Monash University has signed a historic education agreement with the new Vietnam National University.

The agreement, the first of its kind between the Hanoi-based university and a foreign university, marks a turning point in the development of higher education in Vietnam and relations between the two countries, according to the vice-chancellor, Professor Mal Logan.

"This is the beginning of a long relationship, of which both parties will be very proud," Professor Logan said.

"It demonstrates the role that universities can play in supporting Australia's place in Asia."

Monash will advise the new Vietnamese university on modern academic management practices, joint teaching and research projects, English language training, business, information technology, computing, engineering and other areas.

The Vietnam National University (VNU) is an amalgamation of the University of Hanoi, the Foreign Languages Teachers Training College, and the Pedagogic University Number One.

Monash's deputy vice-chancellor (research and development), Professor Peter Darvall, said the new university was Vietnam's first multidisciplinary national university.

"The entire tertiary education system in Vietnam is to be restructured and Monash will be able to assist the VNU through this dynamic period," he said.

Professor Darvall said the agreement shows that Monash's main motivation in its offshore dealings is not to make a "quick buck". "We are interested in long-term productive relationships in the development of human resources," he said.

"The Vietnamese have a great passion for learning and higher education. While the VNU is in its infancy now, we believe that in 20 years it will be a very prominent university and one that will be an integral part of the modern trading world."

Monash will also be helping the VNU in the planning of its capital works and infrastructure.

"We will provide advice on an inter-campus information system for the VNU and assist with the planning of an electronic mail system," Professor Darvall said. A computer link will be set up between the two universities, which will aid the organisation and implementation of long-term twinning programs and research collaborations.

In time, the agreement will see students from both countries conducting part of their degree and non-degree studies at each of the two universities.

Professor Logan has also announced the appointment of a Monash director of the Australian English Language and Training Centre, which will be incorporated in the new university.

Private students graduating from the centre will receive Monash University certification.

"We have the experience, expertise and resources to help this budding university. At the same time, the agreement will benefit Monash in terms of research collaboration, crosscultural exchange and links with the Asian student market," Professor Darvall said.

"With this agreement, Monash has again demonstrated its role as Australia's international university."

From humble beginnings ...

This photograph, taken in August 1959, is one of the first known shots of Monash University.

From this desolate beginning, the Clayton campus of Monash has grown to include more than 60 buildings.

By 1965, the Sir Robert Menzies building, early Engineering blocks, Hargrave Library, Science wing, Deakin and Farrer halls, and the administration and union buildings were fully constructed and the university boasted a student population of 4283.

Today, Monash University has five campuses, with about 38,500 students and the equivalent of about 5000 full-time staff. It has a network of twinning arrangements with overseas universities and one of the nation's most advanced distance education centres.

The photograph, taken by Ms Margaret Anne Frazer, features interstate visitors, who were in Melbourne for an intervarsity choral festival. Unfortunately, the names of the people are not known.

If anybody can help to identify the subjects of the photo, please contact the Public Affairs Office on extn 52083.
There is a worldwide and growing awareness of the problems posed by the mental and emotional well-being of university students, and by the university administrators of the extent and importance of student mental and emotional problems. The experimental twin-modulus was found to be two orders of magnitude higher than the theoretically calculated values for the deformation of first order polytwin. This was attributed to the presence of a complex arrangement of polytwin domains within the domains of a polytwin. By assuming the response coefficient of these sub-domains instead of the elastic modulus to be the controlling deformation parameter for a polytwin, a close agreement was obtained between the experimental and the theoretically calculated values of the twin-modulus. See what happens when you let a clutch of elastic anomalies dance on your keyboard all night?

**NOW & THEN**

**25 YEARS AGO**

There is a worldwide and growing awareness of the problems posed by the mental and emotional well-being of university students. Awareness on the part of Australian university administrators of the extent and importance of student mental and emotional problems is evidenced by the increasing number of student counselling being appointed by universities, and by the extension of university health services to include psychiatric consultation facilities. Nevertheless, Australian universities still have relatively little researched information available on the actual patterns of student mental illness, and on the role played by social and demographic factors and by particular environmental stresses in causing mental illness.

**15 YEARS AGO**

Monash this year has its highest ever student enrollment ("bod count" terms): 13,930 persons compared with 13,698 last year. Expressed in EFTS (equivalent full time student) terms, however, the 1979 student population officially is 12,863. The apparent discrepancy in numbers is explained partly by an increase in the number of part time students. These now account for 33.3 per cent of the total enrollment, compared with 31.9 per cent in 1978.

**5 YEARS AGO**

On June 6, Mr Barry Jones, the Minister for Science, Customs and Small Business, will speak at the dinner following the Annual General Meeting of the Monash Association of Graduate Students (MAGS).

This visit will provide a unique opportunity for Monash postgraduates to hear at first hand the minister whose persistence has finally won out in the fight of the future for science in Australia.

The government initiatives announced in the May Science Statement are an acknowledgement of the fundamental importance of science and technology to the intellectual and economic wellbeing of this country and are a great victory for Mr Jones.

**THIS MONTH LAST YEAR**

Recently, the National Centre for Australian Studies at Monash University surveyed a range of teaching disciplines to assess the level of Australian course related material.

More than half of those who responded said that less than 40 per cent of the teaching materials used in their courses were produced locally. More than a quarter put the figure at less than 20 per cent.

Most respondents agreed that more Australian material would improve their courses, but there was a feeling among some professors that facts are facts, and Australia is intrinsically different to the rest of the world.

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**Why our leaders should reaffirm multiculturalism**

The following editorial article appeared in The Age on 30 March:

"We are disturbed by the direction of the recent debate on multiculturalism in Australia. We call upon all political leaders to reaffirm their commitment to the ideals of a multicultural society - tolerance, understanding, equality and respect of diversity. We would like to advance the following points in favour of this:

- Multiculturalism has worked very well in Australia. It is a fact of life. It recognizes the reality of Australia's diversity and formulates social policy accordingly in the interests of all.
- Multiculturalism policy has avoided the severe conflicts experienced by some immigration countries with less appropriate policies. The success of multiculturalism is demonstrated by the fact that there have been very few conflicts here and they have been minor and short-lived.
- Multiculturalism entails tolerance of other people's viewpoints, which may reflect their sense of identity. All Australians have always been interested in world events and have the right to be passionate about them, to debate such issues and to present their views to governments. Arson and other violence are crimes regardless of who commits them and must be treated as such.
Darwinism: a rib tickler tale

More than a quarter of first-year medical students at Monash University think Charles Darwin was wrong to argue that humans evolved from an ape-like ancestor.

Professor Roger Short, from Monash’s Department of Physiology, found the same number also eschewed Darwin’s theory that species evolved by natural selection, and one in five thought that Eve was created from Adam’s rib.

Professor Short published the results from his questionnaire, distributed to more than 150 of his students in a recent edition of the British medical journal Lancet.

Religion was a significant factor in the results. Twenty-four per cent had no religion, 18 per cent were Catholic, 17 per cent Anglican, 15 per cent Jewish, 6 per cent Buddhist, and 3 per cent Muslim and Hindu.

Of the students professing to no religion, 98 per cent accepted evolutionary theories. Although the majority of students from all religions accepted evolutionary theory, there were differences, with Muslims being the most fundamentalists, followed by Catholics, Anglicans and Jews.

Professor Short discovered that those with no training in biology were also more likely to reject Darwin’s evolutionary theories.

His study found that 64 per cent of students surveyed had not taken biology in their final year at school, physics, rather than biology, was a prerequisite to study medicine at Monash.

