Children’s games, using both real and virtual animals, form the basis of exciting research at UWA that is adding an important dimension to widely accepted psychological theory.

Associate Professor Steve Houghton and PhD student Vivienne Lawrence from the Graduate School of Education’s Attention and Related Disorders Research Clinic, have spent two years working with 124 children, gathering evidence to test current theory on Attention-Deficit/Hyperactivity Disorder.

They have used tasks imposed on usual video game play and set tasks while on an outing to the zoo to test their theories.

Their research challenges some areas of the widely accepted theories of world ADHD expert, Professor Russell Barkley. It also provides support for other areas.

The Massachusetts professor of neurology and psychology produced the most comprehensive theory of ADHD to date in 1997: that children with ADHD had impaired executive functioning (that is, they show an inability to self-regulate their behaviour).

“We found that the use of traditional psychological laboratory tests provided support for the theory,” Ms Lawrence said. “But then, we were watching children play computer games and we realised that the games were testing those functions just as well as our lab tests...and the children were able to use these functions!”

Dr Houghton and Ms Lawrence gathered 124 volunteers, half of the children diagnosed with ADHD, the other half providing a control group.

They set up two types of computer games: the first a simple target game to test eye-hand co-ordination and the second a typical “arcade” game, called Crash Bandicoot.

They imposed their own rules on the game, so the children had to make Crash Bandicoot run from the starting point to a checkpoint, avoiding the dangers confronting the bandicoot en route and remembering and following the imposed game rules.

Continued on page 4
Vice-Chancellors are used to being blamed for everything — from a lack of Commonwealth funding to a parking fine on campus.

I was therefore not at all surprised to hear angry denunciations, at the recent National Innovation Summit in Melbourne, of the ‘VCs’ who were, this time, apparently responsible for the lack of successful Research and Development results in Australia.

Ah, yes, I thought, another challenge in my 2000 duties...

But, after a while, I learned that there exists a far more important class of criticised professional figures known as the ‘Venture Capitalists’. I could relax and learn about the failings of another, and newer group of ‘VCs’!

The issue arose at many points in the plenary and working sessions of the summit as entrepreneurs, economists, scientists and inventors debated the issue of why our country has not been more successful in its transformation to the ‘knowledge economy’ that will apparently dominate this new century.

Specifically, the new VCs found themselves criticised for a timidity in not backing new ideas with productive potential such as is happening in America and Europe. In reply, VCs pointed to a considerable range of inhibitors — starting with our tax structure and the regulatory vehicles necessary to facilitate a new knowledge/new production revolution.

I left them arguing as I sought fellow ‘Educational VCs’ at the summit to reflect on where our sector stood in relation to the challenges of Australia developing a knowledge economy which can surround, support and ultimately transform our essentially resource and labour-based export economy.

Many glib things are being said about harnessing universities to the national ‘innovation’ endeavour. And so we must be both thoughtful and creative in our response to the challenge which obviously faces our nation.

Yes, we do need to capitalise a great deal more than we do on the knowledge developed in our universities, giving Research and Development a new impetus through strengthened links with industry and government.

For that very reason we are about to circulate a comprehensive policy paper, based on our review process of last year, projecting a future UWA innovation strategy.

But we will do so mindful of the continuing importance of carrying out our abiding mission of undertaking fundamental research in crucial generic areas of science and the humanities. That will provide the vital base for the celebrated ‘new knowledge’ of application and development. A recent major study in the US has shown the overwhelming degree to which invention and innovation grows out of basic research.

The knowledge economy will also increasingly rely on high quality graduates with the kind of significant transferable skills able to lead and develop the learning organisations which will characterise that new and globalised world of economic growth.

Indeed, the Educational VCs concluded that we did indeed face yet another challenge, that is bringing to our universities a sense of the new environment, national and global, in which the knowledge economy is arising. And to do so in ways which balances the vital role of basic research with industry partnerships.

That summit was a major aspect of my summer and sat alongside the personal pleasure of enjoying the millennium period in our lovely city — including that wonderfully memorable WASO Concert on Cottesloe Beach as the sun set on the old century.

I hope you also had a memorable and refreshing summer and have returned to the new academic year ready for the challenges of 2000, including innovation and the knowledge economy.

Deryck M. Schreuder
Vice-Chancellor and President
vc@acs.uwa.edu.au
Australia has one of the biggest offshore zones in the world yet we have a shortage of graduates in applied ocean science.

From this year, UWA will be the first Australian university to train specialised coastal environmental engineers. A new engineering major, Applied Ocean Science, will be offered to students, from either second or third year.

The programme has been developed by the Centre for Water Research and the Department of Environmental Engineering but it also includes units taught in other departments: Zoology, Botany, Geography, Geology and Geophysics and the Centre for Offshore Foundation Systems.

Course co-ordinator, Dr Chari Pattiaratchi, said the introduction of the degree was in direct response to the Federal Government’s Marine Science and Technology plan which identified a lack of graduates in applied ocean science.

“We developed the course from the coastal stream of the environmental engineering degree, which has always been very popular in our department,” Dr Pattiaratchi said.

“On a global scale, continental shelves, coastal seas and estuaries are a valuable resource, providing a focus for economic and social, tourism and recreational activity. Here in Australia, 86 per cent of the population lives within 50km of the coast and it is estimated that pollution from the land contributes up to 80 per cent of all marine pollution.

“So it’s critical to accurately predict the consequences of human impact in estuaries and coastal regions, and to integrate these predictions into regional management strategies — the work of ocean science engineers.”

The new degree seems particularly relevant in Australia which has an exclusive economic zone that includes up to 5.1 million square kilometres of continental shelf: that’s almost double the area of the Australian land mass.

Dr Pattiaratchi said the course was specifically targeted to understanding the physical, chemical and ecological processes in these regions and how to implement management strategies to protect them from conflicting use.

He cited the ‘Cousteau Factor’, the number of students attracted to marine biology by beautifully filmed TV documentaries, as creating an employment problem.

“What is needed are marine scientists with quantitative skills and technological skills and expertise in physical and biological interaction. That’s what this course will provide.

