



# RESEARCH CENTRAL COAST

## EXAMINING THE TRANSITION AND PERSISTENCE OF COMMENCING FIRST YEAR UNIVERSITY STUDENTS

Expectations of a television-world uni lifestyle were dashed from day one according to many of the students who took part in a study by Transition and Retention, Manager Sarah O'Shea.

Ms O'Shea's research was aimed at improving student transition to university. She tracked a group of 17 female students of different ages and backgrounds through the ups and downs of their first academic year at the Central Coast campus.

All of the women were the first in their family to attend university. What she found was that for many, their expectation of university life was quite different from reality.

Their transition was more than a six-week settling in period, but rather a series of critical moments throughout the year that often left them feeling vulnerable and at risk of leaving university.

She said getting students to university was only one part of an institution's challenge; the remainder was keeping them there and seeing them graduate.

"In our interviews we talked about the women's reasons for coming to university, their motivation to succeed, the different support provided by family at home and how each student's age and circumstances impacted on their experience of university.

"I found the interviews fascinating and looking back on my early discussions was able to see how significantly the students had grown – particularly the mature age students – in terms of their confidence, sense of self and drive to succeed."

Working with students involved with the University's Student Mentor Program, Ms O'Shea has used the findings of her research to formulate and introduce a two-day orientation program called UNI-Start for new students aimed at improving their transition to university life.

## OUR CAMPUS IS READING YOUR MIND!

The University of Newcastle is undertaking world-class research into psychological neuroscience thanks to a new laboratory at the Central Coast campus. The Psychological Neuroscience Laboratory is an initiative of the School of Psychology and the University's Priority Research Centre for Brain and Mental Health Research.

The primary focus of the lab is functional neuroimaging, which seeks to understand the relationship between brain activity and psychology. The lab has state-of-the-art equipment that allows researchers to undertake psychological neuroscience projects, independently or in collaboration with other research institutes.

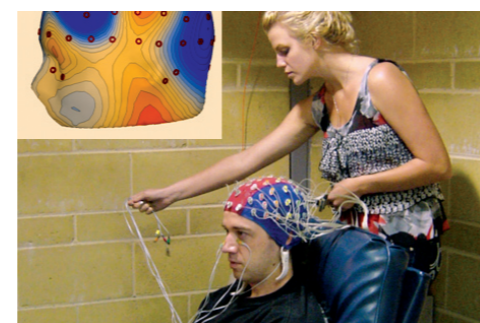
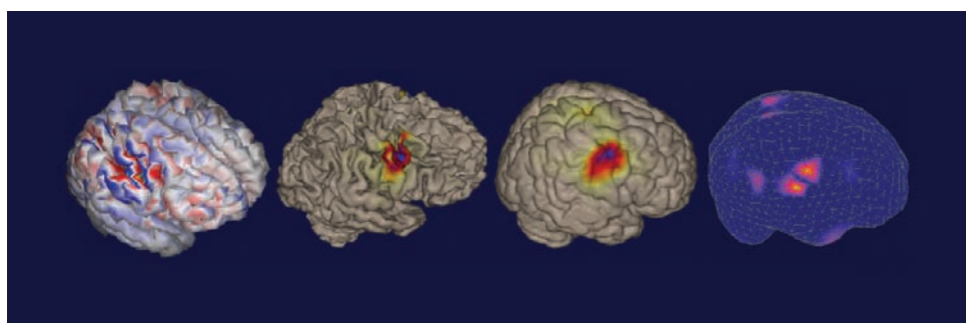
Current projects include the examination of brain activity in relation to schizophrenia. The National Health and Medical Research Council-funded project has been undertaken in collaboration with the Prince of Wales Medical Research Institute. The laboratory is also working with the John Hunter Hospital Stroke Unit to understand the relationship between brain activity and recovery from stroke.

The laboratory also serves as a teaching resource and is currently home to two honours students researching under the supervision of Lab Director Dr Bill Budd.

Jaye Bloffwitch is studying the relationship between the brain and sound and Jeff Brown is looking at whether commercially available audio and visual relaxation products cause changes in the electrical rhythms of the brain.

Dr Budd hopes the lab will facilitate collaboration between the School of Psychology and other Schools of the University, such as Education.

"We're particularly keen to look at the brain processes during childhood development, which could assist with understanding learning disabilities," he said.



## VOLUME 2: NUMBER 2

### INTRODUCTION

The University of Newcastle Central Coast campus has a strong and influential research profile relevant to the many issues facing society today. This newsletter showcases the diverse nature of the research being undertaken by locally-based academics, and demonstrates the value of quality research to the community.