When Professor Short realigned the questionnaire at the end of his course, he was “utterly dumbfounded” to find there were no significant statistical changes in the students’ attitudes.

“I was shattered,” he said. “I believe in the truth of evolution and still regard it as the most exciting, fundamental concept that underpins the whole of biological thinking.”

He believed the scientific evidence on the origins of mankind was so overwhelming that failure to accept it was no longer appropriate. “Or are we dealing with fundamental concepts of life and death that are emotional and irrational and hold the reach of scientific logic?” he asked in his report.

His course included eight lectures on human evolution, films on primates in the wild, a trip to the Melbourne Zoo to see the monkeys and apes, and compulsory reading.

Despite their personal beliefs, all students presented evolutionary arguments when asked to write an essay on the controversial topic of: “Discuss the origin and destiny of the current races of mankind.”

Professor Short has received requests for his questionnaire from universities around the world who share his concern about “the pervasive influence of creationism.”

New book focuses on Australian middle class

Monash is offering its first undergraduate degree in journalism and communications on the Gippsland campus in 1995.

The Bachelor of Arts (Journalism and Communication) will be offered on-campus and distance education students, with international students able to enrol on a fee-paying basis.

Students of the course will gain experience in print, radio and television journalism, while focusing on electronic journalist and access to global communication systems. The course will provide training in the hosting and presentation of news and current affairs programs.

Strong and continuing links to the profession are currently being established by a Course Advisory Committee.

Professor Stewart Marshall, head of the School of Humanities and Social Sciences, said the course had been approved by the Education Committee and the university’s Academic Board and would be presented to University Council for final endorsement.

“Students undertaking the degree will be able to complete minor sequences from other Monash courses,” Professor Marshall said.

“There include languages, photography, computing, and visual arts, applied science and social welfare.

As well as developing an honours year, the School of Humanities and Social Sciences proposes to develop programs in journalism and mass communications to PhD level.

Distance education students undertaking the course will be able to participate in the radio and television aspect through the Australian public broadcasting network and through networked electronic bulletin boards.

The proposed course will develop students’ skills to perform in mainstream and alternative media organisations as well as in a wide variety of public and private sectors that require journalism skills.”

A focus on South-East Asia and the Pacific region will give students the background they require to work in countries other than Australia.

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NEWS

Dr Brian Costar.

"In 1942 he had identified that class as comprising ‘salary-earners, shopkeepers, skilled artisans, professional men and women, farmers and so on’ and these groups were to become the Liberal electoral heartland of the 1950s and 1960s. "Yet while continuing to grow, the Australian middle-class has altered dramatically in the last two decades by becoming socially more diverse and politically less conservative. Labour has made major inroads into the so-called ‘New Middle-Class’ such that the Coalition parties now face their worst electoral splits among managers, the self-employed, Protestants and the over-65-year-olds."

Secondly, the book’s contributors consider that the Liberals are vague with many of their current non-economic policies. Professor Emy writes that the Liberals are ‘inexorable’ and most of the students presented evolutionary arguments when asked to write an essay on the topic of: "Discuss the origin and destiny of the current races of mankind.”

Professor Short has received requests for his questionnaire from universities around the world who share his concern about "the pervasive influence of creationism."
In 1988 four girls were selected from schools around Australia as having the physical attributes needed to be good rowers. By 1989 they were junior world champions in their sport. Despite this success, sport psychologist Ms Michelle Pain is sceptical about the growing popularity of talent identification programs in Australia.

On the positive side, Ms Pain said talent identification programs could provide children with options they may not otherwise have had.

"The important point is that children see in their sport because they enjoy it," she said.

Ms Pain believes that children should not be in a sport because of the expectations of medall hungry parents and Australian; nor should they be one-eyed about a sport because their physical attributes fit the mould for that particular sport.

If a child is more physically mature than his or her peers, then they may 'appear' to be of a better make-up for sport, Ms Pain said. "In a couple of years after a lot of money has been invested, you might find that they're really no better than their peers.

But according to one of the pioneers of rowing talent identification in Australia, Mr Alan Hahn of the Australian Institute of Sport (AIS), variables such as maturation are accounted for when testing school students.

"I think the dollars ought to go to the coaches ... to make them aware of advanced training techniques for children of all abilities."

"It's important to realise that we don't ever say 'you've got to row," he said. "What we say is more along the lines of 'our testing indicates that you have the physical potential to be a successful rower, would you like to pursue that potential"?

Probably Australia's best result from a talent identification program came in 1989 when four girls - who one year earlier had been chosen for characteristics such as height, oxygen uptake in relation to body weight, arm length, hip width in relation to height, anaerobic capacity and strength - became junior world champions in the women's four rowing event.

Despite such successes, Ms Pain is still concerned about the future of TIPs in Australian sport. And her concerns, she said, are widely felt in the sport psychology profession.

"At the Australian Psychological Society National Conference in Armadale in September 1992, the sport psychologists were represented as a formal group for the first time," she said.

Discussions were held about sport psychology and many held concerns for the children and the effects of restrictive talent identification programs. It was decided to support research into the effectiveness of TIPs and to collect longitudinal data with the view to making recommendations about the validity of TIPs in the future."
Changing times test the best CEOs

Charisma has long been considered an important attribute of successful leadership. But recent research suggests Australia's most successful business leaders do not conform to this model.

The study - undertaken by Dr James Sarros of the Syme Department of Management in the Faculty of Business and Economics, University of Melbourne, and the Australian Institute of Company Directors - consisted of a peer review by the CEOs of Australia's top 500 companies.

BBP's Mr John Prescott came out on top in the review, followed by Mr Darby Argus of National Australia Bank, Mr Stan Willis of Amcor and Mr Philip Brass of Pacific Dunlop.

Dr Sarros says the survey confirms over-astounding findings that the quality of leadership is not dependent on characteristics such as charisma.

"John Prescott is not especially charismatic, yet he is at the top of the tree," Dr Sarros said. "Also Darby Argus, who might in some ways be considered a bit of a workaholic, has turned around the company in a way that is highly respected by his peers."

But Dr Sarros said the Australian review revealed different requisite characteristics to those identified in the US.

"The message is loud and clear. Business success depends on the leader's ability to make change happen for the company, rather than have change imposed upon it," the report said.

In Australia, workers "don't give a damn about the office and senior managers have to earn respect."

Sixty per cent of executives surveyed said they were satisfied or very satisfied with their work, despite the increasing volatility in business conditions and the recession.

But Dr Sarros said the Australian review revealed different requisite characteristics to those identified in the US.

He said that in America more respect is given to CEOs simply because of the "office they occupy."

"In Australia, workers 'don't give a damn about the office and senior managers have to earn respect."

The study also revealed that the majority of executives were only mildly stressed, with about one-third saying they experienced considerable stress.

"The message is loud and clear. Business success depends on the leader's ability to make change happen for the company, rather than have change imposed upon it," the report said.

The review says that CEOs who have been able to maintain an even keel during the recession tend to be highly respected by their peers.
Sentimental visit for Slavic studies mentor

Professor George Marvan’s recent six week visit to Monash University’s Department of Slavic Studies was a sentimental journey of a different kind.

He was not only catching up on friendships forged over nearly 20 years as chairman of the department, but also saying goodbye to academia now that he has been appointed a Czech Republic Ambassador to Greece.

Professor Marvan’s new posting prevents him from leaving the country of his service, apart from visiting his home and immediate family.

"However, I hope that my links with this country and with this university will remain, and I do hope to return to Monash," he said.