“Our graduates will be sought after in a variety of coastal and offshore related projects such as coastline stabilisation, planning and design of marinas, ports and similar offshore structures, design and impact of ocean outfalls and coastal management.”
“The theory says that children with ADHD have problems with their working memory and ability to inhibit prepotent responses, problems not observed while the children have Crash Bandicoot negotiate the different dangers en route under remembered imposed game rules,” Ms Lawrence said.

Then, they introduced a distraction: a particularly funny episode of The Simpsons playing on a screen next to their game screen.

“The theory says the children with ADHD, who are high distractable, would not be able to complete the tasks on the video game successfully,” Dr Houghton said.

“But our evidence shows that although the children did glance at The Simpsons (one child’s eyes flicked to the other screen 18 times), it did not detract from their performance.”

But it still wasn’t the real world. So Dr Houghton and Ms Lawrence looked for something similar to Crash Bandicoot in real life, and came up with a route through the Reptile House and the wetland area of Perth Zoo.

“We said that we were going to follow a route like Crash Bandicoot did in the game play and go from a starting point to different checkpoints and then back to the starting place as quickly as possible (walking not running!),” Ms Lawrence said.

“We told the children individually what we wanted them to do, showed them photographs to help identify what they had to visit on their route, then followed them through the Reptile House, one at a time, with a video camera.”

The Reptile House is humid and hot with a noisy waterfall, lots of writhing snakes and subdued light: in short, full of distractions. The wetland area resembles the terrain in the game Crash Bandicoot with the child walking on a path which also has highly distractable surroundings with real-life birds, animals and other pedestrians.

What the researchers found was that ADHD children diagnosed with the hyperactive subtype appear to have performed the tasks better than the children with the disorder’s passive inattentive subtype.

“All the literature so far shows that the hyperactive children are far more at risk than the passive children, but our research so far shows that the children with the ADHD passive inattentive subtype appear to be just as much at risk and, on occasion, may be more so,” Ms Lawrence said.

Earlier literature cites people with combined type ADHD as many times more likely to be involved in motor vehicle accidents, to contract sexually transmitted diseases and end up in prison. (Up to 70 per cent of children diagnosed with ADHD carry their disorder into adulthood.)

“But I think we will flip this theory on its head,” Dr Houghton said. “At least our research will raise some interesting questions regarding the children’s ability to perform tasks in real-world settings,” he said.

“It’s exciting because so much work on ADHD is done in laboratory settings but people don’t live in laboratories and more research is needed on people’s ability to perform in real-world environments,” Ms Lawrence said.

They have 40 three-hour videotapes and are now into the data coding and analysis stage.

Professor Russell Barkley is in constant communication with the team, as are researchers from Europe and England.

While there is still a lot of work ahead of them Dr Houghton and Ms Lawrence wanted to thank the people who had so far supported their research: Sony for supplying Play Stations and games, Hungry Jack’s, the Perth Zoo and PhD student John West, who helped with the computer game section.

They are working in conjunction with Professor Kevin Durkin from the Department of Psychology and Dr Graham Douglas from the Graduate School of Education, who have assisted with both the computer game and the zoo sections of the research.
The Department of Human Movement and Exercise Science, in conjunction with the International Olympic Committee (IOC) and Sports Medicine Australia, recently ran the fifth IOC World Congress on Sports Sciences in Sydney.

The department’s own students and graduates dominated the podium with their winning research projects. The theme of the congress was science and medicine of skilled performance: optimisation, injury prevention and rehabilitation.

Thor Besier (pictured) won the inaugural Prince de Merode Award for the best paper in the physical science category. He also won one of the two Young Investigator Awards from Sports Medicine Australia for his outstanding research into the biomechanics of knee injuries.

Dr Besier is a research associate with the department and, with the support of an NHMRC grant, is looking at the development of osteo-arthritis in the knee, in conjunction with Dr David Lloyd from the Department of Human Movement and Exercise Science and Professor Gwidon Stachowiak from the Department of Mechanical and Materials Engineering.

“There are only a few places in the world you’d consider studying postgraduate biomechanics, and this department is one of them,” said Dr Besier, who returned to Australia after 12 years in New Zealand to complete his PhD.

The department also has a grant from the Australian Football League (AFL) to study non-contact knee injuries, which have afflicted so many players in recent years.

“We are concerned with training methods that alter the way muscles protect the ligaments of the joint. If we can better understand the mechanisms of injury, then we have a better chance of preventing it” Dr Besier said.

“That just about sums up the whole department: we’re interested in primary prevention, not just how to rehabilitate following injury.”

Dr Andrew Lyttle, a former PhD student at Human Movement and Exercise Science, who now works at the WA Institute of Sport, and Dr Andrew Cresswell, a former MSc student and currently an associate professor at the Karolinska Institute, Sweden, were both short-listed for the physical science paper award.

Dr Simon Green, a former Human Movement and Exercise Science PhD student, now a lecturer at Queensland University of Technology, won the Prince de Merode Award for the best paper in the biological science category, and current PhD student Andrew Maiorana was short-listed for the medical science award.

These accomplishments are all the more memorable when you consider that the conference was attended by 1300 international delegates with 500 free papers being presented.

Department of Human Movement and Exercise Science Head Professor Bruce Elliott was the Congress Chair; Associate Professor Tim Ackland, the Program Coordinator and Leanne Lind, the Congress Administrator.
Logistical feat in Festival treat

Plain song, the modern/medieval mystery play, produced for the Festival by Black Swan Theatre/WA Academy of Performing Arts/ Skadada, was anything but plain.

The biblical spectacle illuminated the beauty of Winthrop Hall and its grounds, drawing attention to aspects of the architecture and landscape which are so often taken for granted by those who study and work on campus.

The audience became part of the play as it wended its way around the campus — breaking bread in the opening monastic scene in Winthrop Hall and experiencing the seduction of Eve by the serpent amongst the luscious foliage of the Tropical Grove — watched serenely by God from a nearby tree.

Plain song was an event to be remembered, from the raunchy song and dance routine of Noah’s Ark in the Undercroft to the dulcet tones of the angel in the annunciation to Mary (suspended on a swing from Winthrop Hall ceiling).