The standard set by our research capabilities is high and many of our researchers have their work regularly published in esteemed national and international journals. This track record will continue as the Central Coast campus expands over time and increases its research partnerships with local business and the community.

We invite you to read on to discover more about research on the Central Coast and welcome any feedback or suggestions for future research opportunities.

**Professor Stephen Crump**  
Pro Vice-Chancellor and Director  
Central Coast campus

**Associate Professor William Gladstone**  
Deputy Director – Research  
Central Coast campus

### CHALLENGES OF MULTI-CAMPUS UNIVERSITIES

Strengthening leadership and improving the consistency and quality of teaching and learning across multi-campus institutions is the aim of a project being undertaken by Central Coast campus Pro Vice-Chancellor and Director Professor Stephen Crump.

Professor Crump has joined with the leaders of Australia's multi-campus universities for the two-year project, which has attracted a significantly high level of funding from the Australian Learning and Teaching Council.

"Multi-campus universities such as Newcastle, and particularly regional universities, face unique challenges and complexities not found in other institutions," Professor Crump said.

"Prior research has shown that teaching and administrative performance is relatively poor in multi-campus universities and that we, as a group, need to pay attention to the key issues of fragmentation, duplication, inconsistency and inequality across our sites."

The project will include the development and testing of a quality management framework by Professor Crump and a group of his Pro Vice-Chancellor colleagues.

This framework will allow universities to undertake rigorous self-assessment and benchmarking, and to provide a wide range of examples of best practice in process and outcomes.

From the strengths and weaknesses identified, the project group will select key areas for further investigation by groups of specially selected staff at a 'communities of practice' residential retreat during 2009.

"Communities of practice bring together people with a shared interest or who undertake a shared activity," Professor Crump said. "In this case staff with a responsibility or interest in strengthening leadership and performance will come together to help develop and implement high quality teaching and learning models for our universities.

"It is hoped these communities will continue to work together, at a university level and across the sector, even after the completion of this project."

### ALSO IN THIS ISSUE

- Climate change and the future of sharks
- Building acceptance through creative arts
- Our campus is reading your mind!

## CLIMATE CHANGE AND THE FUTURE OF SHARKS

As temperatures rise in waters off the NSW Central Coast due to global warming, there is a real possibility of localised extinction of the Port Jackson shark, according to Dr David Powter.

Having spent the best part of the last six years underwater studying the Port Jackson shark's demographics, diet, spatial ecology and reproductive biology, Dr Powter is intimately aware of the potential threats confronting the species.

"The reproductive capacity of the Port Jackson shark is temperature dependent," Dr Powter said. "We already know that the embryonic mortality rate for these sharks is around 85 per cent – the highest known for any shark species."

"The crux of my research is that rising sea temperatures will potentially reduce the length of their reproductive season or lead to higher temperature-induced mortality of embryos, or both."

The Port Jackson shark is found only in the waters off southern Australia and Dr Powter's research focussed on shark populations around Terrigal, Sydney Harbour and Jervis Bay.

"Breeding adults return each year to the same coastal rocky reefs during winter and spring to reproduce. This is the time when water temperature is lower and provides the right environment for breeding," Dr Powter said.

"If the northern parts of their habitat, including the Central Coast, become too warm, there is a chance local populations will disappear, raising questions about population distribution."

Dr Powter's ongoing research is assessing the relationship between water temperature and the breeding season over an extended geographic area including Victoria and Western Australia.

Population distribution is being explored through genetic testing being undertaken in collaboration with researchers at the University of Adelaide.

Dr Powter said his research findings would provide valuable data to inform future management decisions in relation to the Port Jackson shark.

## END-OF-LIFE CARE

Dr Sarah Jeong from the School of Nursing and Midwifery believes the time is right for wide-ranging discussions on end-of-life issues.

Her research into advance care planning mapped the experiences of nursing staff, clients and their families in three residential aged care facilities in Sydney over a period of seven months.

"Advance care planning is a process enabling a patient to express wishes about his or her future health care in consultation with their health care providers, family members and other important people in their lives." Dr Jeong says the results provide greater awareness of what constitutes 'dying well' and shows how the nursing profession, through advance care planning, can more positively contribute to a person's end-of-life experience.

"Through these case studies we were able to understand the feelings, emotions, beliefs, and concerns of older people and their family members about advance care," Dr Jeong said.

"We found that elderly people and their families appreciate the opportunity to make advanced, informed decisions and that these opportunities contribute to a person's sense of self and feelings of autonomy. In most cases elderly people accept dying and death but do not seek to hasten the process."

Dr Jeong's research findings are in contrast to common political and religious opinion on the issue of end-of-life.