During his time at Monash, Professor Marvan was well known for coining the term 'Slavic', instead of 'Slavonic', and developing a Slavic curriculum at the secondary level.

In 1991 he left to take up a teaching position at Charles University in Prague.

Moving to Prague encouraged Professor Marvan to change his career.

"It was quite remarkable that people [in Prague] were so1 pronouncedly penetrated by communist tradition that they were unable to accept ideas different from the ones they had been told," he explained.

"This led to cooperation difficulties with my colleagues and this was one of the reasons I contemplated pursuing a career as a diplomat."

"After the development of the Czech Republic, the need for ambassadors in other countries was so urgent that the government of the time appointed 45 ambassadors in one year — an achievement worth including in the Guinness Book of Records," he remarked.

Professor Marvan said the Czech Republic’s involvement in the Security Council and the country’s need for expertise in this area also influenced his decision to become an ambassador.

Professor Marvan’s work at Monash included extensive studies in virtually all Slavic languages. His love of language, and his particular passion for poetry, is evident in the animated way he speaks. "Much of the spirituality of poetry can be found in the language in which it is written," he said.

However, Professor Marvan says the post-socialist countries need to recreate their language: "They face real problems because they bring from their socialist past a tradition of vehement suppression of their own spiritual aspect."

During his recent visit to Monash, he donated more than 500 books from his personal library.

Help at hand for victims of crime

A recently published Monash University study has helped spark a government inquiry into the availability and quality of services for victims of crime.

The report, released by the Monash Centre for Continuing Education earlier this year, called for increased research into the needs of crime victims.

The Victorian Government has since asked the Victim’s Task Force of the Victorian Community Council Against Violence to investigate the availability of support services for crime victims, their efficiency and how they can be improved.

The task force is calling for submissions and is holding a series of public hearings for groups or individuals to voice their concerns.

The Frankston-Chelsea Crime Victims Support Project leader, Ms Christine Vincent, said the Monash study resulted in the publication of two training manuals — one for police and another for community organisations.

The report called for a more coordinated approach in dealing with victims of crime.

"Students, having gained an understanding of the culture of Central Australian Aborigines, will feel more comfortable when they work in Aboriginal schools," he said.

The IAD especially caters to Aboriginal students who drop out of mainstream schools.

Ms Wilson, head of the IAD’s language centre and coordinator of its crosscultural program, said many Aboriginal teenagers feel they fall behind at school.

"At the IAD, they can learn a range of secretarial and computing skills in preparation for the workforce, or attain a Year 12 equivalent suitable for university entry," she said.

Ms Miller is involved in the language centre’s cultural revival program and is one of the IAD’s ‘grandmothers’, teaching young Aboriginal people about their cultural heritage.

Mr Parton is pleased with Monash’s association with the IAD and the Northern Territory Department of Education.

"Five of our students who did teaching rounds in Central Australia last year now have permanent teaching positions in Northern Territory schools," he said.

"If we don’t teach Aboriginal culture at a tertiary level, who will teach it to our school children?"
Flies - we hate them when they stick to our skin and swarm around our food. But for Dr Brian Roberts, the pesky insect has become a vital ally in his efforts to solve mysterious cases of contamination or murder.

When Dr Brian Roberts chose the common North American flesh fly Sarcophaga bullata to study, he had one aim in mind. The fly was large, the chromosomes in its feet were huge, and the DNA amplified - ideal conditions for examining the mechanisms of gene expression.

But 20 years on, his preoccupation with flies and their physiological processes has led him into some unexpected quarters.

As one of Australia's leading fly experts, he is regularly commissioned to investigate cases of food contamination and more recently was called in as a consultant on a murder.

In the corner of his laboratory, in Monash University's Department of Ecology and Environmental Biology, is a bookcase of files which document the forensic work. Fly-blown chicken nuggets, cockroaches in hamburgers and even a condom in a bottle of tomato sauce are just some of the items of evidence he has worked on.

Dr Roberts' latest project will document the effect of temperature and water on the life cycle of four species of fly.

This unusual project follows up the work Dr Roberts did in the Hayward case last year, when he established the time of death to within 24 hours of a woman murdered and dumped in the bush at Sorrento.

Establishing the time of death was vital for police investigations and conviction of the assailant.

"It's very hard to age a body. I looked at the fly larvae and calculated how long it would have taken them to get to that specific stage of development," Dr Roberts said.

The difficult process was dependent on reliable weather records for every intervening day. Dr Roberts said flies were cold-blooded and their life cycle was controlled by temperature.

At 12 degrees centigrade, a fly will take 25 to 30 days to get through the larval cycle. At 25 degrees, it takes only seven days. And if it rains, the water stops pupation. All of these factors must be accounted for.

Temperature also plays a key role in investigations to determine at which stage food is contaminated by insects. Through controlled experiments, Dr Roberts has found that flies will not lay eggs in meat colder than 12 degrees or hotter than 55 degrees.

"Chicken meat is very attractive to flies, and every summer there are complaints about fly-blown takeaway chicken burgers and salads," he says.

Provided food outlets keep the chicken refrigerated or heated, flies will not land on it. But in summer time, he says, once outside the shop it is not safe to put "the burger on a park bench while you finish your beer".

Some flies, like the Australian flesh fly Sarcophaga impresaria, lay maggots directly into the meat, the eggs maturing beforehand in the fly's uterus. The impact of the delivery of up to 200 maggots can be instantaneous.

The intricacies of the Sarcophaga life cycle have fascinated Dr Roberts for the past 20 years. One of only three such groups in the world, his research team has mapped the hormones and genes involved in the three main stages through larva, pupa and adult.

The mysteries of metamorphosis he explains by peaks of the steroid hormone ecdysone, the insect version of testosterone or oestrogen.

"In the pupal stage at the first peak, there is a catastrophic event. The head is pushed out and imaginal discs (primordial embryonic features) for legs, antennae, eyes and mouthparts are also pushed out," he says.

The next release of hormone creates the adult morphology, while the third release causes the secretion of the adult exoskeleton. The chromosomes which govern this process and the thoracic gland which produces the hormone both die in the adult fly.

"I wondered how the ovaries and embryos could develop as there were no steroid hormones apparent in the adult fly, whereas in vertebrates these were essential for sexual development," Dr Roberts said.

With a colleague, Dr Roberts discovered that flies, like mosquitoes, required a blood or protein meal to "kick-start the ovaries". With flesh flies, the nectar from tea-tree is sufficient to activate the reproductive cycle.

A juvenile hormone builds up the yolk and membrane of the developing egg. He found that the ovaries take up some ecdysone, store it and release it to begin the process of embryonic development. This collection of steroid hormones in the chorion, Dr Roberts likens to a primitive placenta.

While an extraordinary cycle exists in flies, similar hormones have been found in all insects so far studied. The results could have application in the formulation of sprays against insect pests.

And the good news for chicken-lovers is that most of their six-legged competitors go into prolonged diapause or hibernation over winter.
Infertility: a male perspective

Medical science once paid scant attention to male infertility — if a couple could not conceive, it was assumed to be a female problem. But a leading Monash researcher says this has now changed. Sperm production and viability is known to impact significantly on a couple's ability to conceive.

Professor de Kretser, director of Monash University's Institute of Reproduction and Development at Monash Medical Centre, says: "We now know that male reproductive system problems can be just as intricate as the female system, but susceptible to very different problems."

Professor de Kretser explains: "There are constraints on what you can do with humans, so you must have animal models upon which to base your information."

