Society for the Provision of Education in Rural Australia

National Rural Education Conference

October 2005

Darwin, Northern Territory

Conference Proceedings

Our Stories: Innovation and Excellence in Rural Education

Edited by

Colin Boylan

Our Stories: Innovation and Excellence in Rural Education
Proceedings of National Rural Education Conference
Society for the Provision of Education in Rural Australia

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SPERA Mission and Goals

Mission

The Society for the Provision of Education in Rural Australia Incorporated (SPERA) links people with a diverse range of interests in education and training to promote the development of rural Australia by:

- promoting a positive view of education in rural areas and encouraging innovation and initiative in the provision of rural education services; and
- providing a framework for the sharing of concerns, issues and experiences relating to education and training in rural areas.

Goals

SPERA advances the education and training opportunities for all people in rural Australia by:

- promoting State and regional delivery systems which bring about efficient and effective education for people in rural areas;
- encouraging both the collection and sharing of relevant information on the provision of education in rural areas;
- conducting an annual National Conference to exchange ideas and information about education and training in rural education; and
- serving as a national advocate representing rural education and training.

President's Welcome Message

The Society for the Provision of Education in Rural Australia, or SPERA as it is more commonly known, links people with a diverse range of interests in education and training to promote the development of rural Australia.

Therefore, it is very fitting that SPERA's 21st annual, national rural conference is celebrated in Darwin, Northern Territory which has earnt the reputation of developing strong educational and training practices which are closely linked to enhancing rural and remote communities.

Conference 2005 has an apt theme – '***Our Stories: Innovation and Excellence in Rural Australia'*** – which has provided a highly interactive forum for sharing our challenges, celebrating our achievements and promoting our innovative approaches towards rural and remote education and training across a range of challenging and diverse rural and remote communities and cultures.

The keynote addresses and the workshop sessions are pitched at rural and remote education and training practitioners who are actively engaged in their profession – to those who are 'having a go' in order to improve the outcomes for rural and remote learning communities.

SPERA Conferences have a strong capacity for building national and international networks on a professional and social level.

The Conference proceedings are a substantial tool for continuing the sharing of strong and innovative practice throughout all rural and remote learning communities.

Sincere appreciation is extended to the following whose efforts, energy and enthusiasm have ensured that the essence of SPERA's 2005 National Rural Conference has been captured in this quality document –thanks go to Colin Boylan, Kate Haddow, Leanne Bug, Margaret Chamberlain, Laura Haddow, and Sam Haddow

Anne Napolitano
SPERA President.

SPERA 2004/2005 Executive Members

President: Anne Napolitano – Exmouth District High School, Exmouth WA 6707

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Mail Address
SPERA
PO Box 379
Darling Heights
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Queensland 4350

SPERA Website

SPERA has an informative website that allows both members and the public to view the variety of activities that SPERA conducts. The website can be viewed at

www.spera.edu.au

SPERA History

SPERA emerged from a New South Wales in-service activity organised by Marie Dale in 1984.

The activity brought together Marie Dale and Bob Meyenn, then Lecturer in Education at Riverina CAE, and the pair went on to organise a National Conference on rural education, which was held in Armidale, New South Wales in 1985. At this Conference, SPERA was endorsed as a national organisation and Marie became its foundation president.

Concerned by the effect the 'disadvantaged' label was having on rural communities, Marie and Bob saw the need to establish a national organisation which would advance the positive aspects of rural life and rural education and celebrate the unique features of rural education.

Around the time SPERA formed, CAP and DSP had been operating some ten years and rural communities were becoming conditioned to accept the 'disadvantaged' label in order to attract funds. It concerned Marie that these communities were locking themselves into such a negative mind set.

SPERA is an organisation which celebrates the 'doers' in rural education and has promoted many wonderful examples of education excellence in schools, TAFE, universities, adult and agricultural education at its national conferences over the last 12 years.

Its leadership has been shared by community people, adult educators, academics and school administrators from New South Wales, Queensland, Victoria, Tasmania and more recently Western Australia.

In 1991 SPERA published a journal, *Education in Rural Australia* with Colin Boylan as its editor.

In its 10th year, SPERA launched the *Australian Rural Education Award* to acknowledge education achievements in rural Australia and celebrates SPERA's commitment to advance the positive aspects of living, working and being educated in a rural community.

In 2004, SPERA joined with WADHSAA to conduct a joint 20th National Conference in Fremantle, Western Australia. The theme of this joint conference was *Working Together, Staying Vital*.

This year, 2005, SPERA conducted its 21st National Conference in Darwin, Northern Territory, with the focus *Our Stories: Innovation and Excellence in Rural Education.*

In 2006, the 22nd National SPERA Conference will be held in Hobart Tasmania during July 2006.

Refereed Conference Papers

For the 2005 SPERA Conference, presenters were able to have their paper peer reviewed by two people. A total of nine papers were submitted and seven conference papers were accepted for inclusion in the Conference Program and Conference Proceedings.

The review committee for the 2005 Conference consisted of the following members:

Dr Colin Boylan
Senior Lecturer in Education
Charles Sturt University
Wagga Wagga NSW 2678

Professor Alan Bowd
Faculty of Education
Lakehead University
Thunder Bay
Ontario Canada

Mrs Annette Green
Lecturer in Vocational Education
Charles Sturt University
Wagga Wagga NSW 2678

Mrs Roslyn Brennan
Senior Lecturer in Vocational Education
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Mrs Sheila King
Faculty of Education
University of Southern Queensland
Toowoomba QLD 4350

Dr Keith Moore
Faculty of Education
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Brisbane QLD 4034

Mrs Jan Martin
Faculty of Education
University of Waikato
New Zealand

Dr William Letts
Faculty of Education
Charles Sturt University
Bathurst NSW 2795

Dr Russell Yates
Faculty of Education
University of Waikato
New Zealand

Mrs Rosa Lincoln
District Superintendent
Pilbara District
Western Australia

Professor Ted Munsch
Alaska Pacific University
Anchorage
Alaska USA

Dr Marsha Davis
District Superintendent
Lewis Clark County
Montana USA

M/s Cheree Dean
Lecturer in Education
Charles Sturt University
Wagga Wagga

Professor Dennis Mulcahy
Faculty of Education
Memorial University
Newfoundland
Canada

The Australian Rural Education Award

This annual award was established in 1994 by the Society for the Provision of Education in Rural Australia (SPERA). This was the first national award recognising both excellence in rural education and promoting creative ways of meeting the education needs of rural families and their communities.

A broad range of projects were eligible for the Australian Rural Education Award 2005. The selected project had to address the positive qualities of rural education in a practical way. Eligibility was wide, and applications were sought from within and beyond schools, TAFE, university and adult education. Organisers also wanted to hear from and about individuals, Local Government, community service organisations, ethnic community groups or Aboriginal and Torres Strait Islander Groups who had set up educational projects. There was no age limit on applicants; however, the nominee must have been involved in the project in the year of submission. The nominee must also have been living in or clearly demonstrated collaboration with a rural community.

The winning entry would have needed to address the following areas:
- What prompted development of the project?
- Who was involved in its establishment?
- What are the long term goals?
- Who will benefit?
- Descriptive summary of the project.
- What effect has it had in your area?
- What are the distinctive rural features of the project?

The recipient of the 2005 Australian Rural Education Award will be announced during the 21st National Conference. A presentation based on the recipient's excellence in rural education will occur as part of the Conference. A report of their project will appear in Education in Rural Australia in 2006.

Information about each applicant for the award and their rural education programs can be found on the SPERA website: **www.spera.edu.au**

Past Conference Proceedings

A valuable source of information on developments and the provision of education in rural Australia is available through the collection of papers written by many people which have been presented at past SPERA Conferences. The writers provide insights into the types of innovative services and programs which have been developed by individuals, communities and institutions to promote the provision of education services in rural Australia.

WORKING TOGETHER – RURAL COMMUNITIES AND EDUCATION
1987 CONFERENCE Edited by Dr Don Reeves

RURAL COMMUNITIES DETERMINING THEIR FUTURE
1988 CONFERENCE Edited by Dr Don Reeves

THE FAMILY AND EDUCATION IN RURAL AUSTRALIA
1989 CONFERENCE Edited by Colin Boylan

WHAT DOES SOCIAL JUSTICE MEAN FOR EDUCATION IN RURAL AUSTRALIA?
1990 CONFERENCE Edited by Colin Boylan

TOWARDS 2000: SCHOOLING THROUGH DISTANCE EDUCATION
1993 CONFERENCE Edited by Dan Riley

THE RURAL COMMUNITY AND ITS SCHOOL: IN PARTNERSHIP FOR THE FUTURE
1994 CONFERENCE Edited by Dan Riley

LIFELONG LEARNING IN RURAL AREAS: BETWEEN A ROCK AND A HARD PLACE
1995 CONFERENCE Edited by Dan Riley

RURAL EDUCATION: QUALITY PROVISION, QUALITY EXPERIENCES, QUALITY OUTCOMES
1996 CONFERENCE Edited by Colin Boylan and Peter d'Plesse

CELEBRATING RURAL EDUCATION
1997 CONFERENCE Edited by Colin Murdoch and Giovanna Wood

SUCCESSFUL PARTNERSHIPS ENABLING RURAL ACHIEVEMENTS: LEARNING FROM THE HEART CONFERENCE
1998 CONFERENCE Edited by Cheryl Shepperd and Oriel Hawke

RURAL EDUCATION: MORE PRECIOUS THAN GOLD
1999 CONFERENCE Edited by Rosa Lincoln

DAWNING OF OPPORTUNITY
2000 CONFERENCE Edited by Sheila King

PROVIDING QUALITY EDUCATION AND TRAINING FOR RURAL
AUSTRALIANS
2001 CONFERENCE Edited by Brian Hemmings and Colin Boylan

COUNTRY CLASS
2002 CONFERENCE Edited by Jacky Dodds and Colin Murdoch

GLOBAL FOCUS – LOCAL PARTNERSHIPS
2003 CONFERENCE Edited by Colin Boylan and Brian Hemmings

WORKING TOGETHER, STAYING VITAL
2004 CONFERENCE Edited by Colin Boylan and Brian Hemmings

OUR STORIES: INNOVATION AND EXCELLENCE IN RURAL EDUCATION
2005 CONFERENCE Edited by Colin Boylan

Copies of the 1987-1991 Proceedings can be purchased for $25.00 per copy. The cost of the
1992, 1994 to 2005 Proceedings is $35.00. The cost of the 1993 Proceedings is $58.00.

Please make cheques payable to SPERA Inc and the order to:
Conference Proceedings
SPERA PO Box 379
DARLING HEIGHTS QLD 4350

Conference Major Sponsors

The SPERA Conference Planning Committee thanks our major sponsors for their support for the 21st National Conference.

Conference Convenor Message

Delegates,

Welcome to all our overseas, interstate and local delegates to S.P.E.R.A's 21st annual conference here in Darwin in the Northern Territory.

At this conference you will hear many stories from fellow delegates in the presentations and workshops -stories of innovation and excellence, stories of celebration and positive responses to challenges facing Education in Rural Australia. These will form a rich part of your conference experience. I encourage you to add to this experience by getting to know your fellow delegates, talk to them and share your stories, expand your networks and take part in the planned 'social activities' - after all what would a visit to the NT be without the crocodiles, the sunsets on the beach and the 'loud shirt' events?

Whether you are here for a few days or have plans to extend your stay to relax and explore Darwin and its tropical lifestyle, I wish you all a productive and enjoyable time.

Kate Haddow
Conference Convener 2005

Conference Organising Committee

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A special thank you to the following people who have assisted with the organisation of the 21st National SPERA Conference. The SPERA Executive congratulates each person on their generous contribution of time and effort.

Kate Haddow	**Conference Organiser**
Colin Boylan	**Conference Proceedings**
Leanne Bug	**Katherine South Primary School, NT.**
Margaret Chamberlain	**Student Services, Katherine, NT**
Laura Haddow	**Student, Flinders University, SA**
Sam Haddow	**Taramaya Creative, NT**

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Non-Refereed Papers

Vince Vesnaver

Aboriginal Literacy Strategy: A systemic approach to improving literacy and numeracy in remote schools

Simone White

Professional development and recruitment of new teachers to rural settings

SPERA
2006 CONFERENCE

will be held

July 2006

In

Hobart, Tasmania

Conference Theme:

TBA

Conference contact person: Anne Napolitano

email: anne.napolitano@det.wa.edu.au

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Abstracts of Keynote and Conference Paper presentations
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KEYNOTE SPEAKERS

Local versus global knowledges: Resolving a fundamental dilemma in 'Remote Education'

A/Prof Michael Christie
School of Education
Charles Darwin University

Abstract

Most of the first 20 years I spent as a teacher in remote communities in Aboriginal Australia were with people whose goal was to live in very remote places (rather then larger settlements) in order for their children to be properly educated in the traditional way. More recently, working in educational research at the university, I have found that much of the academic literature on remote education to be couched in terms of the disadvantage of the remote students in comparison with their city cousins. This paper looks at this disjunction: How can living on, and caring for country enrich the educational experience of both Indigenous and non Indigenous students in remote schooling?

Creating Collaborative Communities – The Regional South Australian Experience

Steven Arndt, B.Acc M.Admin
Economic Development Officer
Whyalla Economic Development Board

Abstract
Whyalla, in regional South Australia boasts a population of around 22,000 residents, is home to the OneSteel Whyalla Steelworks, an emerging aquaculture industry which is exporting to Asia, USA and Europe and the largest retail and educational offerings in the Upper Spencer Gulf and Eyre Peninsula regions. Traditionally a steel making and ship building City, Whyalla is now emerging as a diverse and forward thinking community, achieved largely through the collaborative efforts of key stakeholders.

A clear example of the City working together to achieve positive change has been the collaborative development of programs to tackle Whyalla's youth unemployment record. Recording the worst youth unemployment rate in the State of South Australia,

the City, led by the Whyalla Economic Development Board (WEDB) has developed a key program aimed at reengaging local youth into the senior secondary education system with a direct pathway into the VET sector and into traineeships/apprenticeships through the strong support of the local resource processing and engineering sectors.

Now in its third year, the program often referred to as the Whyalla Youth Futures Alliance has continually achieved around 90% employment outcomes for youth who were previously not even attending school. The collaboration, involving WEDB, the TAFE SA Whyalla Campus, Edward John Eyre High School, a private Registered Training Organisation and a group of local industry captains including OneSteel continues to provide educational and workplace opportunities to meet the needs of local youth. Notably, the model developed by WEDB is now being adopted across the State in different industry sectors and has provided significant influence over the State Government approach to employment and skills formation.

With the proposed major expansion of the BHP Billiton Olympic Dam Operation in Roxby Downs ($5 Billion), OneSteel's Project Magnet ($320 Million) and the recent awarding of the Airwarfare Destroyer contract to the Adelaide based ASC Shipbuilding ($6 Billion), Whyalla and the wider Upper Spencer Gulf region is poised to expand in a rapid manner. Meeting the employment and skills needs of these projects into the future will provide enormous challenges, one that Whyalla is ready to take on as a result of its previous successful collaborative efforts.

C.R.E.A.T.E. - Creating Rural Entrepreneurial Attitudes Through Education

Peter Kenyon
Bank of I.D.E.A.S.
Western Australia

Building upon his work in Australia, New Zealand, Canada, USA and South Africa with rural communities and rural schools over the last 30 years, Peter Kenyon will challenge educators to become more real and relevant to changes in rural and remote Australia, and the need to excite and prepare rural young people to explore entrepreneurialism and its relevance to life in the Bush. Peter has worked in the field of community and economic development for the last 30 years, with a major focus on rural revitalisation. With a background as a rural teacher, youth education officer, youth worker, and Director of Community Employment in both WA and New Zealand, I have been passionate about the contribution that young people can play, especially students and schools, in that process.

