcam supervision have realised that while traditional supervision of a 3-hour exam with 30 students takes about 3 hours, webcam supervision of that same exam would take as long as 90 hours.

Olt (2002) and Christe (2003) recommend tight time limits on tests and exams so that students will not have time to look up all the answers. To combat the passing of tests from one student to another, Rowe (2004 p3) adds that “creating ‘windows of availability’ for assessments . . . helps a little but does not solve the problem unless the windows are on the order of minutes in width, not days”.

Rowe (2004) and others suggest the creation of a large pool of questions, with a number of different tests created from that pool. While this suggestion makes sense for multiple-choice and short-answer tests, it is less applicable to examinations in which the students are asked to analyse or synthesise, as it is harder to ensure that multiple questions of this nature are of comparable difficulty.

Other suggestions include ensuring that students know the rules pertaining to academic behaviour and how they will be enforced (Christe, 2003; Heberling, 2002); and making the exam an open-book one because online students will treat it as one regardless (Christe, 2003; Colwell & Jenks, 2005).

Finally, at least two authors (Christe, 2003; Rowe, 2004) suggest that when everything within reason has been done to discourage cheating, instructors might consider setting a trap to detect any cheating that does take place.

In the single-semester postgraduate courses that this paper deals with, we certainly informed students of the rules and of the consequences for breaking them, but we wondered whether the low likelihood of discovery might still encourage cheating. The global spread of our students completely ruled out a supervised exam. It was also not feasible to conduct the exam at a single specified time – we could not justify a smaller window of availability than 48 hours, taking in both a weekend day and a weekday. Wanting to test analysis and synthesis, we were not prepared to write a multiple-choice or short-answer exam, so we felt constrained to ask exactly the same questions of all students. We specified the exam as being open-book, but wrote it in such a way that students who were unduly reliant on their books would not have time to complete it. The time limit for the exam was to be strictly enforced: an automatic e-mail would tell the instructor when the student downloaded the paper, and Blackboard™ would indicate when it was returned (the exam mechanism was that students download the question paper, type their answers into that same document, and return it).

While the number of ways of cheating on such an exam is limited only by the students' imaginations, we surmised that these would include students working in groups to do the exam, discussing the questions as they worked, and students doing the exam early in the window of availability and then sending a copy to others who had yet to start it. We decided to “set a trap” to see whether we could detect any cheating of this sort (Simon, 2005a).

An experiment to detect one form of cheating

We produced many versions of the exam paper and made different versions available at intervals during the overall exam time. When a student's exam was returned, it was checked to see whether it was the same version that the student officially downloaded. If it was an earlier version, the student must have had access to the exam before downloading it.

It was crucial to our experiment that all versions of the exam appear identical: few students would be so silly as to return a version of the exam that is obviously different from the one they downloaded. The distinction between versions, which we call an electronic watermark, consists of a number of elements, the most comprehensive of which is the text colour. All the text of each version is in a colour that is visually indistinguishable from black, but distinct from every other version. When students place the cursor into the paper and type an answer, that answer acquires the same colour as the questions. If a student were to copy and paste answers from an earlier version into the legitimate version, the questions would be in the colour of the legitimate version but the answers would be in the colour of the earlier version. We describe the watermark system in more detail in a more technically-oriented paper (Simon, 2005b).

Figure 1 shows the timeline for the first exam we conducted in this way. The alternating grey and white boxes indicate successive versions of the exam. Looking at the top of the figure, we see that Version 1 was made available at 23:00 on the Saturday and was available until 5:53 on the Sunday. The shift to the right as we move towards the bottom of the figure indicates the 3½-hour time limit on the exam. Students starting Version 1 while it was available, between 23:00 and 5:53, would generally be expected to finish it between 2:30 and 9:23 – though of course an earlier finish would be possible.

The dashed lines on Figure 1 indicate actual student timings for the exam. For example, the first two students downloaded the exam at about the same time, 0:21 and 0:25 on the Sunday, and returned it at 3:26 and 3:40 respectively. We shall call these students Student A and Student B, and shall extend the notation to the rest of the class.

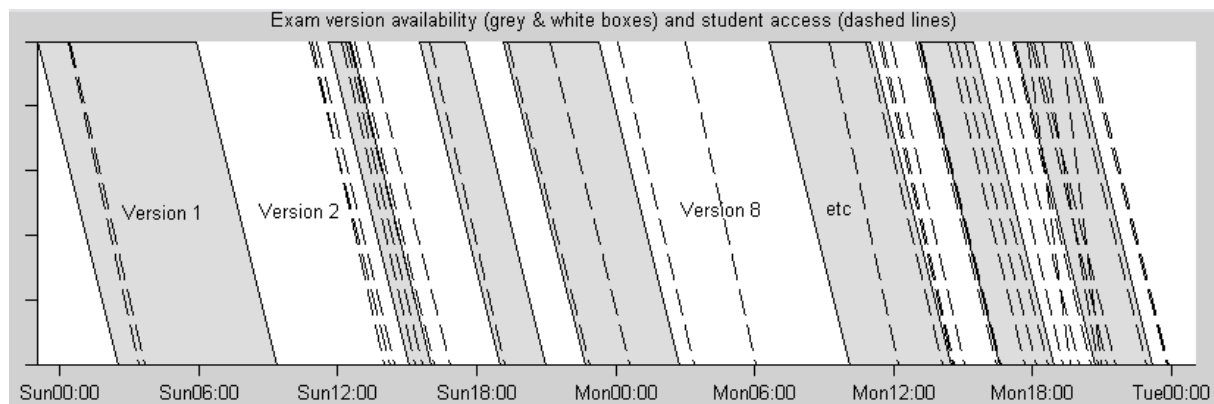


Figure 1. Timeline of exam version availability and individual student accesses to the exam

Cheating discovered by the experiment

The experiment found three students who returned exams that were partly or wholly earlier versions than they downloaded. We believe that at least three other students were involved in these incidents, but the experiment did not confirm this unequivocally (we had intended to ensure that each student downloaded a unique version, but a problem with our university's e-mail server made that impossible). Figure 2 shows the same timeline as in Figure 1, augmented with arrows showing the three students whose cheating was unequivocal.