When Herod and Pilate finished strutting their stuff across the Senate Room balcony above the Great Court, the crowd jostled behind Christ with his crown of thorns as he made his way to be crucified in Whitfield Court (mockingly displayed on the television screen for the 6 p.m. world news).

The fires of Hell were reflected in the Whitfield Court pond as Jesus calmly walked across water and Lucifer lazied in the shadows of the arches above. Periodically the angel would materialise, singing gaily from the Winthrop Tower or the rose window.

When a production of this nature is staged on campus, as with the French street theatre production of Mephistopheles (1998 and ‘99), the support provided by University departments is not always apparent.

Preliminary meetings on campus to ensure the success of the production started as early as July, and University Theatres co-ordinated the production with Black Swan — providing the usual technical and front-of-house staff during performances, monitoring installations to ensure health and safety requirements were met, hiring equipment, storing vehicles and providing crowd and damage control.

Planning and Design approved installations for the event, namely the raising of the cross in Whitfield Court, the placement of a steel walkway in the Reflection Pond for Jesus’ walk and the suspension of sets and swings from the ceiling of Winthrop Hall. The entire electrical network was also checked to ensure the safety of the audience and performers.

Unigrounds removed turf, pruned trees, provided logs and approved the scaffolding in the Tropical Grove. The electricians from the Maintenance Workshop provided 3-phase power and arranged for staff to assist after hours with pre-production trials.

Uniclean was of course, active in cleaning Winthrop Hall and the Undercroft after each performance and the Security and Parking Office provided access for vehicles to untoward sites and the Winthrop Tower, provided signage and after hours personnel to assist with parking, gave advice on security issues when required, stored firearms for the cast between performances and arranged for fire sensor alarms in Winthrop Hall ceiling to be immobilised as the fires of Hell raged in the foyer.

It is a tribute to the excellence of the players, the beauty of the venues and grounds of the campus, the co-ordination skills of University Theatres and the staff of the Office of Facilities Management who provided support behind the scenes, that a production of this magnitude could be staged on campus.
Graduate’s achievements rewarded

Two years ago, Fiona Camarri had her sights set on a legal career. Today she is happily ensconced at UWA Press, embarking on management courses and looking forward to a long career in publishing.

The UWA arts graduate decided part-way through her law degree that she wanted a change. After just two weeks work experience at UWA Press under the guidance of her second-year History teacher, Press Director Dr Jenny Gregory, Ms Camarri was offered a part-time job, which has now become a full-time one, as acting editorial co-ordinator.

Her change in direction was recently rewarded by the Australian Institute of Management, which named Ms Camarri as their Young Achiever of the Year.

“I nominated myself, just for the experience, and when I was invited to the presentation evening, I found myself surrounded by wonderful inspirational women who have achieved so much,” Ms Camarri said.

“Many of them won awards in different categories and I was just thinking how privileged I was to be there, meeting them, hearing their stories, when they announced me as Young Achiever winner: it was totally unexpected.”

Dr Gregory says UWA Press is very fortunate to have Ms Camarri on its staff.

“She has great analytical skills and her ability to get right to the heart of an issue is a result of her university training in critical analysis of the arts,” Dr Gregory said.

Ms Camarri has won $1000 worth of courses at the Australian Institute of Management.

From Monet to milk bottles

Just as water covers a huge area of the earth’s surface, so the current exhibition at the Lawrence Wilson Art Gallery, H₂O, covers an enormous area in art.

The works, from Kerry Stokes’ collection, use the Perth International Art Festival’s water theme, ranging from historical mariner’s logs and charts to contemporary Aboriginal interpretations of water.

There are even some coins from the wreck of the Batavia that Kerry Stokes himself retrieved.

Two rooms of the gallery are devoted to this extraordinarily diverse show. The gallery’s director, Dr Anna Gray, and its new education officer, Dr Stephanie Green, say that University staff and students will be able to find something relevant to every area of study on the campus.

One room is devoted to older, more classical works of art, including three impressive studies of clouds over beachscapes, by Monet, Courbet and Boudin.

The other room has more modern works, dominated by an installation in the centre of the room by local artist Julie Wilson Foster.

She has created what looks like water lilies floating on a pond from the bottoms of plastic milk bottles — unfortunately the sort of debris you’re likely to find in and around Perth’s waterways.

Next Tuesday, March 14, Kerry Stokes’ curator, John Stringer, will talk in the gallery about realism and abstraction in the exhibition. H₂O continues until April 2.
Tuesday 7 March

LAWRENCE WILSON ART GALLERY
“Frank Sheehan: religion and art”. In association with the current exhibition of There was war in Heaven, a set of five cartoons by Henry Holiday created as designs for stained glass windows at St John’s in Somerset, Frank Sheehan, Chaplain of Christchurch Grammar School Centre for Ethics, talks about art and religious imagery. 1 p.m., Lawrence Wilson Art Gallery.

SOIL SCIENCE AND PLANT NUTRITION
“Integrated nutrient management research in Cambodia”, Dr Peter White, Pulse Productivity and Industry Development, AgWEST. 4 p.m., Agriculture Lecture Theatre.

Wednesday 8 March

INTERNATIONAL WOMEN’S DAY
The Vice-Chancellor, Professor Deryck Schreuder, invites all University staff to a morning tea to celebrate International Women’s Day. Associate Professor Margaret Searse will launch the database on skills and experience of women at UWA. Billie Court will also be performing a selection of songs to celebrate International Women’s Day. 10 a.m., Lawrence Wilson Art Gallery.

ASH WEDNESDAY
Blessing of Ashes and Mass. 5.15 p.m., Chapel of St Thomas More College (also at 1 p.m. in the Chapel on campus, Floor One, South Wing, Guild Village). Enquiries to Catholic Chaplain, Gerald Brennan, on ext. 2405.

Thursday 9 March

FREE LUNCHTIME CONCERT
Recently returned from the US, Alan Lourens presents works for euphonium and piano by Bowen Sparke Gregson and Jan Bach. Alan is accompanied by Stewart Smith. 1.10 p.m., Octagon Theatre.

