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CTL Bookshelf

The CTL Bookshelf presents a selection of materials on aspects of teaching and learning available in the CTL Resource Room. These include titles on personal and professional development, as well as quality and evaluation issues. University of Sydney academics are invited to visit the CTL Resource Room and to consult with our staff on their interests.

Peter Kandlbinder, CTL Bookshelf Editor, email: synergy@itl.usyd.edu.au [mailto:synergy@itl.usyd.edu.au

CLASSIC TEXT

Lecturing and Explaining George Brown London, UK: Methuen (1978)

George Brown recognises that lecturing is the staple of many university teachers and provides a systematic guide to assist lecturers to prepare and evaluate their lecturing. Aware that there are two sides to the lecturing process, Brown continually reminds us that the key role of the lecturer is to increase the students' awareness of the processes and practices of learning from lectures.

Now published by Routledge, "Lecturing and Explaining" presents us with a workshop in book form. Written for a general higher education audience,

Brown offers a series of activities based on major research findings on the effectiveness of lectures. Starting with suggestions for explaining and presentation techniques, Brown progresses through the structures of lectures with an eye on his central theme- how do we help our students to learn from our lectures?

HERDSA GREEN GUIDES

Recent additions to the HERDSA Green Guide Series are:

No 18 Student Centred Teaching: the development and use of conceptual frameworks. Kym Fraser

Canberra, ACT: HERDSA (1996)

This guide provides an introduction to the technique of concept mapping. Concept maps are a visual representation of the connections within a subject. They have been used in education as the basis for decision making and teaching practice for the past twenty years. The strength of the concept map is it provides a techniques which is sits well with the ideas of constructivist learning as developing a concept map encourages students to re-conceptualised knowledge.

As no two people understand a topic in exactly the same way, no two concept maps are identical. There can not be any "right" answer when developing a concept map and Fraser says the power of the concept map comes from the process of construction which students go through. She provides advice on constructing your own concept maps and discusses ways it can be used in teaching, such as for summaries of text reading, determining prior student understanding, locating misconceptions, summarising work and for evaluation and assessment.

No 19 Collaborating in Research

Carol Bond and Briony Thompson Canberra, ACT: HERDSA (1996)

As a wide ranging survey of the issues involved in researching with other people, this guide provides a good first stop for anyone who wishes to better understand their underlying assumptions about research. Written for researchers who wish to work collaboratively, the focus is on how to collaborate rather than how to research. Collaboration is presented as distinct from team research as it is an equal partnership among two or more people regardless of their status.

After discussing the different forms of collaboration, listing both the benefits and problems associated with each, Bond and Thompson provide practical advice on the process from choosing and working with colleagues to writing and publishing.

No 20. An Introduction to Educational Media

Alison Viskovic Canberra, ACT: HERDSA (1996)

In the tradition of the Green Guides, Viskovic provides a practical guide to the basic principles of using media in tertiary education. From selecting and producing your own visual materials, to a survey of information technologies Viskovic discusses the materials and equipment used in communicating between teachers and students. The guide concludes with current trends and issues providing a well rounded reference to the range of technologies available to all levels of teaching staff.

Copies of all guides in the series are available at CTL.

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Exploring New Teaching and Learning Technologies Dianne Chambers, UniServe Science

The inaugural IT Fest (Information Technology Fest) held in June this year demonstrated that the number of ways information technology can be used in teaching and learning is large indeed. The IT Fest was co-sponsored by the Centre for Teaching and Learning and UniServe·Science with a theme of "Exploring the New Teaching and Learning Technologies".

Held over two weeks the IT Fest provided an opportunity for those using or planning to use information technology-based materials in their teaching to meet the IT trailblazers from many university departments. The first week included a VC's Forum with local and international speakers, as well as a series of seminars presented by Adrian Longstaffe from the University of Bristol and Jonathan Darby from Oxford University. Week two was a showcase of the materials developed by members of a faculty or group of related faculties. Displays of software, posters, and learning resources from local IT resource developers were presented from the City Campus, Cumberland Campus, and Orange Agricultural College. The series of displays was an opportunity for developers to show their wares and to have a chance to learn from others with interests similar to their own.