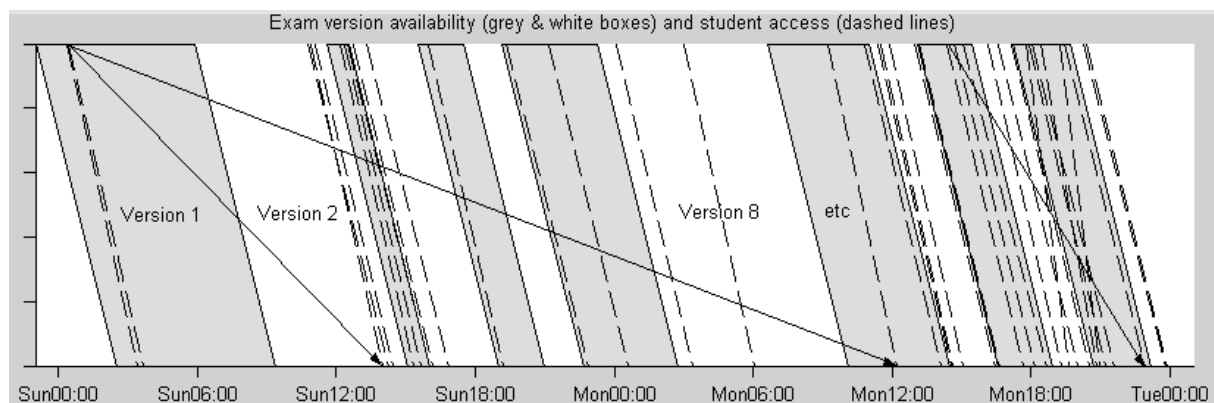


Figure 2. Exam timeline showing 3 students who accessed the exam well before officially downloading it

Student B's paper, downloaded at 0:25 on the Sunday, shows evidence of having been completed by several people. Apart from a clear difference in writing styles between questions, the watermark for Version 1 is present in some of the answers and absent in others, indicating that the non-watermarked answers were typed in a different document and copied and pasted into this one.

The first arrow indicates Student C, presumably one of these collaborators, who downloaded Version 2 of the paper at 10:48 on the Sunday and returned it at 14:17, one minute short of his deadline. However, the paper he returned was Version 1, which suggests that he acquired it at 0:25 as part of the collaboration. This student therefore had 13 hours and 52 minutes to do the paper, giving him a massive advantage over an honest

student.

The second arrow shows Student O, who downloaded Version 9 of the paper at 9:15 on the Monday and returned it at 12:11. The paper he returned was the expected Version 9, but the answers bore the Version 1 watermark, showing that they had been copied and pasted from Version 1. This student therefore submitted the paper 35 hours and 46 minutes after acquiring it.

The third arrow shows Student AG, who downloaded Version 13 of the paper at 19:25 on the Monday and returned a completed Version 11 at 22:56. Four students, U, V, W, and X, had downloaded and returned Version 11. While we have no clear evidence which of these provided the paper in question, we strongly suspect students V and W.

Combining what we can prove unequivocally with what we strongly suspect, we have uncovered two rings of cheats. Students B, C, and O appear to have collaborated to complete Student B's exam, after which students C and O prepared at their leisure before taking the exam for themselves. Students V, W, and AG appear to have collaborated on Students V's and W's exams, leaving Student AG with more preparation time before completing his own exam.

All three students in the second ring are from Singapore, which is perhaps not surprising in light of the Singapore study mentioned earlier (Lim & See, 2001). More interestingly, while Students C and O are also from Singapore, student B is from Hong Kong, suggesting that some serious planning went into this collaborative venture.

When told that he had been caught cheating, Student AG was highly insistent that we divulge the nature of the watermark that had led to the discovery. He was not told, but we suspect that word of the watermark's existence spread among the students, because in several subsequent exams we failed to find any more cheating of this specific kind.

We did find, in subsequent exams, a repeating student who copied one of his answers from his own paper from the previous year. We also found a student who copied one of his answers from the paper of a friend who did the course the previous year. Because the exam is open book, it is not clear that this constitutes cheating. Neither student benefited from the copying: while the questions shared some key words with the previous year's questions, they were actually asking something quite different, rendering the copied answers worthless.

Discussion and conclusion

Alert to the possibility of a particular form of cheating in remote online exams, we conducted an experiment to detect that form of cheating. Our experiment discovered six blatant cheats in a class of 36, a proportion of 17%. We are aware of other possible ways of cheating, ways that our experiment did not detect, so we assume that these other ways of cheating are also being employed.

We take reasonable measures to try to reduce the motivation to cheat, but we do not believe that these measures can ever completely eliminate cheating. While there is opportunity to cheat and the potential benefit is judged to outweigh the potential risk, some students will choose to cheat.

It is probably easier to cheat on coursework assignments than on exams, if only because students have a great

deal more time to work on the former. Therefore we find it easy to imagine a student using unauthorised assistance in every assessment item of an online course. Phillips and Lowe (2003) and Olt (2002) both argue that while a third party might be engaged to sit an exam for a student, it would be far harder to engage somebody to complete all of the assessments in a course. We believe that they underestimate the lengths to which a student might go to attain a qualification without earning it and the lengths to which a non-student might go to earn money or favours.