In both sexes, the pituitary gland secretes two hormones — follicle-stimulating hormone (FSH) and luteinising hormone (LH). In females, FSH and LH regulate oestrogen synthesis by the ovaries, and control ovulation. In males, the hormones regulate testosterone synthesis in the testes, and regulate sperm production by stimulating the testes to produce testosterone. If either FSH or LH are absent, or deficient, ovulation may be disrupted, or sperm production declines.

But there is a stark contrast between the incidence of infertility due to hormonal abnormalities in females and males. "In females, hormonal abnormalities account for at least 40 per cent of infertility," Professor de Kretser says. "In males, hormonal problems account for less than one per cent of infertility."

Inhibin can partly negate this effect, bringing FSH back within the range of normality. Because of its capacity to switch off the pituitary signals to the testes, inhibin has been investigated as a potential male contraceptive. Studies of the structure of inhibin have revealed a fascinating fact: inhibin is a dimer — a two-part molecule, comprising an alpha and a beta subunit. In its natural alpha/beta form, inhibin suppresses FSH production by the pituitary. But if two beta subunits are linked together, to form a molecule known as activin, they have the opposite effect — they increase FSH production.

"We were interested to see what happened to inhibin and activin during the development of the testes," Professor de Kretser said. "One of our medical research students went to the abattoirs to collect sheep fetuses, and started to measure inhibin concentrations in the gonads. He was able to detect inhibin very early during the development of the testes, and the concentration changed as the testes developed. He also collected amniotic fluid, and using an antibody test, found that inhibin seemed to be present in quite high concentrations."

But the antibodies used in the test were directed mainly at the alpha subunit of the inhibin molecule, so when the test detected what seemed to be inhibin in amniotic fluid, there was a problem. The antibody test would not detect the other molecules that might be present with inhibin.
Teachers hold key to computing future

School students are not exploiting word processors to improve their writing skills because of their teachers' lack of confidence with computers, a study in the Faculty of Education has found.

"The teacher, more than any other factor, determines how computers will be used for writing in class," says Dr Ilana Snyder, who carried out the study. "And computers are often seen by teachers merely as fancy typewriters used to produce good hand, and then type them into the computer to produce the finished copy.

In earlier work, Dr Snyder has shown that when used effectively, computers can help students learn to write by reinforcing and automating the way most people compose written texts (see Montage September 1991).

Dr Snyder said she did not think teachers were to blame for their inability to get the most out of computers. Most teachers were from a generation that had grown up without computers, she said, and so they often found it more difficult than their students to come to terms with computers.

The solution to the problem was simple, she said. "Teachers need external support -- professional development -- to help overcome their lack of familiarity with, even fear of, computers. This is the most important factor in ensuring productive use and acceptance of computers for writing in schools."

The two-year research project was funded by the Australian Research Council. In the first year, Dr Snyder studied a Year 6 class of 28 students at a private school in Melbourne. The students had access to 15 notebook computers, which they could use for all their writing tasks in class. Their teacher was a committed computer enthusiast.

In the second year, Dr Snyder followed the progress of the students into Year 7. With the help of an assistant, she broadened the study to observe all five Year 7 classes and their teachers. The researchers attended all English lessons where computers were used.

Dr Snyder said: "I recorded classroom events and teacher and student interactions, collected texts written by the students and their writing journals, and taped interviews (with the teachers) at the end of each year. From these data, I constructed portraits of the five teachers and their classrooms."

She came to the conclusion that the successful introduction of computers into the classroom depended largely on the teacher and student interactions, collected texts written by the students and their writing journals, and taped interviews (with the teachers) at the end of each year. From these data, I constructed portraits of the five teachers and their classrooms. "I came to the conclusion that the successful introduction of computers into the classroom depended largely on the interactions between teachers and students.

Computers have several advantages in helping children learn to write, Dr Snyder said. The most recent research worldwide on the process of writing shows that it is not linear. Most people do not plan a text, then write it, then revise it, then print it, in that order, she said. When writing, people perform these operations over and over again in no specific order.

"Computer reinforces this approach, she said. Writers can play around with text, then change it instantaneously, if they do not like the result. Computers eliminate the need to retype, delete, change order of paragraphs, sentences or phrases. Using a split screen, they can do even work with different parts of the text simultaneously -- for instance, the beginning and the ending. But all this is unlikely to happen in a school classroom without the teacher's help, Dr Snyder said.

"Children will delete using the backspace key, and format the text using different fonts, but without encouragement they won't revise or play around with text or edit. You can't give kids a computer and expect their writing will get better automatically," she said.

Dr Snyder said she was not surprised in a school where 85 per cent of the teachers in the primary division were women, that it was a man who spearheaded the drive towards computerisation. The gender of teachers clearly could be important in their approach to computers, women tending to be more reticent.

Dr Snyder thinks her study suggests serious implications for the future of education in Victoria. Facilities tend to be worse in the public schools than the private schools, she said. Public schools have fewer computers generally, and teachers have little or no time to learn to work with computers, and no support to look after them. There are also diminishing resources for professional development, she said. The State Government had all but stopped the money for it.

"We run the risk of dividing our society into the information rich and the information poor, the technologically advanced and the others."

For further information, contact Dr Ilana Snyder in the Faculty of Education on exts 52773.

World first for Monash software

Monash University scientists have developed breakthrough image processing software that is being marketed in Australia and overseas as a "world first."

The technology, described in detail in the March Issue of Research Monash, allows scientists to very accurately measure the perimeters of hard surfaces such as rocks, leaves and food particles.

Perimeter measurements have caused headaches for scientists in many disciplines. A typical problem is the length of a coastline which can vary enormously, depending on the scale at which it is measured. If the scale accommodates only large features like bays and headlands, it will be much shorter than if it is measured at a smaller scale of one metre features.

Dr Gordon Sanson, a senior lecturer in the Department of Ecology and Evolutionary Biology, who helped to develop the image processing technology, said it allowed scientists to answer questions they "have never thought to ask before."

Dr Sanson's main interest is in the digestive system of animal teeth and how finely they shred or grind food -- a problem which involves measuring the perimeter of food particles.

About six years ago, the department purchased computer software to measure perimeters, but found it inaccurate and unable to adequately address the questions that needed answers.

The solution, according to Dr Sanson, was for researchers to write their own software package.

He engaged the help of computer programmer and senior technical officer Mr Rene Stokl and over a period of three to four years, and with "a lot of support", developed the image processing software.

One application involves taking a photograph of a profile of a surface and, on a computer screen, rolling a circle along it to provide a simple description of its roughness.

"At a certain diameter, the circle won't fit into tiny holes. If you make it smaller again, it will fit into holes with a smaller size range and so on," Dr Sanson explained. "In theory you can obtain a series of measurements of roughness at almost any scale, by adjusting the size of the rolling circle."

Dr Sanson said scientists were just beginning to realise the potential use of image processing in biology.

"We are just waking up to the possibilities this technology presents and asking questions we didn't bother with before," he said.

The software and video analysis technology can also be used in other disciplines. Dr Sanson said the advantage of Monash having the source code was that it could be altered to address all sorts of image processing problems.

The university has signed a contract with the microscope stage systems company Autoscans Systems Pty Ltd to market the package in Australia and overseas.

The managing director of Autoscans, Mr Michael Krochmal, is very enthusiastic about the package, describing it as "history making" software with "unique and powerful features."

Autoscans will take advantage of its mailing list, which reaches 3000 people in more than 67 countries to promote and sell the technology.