These half-day, discipline-specific sessions facilitated cross-fertilisation of ideas between teaching staff, many of whom had not previously had an opportunity to see each others' work. Considerable discussion occurred at these sessions which was helpful both for those who have been using IT in their teaching and those planning to do so.

A range of ways IT is used in teaching





There is not enough space here to outline the many and varied ways IT is being used in teaching at the University of Sydney and the following is merely skimming the surface. I apologise in advance to the other exhibitors at the IT Fest, but space is limited.

Teaching materials based on problem based learning included the new Graduate Medical Program (Simon Carlile, <u>simonc@physiol.usyd.edu.au [mailto:simonc@physiol.usyd.edu.au]</u>), the Soil Investigation Kit (Tony Koppi, tony.koppi@cropsci.su.edu.au [mailto:tony.koppi@cropsci.su.edu.au]), and a PBL package for paediatric dentistry (Ron Robinson, <u>ronr@dcs.wh.su.edu.au [mailto:ronr@dcs.wh.su.edu.au]</u>). Computer packages with a tutorial and opportunities to test knowledge on examples included one developed for learning biochemical calculations (Gareth Denyer, <u>g.denyer@biochem.usyd.edu.au</u>] [mailto:g.denyer@biochem.usyd.edu.au]) and one for learning rural accounting practices (Stephen Wedd, <u>stephen.wedd@oac.usyd.edu.au</u>]. The Internet, in particular the World Wide Web, is also being explored by a number of departments as a means of delivering IT-based course information and materials. The Graduate Medical Program's materials are delivered using an intranet and Netscape Navigator, and the Chemistry Department has produced quiz materials which are delivered and marked using the Web (Greg Warr, <u>g.warr@chem.usyd.edu [mailto:g.warr@chem.usyd.edu]</u>).

The WWW is also being used in the Education Faculty for a number of projects to disseminate information, this includes the Novae Group which focuses on the impact of new information technologies on human learning and adaptation (<u>http://novae.edfac.usyd.edu.au/novae/novae.html</u>] (<u>http://novae.edfac.usyd.edu.au/novae/novae.html</u>]) and the HENRE project which focuses on the design of technologically supported learning environments and on the processes of learning, (<u>http://walkerr.edfac.usyd.edu.au/HENREb2/pages/henre.html [http://walkerr.edfac.usyd.edu.au/HENREb2/pages/henre.html]</u>).

Overall, the IT Fest was considered a success as it allowed members of the university community who are developing IT-based teaching and learning materials to meet with each other for informal discussions, and for those considering using IT in their teaching to meet with those already doing it.

Dr Dianne Chambers is the Educational Technologist of UniServe Science located at the University of Sydney I and co-ordinator of the second week of the IT Fest



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Social Work Education in a Changing Context Janet George and Lindsey Napier, Department of Social Work, Social Policy and Sociology

The directions suggested by recent research are for higher education to promote interdisciplinary and contextualised programs so that graduates will be capable of moving across diverse work contexts. Education for social work has always attempted to produce such a graduate because, concerned as it is with 'the social', social work is diverse and interdisciplinary. Practitioners must be creative and versatile. Graduates move into positions both in government and non-government sector agencies. They engage in work with communities, groups, families and individuals, and in formal social policy development, service planning and management. A world of rapid change outlined by Candy et al. (1994) also demands generic skills of independent and life-long learning. This is consistent with the preferred direction of tertiary education.

The philosophy and practice of educators of Bachelor of Social Work students at this university have consistently placed an emphasis on negotiated learning., on recognising prior knowledge and on the centrality of values and ethics in professional practice. It is our aim to develop students' ability to practise reflectively. While we have been confident in our ability to graduate a 'good product', staff have been pressured, in the light of knowledge expansion, increasing specialisation and diversity of employment, to teach more content within an already packed curriculum.

Increasingly, students have felt overtaught. A recent curriculum review led to the formation of an interdisciplinary Steering Committee, charged with developing a new educational structure in the two professional years (Year Three and Year Four) of the four year Bachelor of Social Work program.