We appear, then, to have two options. We could set out to persuade our university that online remote courses are by their nature prone to the most blatant cheating, and should not be offered unless this cheating can be curtailed. This option would almost certainly be unending, emotionally draining, and fruitless. Alternatively we could give up, go with the flow, and assess as if everyone were honest. It would certainly be a great deal easier, except perhaps on the conscience.

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ABSTRACTS OF OTHER PAPERS & PRESENTATIONS



Educational integrity and online learning.

Carol Aeschliman, English Language Centre, Swinburne University of Technology.

The literature of international education refers to a number of obvious misconceptions about the academic integrity of international students, including cultural stereotyping, assumptions about homogeneity in cultural groups and diversity in learning styles. Introducing international students to the western concept of academic integrity is challenging enough in the classroom where one-on-one teacher support is at least available, but it is even more difficult via the online platform. At Swinburne University of Technology's English Language Centre, online learning takes place largely in the Independent Learning Centre. As our online programs developed, so too have problems with academic integrity. Students reported that they lacked skills to achieve appropriate academic standards without compromising their "academic integrity" and therefore unintentionally "cheated." They felt uninformed about what was expected of them, and isolated by independent learning. This presentation gives an overview of how we have approached two significant aspects of these problems with the help of new and emerging technologies: appropriate teamwork and responsibility for individual actions are encouraged by such means as self and peer evaluation tools, reflective learning journals and a WebCT Online Community; the concept of plagiarism is addressed within a variety of online academic programs and software applications.

Constructing an online academic integrity kit: an institutional approach at QUT.

Melinda Arko, Lynn McAllister and Halima Goss

Teaching and Learning Support Services, Queensland University of Technology.

In 2004, the University Teaching and Learning Committee at Queensland University of Technology (QUT) approved a submission from the Working Party on Plagiarism Detection and Discouragement to develop an Academic Integrity Kit (AIK). It was designed to be a standardised approach that facilitates change by bringing the Academic Dishonesty Policy to life, providing resources and educational opportunities for academic staff and students. This is being implemented, utilising a learning management system already familiar to both staff and students at QUT which, it is envisaged, will increase the diffusion and adaptation of the Academic Integrity Kit. The kit is designed to be used by academics to access learning objects, such as handouts, cartoons, strategies, newspaper articles, that can be embedded in curriculum design and to assist individual's to create rich, relevant learning activities. For students, the kit is designed to remove the mystique and replace it with opportunities to explore the relevance of academic integrity and to develop associated academic skills that are central to graduate capabilities. The student phase of the kit was implemented in November 2004, and is currently undergoing evaluation.

Soft marking, or a moral pedagogy for a globalised future?

Alex Barthel, University of Technology, Sydney.

Is there much "soft marking" in Australian universities or has "soft marking" become a scapegoat? To what extent is it the result of our inability to face the educational challenges set by changing profiles of tertiary education and institutions, some of which are imposed by conservative government policies?

This paper proposes to explore a number of issues such as challenges faced by universities resulting from the increasing numbers of international students, decreasing academic standards and funding pressures. It also looks at the role of academic support units and how they are perceived by some as superfluous, by others as instrumental in making crucial changes. These issues will be presented within the context of a Sydney university and strategies will be discussed to address some of points presented.

Learning about plagiarism through information literacy.

Debbi Boden and Sue Holloway, Imperial College London.

Premeditated or accidental? This has to be the question every academic asks themselves when faced with a case of suspected plagiarism. Studies show, however, that premeditated plagiarism is rare. Misunderstandings about how to handle information and panics about deadlines are the causes most frequently cited by students. Teaching students about plagiarism is more than teaching them the difference about right and wrong, between collusion and collaboration or between cheating and good academic practice. A really effective anti-plagiarism program needs to address the main cause of plagiarism by teaching students about information management. Including anti-plagiarism teaching as a key element in a linear information literacy (IL) teaching program and embedding it within an academic course empowers students to become independent learners. It encourages them to consider the value of information, the quality of resources, the effectiveness of their search and the importance of good citation practice throughout the production of a piece of work. Acquiring the skills to weave secondary research into the student's own hypothesis has to be designed into the course. Although it could be argued that the explosion in the amount of information available to students has led to an increase in plagiarism, effective teaching can illustrate how new technologies can be used to help students avoid accidental plagiarism, and to enhance their work. Who then is best placed to deliver IL teaching? The answer is Information professionals. Ask your Librarian! The aim of this paper is to present an overview of how we have achieved fusion of IL and subject teaching on a first year Civil Engineering course at Imperial College London.

How to ensure reliable assessments of students' achievements on exams? A case study: application of statistical tools in computerised marking of multiple-choice exams questionnaires.

Nitza Davidovitch, College of Judea & Samaria, Ari'el, Israel.

For the second consecutive year, the Commission of Higher Education in Israel has used a QA system to promote improved assessment processes in the institutions of higher learning in Israel. One quality index used by the Commission is the reliability of exams as a means to assess students' achievements. Sensitivity and awareness of the transparency of exam marking is necessary to prevent unequal treatment of students.

The Academic College of Judea and Samaria, Israel's largest college, uses a computerised marking method for multiple-choice exam formats, which is a format commonly used by many universities in Israel and known worldwide. Image net Ltd., in collaboration with the Faculty of Medicine of the Tel Aviv University, developed an innovative tool that provides statistical analyses of students' exams. The unique tool, the only one of its kind in use in Israel, promises to enhance the quality of testing and improve the equity of the student marking process. At the conference, the instruments and method will be presented, including reports received by course instructors containing various indicators for each exam item: level of difficulty (percentage of correct answers), distribution of destructors, and discriminate values.

This report allows instructors to confirm the quality of the exam items, and eliminate human errors in marking and recording. Above it, this method allows instructors to grant fairer grades after factoring problematic exam items. Data indicating improvements in exam grades' reliability will be presented and possible future directions of development and potential application for other exam formats will be discussed.