In fact Mr Krochmal, a Monash University electrical engineering graduate, found the first potential customer for the package on a recent plane flight. He was sitting next to a pharmacologist who was looking for a way to measure the diameter of blood vessels in rats after the injection of blood pressure reduction drugs.

The Port Phillip Bay Dolphin Research Centre has also expressed an interest in using the technology in its investigations.

By finding a measurement for the individual markings on the dolphins' fins, the group could potentially identify dolphins and thereby keep track of each animal's movements.

Autoscans sells its own products -- motorised microscopic stages -- in 12 countries, including Korea, Taiwan, Switzerland, Germany, Japan and the US.
Coming to grips with our native hardwoods

Professor Bob Milner of Civil Engineering is finding himself swapping research time for meetings these days. But it’s not the usual round of university administration that is demanding his attention. These committees meet in rather more exotic places than Clayton and Caulfield – Queensland and Geneva, for example. And their deliberations could make a significant difference to Australia’s balance of trade, says Professor Milner, who is director of the Monash Timber Engineering Centre (MTEC) on the Caulfield campus.

Professor Milner is Australia’s representative on the Timber Committee of the International Standards Organisation (ISO), and chairman of committee TM4 of Standards Australia and Standards New Zealand. His work on these committees is intimately bound up with studies at MTEC and with increasing the applications for native Australian hardwoods.

Australia imports about $1.5 billion more forest products than it exports each year. That figure puts timber close to motor cars and computers as making the largest contributions to the country’s negative balance of trade. Part of the problem is an inability to work as easily with the native hardwoods of Australia than with timbers from the Northern Hemisphere.

Australia imports about $1.5 billion more forest products than it exports each year. Australian hardwoods are more difficult to work with because they are much denser than hardwoods from the northern hemisphere, says Professor Milner. But modern adhesives have not been around for 50 years, let alone tested as durable for that length of time.

And that’s where Professor Milner’s work on the standards committee meets his studies as a researcher at MTEC. At the moment, the ISO simply prescribes what glues can or cannot be used. Professor Milner wants to put the acceptance of adhesives by the ISO and local standards bodies onto a performance base – if an adhesive meets certain test criteria, then it can be inferred that it will last 50 years. But at the moment, there are no appropriate test procedures. With the help of the CSIRO and the Centre for Applied Materials Technology on the Clayton campus, MTEC is working to change the situation.

Glue deteriorates when it reacts over time with water in the atmosphere. Researchers at MTEC are hoping to age adhesives artificially by creating a controlled moist environment. The proposal is to make a series of specimens joints and put them into extreme conditions for specified periods up to three years. At the end of each period, several of the joints will be tested by measuring the force required to pull them apart directly (cutting the joint) or pull them apart sideways (shearing the joint). It is hoped that deterioration of strength over 50 years can be determined from the pattern which emerges over three years.

In the past when such methods were tried, the results were erratic. According to Professor Milner, this is because sufficient care may not have been taken in making up the test specimens. Anyone who has chopped wood knows that the strength of wood varies depending on whether one chops with the grain or across the grain. If the samples were made so that the wood was not always being stressed along its strongest dimension, it is possible that the wood could give way before the glue, upsetting the process of measurement. "We are trying to make the specimens so that the weak joint is always at the glue line," he said.

"We are having to make do with a timber resource which is declining in quantity and quality."

The Australian Research Council thinks the work so important that it has already paid for $220,000 worth of equipment. And the research group is about to submit a further proposal for consideration.

The centre is also concerned with designing forest products for use in timber structures other than houses, such as halls, warehouses, shopping centres, wharves and building firms. The centre was established in 1992 with a grant of $120,000 a year from the Australian Timber Producers and the Victorian Sawmillers Association in response to the inroads made by other materials into traditional timber markets like flooring and building frames.

Professor Milner says that apart from its aesthetic appeal, wood had some surprising advantages over other building materials. It tends to be a strong material for its weight, he says, and in thick sections it performs well in fires. Once a thick wooden beam chars on the outside, it resists further burning. And wood does not give off toxic gases when on fire.

Other researchers at MTEC are studying ways of increasing the life of wooden pallets for use with fork lifts. Pallets are an important investment, Milner said. The $243 million worth of them a year. Work at the centre is concerned with building pallets to make them more resistant to damage caused by the impact of forks and other forms of abuse.

For further information on the work of the Monash Timber Engineering Centre, contact Professor Bob Milner on ext 32531.

Structures as large as these European examples are currently not possible using Australian hardwoods.
Springvale, one of Melbourne's main ethnic centres, has little overt racism, according to the authors of a book on multicultur­alism recently launched by Monash University's Department of History.

Dr Andrew Markus, who researched and co-edited *Fourteen Lives: Paths to a Multicultural Community* with Ms Eileen Sims, says that Springvale has a noticeable lack of graffiti, and teachers in the area report much harmony in schools where the majority of students are born overseas.

He says residents who don't like the suburb move away, and many who stay have a high degree of commitment and loyalty to the community.

According to the Bureau of Statistics, most of Melbourne's immigrants live in three main areas: the south-eastern cities of Springvale and Dandenong, the northern cities of Brunswick, Coburg and Northcote, and the western municipal areas of Footscray and Sunshine.

In Springvale, 44 per cent of residents were born overseas compared with a national average of 25 per cent.

**Ethnic diversity**

The editors of the book said one feature of the suburb is the extent of ethnic diversity.

Vietnam is the largest overseas birthplace for Springvale residents, comprising 18 per cent, followed by Britain with 13 per cent, Cambodia and Yugoslavia making up 6 per cent, Sri Lanka and India 5 per cent and India and Greece 4 per cent.

With more than 20 nations represented in some streets, according to Dr Markus, that his research is more like a history joke than a history of the world than the history of a suburb.

Dr Markus said he chose Springvale for the study because of its large migrant pop­ulation, and because it sat at the university's doorstep.

The vice-chancellor, Professor Mal Logan, who spoke at the launch of the book, said it was important for Monash to become involved in the local community, and spoke on the international focus of the university and its surrounding suburbs.

The book is a collection of 14 oral histo­ries of people who have spent a significant part of their lives in the area.

The council has developed an "excellent" support network to deal with the high level of immigration in the area and programs to ensure its services were reaching non-Eng­lish-speaking residents.

Dr Markus said there was concern that those schemes would be abandoned if the council was amalgamated with neighbouring councils.

The Mayor of Springvale, Councillor Phil Reed, launched the book and Monash University's Vice-Chancellor, Professor Markus, made the opening speech.

*Fourteen Lives: Paths to a Multicultural Community* was published by the Depart­ment of History and is available from the department for $19.95 plus $3 postage.

**Recipient of the Esso-Monash Orien­tation Scheme for Aborigines (MOSA) scholarship, Ms Irene O'Loughlin (cen­tre), recently presented the program's sponsors with a traditional painting to acknowledge the support.**

The painting depicts a lost food gathering custom known as 'shag egg time', involving a two-week collection of shag bird eggs.

Ms O'Loughlin, who combines her studies with her passion for painting, said she had greatly enjoyed preparing the artwork for Esso.

Esso's corporate public affairs gen­eral manager, Mr Ron Webb (right), said the scholarship represented an important part of his company's com­munity relations program and that he was delighted to receive the painting.

Esso's manager of community affairs, Ms Lisa Trood (left), was also at the presentation.

**A picture says a thousand words of thanks**

Professor Colin Chapman, dean of Monash University's Parkville campus, tends to focus on the broad scheme of things.