Friday 10 March

MICROBIOLOGY SEMINAR
“Cytomegalovirus mechanisms of immune evasion”, Dr Mariapia Degli-Esposti, Department of Microbiology. 9 a.m., Seminar Room 1.1, First Floor, L Block, QEII Medical Centre.

CENTRE FOR ARCHAEOLOGY
“Fieldwork on the Pilbara Coast: a progress report”, Genevieve Clune, Centre for Archaeology. 4 p.m., Room 2.02, Third General Purpose Building.

SCIENCE AT THE NEW MILLENNIUM
“Listening to gravitational waves: Einstein’s Songlines from the Universe”, Professor Barry Barish, Director, LIGO Laboratory, California Institute of Technology. 8 p.m., Octagon Theatre. Bookings can be made through UWA Extension.

Monday 13 March

HISTORY SEMINAR
“Der Fall Sparbier or The Woman Who Defied Hitler”, Professor Frank Broeze. 4.30 p.m., Postgraduate Lounge, Hackett Hall.

SCIENCE AT THE NEW MILLENNIUM
“Hasab a nasab wa dakr: hierarchy, authority and legitimacy in southern Morocco”, John Laurence, Department of Anthropology. 12 noon, Anthropology Conference Room.

Tuesday 14 March

LAWRENCE WILSON ART GALLERY
“J ohn Stringer: realism and abstraction in $OH_O—observation and imagination in changing representations of water, from the 1700s to the present day”. J ohn Stringer talks about the way artists have oscillated between realism and abstraction over time. 1 p.m., Lawrence Wilson Art Gallery.

SOIL SCIENCE AND PLANT NUTRITION/CENTRE FOR LAND REHABILITATION
“Black holes and the Gamma Burst mystery”, Professor Remo Ruffini, International Centre for Relativistic Astrophysics, University of Rome. 8 p.m., Octagon Theatre. Bookings can be made through UWA Extension.

Wednesday 15 March

PHYSIOLOGY SEMINAR
“The sub-cellular calcium levels in normal and dystrophic skeletal muscle”, Renzhi Han, Department of Physiology. 5 p.m., Physiology Seminar Room.

MUSIC MASTERCLASS
Visiting artist from the Sydney Conservatorium, Margaret Crawford, presents a masterclass on advanced techniques and repertoire for the flute. Public admission is $10 and $15 available at the door, WAIM students free. 5.30 p.m., Callaway Auditorium.

Thursday 16 March

FREE LUNCHTIME CONCERT
Pianist and Head of the School of Music, Mark Coughlan, presents an exciting programme of works by Liszt and Brahms. 1.10 p.m., Octagon Theatre.

ZOOLOGY SEMINAR
“Axonal survival and repair following severance: cellular/molecular mechanisms, behavioural consequences and evolutionary implications”, Professor George Bitner, University of Texas. 4 p.m., J ennifer Arnold Lecture Theatre.

Friday 17 March

MICROBIOLOGY SEMINAR
“The identity of sulphate reducing bacteria in anaerobic groundwater at Eden Hill (WA) and their possible role in the in situ bioremediation of aromatic hydrocarbon pollutants”, Wendy Robertson, CSIRO Land & Water. 9 a.m., Seminar Room 1.1, First Floor, L Block, QEII Medical Centre.

ANTHROPOLOGY SEMINAR
“Hasab a nasab wa dakr: hierarchy, authority and legitimacy in southern Morocco”, J ohn Laurence, Department of Anthropology. 12 noon, Anthropology Conference Room.

CENTRE FOR ARCHAEOLOGY
“The archaeology of culture contact in late pre-colonial eastern Indonesia”. Peter Lape, Australian National University. 1 p.m., Room 2.02, Third General Purpose Building.
A

ssociate Professor King Ngan (pictured) has been honoured by his international colleagues with his recent election as a Fellow of the Institute of Electronic and Electrical Engineers (USA).

Dr Ngan is also a Fellow of the Institution of Electrical Engineers (UK) and a Fellow of the Institution of Engineers (Australia) but election to the US fellowship is offered to fewer than one in a 1000 members.

It is for his "contributions to the theory and applications of visual signal processing and communications."

His Visual Communications Research Group is working in two main areas: visual signal processing and video communications. The first concerns the processing of visual signals generated by vision sensors; video communications deals with the transmission of visual signals over disparate communication networks.

Dr Ngan said that visual communication had become an integral part of any modern communication system, not only enhancing the quality of communication services but, in some cases, becoming essential in effecting information transfer.

Local history recognised

Our own history may not seem as exotic as events that took place far away and very long ago. But it is usually much more important to us and, recognising this, a new award designed to encourage and publish key works in the field of Western Australian history, has been established.

The Western Australian History Foundation Award is an initiative of the foundation, in partnership with the UWA Press.

The winning work will be published by UWA Press with the support of a $5000 publication subsidy from the Western Australian History Foundation (WAHF).

Entries for the inaugural award must be book-length works by previously unpublished authors and must reach UWA Press by April 1, 2000. The winner will be announced by June 30, 2000. The award will be presented biennially.

Entry forms for the WAHF Award, which contain all the conditions of entry, are available from the foundation on 9360 2535 or UWA Press on ext. 3187.

Down to earth winner

C

ongratulations to Professor Chris Powell, who has been awarded the 2000 Mawson Medal, in recognition of outstanding contributions to earth science in Australia.

The medal honours Sir Douglas Mawson, the Adelaide geologist and explorer who led a study expedition to Antarctica from 1911 to 1913.

Professor Powell will be presented with his medal at the Australian Academy of Science annual general meeting in May.

CENTRE FOR STAFF DEVELOPMENT

Staff Development Grants for General Staff

The Staff Development Grants Scheme provides assistance to members of general staff who wish to attend external workshops, conferences and other staff development activities.

Closing dates for 2000 are:

- Wednesday 29 March
- Wednesday 5 July
- Wednesday 4 October

Guidelines and application forms are available at: http://www.acs.uwa.edu.au/hrs/policy/part065.htm or from CSD on ext. 1504 or csdoffice@csd.uwa.edu.au

What's on Next

Places are available in the following workshops due to close within the next month. Further details are available on the CSD Web page: http://www.csd.uwa.edu.au/programme/ or by contacting CSD on extension 1504 or csdoffice@csd.uwa.edu.au.