What to do about cheating? Using the student perspective to develop curriculum to address the problem.

Martin Dick, RMIT University

Judy Sheard and Maurie Hasen, Monash University.

This paper reports on the latest stage in an on-going investigation of cheating and plagiarism that aims to develop methods to reduce these practices in two information technology degrees. A series of eight focus groups was held with domestic and international students, to investigate how to develop curriculum relevant to the following issues: their understanding of cheating and plagiarism, their views on why students perform these questionable work practices and how the university can move to reduce the prevalence of these practices. The research identified a number of themes which can be used to inform curriculum development to reduce cheating.

Plagiarism and academic culture: voices from international students and researchers of university learning and teaching.

Julianne East, La Trobe University.

In this paper, I explore the idea that plagiarism can be understood as being embedded in Australian academic culture. Being culturally embedded explains why until recently plagiarism was rarely clearly defined, and why university lecturers as members of this academic culture “know” what plagiarism is, while their students by contrast are concerned and confused. In the light of Australian academic culture being “highly contexted” (so that for those within this culture much interrelated information is implicitly understood and taken for granted), this paper presents the insights of a group of international students in their first year at an Australian university. I also review how plagiarism is discussed by writers working in the area of university learning and teaching. From the student insights and the discussion about plagiarism, I conclude that students’ learning interests could be better served if the teaching in Australian universities allowed for the cultural nature of learning and offered the possibility of learning beyond the constraints of the prevailing academic culture.

“Valuing” education for future consciousness: the role of connectedness and hope. An empirical study of a cohort of Australian first year psychology students.

Barbara Giorgio, Australian Catholic University.

Values may fast become just another catch-all bag for institutions wanting to be seen doing the right thing. A closer examination of university mission statements and proclamations about values-based education reveals oversights and undersights which demonstrate that “values” are being taken at face value and not as “lived experience”. They are not being endorsed in the depth, richness and complexity which they deserve. Given the nature of “values”, “values education” cannot be divorced from a consideration of education’s lack of addressing the reality of “spiritual intelligence”.

Using a range of measures and both quantitative and qualitative analyses, a study of first year psychology students at a regional Australian university revealed spirituality being relevant to their lives but not as New Age spirituality or traditional Christianity. Rather, they identify it in terms of humanistic values and virtues absent of religion, God, atheism or agnosticism. Spiritual values are ascribed naturalistic meanings, with the psychological construct of hope rating as the predominant value ahead of a secondary emphasis on the behavioural dimensions of morality and conduct and followed by the more collectivist qualities of peace and friendship. Religious affiliation did not influence how spirituality was perceived except for rating higher on forgiveness. Spiritual transcendence proved to be a more relevant measure of the existential concerns of this cohort especially on the facets of universality and connectedness. Expressed beliefs about spirituality correlated with the central features of spiritual transcendence concerning unity, connection, meaning and purpose,

personal and global responsibility and a sense of goodness. Content analysis of open-ended responses to questions about what gives meaning to their lives revealed a corresponding and overwhelming emphasis on connectedness to significant others (50%), reliance on personal qualities (20%), positive attitudes (13%), and then spiritual or religious beliefs traditionally defined (10%).

Creating organisational integrity through personal leadership.

Alison Feldman, University of Southern Queensland.

Since their inception, universities have undergone great transformation in response to changes in the political, social, economic and cultural arenas. The challenges of today's diverse, trans-national, market-driven, "corporatised" environment have brought about calls for another round of transformation. What is becoming clear is that the change approaches of the past do not neatly align with today's challenges. The lessons of the past, which focused on changing hierarchical approaches, individualism, competitiveness, materialism, and economic imperatives, do not offer solutions to today's call for integrity, ethics and moral organisational character. Such a transformative approach requires change that goes to the core of the organisation: it requires personal transformation of all who are part of the organisation. This paper investigates how Robert Greenleaf's Servant-Leadership approach can be used as a means of equipping individuals to become change agents in transforming the culture and structure of today's organisations. It will be shown that this values-based leadership approach holds the potential to impact on higher education institutions in deeply powerful ways.

Staff and student reactions to a trial of electronic text matching software.

David Green, Iris Lindemann, Kelly Marshall, Grette Wilkinson, Flinders University, Adelaide.

At Flinders University, the Academic Integrity Management Strategy (AIMS) was developed to promote academic integrity within the University. The AIMS project has four components: increasing staff awareness of their responsibilities in promoting academic integrity; educating students about academic integrity; reviewing existing University policy; and trialling electronic plagiarism detection methods. Addressing this final aspect, a limited, multi-departmental trial of Turnitin, an Internet-based text-matching program, was implemented. The software was used in a number of ways across various topics, however in each, an educative approach was taken, rather than a punitive one. In order to gauge the reactions of students, academic and support staff to the use of the software, a comprehensive evaluation consisting of pre- and post-trial surveys, focus groups and interviews, was conducted. Findings indicated different groups of students responded differently to the use of the software, in terms of their anxiety levels in using Turnitin, and their willingness to have the University use the software. Most notably, Law students' and non-English speaking background (NESB) students' responses were different from the rest of the sample. Students also raised a number of concerns about the use of Turnitin. Staff members were generally positive about using the software, provided they could use it in a way they felt was appropriate. Like the students, academic staff also expressed a number of concerns. The implications of these findings will be discussed.

Wags the dog.

Laurine Hurley, Australian Catholic University.

