

## Indigenous Capacity Building Research Program

### 2006 FINAL REPORT

The focus of the Program, developed in collaboration with the Oodgeroo Unit, is to build the capacity of Indigenous people through innovative, integrative, reflexive, and excellent research, development and commercialisation processes. Being integrative, the Program will incorporate research from other Faculties (e.g., Law, Health) as well as Education. Being reflexive, the Program will also focus on the role of non-Indigenous people in Indigenous issues – that is, being 2-way strong so that empowerment is both ways (western researchers learn from Indigenous peoples – not just Indigenous peoples having Western practices imposed on them). The program aims to:

- (1) undertake research that will build the capacity of Indigenous people to advance themselves and will build awareness in non-Indigenous people of the need for reconciliation;
- (2) develop decolonising research methodologies to enable capacity and awareness building;
- (3) develop programs and products that will build Indigenous people's research capacity (at informal, certificate, undergraduate, postgraduate, and HDR levels);
- (4) develop programs and products that will foster reconciliation; and
- (5) become internationally recognised for these endeavours.

## 1 MEMBERSHIP

**QUT** Professor Aileen Morton-Robinson

**Oodgeroo Unit:** Mr Victor Hart, Ms Jean Phillips

**Education** (3 HDR students)

MSTE: Dr Annette Baturu (Program Leader), Prof Tom Cooper, Dr Gillian Kidman

CLSE: Dr Anne Hickling-Hudson, Ms Jo Lampert

SLAPS: Dr Marilyn Campbell

EC: Ms Bronwyn Ewing

**Law:** Dr Lorretta de Plevitz

**Health:** Ms Beryl Meiklejohn

**Science:** Dr Greg Webb, School of Natural Sciences

**Creative Industries:** Dr Wendy Brady, Creative Workforce, Mr Gary MacLennan, Mr Mark Newman: ICB manages their Digital Project that was undertaken in Cherbourg and currently being undertaken in Woorabinda Aboriginal Community; Mr Brett Leavy, CI Advancement

**HDR students** working on Indigenous issues (see Section 5).

**Management:** Ms Gillian Farrington, Ms Jen Yared, Ms Charlotte Cottier; **RAs:** Ms Elizabeth Duus, Ms Kaitlin Moore, Ms Fiona Hobbs (Dean's scholar), Ms Christie Meiklejohn; Ms Jan Light, Ms Martlyn Klokman

## 2 PARTNERS/COLLABORATORS

### 2.1 Existing Partners/Collaborators

#### *Indigenous Communities*

- Cherbourg: Dr Chris Sarra; Ms Grace Sarra; Dr Mervyn Wilkinson; Mr Richard Hooper
- Woorabinda: Ms Dorothy Skin, CEO; Mr Roderick Tobane, Mayor; Mr Eric Kent, Chair, Wadja Wadja High School Board/QATSI police; Mr Steve Kemp, Manager, CDEP; Mr Lawrence Weazel, Housing Officer; Ms Ailsa Weazel, Women's Shelter;
- Camooweal: Mr Colin Saltmire, Indigenous leader, VET (Civil Engineering)
- Palm Island: Ms Erika Kyle, Mayor; Ms Maggie Blackley, Education Officer
- Mornington Island: Mr Lu Rojhan, CEO;
- Doomadgee: Mr Peter Turner, CEO
- Dajarra and Boulia communities; Sunset State School(Mount Isa – urban)

### International

- Associate Professor Miriam Amit, Head, Center for Science and Technology Education, Institute for Applied Research, Ben Gurion University of the Negev, Israel
- Assistant Professor Hsiu-fei Sophie Lee, National Taitung University, Taiwan