IDL – Interactive Distance Learning in the Northern Territory

Tony Richards
Northern Territory Department of Education

It is interesting to have the debate about what constitutes online learning, can online learning be said to occur whilst watching a live lesson go to air and be broadcast to hundreds of students, or is online learning the use of asynchronous tools that enable students to read and dissect information and watch a recorded lesson at any time convenient. Or is it something else completely?

Distance Education has been around in one form or another for hundreds of years, predominately in the guise of correspondence sent to a student by his or her tutor/mentor. It could even be said that in these times of renewed interest and glorification of our past that *'Alexander the Great'* may have participated in a form of distance education through his communication with Aristotle during his childhood and subsequent conquest of the then civilized world.

CONFERENCE PAPER PRESENTATIONS

Teacher Orientation Package

Rebecca Tims
Project Manager - Teacher Induction and Development
South Australia

Abstract

Attraction and retention of quality teachers is an issue for South Australia as well as many other places. As part of an overall strategy to support beginning teachers Orientation Kits have been developed. At this stage, they centre around assisting teachers in rural settings. The Orientation Kit is a district based resource addressing lifestyle, services and environment of a particular area. The kit includes a DVD, generic booklet and folder with local information. Teachers "share stories" with beginning teachers to help them find their way. The kits have assisted with induction and recruitment. Rebecca Tims, Project Manager, Teacher Induction & Development, SA, will share how the kits were developed and will play one of the DVDs.

Innovations in VET programs

Liz Kelly
Futures Connect
Port Pirie, South Australia

Abstract

This presentation will focus on the development of some very innovative models to deliver VET to students in remote areas in a sustainable and cost effective manner in a range of industry areas including Auto, Hair and Beauty, Hospitality and Tourism, Doorways to Construction.

Wakakiri

Jenna Towers
Northern Territory

Abstract

The performing arts project, recently completed with the students enrolled at Katherine School of the Air, NT has been an amazing success for all involved. There were 73 students participating in one performance happening at 3 different locations, over a school term, with pre-school to year 7 aged children. With the video camera and the assistance of editing software it would look like it was all filmed at one location, well that was the plan. Our long-term goals for the students, was to develop an appreciation

and understanding of what was required in putting a performance together- characterisation, sequencing a number of movements to music, working collectively with other students and enjoying the outcome. I am proud to report we met these goals. The end result was a student designed, largely choreographed production where the social and cooperative learning was significant as was the knowledge learned about Australian history and animals, but the emphasis of the learning was based on the rehearsal processes. Consequently what is presented on this DVD is a highly visual, arts based, child-centred production, which more than fulfilled all our expectations.

Rural Schools: Argentina and Australia

Hernan Cuervo
Department of Education, Policy and Management
The University of Melbourne
Victoria

Abstract

I am PhD student at the University of Melbourne, researching about rural education in Australia. I have been working on rural education issues in my country, Argentina, for some years. I am currently working in a paper about comparative education, more specifically, comparing small rural schools in Argentina and Australia.

Rural Teacher Education Forum mapping of pre-service country teaching programs

John Halsey
Rural Education Forum Australia Inc
Flinders University
BEDFORD PARK
South Australia

Abstract

This presentation is in two sections. The first is a report on point in time research conducted in second semester 2004 by the Rural Education Forum of Australia to determine the size, scope and issues of pre-service country teaching programs around Australia. The second part of the presentation comprises a consideration of proposals and recommendations for improvements to the current policy and resourcing arrangements for two purposes- to significantly improve the support available to the current effort, and to increase the number of pre-service teachers taking a country placement.

Raising student achievement in rural schools – A school adviser's perspective.

Darryn Gray and Kevin O'Hara
Leadership and Management Advisers
School Support Services
University of Waikato
Hamilton, New Zealand

Abstract
Our workshop will focus on the work New Zealand Leadership and Management Advisers are doing with school leadership teams in rural schools, in the Waikato area, in order to raise student achievement and develop leaders of learning. Since the introduction of the Education Standards Act (2001), and nation-wide requirements surrounding school planning and reporting, there has been a greater need for school leaders to better understand student achievement data, and how this data can be used in order to improve the learning outcomes for students in our New Zealand schools.

The planning and reporting requirements ask schools to develop strategic plans, annual plans and specific targets for student achievement. Our workshop will enable participants to reflect on the process New Zealand schools now follow in order to establish priority areas for student improvement and explore a range of issues specific to rural schools, in particular using data driven decision making.

In addition to this our workshop will explore the concept of establishing professional learning communities in small rural schools. This will be done at two levels, firstly the establishment of professional learning communities to explore student achievement data and planning for improved learning outcomes for students within individual schools. Secondly, the establishment of professional learning communities across a cluster of schools where school rolls may be too small to make useful generalisations about trends in student achievement. This will be explored from both an 'assessment for learning' and 'assessment of learning' perspective. As Newman & Wehlage (1995, as cited in Du Four, 1998) suggest, if schools want to enhance their organisational capacity to boost student learning, they should work on building a professional community that is characterized by shared purpose, collaborative activity, and collective responsibility amongst staff.

Interagency Support Networking for Mental Health

Mr Alan Power
Manager Student Services, Pilbara
Western Australian Department of Education and Training

Abstract
This presentation will focus on quality support for Mental Health programs. Specific features include: a focus on interagency links; high quality, whole professional

learning, based on research of what works; administration taking the lead in knowing and understanding mental health programs; providing ongoing expert support; using whole school planning to systematically address students identified needs; and creating opportunities for students to engage with significant current issues regarding their own and others health and well being.   The principles used include: responding appropriately to critical incidents and issues; capacity building of community; and pooling expertise and funding from a range of sources to form one unified effort.

Key program features focus on consistency and sustainability. These features are translated into practice through: implementing a whole school program in which the principals' leadership is pivotal; facilitating program consistency despite constant changes to school personnel, high levels of transiency among students; establishing organisational protocols and processes that are known to support positive Health and Wellbeing outcomes. All stakeholders (staff, community, students) were involved and informed, were accepting and supportive of the initiative.

The major outcomes have been improved Mental Health for all students in isolated areas along with improved ability to respond to Mental Health issues and better cohesion of the school community and the sustained effectiveness of mental health response despite constantly changing personnel.

Remote rural practice teaching

Ted Munsch, Alaska Pacific University, Anchorage, United States of America
and
Colin R Boylan, Charles Sturt University, Wagga Wagga, Australia

Abstract

In rural Alaska, extreme conditions associated with place effect the staffing of remote rural schools. This presentation explores the impact of a one week remote rural practice teaching experience on a group of 14 pre-service teachers enrolled at Alaska Pacific University. Students travelled by plane to three village schools located in the Southwest Region School District of Alaska where they lived and taught for the week. The students enrolled in these village schools are indigenous Alaska Natives whose language is Yu'Pik. This presentation will report upon both the impact of the remote rural teaching experience as well as examining some of the cultural differences in these villages.

What does a successful staffing system for rural, remote and isolated schools look like?

Phil Roberts, Bowral High School
and
Dorothy Lean, Collarenebri Central School
NSW Department of Education and Training

This presentation's aim is to answer this question posed in the title for this symposium. The presenters will propose a model of a successful staffing program for rural, remote and isolated schools based on four broad directions which encourages professionalism, recognises rural difference, compensates for economic loss and limits social isolation. The model is based on the findings of a study tour of Australian State and Territory Staffing departments and their policies, Public Education Unions, an on-line survey and a review of related literature.

The symposium will be structured around a discussion of the proposed model and the evidence which led to its development, real life examples of the ideas in practice and participants experiences. The symposium will elicit stories of other successful staffing strategies, be they system based or local initiatives, to help enrich the advocacy for this important area. The aim is to further develop a model of a successful staffing system for rural, remote and isolated schools based on theory and working examples.

Bringing Educational Change across the Pilbara

Don Boyd, Area Director, Pilbara Education District
and
Emmy Terry, Principal Consultant, Local Area Education Planning, Department of Education and Training WA

Abstract

This session will provide an overview of the Pilbara context, as well as concisely outline the local area education process undertaken within the Pilbara Education District. Further, the presentation will highlight the broad range of innovations, educational changes that have been achieved leading to improved and varied opportunities and pathways for students, and highlight significant educational outcomes students have achieved in specific settings within the Pilbara.

The Pilbara Education District is one of ten rural education districts in the state. The Pilbara, located in the north west of Western Australia spans 510,000 square kilometres and is well known for its harsh, arid environment and isolation.

The District exemplifies a variety of schools including TAFE colleges, senior high schools, a district high school, primary schools, primary schools with secondary tops and remote community schools.

To bring about innovation and significant educational change, school clusters across the Pilbara have actively engaged in a Local Area Education Planning (LAEP) process.

The LAEP process first commenced in 1997. It is a cyclical process that involves clusters of school communities planning for the improved use of current and future educational resources so that their students will benefit from improved access to a better range of curriculum choices, specialist programs and quality facilities. Area and District Directors lead the LAEP cyclic process that typically spans three to four years.

Significant outcomes have been achieved across the district as a result of this process including a commitment by the Department and Government, exceeding $45 million to assist the redevelopment of schools within the Pilbara.

Aboriginal Literacy Strategy

Ms Rosa Lincoln and Ms Sue Knight
Department of Education and Training

Abstract
Unrelenting focus on quality English language and literacy instruction
- Explicit permission/requirement for participating schools to focus and resources on literacy.
- High quality, whole-school professional learning, based on solid research evidence of what works re: language and literacy teaching.
- Principles as instructional leaders – taking the lead in knowing what literacy outcomes are about and what effective language and literacy teaching looks like.
- Ongoing expert support provided between professional learning workshops.
- Whole-school planning to systematically address students' identified literacy needs through the whole-class, small group and individualised instruction.
- Students are provided opportunities to develop a sense of control of SAE through the active use of, and reflection about, Standard Australian English in a wide range of communicative activities.

Evidence based planning and teaching
- Systematic collection and analysis of evidence of students' development in reading, writing, speaking and listening and viewing with a focus on the aspects of contextual understandings, processes and strategies, conventions and use of text.
- Explicit teaching using a range of instructional strategies based on students needs, targeting groups and individuals for specific and relevant instruction.
- Use of First Step Development Continua, ESL Bandscales and the K-7 Literacy Net to inform data gathering and assist analysis of student learning needs.
- Ongoing assessment, monitoring and reporting of student progress across the English outcomes – starting with the collection of baseline data in Feb/March 2005.
- Systematic reviewing, adjusting and re-planning to facilitate further progress.

Consistency and Sustainability

- Whole school program in which the principals' leadership is pivotal.
- Program consistency despite constant changes to school personnel, high levels of transiency among students and low rates of school attendance.
- Established routines, activities, patterns of classroom organisation and instructional strategies that are known to support effective language and literacy learning.
- All stakeholders (staff, community, students) involved and informed, accepting and supportive of the learning program.

Valuing and broadening students' linguistic and cultural repertoire

- Students treated as individuals with their own backgrounds, needs and interests.
- Students have opportunities to demonstrate and build on their own linguistic and cultural knowledge.
- Tasks and activities are linguistically and culturally appropriate with opportunities to hear "comprehensible input" – moving from the known to the unknown.
- Opportunities provided to focus on, talk about, purposefully practice and reflect on Standard Australian English forms, skills and strategies across a range of contexts.
- A two-way approach to teaching and learning is embedded at system, district, whole school and class levels. There is on-going participation of Aboriginal people.
- There is a deliberate focus on the teaching of aspect of SAE.
- High but realistic expectations for all learners, ensuring that there is rigour in all Literacy Sessions. This is not a pared-back literacy program.

Innovation with Centra Symposium. A local delivery perspective

Enver Malkic
Open Access College, South Australia

Abstract

The Open Access College in South Australia has pioneered a 'live' online learning environment with the introduction of Centra Symposium. Centra is a web based software application designed to provide the tools and facilities to conduct 'live' online lesson delivery, professional development, training and meetings.

The college delivers curriculum, R-12, to students around the state in government and independent schools as well as students studying from home. To tap into this unique learning environment students need access to a PC with an internet connection.

Students are able to work collaboratively through features including virtual whiteboards and 'breakout rooms' for smaller group work. Centra is allowing teachers to engage students in a rich learning environment with teachers reporting a greater eagerness on the part of their students to study, work collaboratively and to experiment with freer written expression. It also is allowing students to receive more immediate feedback on

their learning, pursue learning outcomes in social skills, literacy and a range of socio-cultural perspectives.

This software is having a huge impact in lesson delivery and teaching methodologies as well as quality teacher professional development to educators outside the major metropolitan areas.

We are supporting the local delivery of curriculum amongst cluster schools with the use of Centra Symposium and these schools are working together to offer increased subject choices with the virtual classroom environment. Centra is enabling PD&T and meetings to take place within a virtual environment and it has increased the efficiency of these opportunities as well as OHS&W benefits.

I have been working with Centra Symposium for over 3 years to bring the virtual classroom to students around the state as well as overseas students.

Designing a course in rural education

Colin R Boylan
Charles Sturt University, Wagga Wagga, Australia

Abstract

This paper examines what the literature recommends as essential features in a pre-service teacher education course on rural education. The resulting set of recommendations then formed the basis for a mapping process in which the opinions and views of what teacher educators, experienced rural teachers and pre-service teacher education students identified as essential inclusions in a pre-service course. This analysis revealed a range of similarities as well as differences between the groups which will be explored during this presentation.

Summer school at a regional university campus: just completing a course, or a rich learning experience?

Bronwyn Ellis, Digby Wilson & Janet Sawyer
Centre for Rural and Regional Development
University of South Australia, Whyalla

Over many years summer school courses have been offered by universities as an opportunity for students to fast-track their degrees, make up previously failed courses, and allow pacing of semester workloads. Within the University of South Australia a diverse range of summer school courses have been offered in recent years at metropolitan campuses. The regional campus at Whyalla has successfully run regular summer schools in Introduction to Law and Statistical Analysis for Business; the first Law summer school was in 1996.

While anecdotal material suggests that these opportunities are really valued by the participants in the Whyalla summer school courses, the views of the students

concerning their effectiveness as a learning environment had not previously been sought in a formal way, apart from the normal course evaluations. The research described in our presentation aims to fill this gap.

The aims of the study were to:
- evaluate the effectiveness of the learning environment of the summer school context, compared with semester-long courses;
- gauge students' perceptions of this learning context compared with that of semester-long courses;
- gather lecturers' and administrative staff members' personal assessments of this teaching and learning situation;
- identify factors that can be a focus of marketing such short courses at the campus; and
- identify the particular characteristics/qualities of the regional campus intensive course situation.

Identifying the factors that are conducive to study in this mode can point to practices that can be continued and strengthened; identifying negatives can give direction for improving summer school offerings.

Students who had been enrolled in the Whyalla summer school courses run in 2003 and 2004 were invited to take part in an online survey. Staff involved were also interviewed concerning what they saw as the advantages and disadvantages of running courses at Whyalla in this mode. Students of the 2005 Whyalla summer school courses were invited to be part of a focus group aiming to gain their perceptions of the study mode while they were actually engaged in the course. They were also invited to complete an online survey a few months later.

Findings highlight the positives of the regional campus summer school experience for these participants.

Diamonds form under pressure: educational evolution & revolution on the West Coast of Tasmania.