Integrity "having no part or element wanting; honesty; material wholeness" (OED, 1973) is under threat, academically and educationally, from a seemingly innocuous direction. The increasing reliance of the University sector on centralisation and uniformity requires a bureaucracy to match; and as Clarke's astronauts in 2001: A Space Odyssey discovered to their peril, the servant can, by degrees and with the best of motives, come to control the master. When questioning why submission of written examinations is needed less than half way through a semester's teaching is met with the admonition from the bureaucrat in charge that "the exam should

be written before you start teaching and you teach to that”, one wonders who in fact is in charge of the asylum. Timelines for academic activities are increasingly set by administrators far removed from, and often with little, if any, experience of the front line. One could be forgiven for thinking that the core business of the university is now to maintain an even workload for certain administrative sections, and not, as most of us who teach and administer at the coal face once thought, the full educational experience of our students. The tail is indeed wagging the dog; which dog, however, is increasingly irritated by the seemingly random directions in which it is thrust, and, to shamelessly mix metaphors, the worm must turn and bite the hand that (thinks it) feeds it. This serious situation has increasingly negative effects on a staff and student body already under external threat.

Are we there yet?

Laurine Hurley, Australian Catholic University.

Does the curriculum fit the student for practice? Does practice fit the curriculum for the student? Few would disagree that curriculum is complex – defined (Barnett 2000) as containing/requiring more facts, data, evidence and tasks than are easily manageable within our current frameworks. Higher education finds itself situated now in an environment of super-complexity, Barnett argues, whereby the frameworks in which we make sense of our world are themselves no longer inviolate. Higher education must be responsive to the (perceived) needs of society, both at large and in the narrower discipline in which it may be based; this almost inevitably leads to uncertainty and questioning. How easy is it, in fact, for us to read and interpret these needs: indeed, are the messages clear and unambiguous at source? Do we educate for local or for global needs, and how do we define these? Who influences the design of curriculum, why and how? How can we best incorporate technology – from the everyday use of PowerPoint to the intricacies of web-based assessment and teaching – to assist learning rather than overwhelm with glitz and showmanship? Perhaps the most vexed issue in the “vocational” disciplines (nursing and teaching, for example) is balancing encouragement of self-direction and/or experiential learning with the release into the wild of a suitable and safe practitioner. How can we avoid throwing the baby out with the bathwater? Learning and educating in a climate of super-complexity requires new tools and the skills to use, and not be used by, them.

Dumbing down: some ethical questions in assessment.

Andrew Johnson, Monash University.

Assessment raises a number of ethical questions for markers, no less than for students. Considerable attention has been paid to the ethical, or more accurately, supposedly unethical behaviour of students in recent years related to the increase in incidences of plagiarism. Less attention has been paid to the competing ethical demands faced by assessors in an educational environment that has undergone rapid and radical transformation. The insistence on maintaining standards, on not dumbing-down courses, or passing under-performing students are among the stronger imperatives which educators at all levels are expected to follow. And yet, the models of assessment assumed in this imperative (normative) may be at odds with models of assessment, such as criterion or competency-based assessment, practised in tertiary education. This paper explores the ethical questions that arise in the tension between different notions of assessment, from the perspective of what might constitute a “fair” assessment practice for students.

Homework: is this a project for plagiarism?

Ingrid Kennedy, Central Queensland University.

This paper will examine why some students feel they need to plagiarise or to cheat to accomplish homework tasks, or how they inexorably get involved in the plagiarism process. It will be shown that this is due parental influences, to the student’s inability to appreciate the value of referencing and not understanding the value of academic integrity. The significance of homework and the reasons why it is necessary must be re-evaluated. The pressures placed on the modern family, the scholar of this century and the types of resources available are in

constant flux, continually fuelling the plagiarism and cheating debate. Furthermore, the art of cut or copy and paste is an old one, and not confined to the internet or computer-based projects. This paper will show that if students are allowed to complete tasks in the classroom, they will be taught how to turn “cut or copy and paste in” to “cut or copy, read, paraphrase, paste and cite”. This paper in no way intends to undermine the value of homework, but rather emphasises that when projects that are supposed to teach research skills are given as homework, the risk of plagiarism is great. Sound research practices are imperative to instill academic integrity from an early age, thus overcoming plagiarism and cheating to a large extent. This paper primarily examines the situation in the primary school, where the student experiences researching for projects for the first time.

Authenticity of historical documents.

Hooshang Khosrobeigi, Payame Noor University, Iran.

The most significant task of a history researcher is to evaluate the authenticity of the relevant documents, the extent of their authenticity and to observe the ethical codes.

The degree of the authenticity of documents depends on the place of its narrator, and the extent to which he has been influenced by the external atmosphere or his own inclinations. Moreover, based on the tradition of copying the documents in the past, a great number of existing documents are either adapted or changed. The unfamiliarity of scribes or their preferences and the degree of their honesty and devotion to this task affect the credit of the document. Besides, some documents are the translations from different languages, and the original document usually does not exist. Consequently, here the honesty of the translator and following the principles of translation play important parts. The researcher should consider the possibility of forgery. A document like an artistic work may be a counterfeit. The forger may belong to the past or be a contemporary, who has forged a document for money.

The aim of this paper is to study and evaluate the extent of scientific honesty and the observance of ethical codes on the part of the writers and introducers of historical documents.

Educational integrity and the professional development and education of health workers involved in stroke care.

Pamela Morrison, Hunter New England Area Health Service.

Professional development and education for health professionals working in stroke care is important in maintaining awareness and implementation of best practice in patient care and in developing a confident, competent and committed workforce. Implementing ongoing inter-disciplinary and intra-disciplinary professional education requires a commitment to the importance of continuing education for health professionals and the allocation of adequate resources. Integrating and maintaining the principles of educational integrity in such professional development is challenging, yet relevant, to the strong focus in health on patient-centred care. The values of equity and responsibility are particularly significant in the health professional development sphere. Within the Hunter Stroke Service (HSS) there is an emphasis on collaboration and innovation in professional development education. There is evidence within the HSS professional development program of a commitment to the values of equity and responsibility to the staff it is responsible for and the patients they care for. However, current educational initiatives need to be maintained and further developed to ensure that educational integrity becomes a key component and focus of all future professional development. By ensuring educational integrity is at the heart of HSS educational programs those staff responsible for implementing education will be encouraged and empowered to translate values into action. Such empowerment will facilitate a well-educated workforce, confident in caring for patients in a manner consistent with current evidence-based practice and competent in their commitment to the importance of ongoing professional development in stroke care.