He has a limited understanding of how the campus - the Victorian College of Phar­macy - fits into the world arena, and of the important role he and his staff play.

With one degree in pharmacy, and another in veterinary science, Professor Chapman, not surprisingly, has research interests in veterinary pharmacology and pharmacokinetics.

He says Monash is well placed to provide much needed research and develop­ment leadership in these areas, in con­junction with research groups at Swinburne and Melbourne universities.

"This sort of research is poorly addressed in Australia, and there are only one or two places overseas with any sig­nificant involvement," he said.

"A better understanding of the action of drugs in animals is urgently needed because so little detailed information is available at present, resulting in problems for those people who use medicinals in roc­king animals, in animals used to produce food, and in domestic animals."

Professor Chapman has headed the college for the past three years and guided the merger with Monash in July 1991.

After being independent for more than 100 years, the college experienced a "change of culture", and had to adapt to being part of a larger organisation, with all the accom­panying meetings and paperwork.

Professor Chapman said the advantages of being part of Monash included greater access to research funding, the opportu­nity to develop teaching and research links with other departments and being involved in a progressive university. The major dis­advantage was "being at the end of a long paper trail."

One significant impact of the merger was the college's development of closer links with pharmacy schools in Asia, where Monash had a broad focus.

Professor Chapman said the college could learn about the use of Asian medi­cines, while Asian schools were interested in developing programs in primary health care and medication counselling - both strong features of the college's undergrad­uate course.

Building links with Asian schools was just one of the challenges facing the college over the next five to 10 years, according to Professor Chapman.

**By Georgie Allen**

*Fourteen Lives: Paths to a Multicultural Community* was published by the Depart­ment of History and is available from the department for $19.95 plus $3 postage.

**STEP INTO MY OFFICE...**

Professor Colin Chapman.

Others included extending the under­graduate course from three to four years, developing the Parkville campus, estab­lishing a pharmacy alumni organisation and providing more postgraduate courses.

In his spare time, Professor Chapman helps his wife run a Donut Days sheep stud on a property to the north-west of Melbourne.

Among other achievements, Professor Chapman spent one and a half years in the army as a military serviceman, rising to the rank of Lieutenant, Royal Australian Army Medical Corps.

He attended primary school on Ocean Island in the Central Pacific, and completed secondary school at Geelong College.

Professor Chapman went on to com­plete his undergraduate degree and then a PhD in immunology at the Walter and Eliza Hall Institute.

Although it took a few years to be accepted into the Melbourne University veterinary science course, he graduated with first class honours in 1976, and sudux of the class.

He has also published more than 30 sci­entific papers and is a member of 14 committees, societies and associations.
Rolling through disability week

The concentration required to manoeuvre a wheelchair through a witches hat obstacle course showed on the face of Oarsome Four­some’s Nick Green last month when he took part in the Radical Rolling Relay. The relay, part of the inaugural Disability Awareness Week at Monash, also challenged Hawthorn Football Club’s Rayden Tallis, while David Harcoan, from Wheelchair Sports Victoria, found the going a little easier. Paralympian Michael Milton’s team came home as vic­tor in the competition.

Focussing on our Constitution

Chief General Counsel in the Commonwealth Attorney-General’s Department, Mr Dennis Rose, outlined a string of "serious errors and other deficiencies in the reasoning of important constitutional issues" in the Second Lucinda Lecture, held recently on Clayton campus.

In his address, "Judicial reasoning and responsibilities in constitutional cases", Mr Rose looked at the current controversial debates about the High Court’s new adventurous spirit in constitutional interpretation.

The lecture, sponsored by the Law faculty in conjunction with the Law Book Company, was attended by former governor-general Sir Zelman Cowen.

The Lucinda Lecture series is designed as part of the Law faculty’s contribution to the continuing process of constitutional review leading up to the centenary of the Constitution on 1 January 2001.

Student’s hard work pays off

Monash marketing student Ms Jenny Hodges has good reason to sample a bit of what has occupied so much of her time over the past 12 months.

Ms Hodges’ final-year thesis on how the new regulations governing bottle labelling will affect the purchasing patterns of wine consumers has led her to winning two presti­gious awards.

Prize honours outstanding student

The Peninsula Prize for outstanding academic and teaching performance has been won by education student Ms Melinda Mitchell.

Ms Mitchell won the cash award for excellence in the Bachelor of Teaching course offered by the School of Early Childhood and Primary Education.

At the presentation, Peninsula campus director Professor Ray Anderson encour­aged Ms Mitchell to maintain her high per­formance level and consider further study in the area.

Award winners

Monash publications featured prominently at the awards night of the Seventh Interna­tional University Public Relations Confer­ence held in Adelaide last month.

The article 'Beating the influenza blues', run in the May 1993 issue of Montage, won the award for best science or technology fea­ture article in a university publication.

The writer of the article, Mr Graeme O’Neill, received $500 for his article, which described a breakthrough discovery in the fight against influenza by scientists at Monash’s Victorian College of Pharmacy and the CSIRO.

When announcing the award, the vice­chancellor for public affairs at the Univer­sity of Washington, Mr Fred Volkmann, commended the standard of university pub­lications and science writing in Australia.

Monash’s Business Victoria also received special mention at the awards with Mr Volkmann saying it was superior to any publication he had seen coming out of American business schools.
**The Alexander Theatre**

Cosi

The Melbourne Theatre Company presents Cosi at the Alexander Theatre between 14 and 18 June. When award-winning playwright Louis Nowra sets a university graduate and seven mental institution patients together in a burnt-out theatre to rehearse Mozart’s opera Cosi Fan Tutte, the result is an excruciatingly funny comedy.

The cast includes Kym Gynell of Col’s Carpenter fame, and Ross Williams from television’s Full Frontal. Christopher Gabrieli of the sitcom ‘Newlyweds’ plays Nowra’s semi-autobiographical hero Lewis, like Brecht, but Roy, the highly strung Mozart fanatic landed his first job ‘directing’ a bunch of patients in a asylum, attempts to get this ‘opera’ on the boards.

Leads want to do something simple and serious like Brecht, but Roy, the highly strung Mozart fanatic has his heart set on the opera Cosi Fan Tutte. This is despite the fact that none of the cast can sing, act or speak a word of Italian, the only musician in the group is dragged to insensibility, and they’re all mad. Lewis agrees to defy the odds, and amid the mayhem of the asylum, attempts to get this ‘opera’ on the boards.

Bookings can be made on ext 51111.

**Sanctuary**

David Williamson’s powerful new play, Sanctuary, is playing at the Alexander Theatre between 28 June and 2 July. The play, featuring Playbox Theatre Company stars Robert Grubb and Felix Williamson, follows the story of an expatriate who meets a young man who reminds him of his youth. The consequences of the meeting between two deeply competitive men irreversibly change their lives.

Sanctuary looks at the abuse of the media, the dangers of excessively fanatic behaviour and political correctness.

Bookings can be made on ext 51111.

**The Monash Gallery**

Statistical Text

Statistical Text considers the role of text as an interface between artistic and scientific creativity in works ranging across drawing, photography and computer output. Many familiar forms of text, from graffiti to computer, mathematical symbols to language, are exposed to new meanings when placed outside their normal context and audience.

The exhibition, to be held between 20 June and 16 July, has been mounted by Peter James Smith as part of the 12th Australasian Statistical Society Conference.

Robert Macpherson. A proposition to draw


An exhibition of Robert Macpherson’s drawings from the 1970s is being held from 30 June to 27 August. The artist explores the material qualities and content of the act of drawing through both process and form. A floor talk about the exhibition is to be held on Wednesday 27 July.