- Career Moves for Women: Valuing Skills, Planning Futures
- Conference Presentations with Impact
- Contract Management: Outsourcing, Contract Research and Consulting
- Feeling Comfortable at Your Workstation
- Fire Warden Training
- General Staff Development Review: Workshop for Supervisors
- How the University Works: A Basic Guide to UWA’s Organisational and Committee Structures
- Improving Client Service Through the Telephone
- Introduction to Teaching Portfolios
- Managing Your Time
- Practising Safe Computing: How to Avoid Computer Virus Infection
- Programme in Animal Welfare, Ethics and Sciences (PAWES)
- Providing Services to Students: Cross-cultural Communication
- Providing Services to Students: Ensuring Support and Access for Students with Disabilities and Medical Conditions
- Providing Services to Students: Perspectives on Diversity
- Stress Management
- Students in Crisis: What to Do
- The Role of the Committee Secretary
- Understanding Intellectual Property

On demand

- Information Session on Students with Disabilities and Medical Conditions
- Introduction to Student Perceptions of Teaching (SPOT)
- Making the Best Use of Your SPOT Results
- Personal Safety and Security on Campus
- Project Management

Closing date: Friday 24 March 2000.
Students from the eastern states crossed the rabbit-proof fence this summer for a west coast experience at UWA...and at least two of them have decided to stay.

The University’s inaugural Vacation Research Scholarships enabled 19 postgraduate students from around Australia to experience a Perth summer while doing six weeks of intensive research.

The Vice-Chancellor, Professor Deryck Schreuder, said the aim of the scholarships was to encourage interstate students to do postgraduate studies here.

He urged the participants to consider the great benefits of attending another university for their higher degrees.

“There are enormous advantages in being exposed to a different way of thinking from that encountered in undergraduate and honours degrees,” he said.

He said he was proud of UWA’s reputation as a research-intensive institution, putting a particular focus on postgraduate studies, which accounted for about 11 per cent of enrolments.

The students' summer programme was co-ordinated by Dr Sato J uniper, learning skills adviser and education officer (postgraduates) with the University’s Student Services.

Dr J uniper said one of the participants had decided to transfer the final stages of her arts degree from the University of Adelaide to UWA, where she will also do postgraduate work; another will return to UWA to pursue a PhD in chemistry.

Postgraduate students, Rebecca Jackson (University of Tasmania) and Neil Brown (University of Melbourne) evaluate their stint with Dr Sato J uniper (left).

The University’s Uniview magazine has been awarded the 1999 Alex Harris Memorial Award for Science and Environment.

Uniview has previously won awards as the best national and state tertiary publication and shares this latest gong with local consultant ecologist Mike Bamford.

The memorial medal is sponsored by the CSIRO and The West Australian in memory of the late Alex Harris who pioneered science and environment writing in The West.

Uniview editor Trea Wiltshire said she felt strongly that not only should good science happen at universities but that it should be effectively communicated beyond campuses.

Uniview is sent to more than 40,000 graduates, to all WA secondary schools and libraries, the media, funding bodies and government departments.
Chemistry, botany and physics were the most popular alternatives to surfing and skateboarding for 147 WA teenagers this summer.

The group spent three days at UWA in January, on the UWA Siemens Science Experience and voted the chemistry, botany and physics workshops the best.

The event, which is held every year, was so popular students had to be turned away and the Faculty of Science hopes to cater for 200 Year 10 students next year.

The Siemens Science School began at Monash University in 1990 and is now held on 30 campuses across Australia, including three WA universities.

Khim Harris from Chemistry and Dr Colin Taylor for Physics jointly directed this year’s school. They said it gave students an opportunity to learn of the extensive opportunities that a UWA science degree could offer and should help in making UWA “first to mind” when students consider university entrance.

An evaluation showed a high degree of satisfaction with the event, with 94 per cent of students rating Dr Allan McKinley’s ‘Enlightening Chemistry’ presentation as excellent or very good and 92 per cent giving a similar rating to Professor Mike Gore’s lecture, ‘Unexpected Science’.

“I think that the Siemens Science Experience was a fantastic thing. It totally made me obsessed with doing science at UWA!” was one of many very positive comments from the students.

The directors hope to increase corporate and Rotary Club sponsorship for next year’s event.

Watching the AFL can be an expensive business...and that’s without even buying a seat!

Viewing an AFL game last season on the Web cost a University department dearly.

Administrative Computing Services Head, Bruce Kirkby, has urged staff to be aware of the costs associated with accessing services on the Web.

“The audio and visual broadcasts may not require direct payment, but they do attract a traffic charge,” Mr Kirkby said.

“Listening to music from an audio station some-where on the Web will be charged at about 0.07¢ per second. This adds up to something like $3 an hour. Video is significantly more expensive.

“Getting data via the Web costs approximately 17¢ per megabyte.

Determining the cost in advance is very difficult, so any transfer of data that appears to involve a large transfer should be treated with caution,” he said.
Woodside Energy has renewed its support for the University through the Centre for Oil and Gas Engineering.

At a recent industry function at UWA, the Deputy Vice-Chancellor, Professor Alan Robson, joined Director of the centre and Woodside Chair Professor Beverley Ronalds (pictured) in thanking Woodside for its ongoing support.

From the centre’s establishment in 1995, Woodside has invested $1 million over five years to set up a professorial Chair in Oil and Gas Engineering; provided renewed financial support of the chair from 2000; played a key role in securing an industry endowment of $660,000 to create the North West Shelf Venture Chair in Oil and Gas Process Engineering; and supported a further industry donation of $450,000 to fund undergraduate scholarships to encourage the study of oil and gas process engineering at UWA.

“Industry support for university teaching and research is vital to encouraging increased international investment in the Australian petroleum industry,” Professor Robson said.

“Woodside’s foresight and practical support as a founding partner and sponsor of the Centre for Oil and Gas Engineering is a clear indication of the company’s faith in the potential of the Australian hydrocarbon industry,” he said.

Our Department of Mathematics and Statistics has been ranked first in Australia and 14th in the world in terms of publications in probability theory.