Neville Barnard, Assistant Principal, Mountain Heights School, Tasmania

The presentation details successful modifications to educational practice in the West Coast cluster of schools in Tasmania. (The cluster consists of two small primary schools and two small area schools dealing with K – 11 students). The cluster has embarked upon significant curriculum reform to reflect the new state based curriculum, *Essential Learnings,* and particular needs of the cluster. The workshop would present these changes with particular reference to Mountain Heights School (the largest school in the cluster).

The introduction of *Essential Learnings*, the new curriculum for state schools, provided the opportunity initiate a raft of initiatives to cater for the new curriculum and enhance teaching practices generally. Significant measures taken include;
- Making the curriculum more appealing to students by restructuring the day and offering innovative "high interest" options such as computer animation,

composing music, recording and producing cds of their efforts, outdoor education, "gym junkies" etc.

- Redesigning the time table to enhance learning (reducing the number of lessons, increasing teaching time, fewer transition times, allow more flexibility).
- Restructuring the internal structure of the school to create a middle school, relocate year 11 to the neighbouring TAFE, creation of teaching teams for shared planning, assessment, moderation and pastoral issues.
- The introduction of a cross-campus award for our school leavers to recognise the efforts of participating students – the King O'Malley award. Loosely based on the Duke of Edinburgh the concept requires students to make academic advancement, achieve a personal goal / challenge, demonstrate some genuine social contribution and participate in a school scheme designed to foster links between students and the broader community.
- "Trades tester" - a modification of "work experience" to give students wider exposure to potential occupations.
- The use of interactive whiteboards to enhance computer demonstrations and lead professional learning relating to new computerised reporting procedures.
- The use of digital conferences to reduce travel time to meetings between schools for principals / teachers.
- Organising cluster based Professional Learning enables us to attract presenters rather than travel out.
- Modifying the operations of "on-line" subjects to fit our new timetable / structure.
- "I spy"; an on-line multi campus effort to teach problem solving which contributes to an enhanced transition program with students from our feeder schools

Bringing doctors to the bush: celebrating innovation and excellence in medical education at the University of New South Wales' School of Rural Health

**Peter Rushbrook, Louis Pilotto, Sandy Reid, Geraldine Duncan,
Graeme Richardson, Peter Vine, Peter Reed and Helena Johnston
Charles Sturt University and University of New South Wales**

Abstract

The paper outlines and discusses the origins and work of the University of New South Wales' School of Rural Health (UNSW SORH). The UNSW SORH was a response to a 1998 federal government initiative relating to the under-supply of medical practitioners in rural areas. The Commonwealth's rationale was that if medical students were trained in rural settings they would be more likely to locate themselves in the country following graduation. The then Federal Health Minister Dr Michael Wooldridge called the establishment in April 2000 of the Greater Murray Clinical School, Wagga Wagga, 'the world's first medical school established in such an area'. The success of the school led to the expansion of the scheme from 2001 to include a

national network of schools of rural health. The Greater Murray Clinical School became the UNSW SORH with campuses across New South Wales.

The innovative educational curriculum model practised at the UNSW SORH challenges traditional didactic medical instructional approaches through encouraging a patient and student centred focus. The paper outlines this approach and its embedding within rural settings; for example, the placement of students with medical practitioners and their tracking of patients through the various stages of their medical management program. Both student self-directed and problem-based learning are encouraged through this process.

The paper concludes with a brief assessment of the success and future possibilities of the UNSW SORH program.

The Pilbara Education District of Western Australia

Craig Holland and Rosa Lincoln
Pilbara District Office
WA Department of Education and Training

Abstract

This interactive presentation will provide a 'snapshot' of the Pilbara Education District. It will include at least 4 current educational issues listed below.
- Location
- Schools
- Demographics
- Programmes - system and district
- District Structure
- Challenges
- Resource Boom
- Professional learning
- Attendance and Retention
- Student destinations

Digital Reporting in the Bush.

Lyn Hollow
Principal, Maningrida Community Education Centre

Abstract

Reporting to Indigenous parents on their children's progress at school was an issue at Maningrida Community Education Centre. As a school, our aim of responding to the needs of our students and parents was not being met with the paper reports that we handed out at the end of each semester. We needed our reports to provide information to both students and families about what was happening at school, what the children were learning, and how well their learning was progressing. As our use of technology in

the classroom increased, it was logical that we should look to IT (information Technology) to solve our issue of effectively reporting to parents. The result has been digital reporting.

Aboriginal focus in new courses for students in the senior years of schooling course

Kerry Boyd
Curriculum Council of Western Australia

Abstract

In WA, the Curriculum Council has been working on courses of study for year 11 and 12 students. In particular, we have been developing 2 courses that have an Aboriginal focus: the Aboriginal and Intercultural Studies Course and the Australian Indigenous Languages Course. The development of these courses fits in with the notion of Innovation in Education, as both courses are additional to what is currently being offered for 16 – 17 year old students.

This workshop will enable teachers to explore the nature of the courses, how they include Aboriginal culture and perspectives, how they incorporate VET competencies and the nature of assessment types. These courses are designed for Aboriginal and non-Aboriginal students. In addition, the workshop should stimulate discussion from the participants about the incorporation of cultural understandings and perspectives for 16 and 17 year old Aboriginal and non-Aboriginal students at post-compulsory level. It should also lead to discussion of the management of these courses in schools as issues such as resourcing, staffing and integration with National Training Packages are explored.

Local Matters: Regions, Innovation and Vocational Education and Training in the Australian context

Richard Pickersgill
School of Education
Charles Sturt University, Wagga Wagga

Abstract

The paper reports on current research in the Riverina region of NSW which is investigating relationships between skill formation, knowledge transfer and the innovation process, with a particular emphasis on the role of VET institutions in supporting and diffusing innovation.

In the recent Australian policy context 'innovation' has been conceived as primarily resulting from capital intensive research and development. This understanding has been largely derived from international literature, in particular OECD materials which identify 'innovation' as part of a necessary public response to the challenges of 'globalisation'. The paper argues that in practice, innovation in organisations is mostly incremental and process oriented. This understanding is particularly relevant for small to medium enterprises, typical of regional Australia.

The paper discusses case study findings from a number of innovative regional organisations, most of which are competing in international product markets. These organisations, and the communities in which they are situated, depend heavily on regional education and training infrastructure to develop skills, knowledge and supporting social capital. The research findings are presented in the context of a critical analysis of key terms used in the overseas literature, where the concept of 'region' has different geographic, demographic and labour market implications than Australia.

Professional development and recruitment of new teachers to rural settings

Simone White
School of Social and Cultural Studies in Education
Deakin University Victoria

Abstract
In Victoria with a teacher shortage looming, this shortage will be most heartfelt in our rural and regional schools. Rural teachers already face difficulties in their opportunities for professional development due to the distance to travel to regional workshops and the lack of casual relief teachers to release them to do so. With these particular issues how will our rural schools attract new teachers to their schools? This paper presents the findings of a particular innovative school/university partnership that endeavoured to address the issues of professional development and recruitment of new teachers to rural settings. The partnership involved forty trainee teachers from Deakin's city campus who participated in a school-based model that involved a series of on-line activities, university workshops and a 2 day overnight visit to Alvie Consolidated Primary School. Alvie is a small rural school located 2 and half hours from Melbourne in the Otway region. The school itself has only 3 teachers and 40 students.
The student teachers learnt about the school, the teachers and the children prior to their visit through both on-line and correspondence activities. The two day field trip which allowed student teachers to work alongside the Deakin lecturer, Dr Simone White and the children in a series of literacy, social education and performing arts activities was hugely successful. It enabled the school teachers to have new ideas presented to them as professional learning opportunities as they participated in watching their children interact with the Deakin lecturer and student teachers in a series of integrated lessons. It enabled the trainee teachers to work collaboratively and implement many of the strategies presented to them in their course and it also enabled the Deakin lecturer to teach with her own students and demonstrate particular teaching ideas.
The teachers were highly enthusiastic about the program as were the Deakin student teachers and lecturer. Many of the student teachers had never visited a rural school

before let alone contemplated working in a rural school however now commented that the opportunity had given them a new understanding of rural schools and were keen to consider teaching in a rural setting.

Creative teaching solutions in difficult remote practice realities

Joy Penman
Nursing and Rural Health
University of South Australia, Whyalla

Abstract

For the past two years, the staff members of Nursing and Rural Health, University of South Australia at Whyalla, have been conducting successfully a health and wellness program at Oodnadatta, a remote Indigenous community in South Australia. This year, another academic tour was scheduled but was curtailed because of transport difficulties on the way to Oodnadatta. An alternative plan was quickly developed to provide students with an equally rewarding academic experience at Coober Pedy, about three hours' drive to Oodnadatta. Participant evaluations of this community visit were very positive. The Coober Pedy experience provided participants with a better understanding of a remote community and its members. More important for the participants was the opportunity for personal and professional growth.

Aboriginal Literacy Strategy: A systemic approach to improving literacy and numeracy in remote schools

Vince Vesnaver
Principal
Jigalong Remote Community School
Newman, 6753

Abstract
Remote Aboriginal Communities are the most socially and economically disadvantaged communities in Australia. There are concerns about health and well being of communities. There are poor outcomes in health, law and order, education and training.

Education and training is central to the life chances of Aboriginal people. A rethinking of provision of education and training in remote aboriginal communities was a recommendation of the Communities Project Report 2004. The system response was the Aboriginal Literacy Strategy. The strategy is designed to ensure that students are immersed in a rich text environment and that their teachers provide them with a range of focused, evidence-based and engaging learning experiences which lead to improved English literacy, with a particular emphasis on Reading, Writing and Speaking and Listening outcomes.

Community Capacity Building : A Partnership at Work

Murray Lake
Western Australia

This concurrent session will focus on the current introduction of a VET program in a small rural community in Western Australia. The activities of this community group are consistent with much of the current literature on capacity building and on social capital. It provide a practical example of a local group's determination to manage their changing circumstances with the objective of providing an alternative pathway for their young people and, ultimately, sustaining their community.

The successes, so far, have depended in large measure on a robust bank of social capital and the partnerships that have been established. The school has a central place in this partnership. From a narrow perspective, education's mandate is the education of students and provision of educational services. In contrast, a holistic perspective argues education and provision of educational services has observable and direct effects on local communities, on its confidence and quality of life of community members. To this extent education is, indeed, a critical component in capacity building

This has been an organic community initiative that fully illustrates the point made by Nachtigal (1982, 304) that "If rural education is to be improved, it will be because rural communities define problems in ways that make sense to them.' It illustrates his further point that there is a need for the locus of control to be returned to the community with outside agencies playing a facilitating role rather than a dictating one. This reversal of roles has been and, at the time of writing, is problematic. Nonetheless there is every reason to suggest that this is a partnership that will work.

KEYNOTE ADDRESSES.

KEYNOTE

PRESENTATIONS

Creating Collaborative Communities – The Regional South Australian Experience

Steven Arndt
Economic Development Officer
Whyalla Economic Development Board

Whyalla, in regional South Australia boasts a population of around 22,000 residents, is home to the OneSteel Whyalla Steelworks, an emerging aquaculture industry which is exporting to a range of countries and the largest retail and educational offerings in the Upper Spencer Gulf and Eyre Peninsula regions. Traditionally a steel making and ship building City, Whyalla is now emerging as a diverse and forward thinking community, achieved largely through the collaborative efforts of key stakeholders.

With the proposed major expansion of the BHP Billiton Olympic Dam Operation in Roxby Downs ($5 Billion), OneSteel's Project Magnet ($320 Million), the recent awarding of the Airwarfare Destroyer contract to Adelaide based ASC Shipbuilding ($6 Billion) and increased mineral exploration in Northern South Australia, Whyalla and the wider Upper Spencer Gulf region is poised to expand in a rapid manner. Meeting the employment and skills needs of these projects into the future will provide enormous challenges, one that Whyalla and the Upper Spencer Gulf region is ready to take on as a result of its previous successful collaborative efforts.

Skills Shortages

Like many regional areas of Australia, Whyalla and the wider Upper Spencer Gulf region is experiencing significant skill shortages in key trades areas, an issue likely to have major impacts on the delivery of projects such as those listed above. In recent years two major consultancies have been commissioned, one focusing on Whyalla and the other on the Upper Spencer Gulf region in at attempt to identify the current and future expected skill shortage areas. The Whyalla focused study (Indec Consulting, September 2003) identified that the heavy industry sector "is grappling with skill shortages in a cyclical work environment" due to a number of reasons including, but not limited to:

- A decade or longer of neglect of apprenticeship recruitment into the industry
- Difficulty in attracting new entrants into the industry (low income for apprentices)
- School system that has directed students in the main towards tertiary studies
- Bureaucratic process within TAFE impeding efficient delivery of training product despite many other positive factors
- Lack of leadership training and hands on skills development within School system

The second study, completed by the South Australian Centre for Economic Studies (SACES) in August 2005 took a holistic approach to investigate the current skills shortages and potential impacts of major projects in the Upper Spencer Gulf and Northern South Australia regions. This study identified that the existing and future skills shortage is twofold. At the professional and associate professional levels, high levels of demand nationally for these skills, lack of entry into the fields, difficulty in attracting professional skills into the regions and other factors have all resulted in skills shortages in these areas.

At the trades based level, attrition rates, mobility of staff, lack of apprentice recruitment and rapid expansion of the sector has resulted in major shortages in the electrical and mechanical trades. Whilst the small to medium enterprise (SME's) sector is now actively seeking to increase their apprenticeship intakes, these efforts are hampered by a "supervisory gap", with a major shortfall of sufficiently experienced and willing tradesmen within the companies to undertake the supervisory role, as evidenced by the age profile of the industry.

Unemployment

In considering the Upper Spencer Gulf, Northern SA and Eyre Peninsula regions it is clear that all areas suffer from high levels of unemployment, particularly in the youth category. The unemployment data for the catchment area can be summarised as follows (per Regional Development Board region):

Regional Development Board Region	Whyalla	Northern (Port Augusta)	Southern Flinders	Eyre
Total Rate %	13.2	7.7	11.5	6.5
Youth % **(15 to 19 yr olds)**	47.0	26.7	41.4	19.8

ABS 2001 Census

Whyalla Youth Futures Alliance

An example of Whyalla's ability to respond to local issues is evident in the Whyalla Youth Futures Alliance program developed by the Whyalla Economic Development Board. This program, funded by the South Australian State Government is now into its 3rd year and continues to achieve around 90% outcomes (employment or further study) for youth who were previously disengaged from the school and VET sector.

In detail, the program sees 30 local unemployed youth re-enter the School system for 6 months to refine their numeracy, literacy, communication and other skills under the guidance of a facilitator, allowing the participants to achieve their SACE stage 1 certificate. Following on from their School based training the participants undertake a pre-entry test prior to beginning either an intensive mechanical or electrical stream at the local TAFE College. Throughout the 12 month process the participants receive ongoing guidance and assistance from an external mentor, an approach which has proven to be invaluable in the past. Additionally, all participants complete at least 2 work experience placements through the support of 15 local companies, including OneSteel. Industry engagement in this process has proven to be a key success factor, with participants able to identify their preferred work environment, whilst providing the local companies with an opportunity to view first hand the potential pool of apprentices and trainees.

"Let's Get Dirty"

With the success of the Whyalla Youth Futures Alliance and other education and training initiatives the Whyalla Economic Development Board was recently awarded $225,000 from the Department for Trade and Economic Development (DTED) on behalf of the Upper Spencer Gulf region and the Northern and Southern Flinders Ranges Regional Development Board's (RDB's). This State Government initiative reflects the aims of the recently released State Manufacturing Plan and seeks to drive apprenticeship uptake within the local manufacturing sector. Across the Upper Spencer Gulf region all three RDB's have allocated a portion of this funding towards a marketing campaign within the School sector to promote employment opportunities in the resource processing sector.