The New Curriculum

1 of 3



The new curriculum continues to have its foundation in two liberal Arts years, in which sociology and psychology are requisite subjects. It is designed to build on the program's existing strengths which are the centrality of social policy, competence in research, critical appraisal of theories, clear social justice underpinning and the equal contribution of agencies and practitioners to professional education through field education.

The program, to be introduced in 1997, is 'issue-based' and shares the pedagogical principles of 'problem-based' and 'enquiry and action' learning. It will rely on small group work in study units, called for instance, Social Development and Urban Futures; Interpersonal Violence; Disability; Children, Young People and Families; Drugs, Alcohol and Mental Illness; Ageing; Illness, Inequality and Intervention. These study units present students with scenarios typical of professional practice as the beginning point of learning, based in evidence that the reality of practice provides a motivating starting point for learning.

Each study unit addresses the integration of social policy and social work practice through a primary focus on research, theory and values. It is intended that the process of learning will be as important as the content, within the mandate to provide knowledge and skills that meet external accreditation standards. This approach acknowledges the future demand that workers will be "knowledge workers" (Drucker, 1994), characterised by their flexibility and adaptability to change, using transferable knowledge and skills.

Developing a Partnership

The need for curriculum to approximate the reality of practice requires a closer relationship with sites of social work and social policy. The department already has a strong track record in community service, involving consultation and collaboration with agencies. This has prepared the ground for partnerships in education, research and social policy development.

What will characterise these partnerships is a matter for ongoing development and evaluation. Organisational structures demand different roles, tasks, accountability and ultimately, professional culture (Jones and Joss, 1995). We must test out whether there is a common identity transcending different organisational cultures and consider how far the application of principles of reflective practice to education and professional practice will reinforce that identity. The issues to be worked through include the relationship of external agencies to curriculum design and the capacity of the curriculum to transcend current ideological and material constraints.

Paradoxically perhaps the opportunity presented by resource constraints has enabled curriculum innovation that we believe will benefit students, staff and social work agencies alike. It has provided a chance to reflect on, reconceptualise and act on our role as educators. The new curriculum will be informed by evaluation of a pilot program conducted in 1996. We intend that these changes will keep the University of Sydney's program at the forefront of professional social work in Australia.

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Dr Janet George and Lindsey Napier teach in the Department of Social Work, Social Policy and Sociology.

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Educational Change in the Graduate Medical Program Anne Sefton, Faculty of Medicine

Sydney's new Graduate Medical Program moved closer to reality when, after accreditation by the Australian Medical Council, about 180 applicants for 1997 were interviewed in September for 106 local places. All had achieved at least a Credit average in a range of first degrees and were successful in a demanding three-part test (GAMSAT) which demonstrated their reasoning skills in both humanities and sciences as well as their written communication. The structured interview is based on agreed criteria and uses trained interviewers. Interviewing teams, including an academic member of the Faculty, a senior student or graduate and a community member, reported the process to be fair and effective. They commented enthusiastically on the quality of many applicants, so we look forward to welcoming a group of lively, varied and interesting students. Thus one aim of the change- to admit a more diverse, mature and motivated cohort- seems to have been realised.

The new students will enter a program that bears little resemblance to its predecessor which was discipline-based, heavily reliant on lectures, the e acquisition of factual knowledge and demanding that summative assessments be paramount. Clinical exposure was delayed until third year. In contrast, the new goal-directed program is integrated across disciplines and between years with students working in clinical schools from the first week. Our new student-centred approach emphasises the preparation of students for a life-time of learning, focussing on the skills of acquiring and applying information.

Structures to ensure the new goals are met.

Four themes were identified early: Basic and Clinical Science; Community and Doctor; Patient and Doctor; Personal and Professional Development.



Each extends throughout the four years and forms the basis for learning and assessment. The themes represent the means of organising the statement of goals and provide the framework for an integrated curriculum.