Head of Department, Professor Adrian Baddeley, said the figures came from an authoritative bibliometric survey of research in probability theory and statistics.

“We are the only University in Australia — indeed in the southern hemisphere — to appear in this list of the world’s top 25 departments which publish in probability theory,” Professor Baddeley said.

The index was designed to give higher scores to departments with “fertile research environments” rather than prolific isolated individuals.

Digitising John Curtin

Legendary Prime Minister John Curtin has been digitally immortalised.

The John Curtin Prime Ministerial Library sought the help of University Archives to help them complete their historic project of digitising all the records relating to Curtin’s life and times.

Archives were able to supply material dating from 1918 to 1933 which related to Curtin’s support for a Diploma in Journalism at UWA.

The Electronic Research Archive has more than 10,000 images and texts, including nearly 600 editorials written by John Curtin for the Westralian Worker, photographs from the Curtin family album, oral histories, copies of official documents, letters and other personal papers.

You can relive John Curtin’s life at http://john.curtin.edu.au

New top spot for Executive Dean

Professor Paige Porter (pictured below) is the University’s new Executive Dean (International Relations), relinquishing her position as Executive Dean of the Faculty of Economics, Commerce, Education and Law (ECEL).

The Vice-Chancellor, Professor Deryck Schreuder, said the two-year project was an important initiative designed to build on, and advance, the University’s commitment to quality with an international focus.

It follows last year’s major review of internationalism.

Professor Porter, educated at Stanford University, a world leader in overseas exchange programs, has led ECEL since 1994, with strong international links through students, teaching and learning and research activities.

Dr Paul McLeod, ECEL’s Deputy Executive Dean, has become the new Executive Dean.
Ride a bike to breakfast

The University’s annual Bike to Breakfast is coming up again on Wednesday 22 March.

UWA Sports, UWA Bicycle User Group (BUG), UWA Cycle Club and the Office of Facilities Management are combining its resources to provide another fabulous free breakfast and prizes for staff who cycle to work on that day.

Make up a team from section or department or come on your own but be at the Sports Centre tennis courts between 7.30 and 8.30 a.m. to reap the (added) benefits of your exercise.
## Redundant Equipment for Sale