At a local level the Whyalla Economic Development Board will be implementing a project titled "Let's Get Dirty", a work placement program which will see 16 local unemployed youth's gaining on the job training and nationally accredited skills whilst working within 8 local companies. Participants will rotate through the local companies on a monthly basis either along an electrical, mechanical or mixed stream. Clearly, this approach will allow the participants to identify whether they are suited to working in the resource processing/manufacturing sector along with allowing the local companies to take ownership of the education and training process.

USG&O Resource Processing Skills Development Strategy: Towards 2010

The Upper Spencer Gulf and Outback (USG&O) of South Australia is in the midst of a mineral exploration and resource processing boom as evidenced by projects including OneSteel's Project Magnet ($325 Million), BHP Billiton's proposed Olympic Dam expansion ($5 Billion), Oxiana's Prominent Hill ($530 Million), Iluka's Eucla Basin Mineral Sands Project ($400 Million) and others. Additionally, the recent awarding of the $6 Billion Airwarfare Destroyer Contract to Adelaide based ASC Shipbuilding will all add significant strain onto an already tight labour market for trade and associated skills.

Expected employment needs and timing of these projects is as follows:

Company	Project	Timing	Employees
OneSteel	Project Magnet	2006	200 construction TBA operational
BHP Billiton	Olympic Dam	2009	3000 construction 2000 operational
Oxiana	Prominent Hill	2008	800 construction 490 operational
Iluka	Mineral Sands – Eucla Basin	2006	300 construction TBA operational
ASC Shipbuilding	Airwarfare Destroyer	2009	1000+ construction TBA operational

In response to these employment demands the three Upper Spencer Gulf Regional Development Boards (RDB's) are collaborating to develop the USG&O Resource Processing Skills Development Strategy: Towards 2010. The overall aim of the strategy is to "Meet employment and skill demands within the resource sector "Towards 2010" through an integrated response involving USG&OB communities, Government and Industry". This response will involve the establishment of a Taskforce comprising State and Federal Government's, Industry and Regional Development Board's to develop initiatives for labour development in the USG&O.

Specific initiatives under the plan likely to include:

- Pre-apprenticeship training
- Up-skilling of the current workforce
- Mature age trade entry and retention
- Skills attraction (SA Skilled Migration Scheme)
- Combined School/TAFE hybrid training schemes
- In-school career promotion by Resource Industry
- Indigenous employment schemes
- USG&O Australian Technical College

Additionally, consideration will be given to:

- Industry led training product development
- The role of technology for labour market solutions
- The role of group training scheme's

In conclusion the Upper Spencer Gulf and Outback regions face a period of major growth which will bring significant labour market implications. As a region there is commitment from key stakeholders to collaborate to ensure the region is best placed to capitalise on the opportunities afforded by major projects into the future.

Local versus Global Knowledges: A Fundamental Dilemma In 'Remote Education'

Michael Christie
Charles Darwin University
Northern Territory

Abstract

When 'remote education' is seen as something which is delivered from some outside (by definition not remote) agency, rather than something which is grown at home, it is usually constructed as a problem of disadvantage: how do we deliver to remote students the quality cosmopolitan education we offer to kids in the city? Equality of educational opportunity is equated with uniformity of curriculum. But in the Northern Territory, many of the recipients of very remote educational delivery live very deliberately by choice in very remote places because they want to be in control of their young peoples' education (including cultural transmission), and need to be able to do this on their own land, knowing it and caring for it and each other, and making sure that new generations are grown up to continue to renew it. This paper is about what I have learnt about the local nature of knowledge in my involvement in remote education in the north.

Introduction: Three perspectives on remote education.

I have had three quite divergent, often contrasting experiences of remote education, and this paper is an attempt to reconcile them. The first is of people finding space in very remote places to build their lives in contexts in which place, identity, language, and history are foregrounded. This experience derives from 25 years working with Aboriginal people mostly in very remote places in eastern Arnhem Land. The second is with the policies and practices of people who are struggling to deliver educational services from relatively less to relatively more remote places, this experience coming largely from my last eight months working in the School of Education at Charles Darwin University in Darwin. The third is with the academic and non-academic theories of epistemology and pedagogy which inform questions of place, identity, and knowledge.

I will start by telling you briefly about each of the three perspectives, addressing specifically how space and telecommunications are at work in these narratives. First the view from the remote place.

1.   A remote perspective: Milingimbi

I arrived at Milingimbi, in Arnhem Land in 1972. The Methodist mission had recently abandoned its school to the Welfare Department of the Northern Territory and I was employed as first a teacher, and then with the advent of bilingual education as teacher-linguist. Our food was delivered four times a year, we had no phone, and only VHF radio (apart from a little short wave from the South American Andes). As white teachers we didn't actually have anyone much to talk to on a VHF radio, but Yolngu, the local Aboriginal people, put it to constant use. Every isolated camp had a radio connected to a battery which constantly broadcast ongoing conversation among other centres. Conversations were in a variety of Yolngu and nonYolngu languages. Overlaid upon each other, and backed by loud whistling and static, shrill voices in strange languages made arrangements to visit each other for ceremonies and hunting parties, letting each other know about people's movements and well-being. Often the whole camp was silent craning to hear some important news, and at other times it was just a dull whistle in the background. Yolngu were more active using telecommunications technology than were we whitefellas because the very portable, hardy and reliable two way interactive technology suited their economic, social and religious needs perfectly. In a very few of those same locations, thirty years later, there now stand phone booths which, when working,

provide a similar but more private (ie individual) system of communication, as well as good sources of revenue to telecommunication companies.

The seventies and eighties were exciting times in those small communities, for many reasons. One was because Aboriginal languages, cultures, governance structures and knowledge traditions were all being seriously engaged in the schools (sometimes of course much more successfully than others) and another was because the government policy at that time was to support the homeland centre movement where people would be given the opportunity to start up outstations on their traditional lands, and would be given the infrastructural support to develop and maintain viable communities.

Governments of all colours and at many levels have over more recent years all but abandoned their commitment to bilingual education, and to homeland centres. These days, in those relatively few places where traditional knowledge practices are alive in Aboriginal schools, and where Aboriginal homeland centres thrive, this is the case *in spite of* radical disinvestment on the part of governments. Today we speak about the 'delivery' of remote education, a strange metaphor which leads us to assume that education, along with health, can somehow be delivered like the mail or the milk.

The desire of people to move to traditional lands and start up homeland centres was always as much an educational imperative as an economic or religious one. From the Yolngu perspective, one could participate properly in the growing up of young children, only if they were in the right place, with the right people, and away from some of the bad influences of settlement life.

Today the difference between the large Aboriginal settlements, and the homeland centres, is marked. Many of the larger settlements (most of which are ex-missions) are relatively unhappy and unhealthy places when compared with homeland centres, or even in fact compared with living in the long grass and on the beaches of Darwin. This is borne out by a wide range of research from Indigenous perspectives on social capital theory (Christie & Greatorex 2004b), governance (Christie & Greatorex 2004a), health benefits of living on homeland centres (Eastwell 1979; McDermott et al. 1998; Reid 1983), to Yolngu research on the reasons why many Yolngu move from major settlements on to the streets of Darwin (Downing 1988; Maypilama et al. 2004; Reid 1983).

There are many reasons for this decline in Aboriginal communities, and the disaffection which it brings, but I want to focus specifically on the Yolngu educational perspective. In collaborative research engagements, Yolngu most often start by reorienting white Australian researchers into the theories of place, language and identity which lie at the heart of their research and educational practice. There is something in the Aboriginal imagination which always has, always will link a good quality education to place, and to place consciousness. This is also true of many nonAboriginal people who chose to live in rural and remote centres precisely because they want a non-urban life experience for their children, and we need to embrace that fact, and celebrate it. I will later return to the issues of place, identity and learning, but first, the view from the 'centre'.

2.   The View from the Centre: Canberra

Looking from the point of view of government policy, the first part of the "problem of remote and rural education" (as for example in the National Inquiry into Rural and Remote Education, 2000) arises from pessimism over the decline of the rural sector, largely as a result of global forces which have led to rural recession. This had begun with the negative effects of international market competition, and continued into the decline of supporting businesses in remote communities, the eventual prognosis being the rundown of commercial and retail activities and services (Australian Government 1991). This Canberra view (one of many 'metro-centric' views) gave rise to a compensatory agenda aimed at keeping up the national standards of education, especially in disadvantaged rural areas, ultimately to ensure that primary industries remain "productive, competitive, innovative and in tune with international market requirements" (Australian Department of Primary Industries and Energy 1989).

If for example, 'rural and remote students are especially disadvantaged by difficulties in attracting specialist staff, limited curriculum options, and (inability) to pursue their particular interests or talents

because of scarce resources at the school level' (Human Rights and Equal Opportunity Commission 2000), we are not going to be able to address that disadvantage through a quantum determined by the Department of Primary Industries and Energy or the (then) Department of Human Services and Health (The RRMA or the Rural, Remote and Metropolitan Areas classification), or the Commonwealth Department of Health and Aged Care (the ARIA or Accessibility/Remoteness Index of Australia). The bureaucrats and academics who argue about relative merits of remoteness indices as measures of disadvantage, become blind to the ways in which solutions to community problems (whether they be remote, rural or urban) emerge from a community knowing its history, its strengths and its goals, and being able to work collaboratively with government to realise them.

The second problem arising from the centralist perspective is the nervous insistence that the English literacy and numeracy achievement of urban students should be equalled as a matter of rights, by remote students. It is difficult to know where these universalising government impulses come from, but they are persistent and powerful. They have for example led to a fierce commitment to bringing English literacy and numeracy achievement in remote Aboriginal classrooms up towards national benchmarks, at the expense of bilingual education, and the employment of good number of Aboriginal Education Worker positions throughout the Northern Territory. This is in fact quite consistent with the National Enquiry into Rural and Remote education which has recommended that curriculum "be outcomes based so that comparative data can ensure the adequate resourcing of schools and students who may need intensive compensatory education" (Human Rights and Equal Opportunity Commission 2000, p48).

The NT Minister for Education has again only this morning reiterated that when only 78% of remote students attain national benchmarks for literacy and numeracy, it is a national disgrace. He hasn't been shamed or alarmed that schools are doing almost nothing to keep traditional ecological knowledge alive in remote communities. Here I am not referring exclusively to Aboriginal knowledge; anyone who lives on and loves country develops ecological knowledge which is transmitted to young people who have the opportunity, the support and the motivation to learn it. The minister doesn't seem alarmed that schools are disinvesting in keeping local languages and cultural forms of knowledge management alive.

In short, the failure of policy and government practice to make remote education work optimally for the people and places where it is found, arises from two highly contestable assumptions: that remoteness implies lack, and that justice implies sameness. In order to counter that, we need to conceptualise our system as one in which remoteness implies particular assets and benefits in particular places, and justice implies diversity, polyvocality, and situated judgement.

3.   Views of theorists of place, identity and knowledge

Yolngu aspirations for truly remote education, and its construction as a problem by central administrations seem, literally, worlds apart. However a closer look at Yolngu and academic theories of place, identity and knowledge may help us find a way to reconfigure our understanding of rural and remote education.

We do well to start with a close examination of the notion of 'remote'. People from the bush, quite naturally and appropriately, often problematise the notion of remote. Pat Dodson used to refer to 'that remote city of Canberra'. Remoteness depends on your point of view, the particular frame that you use. If you live on an island in the Arafura Sea, clearly you wake up each morning in the centre of the universe. It is Darwin and Canberra which are remote. Using a deconstructive process the term remote automatically seems to position us as the second term in a binary, the first term of which hardly exists. When we are remote we are not remote from a single, unified centre. Our remoteness is a function of power located in many different faraway contexts.

When we talk of our work in terms of rural or remote education, we fall easily into the trap of defining our remoteness negatively, in terms of *what we aren't* (cosmopolitan), *where we aren't* (in the city, close to services), and *what we can't do* (deliver the same range and quality of education as is available to urban students).

To redefine ourselves positively is a difficult quest because remoteness implies heterogeneity. Each remote place is different from the last *because of* its remoteness. Our definition must resist totalising our many experiences of many places and stories. We are special precisely because each of our places is different, and we become different because of those places.

So then, what do rural and remote communities have in common throughout Australia which we can name and foreground in such a way that it will allow us to preserve our many differences, but celebrate particular samenesses and develop a theory of place in education?

Firstly, we can assume by definition that the places we speak of have relatively smaller populations. If they had huge populations they would not be rural or remote. Small populations, we can assume, have more integrated social structures. The school council and the church council and the chamber of commerce and the young farmers' association all have related and interlinked constituency. Communities have a much better chance of being productively integrated into schooling, which is why collegiality in schools is such a crucial issue for remote education. Teachers and students in urban schools can free themselves of their overbearing or tedious colleagues each afternoon. Teachers and students in our smaller communities need to learn to get along with each other inside and outside school. Social capital is generated and deployed in our communities, in ways quite different from the centre, and we need to nurture these opportunities.

Second, so-called rural and remote communities are well spaced. They are relatively far apart. They are surrounded by land or sea, rather than people. This means that the people close by have a special significance, and people from far away have a special effect. If we want to understand the effect of information and communication technologies on our small, well spaced communities, we need to understand them in terms of how the technologies change our understanding of who and where we are.

Third, our smaller, well-spaced communities are relatively more consciously embedded in their environment. There are a number of reasons for this embeddedness: being small, our footprint on the land is less obvious, the traces of the physical environment are more obvious, we are more conscious of the landscape than we would be living in a big city where bush-clad hills, the grassy lowlands, the swamps and streams have been concreted over long ago. We are most often there in that environment for reasons which have to do with the environment (rather than for example the presence of a factory, or a government office). These environmental reasons may be economic (farming for example in the rural case) or political (for making an ownership claim for example, in the case of an Aboriginal outstation) or even religious (as in protecting sacred sites) or more often a mixture of all three. We need to remain clear about this embeddedness in place, we need to address our dependency upon the environment, and above all, to develop a more reflexive relationship to it for environmental as well as educational reasons.

Looking first at the Yolngu theory of place, I have already mentioned that in collaborative work between nonAboriginal educators and Yolngu philosophers, two different Yolngu theories of knowledge production emerge (for more detail see Christie 1998). The first, which could be called identity building, relates to how Aboriginal adults 'grow up' young children in the contexts of their environment. There are many metaphors which are brought to bear upon describing the process. For example that of the hunter, who learns to recognise the traces of history in the environment, and assess anew each day the opportunities and challenges which present themselves, and has the confidence a productive and respectful life through knowing who he truly is in the context of his land, language and history (Marika-Mununggiritj, R., and Christie, M.J. 1995). Or the springs which provide your people with a focal point in your own estate, and whose waters provides you with the brain power interpreted as identity which comes from place (Marika 2002), or the strings of connectedness which relate you specifically through your own language and ancestral song, to particular ways of seeing the world, and particular ways of dealing with people from other lineages (Garnggulkpuy 2002). This local, nontransferrable, verbally inexpressible yet important and useful knowledge is what the ancient Greeks called metis. It is the knowledge which is at work when the captain of a ship arrives in a port and hands over to the pilot whose knowledge of the local winds, rocks, shipping patterns, tides, currents etc make him indispensable in that one location. It is also the knowledge which was at work when the local Indians gave the puritan settlers in the new world the rules of thumb to observe when deciding when to plant the new crops each spring (Scott 1999). It is the knowledge which is

at work in organisations keeping things going during crisis, yet unacknowledged, invisible, and in fact contrary to the assumed structures and functions of the organisation (Baumard 1994).