Features of the curriculum include problem-based tutorial groups, supplemented with some lectures, practical work and tutorials. Students will study a clinical problem each week in years 1 and 2, integrating basic and clinical knowledge and enhancing their skills of reasoning and decision-making. A focus on evidence-based medicine ensures that students learn to appraise relevant studies critically. Clinical skills of examination and communication, although actively encouraged with new approaches throughout, are particularly emphasised in years 3 and 4. Ongoing formative assessment, incorporating new methods, will ensure that students learn to review their own progress. Evaluation of the program, both of educational processes and outcomes, is planned from the start.



A group of medical students engaged in a problem-based learning tutorial. Having been introduced to the patient who presents as an image on the computer, they arenow testing the hypothesis they have generated by reviewing the patient's X-rays and other data. The tutor is acting as a facilitator, not a source of information. (Note that these students are currently in Medicine 3 in the undergraduate program.)

To ensure that students become competent with computers, we are developing a major initiative, an intranet which will deliver the curriculum. Students in tutorials will access triggers, information, images, patient data, scanned museum resources as well as web sites in Australia and internationally. Students on campus or in the four clinical schools will have access in the tutorials, classrooms and libraries to computer-based learning packages,

databases, electronic forums and applications like spreadsheets.

The decision to move to a graduate program was made by an overwhelming majority of Faculty late in 1992 after a year of debate. Those of us involved in the original discussion have learned a great deal about the processes of changing a large and complex degree program which had not altered radically in style for over 110 years. A characteristic of the planning since has been the willing involvement of a very large number of academic and clinical staff. Another pleasing feature has been the enthusiastic commitment of many students in the present undergraduate curriculum who have joined a range of committees, contributed ideas and acted as interviewers.

We look forward to meeting our new students in February, 1996.

Associate Professor Anne Sefton is Associate Dean (Curriculum Development) in the Faculty of Medicine

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Peer Assessment as an Aid to Understanding Wayne Davies and Rolf Prince, Department of Chemical Engineering



To help our first year students to decide at an early stage whether chemical engineering will be attractive to them we have a series of lectures called "What is Chemical Engineering?" Lectures such as "A day in the life of a young Chemical Engineer", "Food the Chemical Engineer's Alternative Industry" and "The Chemical Engineer and the World of Finance" give them an overview of the Australian process industries and what chemical engineers do, as well as allow them to meet a range of practicing chemical engineers.

A key difficulty with such descriptive, "general" and "easy" material is to challenge the students to think about it, and identify and retain the important ideas, concepts, or facts. Hence we introduced a new scheme three years ago which requires students to write an essay on the topic of each lecture, and to have these essays marked by their peers. Students are formed into groups of three or four, depending on the numbers in the year, so that they can compare notes on the content of the lecture. Then the group writes a one page report and submits it for marking by other groups of students in the same class.

In order to get a more representative mark, duplicate copies of each report are marked, by two different groups. To minimise tit-for-tat marking the whole class is divided into two "genera" of students, such that markers and the writers rarely deal with each other's work. This also eliminates the possibility that students will mark their own work. In an attempt to make the marks reflect an individual student's effort, and to apportion marks fairly, the membership of each group is randomly selected each week. Marking and record keeping for the scheme is complex and is only made practical by using computer spreadsheets.

Each report then receives two independent marks. The resultant sum of these marks is allocated to each student who participated in the group writing of the report. The overall average mark for specific students is their mark for the semester, and counts for 15% of the course total assessment. No weighting is given to allow for any perceived level of contribution.

To determine if any significance could be attached to the objective assessment of the report, we did some correlations using scatter diagrams. Report marks for the individuals were plotted against their TER. For some 15% of the class these TERs were not available and, perforce, we had to omit them from analysis. Taking the whole class in this case, there was no significant association between TER and essay mark ($r^2 = 4.2\%$) Looking at the distribution we felt that there might be an association in the higher levels of TER. Accordingly we plotted the scattergram of all students with TERs above 90. This produced an association which looks more significant ($r^2 = 44.7\%$). A similar plot for the group of the TER range 80 to 90 and the student group below 80 gave no correlation. The most obvious explanation for these findings is that the better students in the report group were doing most of the work of essay writing. This squares with observation and students' comments. The positive correlation of the above-90 TER population suggests that "ability" or at least rank in the Higher School Certificate, has had a positive influence on marks but only for this population. The absence of correlation for the below-90 TER populations suggests that the marks achieved by these populations were not so directly related to their own ability. We conclude that these students' marks were largely dependent on the best member of the essay-writing group. Since the memberships are randomly chosen, marks for the below-90 TER populations were produced by the luck of the draw.