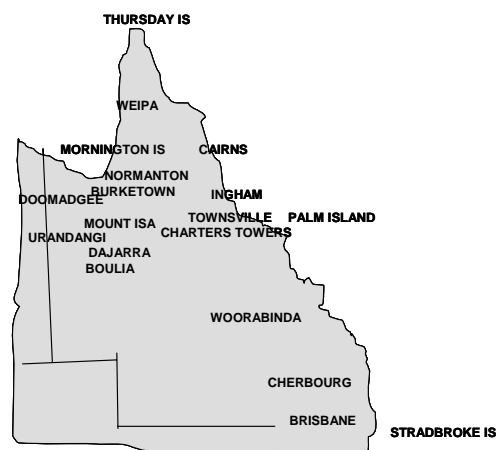
### State

- Mr Colin Dillon, Alcohol Program DATSIP
- Mr Don Anderson, Executive Director, Cape
- Ms Rhonda Horne, Principal Project Officer (Numeracy), Education Queensland
- Mr Leigh Schelks, Indigenous Education Training Alliance (IETA), Education Queensland
- Ms Eva DeVries, Program Officer (Numeration/Mathematics), Association of Independent Schools, Inc, Queensland
- Ms Judy Hartnett, Education Officer (Mathematics), Brisbane Catholic Education
- Principals of the schools listed above
- Ms Rose Isles, DEST at Mount Isa
- Dr Graham Maxwell, Dr Ian Cosier – Queensland Studies Authority
- Dr Gabrielle Matters

### Other (organisations, Industry partners on Grants)

- Professor Myles McGregor-Lowndes, Centre for Philanthropy and Non-Profit organisations
- Mr Michael Hefferan, Director, Sustainable Resources Institute
- Mr Doug Baker, AHURI
- Mr Paul Hodgson, Director, Sustainnovation
- Mr Ernie Christie, Townsville Catholic Education
- TAFES: Tropical North Queensland, Moreton, Gold Coast, Open learning Institute, Bundamba Secondary College
- Schools (see map:

Townsville region:	St Teresa, Abergowrie (via Ingham) Shalom Christian College, Townsville Columba Catholic College, Charters Towers Palm Island – St Michael's, Bwgc Colman SS The Marian School (primary convent)
Gulf and Border:	Sunset SS (Mount Isa) Urandangi SS Dajarra SS Boulia SS Doomadgee SS Burketown SS Normanton CC Morningson Island SS
Cairns region	Cairns CC Cairns Seventh Day Adventist Djarragun College (Gordonvale) St Joseph's Yarrabah SS
Thursday Island	Our Lady of the Sacred Heart School; Thursday Island Primary and Secondary schools



## 3. PROJECTS

This section reports only on those applications that have an Indigenous focus.

### 3.1 New grants (Total: \$289 000)

2007-10	<b>ARC Discovery Indigenous:</b> Sarra, G. & Baturo. <i>How young (2-4 years) Indigenous learners come to know and not know early mathematical language and processes</i>	\$99 000
2007	<b>AIATSIS:</b> Matthews & Cooper. <i>Using Indigenous world views to move upper primary Indigenous students from arithmetic to algebra: A case study of the Dunwich community.</i>	\$30 000
2007	<b>ASISTM:</b> Cooper & Sarra, C. <i>Indigenous learning of number through financial mathematics and measurement [Woorabinda/Baralaba/Cherbourg/Murgon schools; Westpac]</i>	\$80 000
2007	<b>ASISTM:</b> Baturo & Sarra, C. <i>Improving indigenous mathematics outcomes by utilising years 3, 5 and 7 test outcomes.</i> Cairns region and Thursday Island	\$80 000

### 3.2 Current grants (Total:

2005-8	<b>ARC Linkage</b> LP0455667: Baturo & Cooper. <i>Numeracy for access to traineeships and apprenticeships, vocational studies, empowerment and low-achieving post Year 10 students.</i>	\$201 000
2006	<b>ASISTM</b> : Baturo & Cooper. <i>Mathematics content and pedagogy for Indigenous students in the Townsville district</i>	\$95 000
2006	<b>AIATSI</b> : Baturo, Sarra & Sarra. <i>Indigenous ways of knowing and learning early number</i>	\$26 000
2006	<b>NHMRC Study Exchange</b> : Meiklejohn. Development of Model for Recruitment, Retention and Graduation of Indigenous Higher Degrees for CCRE	\$11 000
2006-7	<b>ASISTM</b> : Cooper, Baturo & Warren. <i>Developing skills to teach remote Indigenous students in basic number understandings</i>	\$118 000
2006-8	<b>ARC Linkage</b> LP0562352: Baturo, Cooper & Warren, <i>Sustainable education capacity building: Empowering teacher aides to enhance rural and remote Indigenous students' numeracy outcomes</i>	\$252 000
2006-8	<b>ARC Linkage</b> LP0560853: Nason & Baturo. <i>Facilitating improvements in prison inmates and juvenile offenders to enhance their employment and life chances</i>	\$266 000
2006-8	<b>ARC Linkage</b> : Hickling-Hudson. <i>The Health Promoting Teachers College: Education to counter HIV/AIDS</i> [\$240 000]	\$300 000
2006-8	<b>ARC Discovery Indigenous</b> : Matthews & Cooper. <i>Indigenous world view, algebra pedagogy and improving Indigenous performance in secondary mathematics</i> [\$158 000]	\$190 000
<b>TOTAL</b>		<b>\$1 459 000</b>