The second Yolngu metaphor for learning relates to what happens when different knowledge traditions come together to collaborate in knowledge production. This theory of course is particularly relevant to us, because it speaks of what happens in school (where people from different places and backgrounds come together into a particular space), and may help us to see what happens on the ground where content, or resources, or staff or tele-communications are delivered from a 'remote' place – like Canberra, or Darwin, or Mildura. This is the Yolngu theory of garma, much discussed in the literature (Christie 1994; Christie 2000; Marika-Mununggiritj, R. et al. 1990; Ngurruwutthun 1991), which takes the open (non-sacred) ceremonial site and practice as a basis for understanding how fresh truths for a particular time and place can be negotiated by a diverse group of people who know their histories and their environments, and collaborate according to due process and with mutual respect. You may have heard of the annual Garma Festival which is held not far from Yirrkala, and where people from around the world are invited to share with Yolngu knowledge and culture according to a garma philosophy and process.[1]

'Garma… is an open (ie non-sacred) word… describing the format where a Yolngu learning environment begins' (Marika-Mununggiritj, R. 1990, p43). People from other groups who are important to the particular ceremony must be invited, and made welcome. They will all have their jobs to do, and will be carefully supervised by particular others whose ancestral task it is to make sure things are done properly. An open ceremonial ground is provided – a space where people come together from different parts of the land, and perform the ancestral stories in song, dance and art in a visible, designated forum. Thus the garma is the first necessary condition for a true Yolngu education.

Youngsters must have people in authority to tell them the stories of origins and history. Young adults must observe the work which is done by the elders and then perform themselves, through their histories and connections to provide at once images of unity, and elaborations of the differences which arise from the different places to which people belong. They must learn to participate in these processes themselves, grow into responsibility for them, and learn to produce and discern the truths which emerge from them.

Place has an interesting role here. Each group represented in the garma has its own place, its own story, its own language, but these are all connected through the logic of ancestral travel, where travelling across the country and making it knowable the ancestors left behind people in each place, with their own languages and totems in rich networks of connectedness. Dancing a sugar-bag ancestor for example, or shark, each group performs the story as it became manifest on their own land, during the ancestral travels. There is a different understanding of geography here (as there is a different understanding of the difference between past and present). Shark dreamings all across the land have a related identity, they are co-present with other shark places, and become realised again in the garma. People's and place names, the words of ancestral songs, and sacred paintings and totemic objects make these transcendent relationships clear, and central. We shall return to this point.

In the Yolngu theory, formal school has quite a different function, structure, and process from socialization. It depends upon an agreed space, and voices (and other gestures like art and music) from a range of histories and spaces. In an extreme version of Yolngu identity theory, as I have intimated, there is in a sense no meaningful distinction between place and identity. 'There is no division between the observing mind and anything else: there is no 'external world' to inhabit' (Graham 1999, p113) It is wrong of course to totalise and then essentialise the difference between Aboriginal and nonAboriginal identities, but we do well to remember how our identities are the product of social processes, and in some communities much work is done growing up young people with a sense of themselves grafted on to (rather than significantly distinct from) land and kin (see for example Myers 1991). In this setting we do not understand place as a sort of backdrop against which identity is developed and performed, but both are mutually constitutive – places produce people from human beings, and people produce places from spaces. This is of course no less significantly true of urban students as it is of rural or Aboriginal students.

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[1] see www.garma.telstra.com

If we want to look at academic theory of place, we need not take that extreme position, which would be informed by something like 'deep ecology' (Devall 1985), but can use theories and research in which place is foregrounded as the *context* of identity and knowledge production. The classic place-identity theorist may be Proshansky et al (1983, p57) who argued that the 'distinction between oneself and significant others … extends with no less importance to objects and things, and the very spaces and places in which they are found'.

In terms of application of place identity to remote teaching, the work of Falk and Ballati (2004) identifies place as one of a range of identity resources which also include individual (age, appearance, education) and group (class, community ethnicity etc) resources. Their effort to challenge educators to 'incorporate all three dimensions of identity including place in their program design' leads to some significant suggestions as to how to rethink place in education.

This sort of analysis like the Yolngu epistemology, is useful in examining the role of places and spaces in both identity formation and education. In their interesting study of Bad Boys in Paradise, Kraak and Kenway (2002) look at the role of place in the formation of 'bad boy' identities in a coastal NSW town. There is an interesting parallel between the spaces in Paradise where young men act out their disaffection, and the garma spaces where young Aboriginal men and women act out their identities and become truly themselves. Using what they call a 'geometry of multiple differences', (p145) Kraak and Kenway elaborate 'the collisions and collusions between history and the present, nature and culture and between generations', ultimately determining 'the changing values within the paradise community' as leading to the demonisation of Bad Boys. Local youth lost out as the shifting economic base resulted in the inscription of new meanings onto the local landscape, and contestations of public spaces, and the movement away from traditional 'fish and chips' industry (local parlance for fishing and woodchipping) again led to intergenerational identity issues between fathers and sons.

Looking finally at the question of telecommunications, I want to disagree gently with some of the implication of Kraak and Kenway's work which has resonance with the threat of globalisation argument which I identified as working at the policy level. Following Giddens (1991) they identify mass communications as somehow rendering our sense of place less real in the 'Late Modern Age'.

Giddens (wrongly I think), argues that 'in the conditions of late modernity, we live in the world *in a different sense* from in previous eras of history. Everyone continues to live a local life, and the constraints of the body ensure that all individuals at every moment are contextually situated in time and place. Yet the transformations of place, and the intrusions of distance into local activities, combined with the centrality of mediated experience, radically change what the world actually is' (Giddens 1991, p187-8). Giddens identifies the technological separation of time and space, the disembedding of social institutions, and what he calls institutional reflexivity, (in which institutions literally make themselves up reflexively) as what he calls 'post-traditional' processes, constitutive of our contemporary identity. 'Place becomes thoroughly penetrated by disembedding mechanisms, which recombine the local activities into time-space relations of ever-widening scope. Place becomes phantasmagoric.' (p146)

I don't have a problem with the notion of phantasmagoric spaces and there is nothing new about them. In fact I think we can use the notion of the phantasmagoria in order to better understand the role of the local in remote and rural education. They have been alive and well in this land for 40,000 years. Ever since colonial times, there has always been something phantasmagoric about rural and remote Australia, with its mixture of colonial practices and expectations overlayed upon an Aboriginal landscape. And we have seen how place and time collapse in the context of a garma as people from near and far come together to re-create their worlds and their identities through performance.

Conclusion

Let us assume that the spaces in which rural or remote students learn and their teachers teach are in a sense phantasmagoric. Apparitions from another world mix with and reconfiguring our embodiment in time and space. As we work from the known to the unknown, we should never assume that the known is exhausted by that embodiment. The virtual world of the internet and other remote telecommunications are just as constitutive of our students' identities and just as constitutive of the here and now.

We need to produce and maintain spaces where both the local and the global are contextualised, available and relevant, and understand our success in terms of our students' abilities to truly be themselves, appropriately and constructively, precisely where they are.

This implies a commitment to a complex understanding of knowledge as always primarily local, primarily social, and often embedded and enabled both by place, and by the wider knowledge traditions of our society – literacy, numeracy, technical knowledge, wisdom. The prioritisation of national standards of literacy and numeracy over local skills and knowledge systems needs to be balanced against our efforts to integrate learning with community histories and futures.

As teachers in remote places we are often left to juggle resources and standards imposed from outside with aspirations generated locally. Configuring them together appropriately, and allowing the students to position and perform themselves with respect to them is our primary task as educators in this context. We can't pre-empt the nature of what our students are to learn. We can't do the learning for them in advance. We can only work to create the conditions at both the individual and the community level, and facilitate that learning (which we do best if we situate ourselves as learners in the process). Each learns their own way by mixing the here and now with the positions taken from afar. The internet, remote learning and voices from afar are by their nature no more threatening to remote and rural community viability than were the VHF radios to Aboriginal people dispersed on traditional lands. We just need to learn how to contextualise them as local, moment by moment.

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IDL – Interactive Distance Learning in the Northern Territory

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It is interesting to have the debate about what constitutes online learning, can online learning be said to occur whilst watching a live lesson go to air and be broadcast to hundreds of students, or is online learning the use of asynchronous tools that enable students to read and dissect information and watch a recorded lesson at any time convenient. Or is it something else completely?

Distance Education has been around in one form or another for hundreds of years, predominately in the guise of correspondence sent to a student by his or her tutor/mentor. It could even be said that in these times of renewed interest and glorification of our past that *'Alexander the Great'* may have participated in a form of distance education through his communication with Aristotle during his childhood and subsequent conquest of the then civilized world.

It is within the Northern Territory that my focus is cast, and historically we have seen a large number of challenges that have been overcome to provide education to students living in isolated and remote locations. The history of the traeger pedal wireless used by the Royal Flying Doctor Service (http://www.flyingdoctor.net/) in the late 1940s being adapted to work within an educational context is a historically romantic story. In 1951 it was used at Alice Springs School of the Air (http://www.assoa.nt.edu.au/) to "give the outback child of school age some of the benefits of school life and at the same time to supplement correspondence education", (Gibb, 1986 p. 40)[2].

From the establishment of Alice Springs School of the Air (ASSOA) onwards there was a steady growth and development of other similar schools across the country and for many years this development was part and parcel of providing education to remote students and communication for remote families across Australia. It is of interest to note that although the schools of the air were developed on the same basic technology, the application and developments at these schools have primarily been based on state and local jurisdiction needs. Little has changed today.

The development of distance education pedagogy at schools of the air has continued to be a local and state/territory matter, with limited linkages, sharing and strategic development between the various parties. The Northern Territory is a typical case in point. For the vast majority of years that the Alice Springs School of the Air (ASSOA), the Katherine School of the Air (KSA) and the Northern Territory Open Education Centre (NTOEC) have been around there has been limited sharing and/or communication between these organizations. Yet two of these distance education organizations (ASSOA, KSA) provide education to the same age range of students and yet have different educational programs. The third organization (NTOEC) provides education to secondary students located in remote communities as well as a cohort of students that have moved up from the school of the air environment (small number of students).

Distance Education Today

What has been learnt in the NT in regards to Distance Education is that the pedagogy, application and support for learning needs to be adapted to make the most of the tools that become available. For 50 years teachers have delivered from a studio and when we have only recently moved into the delivery of lessons through our Interactive Distance Learning (IDL) program where data and video broadcasting through satellite enables teachers to interact very differently with their students.

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[2] Gibb, P (1986) *Classrooms a World Apart: The Story of the Founding of the Broken Hill School of the Air*, Spectrum Publications, Melbourne.

Northern Territory Department of Employment, Education and Training (DEET) has implemented a one-way video conferencing tool to bring our distance education schools into the new era of data broadcasting. Currently the tools providing this transformation are based on a corporate tool (http//:www.onetouch.com) that has been bundled together with satellite communications from Optus (http://www.optus.com.au) to provision services to remote students, families and schools.

Whilst the IDL tool has provided the step towards online and flexible learning for our schools, teachers, students and families, we are ready to move to a more flexible, community engaging tool retaining the data broadcasting technologies we presently use to incorporate return audio and visual capabilities. We are in the process of developing a model of delivery that creates flexibility in studio location and access, greater community development tools for teachers and students and wider access options for learners.

IDL – An Overview

The IDL project has currently established teaching studios in Alice Springs (ASSOA) and Darwin (NTOEC). Learning services have been delivered to remote communities and isolated homesteads across the whole of the NT. Isolated homesteads and indigenous communities have access to the service through two-way and one-way satellite equipment installed at each client location.

The current core application is capable of supporting two-way audio for up to 2 students within a classroom at any one time, e-mail within the classroom between students and teachers, interactive whiteboard, Application Sharing, controlled Internet access, classroom statistics, and pop-up questions.

The current IDL program objectives were to:

(a) Design, build, implement and upgrade over the period of 3 years (Nov02 – Nov05) a Satellite network incorporating an IDL broadband infrastructure component at 200 sites in remote communities, isolated homesteads and isolated Indigenous communities in the Northern Territory; and,
(b) Using this network, deliver primary, secondary and vocational education

IDL services are currently accessible at 96 remote school sites and 104 small isolated family locations.

The core application software installed on each IDL client PC at these sites supports real-time audio, video, high-resolution graphics, application sharing, white boarding and Internet access. The project provided a PC (and peripherals) to each remote site.

The IDL infrastructure is used to deliver primary, secondary and vocational courses, Indigenous education courses and community courses.

IDL at present:
- Provides students with a clear vision of their teacher, including lip synchronisation with audio.
- Permits students to re-size the video image of the teacher, allowing them to work on their computer desktop simultaneously.
- Permits live lessons allowing the teacher to demonstrate skills or learning processes, including: music and singing lessons, science demonstrations, physical education skills, drama and poetry, modelled reading and art.
- Integrates other video inputs such as overhead cameras, VCRs, DVDs, permitting the teachers to use varied media.
- Integrates other audio inputs such as CDs and taped music.
- Allows schools and remote homesteads access to DEET supplied filtered Internet access during and outside planned lessons.

Included in the original satellite infrastructure was:
- Teaching studio infrastructure at Darwin and Alice Springs.

- An IDL Hub located at Belrose in Sydney and configured to support 2 concurrent lessons.
- IDL Administrative Terminals located at the teaching studio in Darwin.
- Terrestrial Studio/Earth Station Links that provide 1Mb links from each teaching studio to the Optus Satellite Earth Station.

Parents, Students and Teachers

One of the great developments in remote education and distance education technology is the role that many parents take in the education of their children.

Typically within the Northern Territory the large majority of students are supported in their learning by a parent, predominately their mother. What we have seen occur over time is the development of skills and knowledge by parents about the strategies and pedagogy to support the education of children. What has also occurred during this time is the development of teacher skills to relate and communicate these skills to parents.

With the application of IDL technology within distance education centres we have seen a growth in teachers being able to better communicate concepts, ideas and activities to both students and parents simply with the application of high quality video and audio to the remote client. This technology has changed dramatically how teachers 'do their business'. The experience these teachers and students have developed in constructing learning activities through a studio based model is significant. Despite this no matter how powerful a tool the technology becomes it will never replace the need to have face to face situations where students can interact with their peers and parents can talk with the teachers.

Just recently it was relayed to me that for as many years as anyone cares to remember, at the first inschool of each new school year at Alice Springs School of the Air the transition and year one students have suffered during the first few days with students experiencing separation anxiety as their parents prepare for leaving them at school with their class. This year there were no such problems, the students were all happy to join the class for the planned activities. This dramatic turn around has been put down to the fact that since the start of the year all these students have used IDL at least 3 times a week, and in doing so have been able to see and respond to their teacher; so developing a bond and relationship which has manifest itself in the form of trust and friendship. These stories have occurred for as long as distance education centres have provided communication and support to their students. The key to success is the ability for these schools to combine the best from each and every interaction and word with each member of the community using the most effective communication and learning tools available to them.

IDL - The way forward

Given the significant impact of the satellite project in Northern Territory schools, classrooms and remote locations, it is now imperative to continue and extend the use of technology as a learning tool. This focus must encompass the needs of teachers, students, parents and the wider community and their interaction with IDL in their teaching and learning practice. One of the driving philosophies underpinning the Territory Education Network has been "access anytime, anywhere". To this end strategies have been employed to ensure that resources required for teachers and students meet the demands of the technological age.