At first sight this does not appear to be a good thing. Normally we would shrink from any scheme in which students' assessment is not immediately related to their ability. We believe however that the benefits of Peer Assessment are not only reflected by a numerical grade. Working in groups is good for students because it helps to show those of more average ability, what better students are capable of. Working in groups is also good training for later life as young professionals. Indeed, several of the lecturers in the course have stressed how important effective group working is in industry, and therefore how important it is for students to learn how to contribute to a group. They need to know how to assist a group by motivating weaker members and, perhaps most difficult of all, how to let their own star shine without spilling blood on the floor which their manager has to mop up. All these elements are already significant here, forming a good preparation of the extensive group work we now require in later years of our course.

It is already clear that there are wider benefits than building an interest in chemical engineering. The students spend the best part of an hour (which is scheduled immediately after the lecture) actually discussing the lecture. They learn by practice how to take descriptive material, often discursive and perhaps not well-defined, identify the key points, and present these in a coherent, logical and positive manner. The success here was demonstrated by an immediate rise in the standard of the essay style examination of the subject, by an average of around 10%. The reports themselves we judge as generally "good" or better, justifying the average peer mark of 60-65%.

Yes there have been other difficulties; objections, even some resentment. There is a common view that your peers mark you less responsibly, and to a lower level than an external assessor. So-called passengers lacking motivation, understanding or language skills are resented. A weight of 15% for this section (set to make it meaningful) is a worry for some of the abler students, as the chance element may deny them a higher grade. For the assessment, a marking guide is provided which should also act as a guide to the structure of the report. Weaker students think this is insufficient, and more guidance

and help is needed in this regard. However, we would wish to avoid a formal lecture on report writing, and instead let them develop their skills by a voyage of discovery.

While there are difficulties the benefits in understanding and in expression, we believe, greatly outweigh them. In a class of 90-100 students new to university they get to meet well over half of that class at close quarters. That is worth something in itself.

Dr Wayne Davies and Professor Rolf Prince teach in the Department of Chemical Engineering

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Students in Transition Mary Peat, Faculty of Science



First impressions can be everything. Academic and social experiences during the initial weeks of university can set the tone for students' later studies and the way they adapt to the university environment. The first few weeks can be crucial. As many as 30% of students consider dropping out during this time and their perceptions of their social and academic integration is a predominant influence in the decision to persist or depart from the institution. Students' pre-entry attributes, which include their family backgrounds and pre-university schooling, along with their goals and commitments, which influence their performance, both affect their integration into the university's social and academic systems.

Academic integration reflects students' interactions with faculty, academic achievement and intellectual development, while social integration reflects students' relationships with peers, informal contacts with faculty and other personnel, and affiliations through clubs and other activities. The formation of friendships and peer groups tends to set the stage for relatively trouble-free progress through a degree. The causes for students leaving are many and diverse, including change of intentions, uncertainty of future, other commitments, lack of adjustment, academic difficulty, academic boredom, financial difficulty, and isolation.

Whilst we cannot solve all of the reasons students give for leaving, we could tackle some of them. Students need adaptive coping skills to enable them to make new friends quickly and to help them to become academically productive from day one. We can do much to help here. A promising strategy to assist first year students is the establishment of peer study groups. This is a realistic activity with a perceived long-term outcome (many peer support groups remain active through second and third year studies). Recent research strongly indicates that the "togetherness" engendered by such programs leads to better achievement, improved retention rates and more positive comments from the participating students about their university experience. We

should look towards developing supportive peer groups which bridge the academic-social divide for the students, thus encouraging them to gain a voice in the construction of knowledge as a result of enhanced involvement of all aspects of the learning process.