Such opinion opposes legislation granting the elderly the right to refuse or withdraw medical treatments based on the assumption that people in these circumstances would be depressed or dissatisfied with their life and therefore not fit to make decisions.

Dr Jeong believes her research shows that elderly people value life and desire to pursue their own definition of quality of life through advance care planning.

"My research demonstrates the need to discuss the legal and political aspects of end-of-life care decision-making for our ageing population."

Dr Jeong's research was made possible through a scholarship and Early Career Researcher Grant provided by the University of Newcastle.

"The University of Newcastle Central Coast campus has a strong and influential research profile..."



## RETIREMENT HEALTH AND LIFESTYLE STUDY

Six years of hard work have paid off for Dr Paul Roach from the School of Environmental and Life Sciences. Dr Roach, with a group of fellow researchers, has secured Australian Research Council Linkage funding and the support of collaborating partners for a three-year study into the health and lifestyles of Australian retirement village residents.

The project will examine whether an age-congregated purpose-built environment, such as a retirement village, contributes positively to a person's health and wellbeing.

"We are in a unique position here on the Central Coast, with almost 20 per cent of the population aged over 65, to prepare a snapshot of what Australia's needs will be into the future as our population ages," Dr Roach said.

Through this research Dr Roach and his colleagues hope to identify the special features of the social and built environments within retirement villages that support health and promote positive health-related behaviours. The study will also determine how effective these features are in actually making residents healthier and happier than they would otherwise be living in the wider community.

"We have already been able to gather significant data in this area, but this funding will allow us to undertake a bigger, more in-depth project," he said. "It will provide an opportunity to gain a clearer, more useful picture of retirement villages and their benefits in a health and ageing context."

Through this project the researchers hope to collect enough relevant and accurate data to inform the retirement village industry and governments at a time when the needs of the ageing population are expanding and attitudes towards retirement village living are changing.

## SUSTAINABLE SHRIMP FARMING IN BANGLADESH

Dr Salim Momtaz from the School of Environmental and Life Sciences has spent 10 years following development activities in Bangladesh and researching their environmental and social impacts. His latest project, in collaboration with the Bloomsburg University of Pennsylvania and the Bangladesh Government, will examine how the multi-million dollar shrimp farming industry is impacting on Bangladesh from an environmental and social perspective.

"Shrimp used to be regarded a luxury by most people but in the recent past it has become quite affordable," Dr Momtaz said. "Many developing countries, such as Bangladesh, have engaged in intensive shrimp farming to meet increasing demand for the product on the international market."

Dr Momtaz said that while the economic interests of shrimp producing nations should not be undermined, the industry's environmental and social impacts could not be ignored. These included significant land clearing, water pollution and soil contamination and salinization. Socially, Dr Momtaz said there was evidence of unequal distribution of economic benefits between the companies setting up intensive operations and local farmers.

Through a fact-finding research trip to Bangladesh in 2009, Dr Momtaz aims to gain a deeper understanding of these social and environmental issues. By putting forward alternate best practice methods, he also hopes to help policy makers and the industry implement more sustainable farming methods.

## BUILDING ACCEPTANCE THROUGH CREATIVE ARTS

Dr Ruth Reynolds, Sue Lane and colleagues at the School of Education are hoping to use creative arts and similar school-based activities to build relationships and tolerance between ethnically diverse cultural groups.

Their research, which involved a collaboration between Our Lady of the Rosary School at The Entrance in the Broken Bay Diocese and members of the Central Coast African Community, has revealed how the use of creative arts and geography studies can be successful in reinforcing positive messages about the acceptance of others.

"At a time when there is much concern within Australia about the assimilation of refugees and migrants, tolerance and acceptance of these groups, and migrants and refugees developing a sense of Australian citizenship, we see benefits in bringing this type of education into schools," Dr Reynolds said.

As part of the project young primary school students learned about the geography of Africa, differences between the cultures of diverse African groups and about the music, art and dance of African communities. Expertise of university staff along with the teachers in the school and members of the African community resident at the Central Coast was incorporated in the project.

"We are using the findings to provide baseline data on what Australian students think of Africa, and to determine the effectiveness of a creative arts-focused program in building greater tolerance and acceptance of others in young children," she said.

"We also hope to improve our skills in developing community-based teaching intervention programs and to inform curriculum development at state and national levels in areas such as values education, geography education and citizenship education."

Dr Reynolds said the team aimed to broaden its research to take in other schools and to use the current and future findings to inform curriculum debates around the value of creative arts and knowledge of geography in citizenship building. The research was funded by the University of Newcastle Strategic Grant program.