The goal of the IDL project is to implement studios, servers and a managed telecommunications infrastructure for the production, storage, distribution and delivery of quality pedagogical sound lessons across the Northern Territory. The infrastructure has also been designed to address school and community based learning requirements, but has the further capability of supporting other small community telecommunications requirements.

IDL - the Next Phase

The next phase of IDL will look to establish flexible studio locations that provide a tool that teachers and students can use to undertake their educational program in an environment where community and online

presence is a key and vital ingredient. This next phase of IDL will look to involve open source software to enable simple and easy application by teachers, students and the wider community.

The next phase objectives are to:
  (a) Extend the services of IDL to incorporate three studio facilities, one each at Darwin, Katherine and Alice Springs distance education schools.
  (b) Develop a solution that enables greater flexibility for studio use and access. This process will involve the potential to centrally house the IDL studio servers to enable remote or virtual access to deliver IDL sessions.
  (c) Enable greater access to IDL through both two-way and one-way satellite technology to broaden the reach of IDL into both remote and urban environments.
  (d) Look to leverage off broadband access programs for remote regions to establish and continue family access to IDL services.
  (e) Continue to provide satellite bandwidth to remote families using IDL.
  (f) Enable the establishment of a 'Virtual Studio' model that allows remote control and delivery of IDL lessons through one of the two established studios.
  (g) Provision of return images from remote locations/sites.

Some of the biggest issues we face with our first entry into this type of educational delivery is the cost of establishment, access by families and flexibility of the solution. An example is the IDL studio in the current model, which is expensive to establish without additional costs for bandwidth (both terrestrial and satellite); the studio model makes it difficult for external users to access, which in turn makes it ineffective and inefficient to involve others.

What we have been working on is the development of a new model of application where we can set up studios cheaply so that a greater number of studios can be established which will allow greater and more flexible access. The ability to develop and employ virtual studios starts to provide access to universities and other similar institutions access to a valuable resource that enables access to our remote communities.

During our development of IDL we have also been exploring the ability to enable access by families with one-way dishes which if prove reliable and effective will reduces infrastructure costs normally associated with the establishment of a two-way site.

The final step in the plan is to widen access to this technology to other government agencies within the NT. This application into the wider government sector starts to build the sustainability model where this tool will not only become important for a small cohort of distance education students but a wider community of users. Historically it has been this lack of wider business use that has stymied such educational developments, if we can build it into other agency use then the potential to keep the IDL technology at an appropriate level for our students has a greater chance of success.

> *The next level of maturity for IDL has come about as teachers, students and parents have incorporated IDL into the daily education program and that IDL is now seen as a normal part of learning not a pilot or project. This transformation has lead to a need by teachers and students to broaden the application and versatility of IDL to encompass a wider range of tool sets.*

IDL – Developmental Steps

The historical developments from HF radio to the wide spread application of the telephone and then the development of the Internet and broadband telecommunications (including satellite) has enabled the growth of distance education to a wider and more diverse range of students.

Correspondence material development has moved from being the main source of educational material to being one of a range of resources that a student can call upon and use.

The development towards the next phase of IDL extends the knowledge and information gained from past experiences to develop a more accommodating tool. This cycle of development will continue as the technology advances, the key is the ability to not let the tools drive this process.

The development of IDL has to a certain extent provided students with two major developments that have changed their education experience. The first of these developments is the clarity of audio from the teacher and with other students. This change in clarity has removed the need for students to concentrate on instructions and information being provided and it has also reduced the amount of teaching time that was once committed to repeating and clarifying information and requests.

The second development of IDL has been the provision of visual communication from the studio end – the ability to not only hear but view the teacher and the concept or idea that is trying to be conveyed has made a huge difference.

These two components placed together have enabled student and teachers to engage in much more focused and richer learning activities, discussions and discoveries that can be based on real world events.

The real teaching benefit has been the value adds of having an "internet connected computer" at the point of study that has allowed the use of other technologies such as email, internet resources and tools such as team speak.

It is through the application of IDL and supportive collaborative tools that we see the extension and application of a constructivist approach to enable the historical pedagogy and learning materials to change to better reflect the learning that our students want to undertake in the new information society.

The new form of IDL software is taking the lead from a host of online tools and enabling students to see who is online participating at any point in time, to engage in live chat and instant responses, to enable students to work collaboratively in breakout areas; and to give students and teachers control over the types of tools and components (audio, video, whiteboard) that best suit the lesson/activity at the time.

By far the greatest development is the opportunity to enable low cost, flexible studio options or presenter tools to be established and run in any number of locations. No longer are teachers tied to an expensive or cumbersome studio environment, the future for IDL will provide a form of liberation that will enable all to present from a range of environments so that learning experiences can be more authentic and enjoyable rather than coming from what we consider a traditional studio.

With the development of the next phase in IDL a large amount of work has been carried out to enable teachers the ability to easily integrate and link online content and resources with live and recorded lessons so that students can access and review information and ideas easily and effectively. It has become apparent that the development of staff skills and recruitment of staff has to focus on the ability for teachers to adapt easily to a varying range of teaching and learning experiences, both face to face and online/broadcast. As part of the development of the next phase in IDL it has been recognized that the development of teacher skills as well as home tutor/parent skills is vital so that meaningful use and application can be made of the range of technological resources as well as educational information available. The directions for IDL will be a reflection of the work and effort that teachers place on their ability to develop, modify and share learning programs and resources and that students will become vital parts of this process through content creation and sharing information with others.

It is at the edge of future technologies within the flexible and online environments that IDL will see its greatest challenges and strengths. As the tools continue to advance and we see the range and scope of tools develop we will see an increase in the ability for teachers and students to engage in similar online activities that are possible in a face to face environment. IDL has been impacted by the knowledge and skills that have been developed in our educational community, where exposure and immersion in new technologies have led to plans and developments we make today.

Whilst IDL will start to mature it will only be one of many steps that will be taken, as we have come to see the rapid advancement of technologies impacts us all. Whilst we may not advocate constant change in our educational environments so that teachers and students find their feet, it is the speed at which we are presented with information, it is the speed at which a year seems to go by and it is the expectations we set ourselves and others that contributes to this apparent change. All these components continue to impact what is achieved and when.

As we have seen in the Northern Territory our distance education schools are three to four years more advanced in the use of ICT than traditional mainstream urban schools, and our distance education schools would be even further advanced in comparison with our remote community schools. Yet the future for the NT and for other educational jurisdictions is the ability to tap into this resource of knowledge, skill, application and experience and make it available for the wider educational community.

Our future students will use media and resources in a way unlike the current generation of teachers and students, Pruitt (2005) discussed the development of a new literacy; "neomillenial learning – Instead of synthesizing information, neomillenial learners will synthesize and process experiences. Instead of being taught passively, kids will learn actively, using experiences online and in the real world. They will help design their own virtual learning environments, and sometimes even ask the question they must answer."[3]

> *There is nothing more difficult to take in hand, more perilous to conduct, or*
> *more uncertain in its success, than to take the lead in the introduction of a*
> *new order of things.*

Machiavelli

What will we make of IDL in 10 years?

Web Resources

Katherine School of the Air
http://www.schools.nt.edu.au/ksa/

Alice Springs School of the Air
http://www.assoa.nt.edu.au/
http://www.assoa.nt.edu.au/history.html - Timeline

Northern Territory Open Education Centre
http://www.ntoec.nt.edu.au/site/frontpage.cfm

Interactive Distance Learning
http://www.latis.net.au/idl/index.htm

[3] Pruitt C. (2005) The Next Decade of Educational Media, EDC Center for Media & Community | May 5th, 2005,
http://www.digitaldivide.net/articles/view.php?ArticleID=372

REFEREED

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PAPERS

Designing a course in pre-service rural education

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Wagga Wagga

Abstract

This paper examines what the literature recommends as essential features in a pre-service teacher education course on rural education. The resulting set of recommendations then formed the basis for a mapping process in which the opinions and views of what teacher educators, experienced rural teachers and pre-service teacher education students identified as essential inclusions in a pre-service course. This analysis revealed a range of similarities as well as differences between the groups which will be explored during this presentation.

Introduction

Through the many national and state level inquiries in pre-service teacher education, the preparation of teachers for rural appointments is one recurring theme. Boylan (2004) conducted a literature review on rural pre-service teacher education that clearly demonstrated that world-wide and in every Australian state and territory the recruitment, selection, preparation and appointment of beginning teachers to rural places is a major staffing concern. Further, through his analysis of the eleven universities in New South Wales that are involved in pre-service teacher education programs, Boylan (2004) reported that most of these institutions do not offer a subject in rural education, either as a compulsory or elective subject and do not offer compulsory rural practice teaching opportunities. In some universities, Boylan (2004) reported pre-service teacher education students were permitted as an option to engage in a rural practice teaching experience.

Boylan's (2004) literature review and analysis of rural teacher education concluded by identifying four fundamental strategies which would begin to address the training and appointment concerns raised in his literature review. These recommendation were

1. *Rural scholarship programs*

   The literature review demonstrated that an effective recruitment strategy was the offering of teacher education scholarships to rural students. This strategy has been shown to produce long-term benefits for systemic education employers in staffing rural and remote schools.

2. *Tertiary rural education subjects*

   The review of national and state inquiries into rural teacher education clearly identified the need to provide specific subjects that study the conditions of living and teaching in rural places as an essential component of all pre-service teacher education programs.

3. *Rural teaching experiences*

   Closely allied to the tertiary institution based subjects addressing rural education is the absolutely essential requirement that students engage in a rural practice teaching experience. Within this recommendation, policy initiatives by various Australian state departments of education to support a rural practicum experience were noted. In New South Wales, the Department of Education and Training's *Beyond the Line* (NSWDET, 2000) initiative has produced some encouraging recruitment benefits (Boylan and Wallace, 2002).

The final major recommendation from Boylan's (2004) literature review focused on the degree of support provided by the pre-service tertiary institution and the systemic teacher employer organisations during the first year of appointment. The literature clearly identified that the management of personal and professional adjustment issues in the first year of teaching significantly improves the retention of the rural teacher.. The provision of induction and mentor programs were demonstrated as effective strategies that addressed not only the organisational and professional issues of rural teaching but also the social and personal adjustment issues that beginning rural teachers experience.

Collectively, Boylan (2004) suggested that these recommendations are designed to improve recruitment strategies for rural teachers which in turn produce beginning teaching staff who are committed, motivated, satisfied with their teaching appointment and knowledgeable about how to integrate into the local community. It is noted that through proactively addressing these recommendations, the core business of all systemic education employers can be more effectively managed.

Using Boylan's (2004) literature review as the impetus, this paper seeks to focus specifically on the second recommendation ie. The essential inclusions in a tertiary course on rural education. This paper attempts to synthesise the research and policy recommendations on pre-service teacher education course inclusions in a manner that provides guidance and a framework to tertiary educators and program managers for the identification and selection of relevant, contextualised, place-based content for inclusion in a rural education course or subject.

Methodology

A two staged process for the generation of subject inclusions in a rural pre-service education program was employed. The first stage was a literature-driven synthesis from which a series of essential subject elements were generated. The second stage sought to field validate the literature-based subject inclusions through surveying three groups: 1) rural tertiary teacher educators; 2) rural deputy principals and principals; and, 3) final year teacher education students from a rural university in New South Wales. Each group was asked to provide written responses to the same two questions: *Q1. What should be included as **essentials** in a pre-service course to prepare students for rural schools?* and Q2. *What should be included as **desirables** in a pre-service course to prepare students for rural schools?* 9 rural tertiary educators, 12 rural school administrators, and 60 final year students participated. Their responses were analysed and classified using the literature based subject inclusion categories that are described in the following section of this paper.

What should be in a course on rural education?

The focus of this paper draws upon Australian-based literature that moves beyond reporting on specific aspects of pre-service education programs that included or provided some rural experience to an examination of the more fundamental question concerning the nature of specialised rural pre-service teacher education programs, and what core elements should be included in such programs. Three seminal papers by Clarke (1990), Tomlinson (1994) and Gibson and King (1998) were identified in the literature, and those authors' analyses are summarised in this section of the paper.

Clarke (1990) introduced his analysis of pre-service teacher education program requirements by firstly attesting to the belief espoused by Matthes (1987) that 'the teacher is the key to the quality of rural education'. Clarke (1990) argued that the preparation of teachers for rural schools required a pedagogical shift in emphasis in the process of how a pre-service teacher education program was constructed. He described this shift as:

From an empathetic sensitivity of student needs and an ability to contribute to the devolution of authority to schools, teacher graduates require at a minimum, it seems, an awareness of community, local expectations and the creative adaptation of resources (p. 15).

Clarke (1990) then identified the components of a specialised pre-service rural teacher education program. His inclusions were:

- early pre-service rural teaching experiences;
- developing personal networks and links with colleagues for support;
- teaching multi-grade classes;
- developing skills in curriculum organisation;
- selecting appropriate content;
- catering for individual needs;
- skills in curriculum evaluation;
- accessing support from teacher principal and support staff; and,
- establishing links with parents.

This 'shift' in emphasis that Clarke refers to has been fully articulated recently by McConaghy's (2002) discussion of 'situated pedagogies' as a construct used within the Rural (Teacher) Education Project (Green, et al., 2002). A situated pedagogy recognises the centrality of place as a determinant in the way in which rural education is designed, developed, delivered and evaluated.

The Tomlinson (1994) review, *Schooling in Rural Western Australia*, attempted to answer the same focus question, seeking to identify what elements were essential inclusions in a rural pre-service teacher education program within the Western Australian context. The review expressed this opinion: 'The inclusion of what are seen to be rural-specific components in the training program would better prepare graduates for rural appointments' (p. 75). Those pre-service, rural-specific inclusions were listed as:

- Multi-grade teaching;
- Children with special needs;
- Aboriginal education;
- Current educational initiatives;
- Community living; and,
- Rural practice teaching.

Building upon earlier findings of Lake (1986), Murphy and Cross (1990), Boylan and Hemmings (1992), Gibson (1994) and Tomlinson (1994), Millwater (1998) provided further confirmatory support for the importance and value of rural practice teaching experience(s). She specifically addressed the need to reconceptualise the extended rural internship program. Through such an internship, Millwater (1998) argued the teacher trainee has the opportunity to live and work in a rural or remote community for an extended period of time, with a view to developing more fully an understanding of the conditions, expectations, roles and responsibilities for rural teachers not only within the school but also within the community.

During a 1998 Society for the Provision of Education in Rural Australia (SPERA) conference workshop, participants representing rural schools, universities and communities drawn from all Australian states and territories were invited by Gibson and King to suggest essential component for a rural pre-service teacher education program. They identified the following essential components for a pre-service course that seeks to prepare teachers for working and living in rural locations:

- knowledge of lifestyle conditions in a rural setting;
- practicum experiences in a rural location;
- opportunity to develop effective and appropriate teaching strategies and skills for teaching in rural schools (e.g. multi-age teaching; use of technology);
- development of self-efficacy;

- knowledge of community values and expectations of teachers;
- developing a sensitivity to rural community needs;
- being able to establish collegial and professional networks; and,
- understanding the importance of networking to reduce the effects of isolation.

Collectively, these seminal articles when read in conjunction with the national and state-level reviews, reports and inquiries (Boylan, 2004; Roberts, 2005) as well as the research literature examined above, provide a sound foundation for the development of a substantive program profile appropriate for the preparation of rural teachers. Using the central ideas raised by Adey (1998) and Vinson (2002), who suggest that the design of a pre-service program needs to be an integrated and systematically planned set of learning experiences for the participants, a number of program elements can be identified. These program elements are discussed in the following section.