**Jackson live**

Well-known American conductor Isaiah Jackson, who led the Melbourne Symphony in the second of the Monash series concerts last month, never wavered a potential conductor’s baton as a child.

Mr Jackson said it was not until he was 19, when his chorus director asked for those interested in conducting to step back after choir practice, that he considered it as a career. "I never imagined myself as a conductor - it found me as a college student," he said.

After graduating from Harvard University with a major in Russian history and literature, Mr Jackson went on to study his profession at Stanford University and the Juilliard School of Music.

Mr Jackson believed his personal spirituality was an essential part of his work: "To understand the composers, who were all very spiritual, you need to connect to the general life force of the universe, which I call God."

"You need to be in touch with what makes the universe tick - it means you’re not alone."

Mr Jackson said the most important quality for a conductor to have was an ability to stay out of the way. "A conductor who gets in the way detracts from the orchestra and the music it is performing," he stated.

He believed conductors should also be able to inspire musicians by "reinventing" their passion for music.

Other important qualities were good communication skills, a love of music and people, a sense of lyricism and drama, as well as stamina.

While conducting is draining work, requiring all mental, physical and spiritual resources, it is doubly so when travelling around the world, performing at up to four different locations in one week, he says.

Preparation time for a performance is "whatever time is allotted - sometimes one rehearsal, sometimes eight rehearsals."

Although travelling is "a bore", Mr Jackson says he enjoys experiencing new places. He loves Melbourne’s "beautiful quality of light, the rauschful birds and the beautiful gardens."

**Bookworm**

All of the following books are written or edited by Monash staff and are available from the Union bookshop on Clayton campus.

**Multiculturalism, Difference and Post-Modernism**

Edited by Gordon L Clark, Dean Forbes and Roderick Francis

Published by Longman Cheshire

Recommended retail price $24.99

This book looks at the voices denied an audience in Australian society by histories that favour an Anglo and/or Celtic reading of the cultural landscape.

The book, which includes contributions from a diverse array of authors such as sociologists, literary theorists, philosophers and geographers, examines multiculturalism from a postmodern perspective, and discusses the ways in which identity and imagery merge and interact in a multicultural society.

Professor Gordon Clark is director of the Institute of Ethics and Public Policy and Mr Roderick Francis is a post-graduate student at Monash University.

**Practical Visionaries: A study of Community Aid Abroad**

By Susan Blackburn

Published by Melbourne University Press

Recommended Retail Price $29.95

Practical Visionaries is the first full-length account of an Australian aid organisation. It tells the story of Community Aid Abroad and analyses the efforts of CAA and its third world partners to create a world without poverty and injustice.

Dr Susan Blackburn is a senior lecturer in the Department of Politics and director of the Development Studies Centre.

**Remaking Australia: The state, the market and Australia's future**

By Hugh Emery

Published by Allen & Unwin

Recommended Retail Price $19.95

This book argues that it is time to shift away from a free market to the idea of a social market, and to give the state a larger responsibility in steering the development of the market.

Australia, Professor Emery says, needs a different policy mix, including a more emphatic industry policy, if it is to cope with the impact of much fiercer global competition for markets.

Hugh Emery is a professor of politics and head of the Department of Politics.
Facinfo enhances efficiency

A new faculty-based information system is making the job of entering, compiling and finding student information much easier. Developed by the Faculty of Computing and Information Technology, the student information file prototype, Facinfo, is already operating in the faculties of Business and Economics and Computing and Information Technology.

Facinfo, which provides information on students currently enrolled, helps individual faculties follow their students' progress. The system provides graphical displays on course progression, academic history and enrolment, student data, and course details.

Mr Ken Hobbs, registrar of the Faculty of Computing and Information Technology, said there was an increasing need for such a system.

"The reforms to higher education in the 1980s led to larger and more diverse educational institutions, which are becoming increasingly difficult to manage," he said.

"This has made the administration of courses and students much more difficult."

"This new management information system has the potential to be introduced at both an institutional level and at the faculty, school and departmental level."

The inquiry module provides student details, course progression maps, course details, academic history and eventually course completions.

Facinfo also allows the faculty to check for prerequisite violations, verifying that students have completed the relevant prerequisite requirements. "Reports of subject enrolments can be used to modify timetabling and subject offerings, which are then available to the student at the end of each enrolment period," Mr Hobbs said.

Through the system, a number of reports can be accessed including progress reports, academic history showing students' results by year and semester, results by course and department, and mailing lists.

The facility also allows a report to be generated by student name, identification number and course of those students making unsatisfactory progress, Mr Hobbs explained.

Facinfo's tutorial allocation module gives students the option of self-allocating their place in tutorials or lab sessions for subjects in which they have enrolled.

"Tutorial listings provide staff with name, identification number, course and, eventually, a digital image of students enrolled for a particular tutorial or lab session," Mr Hobbs said.

"The final Facinfo module is the student profile, which includes student data to help analyse statistical data."

"This module is likely to be the only module that does not obtain all its data via a download of data from the central system and therefore requires some separate data entry," Mr Hobbs explained.

While this system may seem like a lot of work, it is simple in comparison to the present system being used by the faculties.

"Most faculties maintain individual student progress cards on which all course changes are made," Mr Hobbs said.

"These card systems often duplicate information held in an institution's central system, which is usually not readily available or in a suitable form for faculty staff to access."

"The Facinfo project addresses this problem by developing a student-course management system for faculties using data downloaded from the institutions' central database."

"The system incorporates the record card systems, along with the faculties in an electronic form," Mr Hobbs says there are many advantages of the Facinfo system. It offers enhanced management planning, allowing for an improvement in the quality of advisor counselling and courses.

Feedback on the system has been very positive, and Mr Hobbs says that those using the system have noticed a vast improvement in screen design.

Other faculties can expect to see the base system by 1995.

By Juliet Ryan

Just venn you thought you had the answer

Imagine it's exam time and you have been asked to describe the relationship between religion, philosophy and sport.

The question seems innocent enough but there is a catch - your answer must be in the form of a Venn diagram.

Problems soon arise: do the three elements intersect, or do they stay alone? To cap it off, the last drawing you did was on a car insurance claim form.

But rest assured. Your answer will not only enhance the way you perceive a possible alliance between the unlikely triptych but also give the examiner an insight into any learning difficulties you may have.

That is the thinking behind some ground-breaking work on new student assessment techniques being developed in the faculty of arts.

For almost a year, research assistants Mr Enno Elterman and Ms Pam Mulhall have been working a range of ways of questioning students, including concept maps and Venn diagrams.

Their work is based on earlier study by Monash educators Professor Richard White and Associate Professor Dick Gunstone, whose joint publication Probing Understanding described the methods in detail.

Typically, Ms Mulhall, assessment is based on a narrow range of techniques, such as multiple choice, short answer, and essay questions.

"The new assessment techniques we are looking at not only provide lecturers with a wider range of questions to be used in examinations, but also can be used in teaching programs or 'broaden students' understanding of subject matter,'" she said.

The use of concept maps and Venn diagrams clarified people's thinking, particularly where terminology was concerned, Mr Elterman said.

"Monash is the only place in the world - as we understand it - where extensive development of a Venn diagram is taking place," he said.

The research, part of a project called 'Effective assessment', is backed by the Monash Development Fund.

The new techniques are now being tested in the faculties of Science and Engineering.