An evaluation of the perceived value of web-based academic integrity resources for staff.

Robert Muller, Flinders University.

This paper presents an evaluation of the value of providing a web-based resource to support academic staff in teaching, encouraging and modelling academic integrity. The primary goal of the project was to adopt an educational approach to support academics and students in developing and maintaining academic honesty and to minimise the incidence of academic dishonesty within the university community. The project module reported in this paper focused on academic staff education. A website was designed containing information on academic integrity and ways to educate students about it. It also provided guidance on putting policy into practice, methods of detection and ways of designing assessment to minimise opportunities for academic dishonesty. An exploration of cross-cultural issues in relation to academic integrity was included, as this is often a pejorative, uninformed subtext of many discussions regarding academic honesty. Finally, it is often assumed that academic staff have a reasonable level of understanding of academic integrity. This project determined that it was important to not leave this to chance and to include information that would promulgate a common set of principles regarding academic integrity in teaching. This evaluation aims to establish whether the staff website of the AIMS project has helped academics to increase their understanding of all aspects of academic integrity, including education of students, policy and procedures, detection, course design, cross-cultural issues, and the modelling of academic integrity in teaching and learning. The evaluation will be undertaken through qualitative interviews with Flinders University academic teaching staff.

Teaching research postgraduates educational integrity through an information literacy training program.

Angela Newton, University of Leeds, United Kingdom.

Educational integrity is at the core of a new information literacy training program for research postgraduates at the University of Leeds. The new training program is a product of the UK's 2002 Roberts review, which recommended that research postgraduates receive a minimum of 10 days of transferable skills training per year. Educational integrity plays a significant role in the transferable information literacy skills required by research postgraduates, and as such, it is embedded within the training program. Research postgraduates are required to disseminate information to others through a variety of media, and to achieve this they must understand how to use information in an ethical manner. Teaching skills such as good practice in literature searching, avoiding plagiarism, using reference management software, and raising awareness of intellectual property rights and copyright issues around e-publishing your own work, all contribute to the development of a well-rounded research student.

This paper will look at how the information literacy program for research postgraduates has been developed through the recommendations of the Roberts review, the Research Council's UK Joint Skills Statement, a literature review, the results of an in-house survey, and an examination of best-practice in other higher education institutions. An indication of possible future developments to the program at the University of Leeds will also be included.

Addressing the wandering naïve: the development of an online resource to educate students about a university-wide academic integrity policy.

Lee Partridge, Graduate School of Education, the University of Western Australia

Beverley McNamara, School of Social and Cultural Studies, the University of Western Australia.

This paper outlines the process undertaken to inform new entry tertiary students of the implementation of a recently developed policy on academic conduct. Following cross- faculty consultations, a WebCT online

resource was developed for use amongst new entry students. In addition to informing students of the policy's existence, the module developed served a number of other purposes including the introduction to general issues of ethical scholarship and ways it may impact on both the students' academic and future careers. It stated the University's expectations of their students with respect to ethical scholarship, informing them of the likely consequences that might result from instances of academic misconduct and providing them with advice and sources of assistance in matters concerning correct academic conduct. In so doing, it sought to be both supportive and clear about student responsibility. Students' response to the initial implementation of the module was surveyed, assessing its success in addressing the relevance to new entry tertiary students.

Incorporating values, ethics and attitudes in vocational education: essential requirements for Children's Services.

Susan Roberts, Community Services, TAFE NSW.

The Children's Services Regulation acknowledges that childcare requires more than adequate knowledge and understanding of children and their families. "Sympathetic to the welfare of children" describes the desired attitudes of interest, care and genuine concern for children's welfare. "Personality" incorporates the personal qualities, characteristics, values and attitudes that influence individual behaviour and endeavours. As educational practitioners we are faced with the challenge of promoting and teaching the values, ethics and attitudes required for the workplace within the context of the broader community. How do we incorporate attributes into a competency based training program? How are values, ethics and attitudes taught and assessed in vocational education? This paper explores these questions in the context of the TAFE NSW's Diploma in Children's Services, National Training Package.

Educational integrity in learning: students' misconduct as reflected in an Israeli large public college disciplinary committee.

Professor Dan Soen, College of Judea & Samaria, Ari'el, Israel.

It is taken for granted that academic institutions exist for the transmission of knowledge, the pursuit of truth, the development of students and the general well-being of society. The enrolment of a student at the academic institution is a voluntary entrance into the academic community. By such entrance, the student voluntarily assumes obligations of performance and behaviour, which are imposed by the institution relevant to its lawful missions, processes and functions. No wonder, then, that the academic institutions reserve the right to discipline students or student organisations for inappropriate behaviour occurring on or off the campus in order to secure compliance with their obligations. Extant studies have shown academic misconduct to be a pervasive problem among college students. Some surveys indicate that cheating has reached epidemic proportions in colleges. The question how to deal with alleged academic misconduct by students is one that institutions of higher education have faced for years.

This paper analyses the deliberations and punishments meted by the disciplinary committee of Israel's largest public college while trying to fight violations of the college's code.

The construct of educational integrity: model coherence, consistency and values.

Michael Steer, Renwick College, Royal Institute for Deaf & Blind Children.