Essential program elements

Drawing from the earlier work of Clarke (1990), Tomlinson (1994), Gibson and King (1998), Boylan (2004) and Roberts (2005), it is suggested that six essential program elements are emergent themes from the literature. These essential elements will now be described.

1. Teaching and learning focussed
This element includes exploration, examination, developing understandings of, and engaging in classroom place-based practices (Bryden and Boylan, 2004) associated with:

- multi-age teaching, its organisation, planning and programming and associated teaching skills;
- catering for the needs of individual children in mixed ability settings;
- promoting high academic standards;
- developing effective classroom management skills;
- recognising children at risk and developing appropriate programs;
- developing effective and appropriate teaching strategies and skills that include cultural awareness and sensitivity in catering for aboriginal children and children from differing cultural backgrounds;
- curriculum organisation, planning and evaluation;
- selecting relevant and appropriate content; and,
- effective time management strategies.

2. Administration focussed
Pre-service students need to become familiar with a range of school related administrative responsibilities and be able to effectively carry out these roles. They include:

- classroom organisation;,
- small school administrative routines; and,
- (rural appointment and retention strategies - *new from surveys*)

3. Community focussed
For the beginning teacher, a rural appointment often means it will be the first time they are required to live and work in a community, something that can be a difficult aspect of their adjustment to rural teaching. As part of their pre-service preparation, students need to develop understandings of and be provided with opportunities to examine, analyse and discuss:

- strategies for engaging in successful community interaction;
- developing a knowledge of and an understanding of community dynamics that influence the teaching-learning environment;
- strategies for dealing with value clashes;
- strategies engaging parents;

- ways of identifying community values, needs and expectations; and,
- appreciating the climatic, historical, cultural and geographic implications of living in a rural place.

4. Personal focussed

As part of the pre-service teacher education program, students need to appreciate and reflect upon their personal lifestyle, recreational and socialising forces and analyse their suitability for a rural appointment through considering:

- the impact of isolation in its many facets on the individual;
- accessing and developing supportive personal networks with friends;
- ways of developing their self-efficacy; and,
- (accommodation and service provisions - *new from surveys*)

5. Field experience focussed

This element of a rural pre-service teacher education program focuses on the provision of a diverse set of practical experiences typically developed through field based experiences in rural, regional, remote and/or isolated places. For the teacher education institution, there is an expectation that the institution would provide financial support to assist the student to travel to and find suitable accommodation in these rural locations (HREOC, 2000).

Some of the components of this field experience should include:

- teaching experiences in rural schools, other rural settings and their communities;
- rural placements occurring early in the program and culminating with a rural internship towards the conclusion of the program; and,
- (engaging in specific short-term rural sampler experiences such as the Beyond the Line program - *new from survey* (NSWDET,2000))

6. Professional learning focussed

The final element of a rural teacher education program creates the link between the pre-service and the in-service education of rural teachers. The focus of this element is developing in the students a commitment to lifelong learning, and developing understanding about and strategies for how professional learning can be accessed from a rural location. Specifically, aspects that can be included in the pre-service program include:

- keeping up-to-date with current major educational changes at the system and global level;
- accessing and developing supportive communication and interaction networks with colleagues, consultants, and or support groups; and,
- accessing to on-going professional development.

Practitioner views

The data from the two questions were analysed using the six essential program elements as the framework for classifying the written responses. A total of 49 responses was recorded by the rural tertiary educators (N=9). 29 responses were recorded by the rural deputy principals and principals (N=12) with 230 responses being provided by the 60 final year rural tertiary institution students. The frequency of responses made to each essential program element is reported in Table 1. In Table 2 the breakdown of the proportion of respondents who identified the element as an essential or desirable aspect is reported.

Table 1
Overall response frequencies from rural tertiary educators, administrators
and final year students

Program elements	Rural Tertiary Educators	Rural School Administrators	Rural Final Year Teacher Education Students
Teaching and learning focus	23	6	113
Administration focus	2	4	17
Community focus	15	9	39
Personal focus	2	5	22
Field experience focus	5	4	23
Professional learning focus	2	1	16
Totals	**49**	**29**	**230**

From Table 1 the essential program inclusions associated with the pedagogy of place (i.e. teaching and learning matters) and community integration and interaction were ranked 1 or 2 by all groups. It is noted that while the rural tertiary educators and the final year rural teacher education students identified *Teaching and learning* matters as their most frequently mentioned issue, the rural school administrators identified *Community* issues as being their most frequently mentioned issue. It is hypothesised that the difference between rankings may be due to the rural contextual realities that the school administrators operate within. *Rural field experiences* including practice teaching and internships and *Personal issues* of adjustment and isolation were ranked 3 or 4 by all respondents. *Administration matters* and *professional learning matters* were ranked 5 or 6 by all participants. Collectively, their responses provide a field validation that the six essential program elements generated from the literature synthesis are important and appropriate attributes of a course or subject designed for the preparation of pre-service students for a rural teaching appointment.

Table 2
Breakdown of responses from rural tertiary educators, administrators
and final year students

Program Elements	Rural Tertiary Educators		Rural School Administrators		Rural Final Year Teacher Education Students	
	Essential inclusions	Desirable inclusions	Essential inclusions	Desirable inclusions	Essential inclusions	Desirable inclusions
Teaching and learning focus	18	5	5	1	86	27
Administration focus	2	0	3	1	14	3
Community focus	13	2	8	1	25	14
Personal focus	2	0	3	2	18	4
Field experience focus	4	1	2	2	22	1
Professional learning focus	2	0	1	0	13	3
Totals	**41**	**8**	**22**	**7**	**178**	**52**

From Table 2 the most important observation is that all participants identified as 'essential inclusions' matters related to all six categories developed from the literature synthesis.

Finally, when the analysis of the written responses from the participants was tabulated against the specific attributes listed within each of the six essential program elements, all attributes were supported. Within the *Teaching and learning element*, multi-age teaching and curriculum organisation, planning and evaluation were the two most frequently mentioned attributes. Respondents also identified another attribute within this element that was important especially for the rural final year teacher education students, namely the level of school resources and facilities. Similarly within the *Administration element*, participants recommended the addition of another attribute namely, information on rural incentives as being important. No additional recommendations were made for the *Community element*. For the *Personal element* the final year students recommended that information about accommodation and service provisions in rural places was an important issue. This attribute was not mentioned by either of the other two groups. Within the *Field experience element*, the final year students specifically mentioned the opportunity to participate in a remote rural field experience called the *Beyond the Line program* conducted by the NSW Department of Education and Training (NSWDET 2000) as an important additional attribute. The final essential program element was the *Professional Learning element*. Both rural tertiary educators and the final year teacher education students recommended that an additional attribute should be added, namely information about career planning and pathways. Collectively these recommended additions enrich the range and quality of pre-service experiences that are designed to prepare prospective students for a rural appointment.

Conclusion

This paper has identified that using the literature as the impetus for designing a course or subject on rural education, six essential program inclusions need to be incorporated and addressed when designing such a course. These essential program elements were identified as: *1. Teaching and learning focus; 2. Administration focus; 3. Community focus; 4. Personal focus; 5. Field experience focus; and, 6. Professional learning focus.*

The field validation of these six essential program elements by three disparate groups of rural participants provided confirmatory support for the importance of these six elements as well as extending the earlier research work cited in this paper. Further, the participants were able to provide additional recommendations on what should be included in a course designed to prepare pre-service students for rural appointments beyond those attributes described in the literature. Additionally, there is opportunity for future research where the creating, trialling and evaluating of a pre-service teacher education program that incorporates the six essential course or subject elements identified above are undertaken.

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Summer school at a regional university campus: just completing a course, or a rich learning experience?

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Abstract

Many universities, including the University of South Australia, offer summer school and other intensive learning opportunities that allow students to graduate earlier, compensate for previous failures, or lighten their subsequent semester workloads. While these opportunities appear to be really valued by participants in the Whyalla Campus summer school courses, the views of the students concerning their effectiveness as a learning environment had not previously been sought formally, apart from end-of-course evaluations. The study described in this paper aims to fill this gap by evaluating the effectiveness of the learning environment of the summer school context, compared with semester-long courses; gauging students' perceptions of these comparative learning contexts; gathering lecturing and administrative staff personal assessments of this teaching and learning situation; and identifying the particular characteristics/qualities of the regional campus intensive course situation. Findings highlight the positives of the regional campus summer school experience for these participants. Feedback from summer school student focus groups, staff interviews and an online survey highlight the positives of the regional campus summer school experience.

Background

Over many years summer school courses have been offered in various universities as an opportunity for students to fast-track their degrees, make up previously failed courses, and allow pacing of semester workloads. The University of South Australia's regional campus at Whyalla has successfully run regular summer schools in Introduction to Law and Statistical Analysis for Business. Its Law summer school began in 1996 and was the pioneer of summer school offerings within the wider University. The Statistics summer school began in 1998. Students attending both courses have come from the metropolitan area as well as Whyalla (these two courses not being offered in the University's Adelaide summer schools), and have also included a few from other universities, even from overseas. One or two other courses have been run in Whyalla on a one-off intensive basis. In the past, graduate diploma in counselling courses were run as weekend workshops, and a weekend format was also used for Master of Administrative Studies coursework. Now a diverse range of summer school courses are also offered at metropolitan campuses. However, these tend to be spread over a longer period – a summer semester, rather than the intensive course of two weeks or less of the Whyalla model.

In recent years the two Whyalla summer school courses have been run end-to-end, giving students from elsewhere the opportunity to attend both with minimal travelling. (In practice, some choose to go home at weekends.) This year the Statistics summer school ran from 12 to 21 January (Wednesday of one week until Friday of the next including the examination) and Law from 24 January to 5 February (Monday of one week until Saturday of the following week, including the examination, missing a day for the Australia Day public holiday as well as the weekend), with a final assignment to be submitted two weeks later. In some earlier years the two were interleaved, with Law and Statistics on alternate days – very heavy for students taking both, but giving extra time for absorbing material for those doing just the one.

While anecdotal material suggests that these opportunities are really valued by the participants in the Whyalla Campus summer school courses, the views of the students concerning their effectiveness as a learning environment (as opposed to opinions of the campus facilities etc. as investigated by a Whyalla Campus Summer Schools Working Group, 2001) have not been sought in a formal way, apart from the normal Course Experience Questionnaire (CEQ) responses at the conclusion of each course. This research aims to fill this gap. It may also serve as a pilot for wider study of summer school learning within the university. An additional benefit from the study will be the identification of information useful for marketing campus short courses or intensive courses.

This paper provides an overview of the whole study, but concentrates on the qualitative data provided by the student focus groups and staff interviews. It includes a profile of the survey participants, and summarises their responses to closed survey questions. A later paper will incorporate further detail and the insights gained from statistical analysis after coding the open-ended survey question responses.

Summer schools and intensive courses

There are United States examples of colleges initiating intensive programs as early as the nineteenth century. In the twentieth century in response to Depression conditions the school year of Hiram College (Ohio) was divided into four, with one subject being studied intensively in each quarter (Conrad, 1990). These arrangements failed to gain continuing acceptance as they were seen as contrary to established practice; however, later government pressures for faster program completions were favourable to the introduction of summer school courses (Conrad, 1990). In Australia, a pioneer course of this nature was a Geology summer school in Tasmania beginning in 1970 (Duke, 1970). In other times and places the running of a full third semester has been proposed as a way of spreading the use of university facilities over the whole year to cater for demand for student places (Hopkins, 1973). This has been considered in an Australian context (Clarke, 1991; Richmond & Warren Piper, 1991; and, more recently, McInnis, 2001). Summer schools have also been provided by universities and other organisations as non-award enrichment courses, and universities have run bridging and special programs intensively, e.g. the University's ASSETS (Aboriginal Summer School for Excellence in Technology and Science) program (Nardelli 2001). However, this paper focuses on the undergraduate summer school delivery of a course that is a normal part of an award program.

The report on a study conducted fifteen years ago by the Department of Accountancy at RMIT (Inglis, Broadbent & Dall'Alba, 1992) provides some earlier background on examples of intensive learning and studies of its effectiveness, advantages and disadvantages. That study included the analysis of pre- and post-tests of summer school participants with regard to the development of their understanding in a small topic within a management accounting course delivered at summer school. Compared with the regular semester students, the summer school students manifested a greater change to a higher level of understanding. They also compared results in this course and the other three semester courses taken by the summer school students with those of their peers who had taken all four courses together during the semester, and found that the summer school students' final grades were better both in the summer school course and in their remaining three courses.

Intensive teaching and learning situations need to be critiqued from the point of view of sound educational practice. Student perceptions of their learning in these conditions were favourable in both an end-of-course questionnaire and a retrospective questionnaire administered a semester later as part of a Griffith University intensive summer course (Conrad, 1990). Little research was available at that time on 'the relationship between intensity and learning or teaching effectiveness in non-language higher education courses leading to degree programs', but such as there was in general supported 'the educational soundness of concentrated programs' (Conrad, 1990 p. 55); Conrad's paper includes an overview of earlier research in this area.

For students, intensive courses may involve having to absorb a number of new concepts in a relatively short period of time. However, such new concepts can be presented in a way that enables students to build on their prior knowledge and experience and facilitates meaningful learning:

> … by *nonarbitrarily* relating potentially meaningful material to relevant established (anchoring) ideas in their cognitive structures, learners are able effectively to exploit their own existing knowledge as an ideational and organizational matrix for the incorporation, understanding, retention, and organization of large bodies of new ideas' (Ausubel, 2000, p. 77).

The use of real-life scenarios and examples aids in the process of assimilating new concepts. This assimilation of the new is an ongoing process: 'At the core of assimilation theory … is the idea that new meanings are acquired by the interaction of new, potentially meaningful ideas (knowledge) with previous learned concepts and propositions', modifying both the new and the old (Ausubel, 2000, p. 102). What is meaningful is more likely to be retained than what is simply learned by rote without understanding (Ausubel 2000, p. 130). Motivation, both extrinsic and intrinsic, also plays a significant part in fostering learning, partly because of the greater attention students pay to the learning task (Ausubel, 2000, p. 200).

Identifying the factors that are conducive to study in this mode can point to practices that can be continued and strengthened; identifying negatives can give direction for improving summer school offerings (Mason & Morgan, 1986; Nicodemus, 1992). Not only will this contribute to improving quality, it will produce satisfied students, thus assisting in lifting student retention and completion rates and adding to favourable word-of-mouth marketing for the institution (Sanders & Burton 1996).

Aims of the research

The study aimed to evaluate the effectiveness of the learning environment of the summer school context, compared with semester-long courses; to gauge students' perceptions of this learning context compared with that of semester-long courses; to gather lecturers' and administrative staff's personal assessments of this teaching situation; to identify factors useful for marketing such short courses at the campus; and to identify the particular characteristics/qualities of the regional campus concentrated course situation.

Methodology

All students who participated in the 2003 and 2004 Whyalla summer schools (January) in the courses Introduction to Law and Statistical Analysis for Business were surveyed in October 2004 via a web-based questionnaire (using an instrument developed using the University's TellUs facility) to elicit their perceptions of the summer school learning experience seen from their current study situation. Open-ended questions were used to facilitate the gathering of rich data. Students of the 2005 Whyalla summer school courses were similarly surveyed mid-semester 1, 2005. The 2005 groups were also invited to be part of a focus group held in free time during the course to gain their in-course perceptions of the summer school learning context mode. Conversation was facilitated in an open and semi-structured way. Students were invited to include comments on: their reasons for taking the course at summer school; how they rated this method of course delivery and learning with regard to their ability to interact with the course content; what advantages and disadvantages they saw in this delivery mode; and how they found the regional campus teaching and learning environment compared with other options. Whyalla staff involved in these and other intensive courses or in an ancillary role were also interviewed individually or in a small group (in the case of some of the administrative staff), one lecturer providing an e-mail response in lieu, concerning what they saw as the advantages and disadvantages of running courses at Whyalla in this mode. A student union representative also contributed. Each interviewee was given the opportunity to approve the typed-up notes of their interview. In addition, academic results gained by summer school participants in each summer school course were compared with those gained by students in the preceding full-semester courses.