If you would like more about the project, contact Mr Elterman and Ms Mulhall on ext 52605.


discussing assessment techniques: (from left) Dr Gary Coomber, Dr Roger Husgrove, Dr Kohor Cabilia and Mr Kevin Weinmann.

New program takes fresh approach

A unique program for people with both drug and psychiatric illnesses has been established to service Melbourne's highly populated south-eastern corridor. Monash's Department of Psychiatry at Dandenong Hospital is working in conjunction with the Westernport Drug and Alcohol Service (WDAS) to develop the program.

The director of the Department of Psychiatry, Dr Jayashri Kulikarni, says "often psychiatric facilities deal only with psychiatric illness and drug and alcohol services deal only with drug and alcohol problems."

"We're taking a new approach by bringing [treatment for] the two problems together," the project, which is funded by a Federal Government National Health Strategy grant, aims to establish cause and effect relationships in people with both substance abuse and psychiatric problems.

"There is quite a large percentage of people who have psychiatric problems, such as schizophrenia, as well as related drug abuse problems," Dr Kulikarni says.

"It has never been clear whether people use drugs, such as marijuana, as tension relief after the psychotic symptoms have started, or whether the drug is the stressor that brings on the psychotic illness."

Dr Kulikarni says most of the rating scales for drug and alcohol abuse only apply to the non-psychotic population, so the basic measuring tools need to be developed from scratch.

The segment of the population most susceptible to both problems are young people. According to Dr Kulikarni, psychiatric illness and drug problems mixed with normal adolescence can double the strain on a young person without items being aware of the problem.

If they start to turn to illicit drugs as a way of self-treatment, then their management schedules are altered by their recreational drug use," Dr Kulikarni said.

WDAS and the Department of Psychiatry will also establish programs for people from non-English-speaking backgrounds and to integrate people with mental illness into the general community.

By JULIET RYAN

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By JULIET RYAN
Research to impact on road safety

Australia's car travellers can look forward to more peace of mind as they take to the roads, thanks to research by Monash University's Accident Research Centre.

The centre's research promises not only to establish the effectiveness of airbags, particularly in VR Commodores, but also to discover ways to improve future cars designed by General Motors Holden's (GMH) Automotive.

Currently, airbags are only an option in VR Commodores. The Accident Research Centre (ARC) hopes to determine the effectiveness of airbags by examining Commodores involved in frontal collisions, and then comparing the extent of injuries to people in "airbag" cars with injuries to people in "non-airbag" cars.

The ARC's first and most challenging task was to locate VR Commodores as soon as possible after their involvement in a frontal collision.

ARC senior research fellow Dr Brian Fildes' idea was to send flyers to registered tow truck drivers along Australia's east coast, offering them a $25 inducement to report frontal collisions involving VR Commodores.

So far the flyer technique has proved quite successful. Ten accidents have been investigated, with five of these involving airbags.

When an accident is reported, a trained engineer travels to the accident site to ascertain the amount of damage to the vehicle and the extent of injuries sustained by the passengers.

"If they suffered a major chest injury or head injury, we try to assess what it was that caused the injury," Dr Fildes said.

In past studies, notification of crashes usually came from hospitals, which meant that only accidents leading to severe injuries were investigated.

Dr Fildes says that previous crash data is not necessarily relevant to the ARC study because extra safety devices have been introduced into VR Commodores.

"The VR Commodore has more than just an airbag. It also has webbing clasps that stop the seat belt from spooling out, a softer steering wheel, and ABS brakes," he explained.

But, he said, when comparing a VR Commodore with an airbag to one without, "the value of the airbag in a head-on collision is evident as the main difference between the two situations".

GMH will analyse the ARC's data on the effectiveness of airbags, and then use the information when considering future designs.

This is not the first time the ARC has conducted research involving head-on accidents.

Other studies undertaken by the ARC for the Federal Office of Road Safety looked at injury patterns in head-on collisions - the most common type of road accident.

"Even with the high rate of wearing seat belts in this country, occupants of cars, especially drivers, are still suffering from chest and head injuries from contact with the steering wheel," Dr Fildes said.

Several recommendations came out of that research, and the Federal Government acted by announcing new design rules for all Australian cars made after 1 July 1995.

Although the recommendations did not specify the fitting of airbags as compulsory, it is expected that most new cars will incorporate them. Airbags are considered one of the most effective ways of meeting the Federal Office of Road Safety's performance criteria.

American studies suggest that airbags reduce fatalities by 15 per cent. Dr Brian Fildes is researching the effectiveness of airbags in the Australian environment, with a particular focus on VR Commodores.

While examining the history of Australia's response to the monarchy, the exhibition also looks at the history of republican agitation in Australia. It provides a rare opportunity to see 19th century newspapers, such as the Australian Republican, and explores the significance of the Eureka flag and the republican movement.

The exhibition focuses on the past fascination with the royal family and asks questions such as "Why, for example, in 1954 did more than three-quarters of the population make the effort to see Queen Elizabeth II and the Duke of Edinburgh in person during the first royal tour, yet in the 1990s the royal family is subject to increasing critical public scrutiny?"

Ms Shell wrote one of 14 articles that appear in a souvenir booklet accompanying the display. The articles, written by contemporary Australian academics, include "Royalty and the community", "Prince Phillip and the Australian male", "The rising republic", and "Remove the Queen and the whole structure could fall".

Professor Peter Searp, director of the National Centre for Australian Studies, said the exhibition was designed to promote debate, especially among high school students and young adults.

He said there should be more cooperation between universities and museums, libraries and galleries since these institutions held much of the cultural material that supported their educational research.

After three months in Ballarat, the exhibition will travel to the National Museum of Australia at Old Parliament House, Canberra. It was featured at Sydney's Powerhouse Museum from August 1993 to May 1994.
Lessons from the life and death of Daniel Valerio

BY CHRIS GODDARD

Daniel's curtained life can be briefly summarised. Born in 1988, the son of Michael Valerio and Cheryl Butcher, he stayed with his mother when his parents separated. Early in 1990, Cheryl Butcher formed a relationship with Paul Aiton. From June 1990 onwards, a number of people noticed bruising on Daniel. Reports were made to protective services in August 1990. Short-staffed, and unable to respond at all, they passed on the information to the police. Inadequate communication, failures to follow procedures, and lost or confused messages exemplified responses from then on.

When the police eventually visited Daniel's home, Daniel and his four-year-old brother were both found to have extensive bruising. Daniel's brother claimed that he had been hit with a stick by Paul Aiton, and he even took the police to retrieve the one branch that he said was used. The police retrieved the stick from the house when they left and arranged for a medical examination to be carried out by a police surgeon. A few days later, early in September 1990, and after visits to a GP on three consecutive days, Daniel was dead.

A post-mortem examination found extensive internal injuries akin to those found in road accident victims, 104 bruises, and old fractures to both clavicles. In 1993, Paul Aiton was found guilty of murder and sentenced to 22 years in gaol.

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Daniel's brother and his sister will have learned that lesson. During the coronial inquest it was reported that Daniel's sister, some days after his death, told a social worker that Aiton hit them so hard they thought they were going to die. Older and supposedly wiser heads fared less well in their assessments of the situation.

Most child abuse, of course, is not as catastrophic in its consequences as that faced by Daniel. Yet the downstream costs of child abuse, in terms of further violence, youth homelessness, emotional and psychological problems, youth suicide and so on, have an impact on us all. Many children, perhaps even most, recover from abuse, but those who do, and why. (We can, for example, only speculate as to the effects of Daniel's death on his brother and sister.) Much violence is learned at home. Home, therefore, is surely where we should begin to arrest the process.