<table>
<thead>
<tr>
<th>ITEM</th>
<th>PRICE</th>
<th>AGE</th>
<th>COND.</th>
<th>CONTACT</th>
<th>EXT</th>
<th>DEPARTMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power Mac 6200/75.</td>
<td>$400 ono</td>
<td>4</td>
<td>3</td>
<td>J an</td>
<td>3743</td>
<td>Indigenous History and the Arts</td>
</tr>
<tr>
<td>2 x Digital Computers, Pentium 120, 48 MB RAM, 1.2 GB HDD, Ethernet card, Windows 95, 15” monitor, keyboard, mouse.</td>
<td>$600 each</td>
<td>3</td>
<td>2</td>
<td>Valerie</td>
<td>2024</td>
<td>Publications</td>
</tr>
<tr>
<td>Digital Computer, Pentium 100, 64 MB RAM, 1.2 GB HDD, Ethernet card, Windows 95 (without monitor, keyboard or mouse)</td>
<td>$400</td>
<td>3</td>
<td>2</td>
<td>Valerie</td>
<td>2024</td>
<td>Publications</td>
</tr>
<tr>
<td>35 x PowerMac 6100</td>
<td>$400</td>
<td>4.5</td>
<td>2</td>
<td>Con</td>
<td>3184</td>
<td>Mathematics and Statistics</td>
</tr>
<tr>
<td>25 x PowerMac 6200</td>
<td>$400</td>
<td>4</td>
<td>2</td>
<td>Con</td>
<td>3184</td>
<td>Mathematics and Statistics</td>
</tr>
<tr>
<td>2 x Computer, Comdek 180/23/16GB</td>
<td>$550</td>
<td>3</td>
<td>2</td>
<td>Glenys</td>
<td>2920</td>
<td>Economics</td>
</tr>
<tr>
<td>Computer, Total Peripheral 133/32/16GB</td>
<td>$350</td>
<td>4</td>
<td>2</td>
<td>Glenys</td>
<td>2920</td>
<td>Economics</td>
</tr>
<tr>
<td>Computer, Compuccon 100/16/16GB</td>
<td>$400</td>
<td>3</td>
<td>2</td>
<td>Glenys</td>
<td>2920</td>
<td>Economics</td>
</tr>
<tr>
<td>Computer, Total Peripheral, 90/16/16GB</td>
<td>$375</td>
<td>4</td>
<td>2</td>
<td>Glenys</td>
<td>2920</td>
<td>Economics</td>
</tr>
<tr>
<td>Computer, Total Peripheral, 90/16/850 Printer, Apple LaserWriter 8500, 48 MB, 20 ppm, suitable for dept. network</td>
<td>$750</td>
<td>3</td>
<td>2</td>
<td>Glenys</td>
<td>2920</td>
<td>Economics</td>
</tr>
<tr>
<td>Apple Imagewriter II offers</td>
<td>—</td>
<td>—</td>
<td>3</td>
<td>Bruce</td>
<td>2818</td>
<td>ACS</td>
</tr>
<tr>
<td>Various PC Keyboards offers</td>
<td>—</td>
<td>—</td>
<td>faulty</td>
<td>Bruce</td>
<td>2818</td>
<td>ACS</td>
</tr>
<tr>
<td>Various Mac connections etc offers</td>
<td>—</td>
<td>—</td>
<td>3</td>
<td>Bruce</td>
<td>2818</td>
<td>ACS</td>
</tr>
<tr>
<td>17 x Cartridge Cases Plastic offers</td>
<td>—</td>
<td>—</td>
<td>2</td>
<td>Bruce</td>
<td>2818</td>
<td>ACS</td>
</tr>
<tr>
<td>Hayes Optima 288 modem offers</td>
<td>—</td>
<td>—</td>
<td>faulty</td>
<td>Bruce</td>
<td>2818</td>
<td>ACS</td>
</tr>
<tr>
<td>Hayes Optima 288 modem offers</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>Bruce</td>
<td>2818</td>
<td>ACS</td>
</tr>
<tr>
<td>IBM Golfball Elec Typewriter offers</td>
<td>—</td>
<td>—</td>
<td>3</td>
<td>Bruce</td>
<td>2818</td>
<td>ACS</td>
</tr>
<tr>
<td>Delni give away</td>
<td>—</td>
<td>—</td>
<td>3</td>
<td>Bruce</td>
<td>2818</td>
<td>ACS</td>
</tr>
<tr>
<td>DSV200/dl give away</td>
<td>—</td>
<td>—</td>
<td>3</td>
<td>Bruce</td>
<td>2818</td>
<td>ACS</td>
</tr>
<tr>
<td>DSV200/mc give away</td>
<td>—</td>
<td>—</td>
<td>3</td>
<td>Bruce</td>
<td>2818</td>
<td>ACS</td>
</tr>
<tr>
<td>DSV200/dl give away</td>
<td>—</td>
<td>—</td>
<td>3</td>
<td>Bruce</td>
<td>2818</td>
<td>ACS</td>
</tr>
<tr>
<td>Terminal Arms give away</td>
<td>—</td>
<td>—</td>
<td>2</td>
<td>Bruce</td>
<td>2818</td>
<td>ACS</td>
</tr>
<tr>
<td>Mac LC offers</td>
<td>—</td>
<td>—</td>
<td>2</td>
<td>Bruce</td>
<td>2818</td>
<td>ACS</td>
</tr>
<tr>
<td>Dec Hi-Note Ultra II offers</td>
<td>—</td>
<td>—</td>
<td>not working</td>
<td>Bruce</td>
<td>2818</td>
<td>ACS</td>
</tr>
<tr>
<td>Dec PC ipv 466d2 (monitor not working, processor ok, no kb or mouse) offers</td>
<td>offers</td>
<td>offers</td>
<td>—</td>
<td>Bruce</td>
<td>2818</td>
<td>ACS</td>
</tr>
<tr>
<td>Apple Powerbook Duo offers</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>Bruce</td>
<td>2818</td>
<td>ACS</td>
</tr>
<tr>
<td>Volksnet Hub offers</td>
<td>—</td>
<td>—</td>
<td>suspect</td>
<td>Bruce</td>
<td>2818</td>
<td>ACS</td>
</tr>
<tr>
<td>2 x Apple keyboards offers</td>
<td>—</td>
<td>—</td>
<td>3</td>
<td>Bruce</td>
<td>2818</td>
<td>ACS</td>
</tr>
<tr>
<td>Apple mouse —</td>
<td>—</td>
<td>—</td>
<td>3</td>
<td>Bruce</td>
<td>2818</td>
<td>ACS</td>
</tr>
<tr>
<td>Dec LA120 Printer offers</td>
<td>—</td>
<td>—</td>
<td>not working</td>
<td>Bruce</td>
<td>2818</td>
<td>ACS</td>
</tr>
<tr>
<td>Dec Laptop PC425sc offers</td>
<td>—</td>
<td>—</td>
<td>suspect freezes</td>
<td>Bruce</td>
<td>2818</td>
<td>ACS</td>
</tr>
<tr>
<td>Sharp Laptop offers</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>Bruce</td>
<td>2818</td>
<td>ACS</td>
</tr>
<tr>
<td>La75 Printer offers</td>
<td>—</td>
<td>—</td>
<td>3</td>
<td>Bruce</td>
<td>2818</td>
<td>ACS</td>
</tr>
<tr>
<td>Dec PC Lptv 466D2 offers</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>Bruce</td>
<td>2818</td>
<td>ACS</td>
</tr>
</tbody>
</table>
ACIAR—ILRI VIA CSIRO
Dr P. E. Vercoe, Agriculture, and Dr C. S. Sweeney, Dr J. Brooker and Dr L. Blackall (external): ‘Managing the rumen ecosystem to improve utilisation of thornless acacias’—$10,000 (1999; 2000; 2001); $7375 (2002).

ALCOA
Clinical Professor A. W. Musk and Dr N. H. de Klerk, Public Health: ‘Health effects from liquor burning unit in an alumina refinery’—$51,348 (1999).

AINSE RESEARCH TRAINING
Dr C. A. Musca, Electrical and Electronic Engineering: ‘Characterisation of doping mechanisms in reactive ion etching processed HgCdTe using secondary ion mass spectroscopy’—$11,292 (1999).

Professor J. R. Dodson, Geography: ‘Environmental history and prehistory in southwestern Australia’—$75,000 (2000; 2001; 2002).

Professor S. D. Bradshaw, Zoology, and Dr N. Dytlewski (external): ‘Measurement of body protein in native animals by ion-beam analysis’—$5000 (1999).


Professor J. T. Lambers (SPIRT) and Dr N. H. de Klerk, Public Health: ‘Nitrogen metabolism for the use of Pandarus Rhincodonicus as a biological tag for whale shark migration’—$10,000 (2001; 2002).

Australian Biological Resources Study

Australian Flora Foundation Inc.

Australian Geographic

Australian Orthopaedic Association
Dr D. J. Wood and Dr M. H. Zheng, Surgery: ‘Towards understanding the molecular events of histogenesis and biological behaviour of giant cell tumour of bone’—$1500 (2000).

Australian Research Council
Dr A. Savkin, Electrical and Electronic Engineering: ‘Analysis and synthesis of hybrid control systems’—$56,000 (2000); $58,000 (2001); $60,000 (2002).


Dr A. Savkin, Electrical and Electronic Engineering, and Professor I. R. Petersen and Dr C. D. Charalamous (external): ‘Control and state estimation via limited capacity communication channels’—$50,000 (2000); $52,000 (2001); $53,000 (2002).

Dr B. D. Nener and Dr T. Fisher, Electrical and Electronic Engineering: ‘Determination of fundamental electronic parameters of MOCVD grown semiconducting Gallium nitride’—$90,000 (2000); $55,000 (2001); $56,000 (2002).

Dr B. Rasmussen, Geology and Geophysics: ‘Early-diagenetic phosphates: their impact on marine phosphorus and rare-earth cycles, and potential for high-precision dating of biological and environmental events’—$45,000 (2000; 2001; 2002).