Renwick College is a centre for postgraduate professional studies and research in the field of education for children with sensory disabilities. It is administered by the Royal Institute for Deaf and Blind Children at North Rocks in Sydney, and is affiliated with the University of Newcastle. This presentation will provide a structured analysis of the meaning and use of the term "integrity" as the term applies to the College as a

discrete educational setting. Its author proposes that a clearer understanding of the term “integrity” used in this particular context relates to (a) the coherent relationship of certain identifiable clusters of constituents within the educational program offered at the College, (b) the consistency of those offerings and (c) an interface of those factors with several identifiable values, principles and rules associated with the offerings and the setting.

Knowledge cooperation between globalisation and localisation: educational institute and community.

*Kanopporn Wonggarasin, Jongchareon Kumbun and Renu Duangmanee,
Rajamangala University of Technology Sakhon Nakhon Campus, Thailand.*

Educational equity in Thailand ensures young citizens in remote areas receive equal educational opportunities equivalent to those in large provinces. It means that education is extended to every part of country and educational institutes are established in many local communities. Nowadays education is concerned with giving students knowledge of advanced technology to ensure globalisation. Local knowledge, however, or local wisdom is often ignored. This research was undertaken at Rajamangala University of Technology Isan, Sakhon Nakhon Campus, Phangkhon district, Sakhon Nakhon province. The higher Educational Institute for vocational subjects represents an institute of globalisation within a community of localisation, both representing different ways of living. They can go hand in hand, however, by sharing their knowledge. Most of students at the Institute come from the local area. Students learn in the classroom and can take that knowledge and contribute it for the benefit of their own communities. They also learn local wisdom from their own communities. The Educational Institute provides global knowledge to local people through training in electrical trades, small engines for agriculture, building and painting houses, computer training etc. The students participate in these activities either alone or with their Institute teachers. The locals, on the other hand, contribute their local knowledge such as traditional music and the auto tri-cycle factory welcomes students to study. The Institute and communities undertake activities together such as cleaning the temple, religion days, building the library, etc. The Educational Institute and local community share their knowledge with each other, leading to a mutual feeling of belongingness. Although students learn modern knowledge, they can bring that knowledge to help and participate in their communities, learning to share global and local together.

The seriousness of plagiarism incidents: making consistent decisions across a university.

Shelley Yeo and Robyn Chien, Curtin University of Technology.

A new plagiarism policy is being developed for Curtin University of Technology. A review of past practices across the university revealed difficulties among staff in deciding the seriousness of a case of alleged plagiarism and subsequently, in applying consistent penalties. These difficulties have arisen, in part, because of previous flexible policy provisions in relation to classifying an incident of plagiarism. The new policy provides a classification framework and pro forma with four criteria, each on a continuum from least serious through to most serious, and then an overall classification into three levels. Each level then determines the management process to be followed. The purpose is to allow staff some flexibility to interpret different plagiarism cases but to make more consistent overall decisions. The pro forma has been trialled to determine the degree of consistency in the decisions that staff make when using it. In this session, we present some data from the trial and recommendations for future use of the *pro forma*.

Success, aptitude and learning strategies: exploring the different understandings in the Western and Eastern cultures.

Yang Yunbao, La Trobe University.

The long-standing misconceptions of Western researchers in relation to the “rote-learning” of Chinese learners are derived from an insufficient understanding of Chinese culture. This article provides a different perspective on “rote-learners”. “Learning success”, “aptitude” and “learning strategies” in learning English as a language are discussed in relation to different concepts of factors influencing achievement.

Different cultures might have different interpretations of these areas and different interpretations are possible depending on whether the language is treated as a foreign language or as a second language. In order to further understand these areas, related issues such historical background, the origins of people’s perspectives and their influences in their cultures are explored. In this paper I argue that cultural differences are a significant element

PRESENTERS: DAY ONE

Helen Marsden, University of South Australia.

Re-inventing ethical education in Australia: too icker for honour?

Donna Lee Brien, University of New England.

Integrity in planning postgraduate curriculum: developing research degrees in writing that work.

Colin James and Jenny Finlay-Jones, University of Newcastle Legal Centre.

I Will Survive: strategies for improving lawyers' workplace satisfaction.

Christina Mainka, Scott Raeburn, Shirley Earl, Napier University, Edinburgh, UK.

A Scottish university's cross-institutional approach to reduce plagiarism: first results and recommendations.

Christina Eira, Research Education Programs, University of Adelaide.

Obligatory intertextuality and proscribed plagiarism: intersections and contradictions for research writing.

Ingrid Kennedy, Central Queensland University.

Homework: is this a project for plagiarism?

Martin Dick, RMIT University, Judy Sheard and Maurie Hasen, Monash University.

What to do about cheating? Using the student perspective to develop curriculum to address the problem.

Angela Newton, University of Leeds, United Kingdom.

Teaching research postgraduates educational integrity through an information literacy training program.

Hooshang Khosrobeigi, Payame Noor University, Iran.

Authenticity of historical documents.

Laurine Hurley, Australian Catholic University.

Wags the dog.

Nitza Davidovitch, College of Judea & Samaria, Ari'el, Israel.

How to ensure reliable assessments of students' achievements on exams? A case study: application of statistical tools in computerised marking of multiple-choice exams questionnaires.

Robert Muller, Flinders University.

An evaluation of the perceived value of web-based academic integrity resources for staff.

Professor Dan Soen, College of Judea & Samaria, Ari'el, Israel.

Educational integrity in learning: students' misconduct as reflected in an Israeli large public college disciplinary committee.

Alex Barthel, University of Technology, Sydney.

Soft marking, or a moral pedagogy for a globalised future?

Hedy Bryant, Charles Sturt University (poster session)

Sharing and enhancing practice through discussion forums.

Charmian Eckersley and Suzanne Ryan, The University of Newcastle (poster session)

Student Academic Conduct Officers: academic integrity facilitators.