## 4. PUBLICATIONS

### 4.1 Refereed journals

Adermann, J., & Campbell, M.A. (2006). Anxiety and Indigenous youth Australian Journal of Indigenous Education (Submitted).  
Matthews, C.J., D.B. Newton, R.D. Braddock, & B. Yu (2006). Analysing the sensitivity behaviour of two hydrology models. *Environmental Modelling and Assessment*, accepted for publication, 22 Dec 2005.

### 4.2 Book Chapters

Campbell, M.A., Frost, D., & Logan, J. (2006). Assessing the assessors: Authentic online assessment of students of school counselling. In S. Frankland (Ed.), *Enhancing teaching and learning through assessment: Approaches in practices* (pp. 122-131). Hong Kong: The Hong Kong Polytechnic University.

Requested:

Baturo, A. R., Cooper, T.J., & Warren, E. A. *Handbook on Social Justice* (to be submitted by December 2006).

Cooper, T. J., Baturo, A. R., & Warren, E. A. *Handbook on Social Justice* (to be submitted by December 2006).

### 4.3 Refereed conference proceedings

Cooper, T. J., Baturo, A. R., Warren, E., & Grant, E. J. (2006). "Aim high - Beat yourself": Effective mathematics teaching in a remote Indigenous community. In J. Notovna, H. Moraova, M. Kratka, & N. Stehlikova (Eds.), *Proceedings of the 30th Conference of the International Group for the Psychology of Mathematics Education* (pp. 369-376). Prague, Czech Republic: PME.

### 4.4 Commercial products

The Cherbourg Digital Project (Mark Newman) produced the following:

- DVDs/Films made by community adults and Murgon high school students:  
*The Ration Shed Museum: Filming our History:*
  - *Up the White Eyes* (8 minutes)
  - *Smashing Up History* (8 minutes)
  - *Black Diggers* (10 minutes)
  - *Punishment or Paradise* (8 minutes)
  - *Dingoes are not Dogs* (17 minutes) [Co-produced by QUT, Melbourne City Council and Ratarat; launched in the presence of the Governor of Queensland, Quentin Bryce, at Cherbourg State School, 21.11.06]
- Films by Students of the Cherbourg State School 5 films
  - *Tuli* (3 minutes)
  - *Emu Dreaming* (4 minutes)

- *A Rotten Day* (3 minutes)
- *The Giggly Cake* (3 minutes) [Made by the Grade 5/6s, Cherbourg SS, won the Humanitarian award at the *Dream a Better World Festival* (19.11.06), a festival for Australian primary schools showcasing short films which celebrate Universal Children's Day]

The Woorabinda Digital Project produced the following:

- DVDs/Films made by Wadja Wadja High School students:
  - *Imagine* (music clip, 2 minutes)
  - *River Bank* (music clip, 4 minutes)
  - *Old Man* (short film, 3 minutes)
  - *Walkabout Ball* (short film, 1 minute)
  - *Who goes there?* (short film, 2 minutes)
- Films by Students of the Woorabinda State School
  - *Here Woorie* (music clip, 2 minutes)

#### 4.4 Conference presentations

Adermann, J., & Campbell, M.A. (2006, June). Anxiety and Indigenous youth. Paper presented at *(Re)Contesting Indigenous Knowledge and Indigenous Studies Conference*. Surfers Paradise: Australia.

Cooper, T. J., Baturo, A. R., & Grant, E. J. (2006). Collaboration with teachers to improve numeracy learning: Pedagogy at three levels. In J. Notovna, H. Moraova, M. Kratka, & N. Stehlikova (Eds.), *Proceedings of the 30th Conference of the International Group for the Psychology of Mathematics Education* (pp. 361-368). Prague, Czech Republic: PME.