In February this year the Faculty of Science hosted a pilot workshop "Helping to Make the Transition" for 150 invited first year students entering University for the first time and undertaking the BSc degree program. This degree program is one of several programs offered by the Faculty of Science and the one with the largest student intake and the most academically heterogeneous group. These students attend lectures with 200 to 500 other students and laboratory classes with 60 to 70 other students. This situation is not to be found in the High School system, and the change in learning environment is known to be intimidating and alienating to students.

The Faculty workshop offered a collaborative session for both students and first year teaching staff which was fairly low key and informal but which centred on the knowledge that those students who work (and socialise) together are more likely to succeed and are more likely to continue with their tertiary study. With the help of the University Timetable Coordinator, five groups of 30 students were assigned to the same Biology and Chemistry laboratory classes. These five groups were identified by colour coded nametags so that students could easily and quickly join others with the same timetable. On arrival, students were given a show bag which contained blank business cards, subject information, Faculty information, and University information.

During the workshop students were invited to get together in colour coded groups and get to know one another. Students were encouraged to form peer study/social groups and were given some hints on how to support these. Short talks on the support services available for students were given during the morning, along with a walking tour of the Carslaw complex and its environs (this being the centre of the universe for first year science students). A friendly sausage sizzle lunch finished the workshop.

An ongoing program involving a small focus group of students, is tackling writing a science student orientation manual. This will contain helpful advice and information such as, the shortcut routes from Wallace to Chemistry, the location of KopyStop and others. The students identified the information that they felt they needed but did not have access to during those critical early weeks of the transition and this information will be presented to the 1997 students in a student-friendly booklet.

The Faculty of Science is committed to improving the experience of students in transition. It is planning its next workshop for February 1997 at which 700 students in the BSc degree program will be invited to take part. The parents of these students will also be invited to attend a parents' program which will be held in conjunction with External Relations (Parents' Program) and the SRC.

At the recent VC's Forum on Teaching - The First Year Student Experience, Richard James presented the findings from the recently published First Year on Campus (McInnis, James and McNaught, 1995). This was a CAUT commissioned project which surveyed 7000 on-campus students from seven universities. The project team made the assumptions that students enjoy university, expect it to be challenging and benefit from the social experience. The broad findings of the survey indicate that most students are sure of why they are at university, most are not narrowly vocational,

many find it a lonely place and many consider dropping out early. In addition, the demands of part-time work conflict with the university experience. Female students tended to be more settled, more positive about what they were doing and more likely to be satisfied. Students in college adjust to university life the quickest, while mature age students are generally much more satisfied with their experience. The least positive students are likely to be male, 18 years old and living at home. The recommendations from the project are

- work on the status of both teaching and coordination of courses in first year. This is imperative and those involved should be held in high esteem
- unpack the curriculum for all to see
- focus on the fundamentals of good teaching
- reconsider the role of support services
- build a sense of student identity and affiliation focused on the course or faculty
- monitor student attitudes and experiences

A copy of the book *First year on campus* by Craig McInnes, Richard James and Carmel McNaught (1995) can be viewed in the Centre for Teaching and Learning

Dr Mary Peat is the Associate Dean (Teaching) in the Faculty of Science

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At Year's End ... Jackie Lublin, Centre for Teaching and Learning



We have certainly had an interesting year in 1996. I speak for the Centre for Teaching and Learning but I'm sure people in the university at large would agree. However, in a context of change, uncertainty, reorganisation and budgetary restriction, the Centre has managed to maintain its usual activities and added some new ones. Our teaching and learning workshop program continued to draw good numbers, and our two Vice Chancellor's Forums on Teaching were focussed on topical issues - Postgraduate Supervision and The First year Experience - and were well attended.

Our student feedback service has been enhanced this year through a change to optical scanning of questionnaires which now allows us a much quicker (and much more painless) turnaround time. It may be interesting to note also that the central or so-called G-section was modified in the changeover to scanning, and the central CTL questionnaire now contains the same questions as the CEQ, a questionnaire administered annually to all recent graduates by the Graduate Careers Council of Australia.

We are particularly pleased about the success of our newer programs. This year for the first time we have mounted an International Seminar Series. Organised by Angela Brew, the presenters included Professor Lewis Elton and Professor George Brown from UK and Professor Tom Angelo and Dr Lee Warren from USA. Watch out for next year's program as it will be just as interesting.