Professor S. D. Bradshaw, Zoology and Dr N. Dytlewski (external): ‘Nitrogen metabolism and reproductive energetics of the marsupial honey possum, Tarsipes rostratus’—$74,000 (2000); $78,000 (2001); $80,000 (2002).

Dr B. Martinac, Pharmacology and Dr E. Perozo (external): ‘Structural assembly and dynamics of MscL of Escherichia coli studied by electron-paramagnetic resonance spectroscopy’—$80,000 (2000); $78,092 (2001); $77,954 (2002).


Dr A. Savkin, Electrical and Electronic Engineering, and Professor I. R. Petersen and Dr C. D. Charalamous (external): ‘Control and state estimation via limited capacity communication channels’—$50,000 (2000); $52,000 (2001); $53,000 (2002).

Dr B. D. Nener and Dr T. Fisher, Electrical and Electronic Engineering: ‘Determination of fundamental electronic parameters of MOCVD grown semiconducting Gallium nitride’—$90,000 (2000); $55,000 (2001); $56,000 (2002).

Dr B. Rasmussen, Geology and Geophysics: ‘Early-diagenetic phosphates: their impact on marine phosphorus and rare-earth cycles, and potential for high-precision dating of biological and environmental events’—$45,000 (2000; 2001; 2002).


Professor S. D. Bradshaw, Zoology and Dr N. Dytlewski (external): ‘Nitrogen metabolism and reproductive energetics of the marsupial honey possum, Tarsipes rostratus’—$74,000 (2000); $78,000 (2001); $80,000 (2002).

Dr B. Martinac, Pharmacology and Dr E. Perozo (external): ‘Structural assembly and dynamics of MscL of Escherichia coli studied by electron-paramagnetic resonance spectroscopy’—$80,000 (2000); $78,092 (2001); $77,954 (2002).

Research Grants and Contracts

Watch out for more Research Grants and Contracts in the next issue of UWA News.

Redundant Equipment for Sale

| Dec PC450 D2LP | offers | — | — | Bruce | Sue | 2818 | 2822 | ACS |
| Dec PC 466D2LP | offers | — | — | Bruce | Sue | 2818 | 2822 | ACS |
| Dec Venturis 466 | offers | — | — | Bruce | Sue | 2818 | 2822 | ACS |
| Dec Workstation | offers | — | — | Bruce | Sue | 2818 | 2822 | ACS |
| 3 x 14inch PC Monitors | offers | — | 3 | Bruce | Sue | 2818 | 2822 | ACS |
| TK50 tape drive | offers | — | 2 | Alan | 3895 | ACS |
| XSI dat drive | offers | — | 2 | Alan | 3895 | ACS |
| CD ROM RDD | offers | — | 2 | Alan | 3895 | ACS |
| Dec W/Stn | offers | — | 2 | Alan | 3895 | ACS |
| Dat tape drive | offers | — | 2 | Alan | 3895 | ACS |

Bids should be accepted by Monday 20th March with departments to have first option.

Departments are reminded that all University equipment available for sale must be advertised in the UWA News. Receipts should be PeopleSoft account coded 490 (computing with barcode), 491 (non-computing with barcode) or 493 (items with no barcode). If equipment has an existing barcode please contact extension 3618/2547 for details.

CONDITION refers to the general condition of item (1 = as new; 2 = good; 3 = serviceable; 4 = unserviceable).

AGE refers to the nearest year.
Next time someone suggests that working in a University is a doddle, drop the following message into your standard reply!

You are subject to more laws and rules and held to a higher standard of behaviour than any average man or woman in the street!

As an academic, professional or other employee of this (or any) University you are not only subject to the usual raft of Federal, State and local government laws as a citizen or resident in this state, but are also subject to the many University statutes and by-laws which have force of law by virtue of the University’s governing Act of State Parliament, as well as its regulations which bind all staff and students. Add your employer’s lawful directives and all the policies and guidelines adopted by Senate and then wonder if anything you do here is free of some or other law or rule!

In addition to all of that, the criminal law has a special class of offence for unwanted behaviour in the exercise of your duties as a staff member of a public university, that is within state law, as a public officer.

“Corruption” is the result of the fracturing of the tension implicit in public office between public and private interest.

Take the simple example of a worker in private industry taking tools belonging to his or her employer home for the family garage. This is stealing. If that worker is a University employee, it is also corruption. It is not in an employer’s interest for an employee to take the employer’s property for his or her own private benefit. Additionally it is not in the public interest that a public officer, as one holding public office, serving a public purpose or having a public duty, commits a crime.

More startling perhaps is that any otherwise non-criminal activity by a public officer, (a University employee), which justifies dismissal, for example, dereliction of employment duties, also constitutes corruption and as such becomes in that public context, a criminal offence. Again there is a public interest in those holding public office, serving public purpose or having a public duty, discharging or fulfilling that office, duty or purpose properly.

This double layer of criminal liability awaits all of our colleagues who behave in this way. As public officers we are held to a higher standard of behaviour.

All universities in states where there are regulatory bodies established for the investigation and disposition of corruption, that is NSW (Independent Commission on Corruption) Queensland (Criminal Justice Commission) and WA (Anti Corruption Commission), have reporting obligations for any conduct which is reasonably believed to constitute corruption or, in WA, serious improper conduct. Universities are loosely controlled workplaces and their activities are very diverse. There are no common substantive corporate objectives and the very nature of scholarship and research mitigates against corrupt behaviour.

Ian Temby QC, a UWA graduate, once said as Federal DPP, that wherever there is government money there is fraud. With dwindling non-competitive government funding there is more incentive for research and scientific fraud. Certainly too there is more opportunity for self interest to arise in the increasing interface with and reliance on business and commerce for funding. Shareholdings, directorships, consultancies and other arrangements for personal benefit open potential for conflicts of interest and opportunities for corrupt or serious improper behaviour.

There is a real risk that the relatively low incidence of corruption in Universities will grow.

This constitutes an additional challenge flowing from the current changes in tertiary sector funding.

Linda Key
UNIVERSITY SOLICITOR

... the last word