#### 4.5 Reports

Final Report on ARC Linkage grant: [LP0348009]: *Non-Indigenous teachers, Indigenous teacher-aides and Indigenous communities: Reshaping relationships to enhance mathematics learning outcomes for rural and remote Indigenous students* (Cooper, Baturo & Warren).

Report on ARC Linkage grant [LP0455667]: *Numeracy for access to traineeships and apprenticeships, vocational studies, empowerment and low-achieving post Year 10 students* (Baturo & Cooper).

Report on ARC Linkage grant [LP0562352]: *Sustainable mathematics education capacity building: Empowering Indigenous teacher aides to enhance rural and remote Indigenous students' numeracy outcomes* (Baturo, Cooper & Warren).

Mid-Project Report ASISTM. *Mathematics content and pedagogy for Indigenous students in the Townsville district* (Baturo & Cooper)

Final Report ASISTM. *Mathematics content and pedagogy for Indigenous students in the Townsville district* (Baturo & Cooper)

Mid-Project Report ASISTM. *Developing skills to teach remote Indigenous students in basic number understandings* (Cooper, Baturo & Warren).

Final Report ASISTM. *Developing skills to teach remote Indigenous students in basic number understandings* (Cooper, Baturo & Warren).

#### 4.6 Impact

International Discussion Group, PME, Prague, July 2006 (Baturo): This is the 2nd year I have led this group of International mathematics educators working on Indigenous issues. It attracted researchers from Australia, Brazil, British Canada (British Columbia, Montreal) Israel, New Zealand and South Africa.

This has led to the development of an ARC International with AsPro Cynthia Nichol, University of British Columbia and with Adjunct Professor University of Montreal

Reviewer: OZ Reviewer: Baturo & Cooper (ARC Linkage, ARC Discovery, ARC Discovery Indigenous); MERGA Early Career reviewer/judge (Baturo); PME and MERGA papers

##### Invited keynotes

– Baturo, Cooper: Indigenous teacher aides supporting numeracy. *Independent Schools Queensland Indigenous Education Conference*, Townsville, 27-28 July 2006

– Baturo, Cooper: Supporting Indigenous numeracy outcomes. Anglican Schools Organisation Indigenous Education Conference, Brisbane, 18 October 2006.

– Critical Friend, ASISTM (Baturo) for Yarrabah Indigenous Community grant

– Invited to participate in the CLI Writing retreat 15-17 November 2006 (Baturo)

– Queensland Numeracy Champion (2005 & 2006): Tom Cooper

(Cont/d)

## **5. HIGHER RESEARCH DEGREE STUDENTS**

### **5.1 Indigenous HDR students**

- PhD. *Monaghan, Roy* (S-IPRA): Stage 2 completed; Confirmation due 9/1/07 [Baturo, Cooper, Sarra, C] Indigenous governance
- PhD. *Parkes-Sandri, Robyn* (S-ATSI): Stage 2 completed; Confirmation due 1/2/07 [Baturo, Berthelsen, Cooper] Indigenous playgroups
- PhD. Santirso Martinez, Lilliana. Stage 2 completed; Confirmation due 18/7/06 [Cooper, Baturo]; Transdisciplinarity
- MEd (Research). *Watego, Leesa* (S-APAI, ARC Linkage): Oral due [Cooper, Baturo] Indigenous culture, safety and empowerment, and mathematics contextualisation in a pre-school

### **5.2 Non-Indigenous HDR students researching Indigenous issues**

- PhD. Adermann, Jenny: Stage 2 completed 26/4/06; Confirmation due 8/8/07; [Campbell, Gilmore, Baturo]; Anxiety & Indigenous Aust. Youth
- PhD. Stewart, Kelli (S-APA; winner of VC's award): Confirmation due: 01/07; [Cooper, Baturo]; Indigenous students' acquisition of 3-digit whole-number numeration
- EdD. Murdoch, Jane: Enrolled November 2006 (transferred from Med (Research)); [Cooper, Ritchie]; Indigenous primary science
- MEd (Research). Douglas, Angela: Confirmation due 23/01/07; [Cooper, Baturo]; Leadership in Indigenous school
- MEd (Research). Rioux, Joel: Confirmation due 23/01/07; [Cooper, Baturo, Kidman]; Indigenous science and Montesorri, Woorabinda