This year we have conducted a comprehensive and structured Post-graduate Supervisors' Program in conjunction with the Committee for Graduate Studies. The residential Research Retreat, held jointly with UTS last year, was so successful that the CTL was given a grant to repeat it again n November this year. It is encouraging to report that there were well over 60 applications for 35 places.

It is also pleasing to note that the successful Women and Leadership Program, initiated in 1995, was able to be continue again in 1996 through a second grant from the Commonwealth Staff Development Fund. At the end of this year there will be two cohorts of academic women with enhanced skills and knowledge in the university- it will make a difference.

Progress has not been so fast on the establishment of the NeTTL unit (New Technologies in Teaching and Learning), but 1997 should see it emerge finally as a physical presence in the university with a brief to support staff in acquiring knowledge and skills in the use of flexible and distance learning technologies in their teaching.

Substantial progress was made in 1996 towards the CTL being able to offer a Graduate Certificate in Higher Education. This will come into effect in 1997, and will constitute the university's acknowledgment that a formal award is an appropriate recognition of effort invested by staff in studying and improving teaching.

Last, but not least, we have brought out three issues of *Synergy*. We hope it will become a well-known forum for discussion and debate in the university about issues of teaching and learning. What do you think of it? Please let us know.

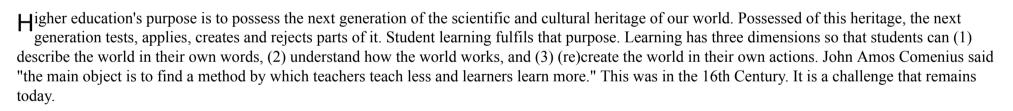
It has been an interesting and challenging year for all of us. We wish everyone the best for 1997.

Associate Professor Jackie Lublin is the Director of the Centre for Teaching and Learning

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But Learners Learn More Michael Jackson, Department of Government



Even the best teaching does not guarantee learning. The video "A Private Universe" demonstrates, in spite of wonderful teaching and superb test results, even Harvard University science graduates retain naive concepts of the universe. I know the same is true for my own students. If we want student learning, we must concentrate on learning. Teaching for learning concentrates on students and their learning. The discipline, the syllabus, the right answers are all but props in this process. The stars are the students while the teachers are supporting actors in the story of learning.

We do not need a black-box teaching recorder to know that learning comes from what students do and why they are doing it. This is more important than the number of students in the room or the sophistication of the software on the screen. The evaluation of teaching requires no heavy artillery of the quasi-experimental control, comparison and treatment groups. This is a blunt method abandoned in most social sciences. Evaluation of teaching for learning improvement matches goals for what students do with their intentions. It asks them what they do and why they do it and it uses multiple sources of information including the students, self, peers and simple observation of what students do.



My comments on teaching are five postcards of a tourist, not the wisdom of an expert.

- 1. Teaching that promotes learning allows students to make choices and experience the consequences of those choices. We learn by choosing.
- 2. Teaching that promotes learning develops self-evaluation. It does not come easily. Without evaluation, those individuals who say they have 30 years' experience might equate to one years experience repeated 29 times.
- 3. Teaching that promotes learning has variety beyond the steady diet of lectures, more lectures, further lectures called tutorials and even more expensive lectures called multimedia.
- 4. Teaching that promotes learning has a feasible workload. It sets assignments that are necessary without mistaking assessment for motivation.
- 5. Teaching that promotes learning is teaching that offers feedback and effective feedback comes quickly or not at all.

To conclude, in 1968 no one had heard of the environment. Now environmentalism is an international force that moves governments and corporations. Those improving university teaching work in a world wide movement only in its infancy. University leaders must resist now more than ever the time honoured flight from teaching which will follow further belt tightening and which may officially endorsed by some funding formulae rewarding research.

This is an edited version of the keynote address to the Australian Vice-Chancellors Committee's symposium on the Course Experience Questionnaire, Brisbane 3 October.

Professor Michael Jackson teaches political theory in the Department of Government.