John Atkins, Griffith University, William Herfel, University of Western Sydney.

Counting beans in the degree factory: some practical meta-ethical reflections on academic integrity in Australian universities.

Linda Brennan, Swinburne University of Technology, Juliana Durovic, Monash International Pty Ltd.

'Plagiarism' and the Confucian Heritage Culture (CHC) student.

Simon, The University of Newcastle.

Blatant cheating detected in an online examination.

Julianne East, La Trobe University.

Plagiarism and academic culture: voices from international students and researchers of university learning and teaching.

Carol Aeschliman, English Language Centre, Swinburne University of Technology.

Educational integrity and online learning.

David Green, Iris Lindemann, Kelly Marshall, Grette Wilkinson, Flinders University, Adelaide.

Staff and student reactions to a trial of electronic text matching software.

Pamela Morrison, Hunter New England Area Health Service.

Educational integrity and the professional development and education of health workers involved in stroke care.

Yang Yunbao, La Trobe University.

Success, aptitude and learning strategies: exploring the different understandings in the Western & Eastern cultures.

Ruth Barrett and James Malcolm, University of Hertfordshire, UK.

Embedding plagiarism education in the assessment process.

Shelley Yeo and Robyn Chien, Curtin University of Technology.

The seriousness of plagiarism incidents: making consistent decisions across a university.

Melinda Arko, Lynn McAllister and Halima Goss, Queensland University of Technology.

Constructing an online academic integrity kit: an institutional approach at QUT.

Barbara Giorgio, Australian Catholic University.

"Valuing" education for future consciousness: the role of connectedness and hope. An empirical study of a cohort of Australian first year psychology students.

Debbi Boden and Sue Holloway, Imperial College London.

Learning about plagiarism through information literacy.

Susan Roberts, Community Services, TAFE NSW.

Incorporating values, ethics and attitudes in vocational education: essential requirements for Children's Services.

Neera Handa & Wayne Fallon, University of Western Sydney.

Taking the Mountain to Mohamed: transitioning international graduate students into higher education in Australia.

Tracey Bretag, University of South Australia.

Implementing plagiarism policy in the internationalised university.

PRESENTERS: DAY TWO

Jude Carroll, Oxford Brookes University, Oxford, UK, Fiona Duggan, Plagiarism Advisory Service, UK.

Institutional change to deter student plagiarism: what seems essential to a holistic approach?

Stephen Marshall and Maryanne Garry, Victoria University of Wellington.

NESB and ESB students' attitudes and perceptions of plagiarism.

Lisa Emerson, Bruce MacKay, Malcolm Rees, Massey University.

Plagiarism in the science classroom: misunderstandings and models.

Sandy Darab, Southern Cross University.

Assessing the communications and take-up of academic values, codes and conventions: an empirical study of a first-year unit for undergraduates.

Christine Bruff, Alison Dean and John Nolan, University of Newcastle.

Student perceptions of the educational quality provided by different delivery modes.

Ursula McGowan, University of Adelaide.

Educational integrity: a strategic approach to anti-plagiarism.

Alison Feldman, University of Southern Queensland.

Creating organisational integrity through personal leadership.

Andrew Johnson, Monash University.

Dumbing down: some ethical questions in assessment.

Lee Partridge and Beverley McNamara, the University of Western Australia.

Addressing the wandering naïve: the development of an online resource to educate students about a university-wide academic integrity policy.

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Knowledge cooperation between globalisation and localization: educational institute and community.

Michael Steer, Renwick College, Royal Institute for Deaf & Blind Children.

The construct of educational integrity: model coherence, consistency and values.



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PROGRAM AT A GLANCE

THURSDAY 1st December 2005

Workshops

8.00 – 9.00am	Registration
9.00 – 12.00pm	Workshop
12.00 – 1.00pm	Lunch
1.00 – 4.00pm	Workshop
4.00 – 6.00pm	Asia-Pacific Forum on Educational Integrity (APFEI)
6.00 – 7.30pm	Welcome Reception & Official Conference Opening.

FRIDAY 2nd December 2005

Conference Day 1

8.00 – 9.55am	Registration
8.55 – 9.20am	Welcome and Introduction
9.20 – 9.30am	Launch of International Journal for Educational Integrity (IJEI)
9.30 – 10.30am	Keynote Address: Dr Gordon Barnhart.
10.30 – 10.40am	Sponsor: SCOPUS
10.40 – 11.00am	Morning Tea
11.00 – 11.30am	Parallel Sessions
11.30 – 12.00am	Parallel Sessions
12.00 – 12.45pm	Short Papers (parallel sessions)
12.45 – 1.45pm	Lunch
1.45 – 2.00pm	Poster presentations
2.00 – 2.30pm	Parallel Sessions
2.30 – 3.00pm	Parallel Sessions
3.00 – 3.30pm	Afternoon Tea
3.30 – 4.00pm	Parallel Sessions
4.00 – 4.30pm	Parallel Sessions
4.30 – 5.00pm	Parallel Sessions
6.30 for 7.00pm	Conference Dinner.

SATURDAY 3rd December 2005

Conference Day 2

8.30 – 9.00am	Registration
9.00 – 9.05am	Housekeeping
9.05 – 10.05am	Keynote Address: Dr. Thomas A. Angelo
10.05 – 10.30am	Morning Tea
10.30 – 11.00am	Parallel Sessions
11.00 – 11.30am	Parallel Sessions
11.30 – 12.00am	Parallel Sessions
12.00 – 12.30pm	Short Papers
12.30 – 1.30pm	Lunch and Birds of a Feather Sessions
1.30 – 2.30pm	Interactive Session
2.30 – 3.30pm	Panel Discussion
3.30 – 3.45pm	Thanks
3.45pm	Drinks and Cheese Finale.