Participants

The population for both surveys was self-selected, as doing these courses in the summer school mode is optional. The survey response rate was 34 out of a possible 105 for the 2003 and 2004 summer school students (32.4%) and 20 out of a possible 39 for the 2005 summer school groups (51.3%), giving an overall response rate for both surveys of 37.5%. Table 1 summarises the respondent profile.

Table 1   Profile of survey respondents (2004 and 2005 surveys combined)

		N=54	%
Age	<25	23	43
	25-34	15	28
	35-44	11	20
	>44	5	9
Gender	Female	35	65
	Male	19	35
Usual campus	Whyalla	9	17
	City West	39	72
	Other UniSA	4	7
	Other uni	2	4
Course at summer school	Law	11	20
(NB: some students did both.)	Statistics	48	89
Year of enrolment in program	before 2001	7	13
	2001	15	28
	2002	8	15
	2003	13	24
	2004	7	13
	2005	1	2
	not stated	4	7
Course previously attempted	Law	0	0
	Statistics	18	33
Stayed at the Student Village?	Yes	41*	76
	No	13	24

*This includes 4 for a second time.

Four students took part in the Statistics focus group (pressure of assignments lessened the participation, they said) and six attended the Law focus group held during their respective summer schools. Table 2 shows the range of staff interviewed.

Table 2   Staff interviewed

General/administrative staff	Campus Manager Campus Central Whyalla administrative staff (2) Accommodation Officer A library assistant Marketing and Public Relations Officer
Academic staff	2 lecturers: current summer school courses (Law; Statistics) 1 lecturer: 2002 summer school course (Group Work and Counselling/Social Interaction) 1 lecturer: 2003 and 2004 intensive course (Mediation)
Student Association staff	Student representative (not UniSA staff member)

Results

Apart from a summary of the closed questions in the online survey, this section is based on the perceptions of staff and students as revealed in staff interviews conducted late in 2004 and in the focus groups held during the January/February 2005 Whyalla summer school.

Staff perceptions

While administrative staff had no involvement in the teaching of the summer school courses, their contribution was very important to overall student satisfaction. They also gleaned much from their conversations with summer school students, as did the student association representative, whose involvement was mainly on the social side. Reports included that 'most love it' and were very positive towards the lecturers and the campus, with its smaller classes (an attraction for metropolitan students). With regard to their impressions of students' learning at summer school compared with normal semesters, mention was made of the students' positive feedback. This included the fact that the lecturer was 'genuinely interested, committed to the model' and had a 'unique ability to build relationships with students – they warm to that'. The students appreciated the ability to focus on 'one course at a time, day after day', and the student village provided a 'natural study group situation – students don't have to organise times to meet, just get together in the lounge room'. Adelaide students reported that they 'wished that their other teaching and learning experiences were as good'.

Those lecturing intensively (including the two lecturers whose students were not included in the current study) felt that 'There may not be the time to "get your head around" things'; it would have been good to have time to process content. They found that students got very tired. However, they could really focus; some were away from their children, families, and other distractions (personal and other courses). It was much easier for students to contact the lecturer after class, without having to rush off to another lecture, or the lecturer having to be elsewhere. The Law lecturer found that it was very important to make sure that principles were understood before going on to the next bit and this was easier to tackle in intensive mode. It was also easier to 'get the message home that there is not always one right answer, and there was time to clarify the trend of the answer and discuss fully the issues raised. There was less pressure in tutorials – during the semester there never seemed to be enough time. The Statistics lecturer's opinion was 'that the learning is easier in that the students must "live and breathe" statistics for two weeks. There is no "putting it off" for the following week. In this way the knowledge is retained better. Feedback from students supports this view.' The Group Work and Counselling course was very interactional and practical and so lent itself to the intensive format – it was very structured, and students worked in groups and practised skills in pairs. The Mediation course also had students from the community, and so for the university students there were the advantages of having professionals there as part of their groups, enabling networking, benefiting from experienced workers' insights, and forming potential future career links.

Summer school availability advantages mentioned by administrative staff related to the campus itself, including ones impacting on their learning opportunities: the availability of cheap accommodation on campus (and hence time not wasted on travel); ready access to computer pools, and proximity to other facilities. They also thought that for people 'trying to juggle a job and a study load it's a good way of not getting too far behind'. Advantages identified by both administrative and academic staff were that it gave students the opportunity to 'catch up if they are out of sync.', 'get a subject out of the way', make up a failed course (and feel more confident in the summer school environment), and finish their degree earlier. Academic staff mentioned that the earlier completion was particularly good for international students, and the ability to make up a course was especially appreciated by students at Whyalla where courses are not repeated each semester. Moreover, as mentioned above, being able to concentrate on one course without other distractions was a big advantage. Doing a summer school course 'lightened their load for the next semester [or possibly the previous semester if they were able to leave one course until the following summer school], allowing more focus on the other courses then'. It was often easier for students to negotiate study leave for the summer school period (rather than weekly) with their employers, or take it as part of annual leave. The summer school environment made it 'easier for students to develop a collegial relationship with each other', improved camaraderie – 'they get to know each other in a deeper way' and it 'increases their confidence and trust in one another'. The collegiality and on-campus experience 'slice of

university' gave summer school a big advantage over external courses – it was a good 'mixing pot' situation.

Some issues concerning limited facilities and student services were identified by administrative and academic staff. The fact that decisions about when to have the library or student shop open were made elsewhere was an issue. The lack of convenient catering for meals, refreshments etc. was 'a heavy disadvantage': the organisers tried to compensate by arranging (with University and student association cooperation) coffee facilities and a barbecue. Although the accommodation available was very reasonably priced, some of the out-of-town students could have double accommodation costs as well as the travel expenses. Academic staff also mentioned opportunity costs for some students: they may be prevented from taking vacation jobs or may miss earning opportunities if self-employed. Employed students 'have to arrange time off work and lose vacation time if this has to be used for study, especially if they are employed full-time,' or they may find it difficult to get time off. The summer school format probably shuts out some groups such as single parents or others with family or business obligations. 'Perceptions of the geographic area' were a disadvantage in some students' minds, and the 'abandoned and empty' campus was obvious. The only negatives one lecturer had heard were 'brain overload – too heavy' and 'computer unfriendliness in trying to enrol'. Lecturers commented that students were 'really tired by the end of it', and summer school did not allow them much of a break after a hard semester. As administrative staff said, 'Then of course summer school cuts into their summer break – they hang out for a break'.

When asked about staff advantages, administrative staff felt that, with regard to their own work, summer school did not make a lot of difference as they needed to be on duty anyway. Academic staff comments included the 'pressure to be highly organised (no time to go back to grab something from the office or extend topics with time to catch up in later weeks)', which, while it could be seen as a negative, had spin-offs for semester mode with some materials prepared for summer school being useful resources for later. As for the students, staff were not distracted by other things, and could be really focused, 'have energy and do it well'. By doing the summer school they could cut down their semester workload. 'The intensive mode concentrates the mind', said one, and requires real diligence in preparation. Compared with semester courses, there is no difficulty in getting student interaction: with the variety of students (ages and socioeconomic and cultural backgrounds) there is more intellectual argument, and willingness to express points of view, whereas in semester classes 'there tend to be dominants and passives, well-prepareds and "sponges"'. In summer school lecturers spend a lot of time with students, having coffee and lunch breaks with them, and so it is 'easier to establish a relationship with intensive students quickly – the intensive mode draws them closer together', builds cohesiveness and establishes relationships more firmly. So it is much easier to learn students' names and get to know them.

Disadvantages for administrative staff were simply that there were some constraints on when leave could be taken and the time available for maintenance matters. For academic staff a lot of extra course preparation was necessary leading up to summer school to ensure a mix of things to keep students interested. The intensive delivery was very tiring, and so staff were tired at the beginning of the year when they needed to be available for other preparation and coordination tasks. One lecturer mentioned the need for marking every night because of the way the course was structured, and sometimes it was a problem not being able to return exercises to students by the next session. Another was still getting assignment papers in during the busy first week of semester.

For the campus, administrative staff saw a number of financial advantages, including the cash injection to the student village at an otherwise quiet time. However, sometimes there had been a struggle to get funds for non-Whyalla students transferred to the campus. It was also good that metropolitan students (a high proportion of those attending) gained an appreciation of the regional campus. Their word-of-mouth publicity was very valuable, particularly when they called summer school 'fantastic' and said, 'I can't sing the Campus's praises enough.' One disadvantage was a marginal reduction in normal semester class sizes.

Academic staff also remarked on the extra income for student accommodation and teaching – lecturers were being paid anyway. They thought it was good to have lots of students around an otherwise quiet campus. The summer school spread some of the administrative workload to a quieter time (duplicating booklets etc.), provided some extra catering work for the student association, and possibly eased

timetabling during the semester if it meant fewer large rooms to find then. In the case of the course that involved outside professionals, it was a 'way of showcasing the campus'. One lecturer saw summer school involvement as a means of developing the campus and staff: 'It could be a major push for the campus to earn extra income and develop expertise in another area – developing and delivering intensive courses'. While another saw few advantages for staff, he declared, 'The good name a successful outcome delivers for the campus, however, is priceless'.

Regarding other future summer school offerings in Whyalla, some mentioned the possibility of high demand courses or other core courses in Business, such as Finance and Investment. Broadening courses and electives could be promoted – 'two weeks away and complete a course'. Philosophy and sociology could be done this way, thought the student union representative. If core Nursing and Social Work courses were offered, people could be attracted from the metropolitan campuses where these programs were offered. One lecturer believed that a number of courses could have been developed in this way. On the other hand, accounting-type courses probably need more 'chewing the cud' and practice time than is possible in summer school.

In general it was felt that summer school opportunities were 'a great thing' and 'we should continue to offer them'; it would be wonderful if a wider range of courses could be provided in Whyalla that way – staff had certainly heard students say they would like to do more. The accommodation on campus could cope with more summer school students (whereas a winter school would be more difficult to fit in extras). They considered it 'a good way to study if you can take a week's holiday and get a course out of the way'. The financial aspect also meant that block teaching should be further encouraged and developed. Moreover, summer school courses link in well with regional engagement goals.

The appendix gives a summary of interview responses.

Student perceptions

This section summarises the data provided by the focus groups, bringing together responses from both Law and Statistics groups. The appendix indicates responses given by each focus group.

The majority of students chose to take the summer school to fast-track their program and get a course 'out of the way quickly'. The short length of the course was appealing and the two-week block made it possible for the students to take time away from work and home. The students actually appreciated getting a break from their work and usual day-to-day routine. Having more than one course available was also a motivation as it was seen as 'a good way to get two subjects out of the way in a month'.

Living together in the student accommodation appeared to add to their success. The students reported that they were more likely to attend all the lectures due to 'peer pressure to study' and 'do your homework and to learn it better'. In fact, it was said that 'you feel bad if you don't – when we go back to our units, one person will start doing it and you think, well, I have to do it too'. A key advantage given was the 'motivation to actually go to the class, and having all the other people around you to help you out'. The students also commented that they got to meet other people and had greater interaction with the students in the course. They reported being 'so close', having 'everyone else around doing the same thing', and being able to 'all help each other'. In the evenings, 'everyone's talking about it' and 'if someone doesn't understand it you just go, Oh, what about this?' and 'you get people knocking on your door asking for help'. It made it 'more interesting' and 'people more enthusiastic about understanding the course better' and that 'communicating with each other' and talking about it was 'a good way to learn.' The students also felt comfortable asking questions in class if they did not understand. A comment was made that it was usually uncommon to ask questions during lectures but in the summer school 'it's not a problem at all'. Students commented that they found the shorter course more enjoyable because 'you're just concentrating on one thing' and not having to 'worry about other subjects'.

When asked to describe the disadvantages they associated with the summer school approach, the students referred to its being 'too intensive': 'if you don't get it, or don't get all your reading done', or if 'you get sick for a couple of days' and 'you fall behind, you'd be in a lot of trouble'. Some also commented that

'the weekend workload was pretty heavy'. They also wanted more 'awareness of what was coming' so that they were better prepared 'for the workload that's about to confront' and 'know the expectation'. A suggestion was made that the library hours be changed to from 12 noon to 7 pm, to give a couple of hours to use the library after classes finished at 5 pm. The students wanted time to browse, to use the resources, and 'pick the librarian's brains about which book is going to be better'. They commented that 'the main reason we're here is to learn, to do the subject and to pass, and therefore the resources that are needed to help you do that should just be a given'.

In discussing the summer school as a delivery method the students again spoke of the advantage 'in that it helps you focus on what you're doing and learn a little bit more because you're being forced': 'If you are on your own ... you just read in isolation, whereas when you've got other people around you who are debating, suggesting, giving you another point of view, it accelerates the learning process'. They commented that they became 'very practised in debating and helping each other', whereas 'if you were doing this ... over the 14 weeks you only have the discipline of the class and then you leave the class to go home and do what you need to do'. They added that being at a regional campus and away from home allowed them to 'really focus for the two weeks' with 'no external forces to break you away from what you're doing'. Other remarks included that it was a 'really great way to learn, because it's so intensive'; that it 'keeps the 'thread' going' – 'you're not dropping it and then picking it up again', as opposed to doing it at home over a full semester.

The students' comments on the regional campus environment again highlighted that they thought the on-campus villa-style student accommodation was 'really good', and had the advantage that 'you're around people that are doing the same course', with fewer distractions. They acknowledged that 'you could get people you don't like, but so far it's been a very positive experience'. They noted also that 'everything's quite close, the things that you would really do, like the rec centre, the cinemas, they're all within walking distance of the campus, which is really good'. It was generally agreed that they would be inclined to tell their peers to have a go.

While the analysis of the online surveys, which obtained a retrospective student evaluation of the Whyalla summer schools of 2003, 2004 and 2005, is not included in this paper, a summary of just the responses to closed questions (Table 3) indicates an overall impression that is in line with the comments of the focus groups. Overwhelmingly, the respondents indicated their assessment of the quality of the learning context by saying that they felt that they had retained what they learned there. They also found the workload more manageable despite its intensity. Those for whom it was the first experience of summer school had certainly not been put off from attending another. A number indicated that they had enrolled in a course for which the summer school provided the prerequisite grounding, implying that they had the interest to study in related courses.

Table 3   Student responses to closed questions relating to
                 summer school learning (survey quantitative data)

Question		N=54	%
If this was your first summer school, would you attend another?	Yes	39	72
	No	2	4
	No response	13	24
Do you feel that you retain what you learned in summer school?	Yes	49	91
	No	5	9
	No response	-	-
Was the workload more or less manageable with the summer school mode of delivery?	More manageable	50	93
	Less manageable	3	5
	No response	1	2
Did you subsequently enrol in a course for which the summer school one was a prerequisite?	Yes	17	31
	No	35	65
	No response	2	4

First impressions of the survey qualitative data are also of highly positive feedback, with many of the focus group students' comments being reinforced.

Comparative academic achievement

A comparison of the end of course results of Whyalla normal semester and summer school classes for both Introduction to Law and Statistical Analysis for Business follows, the summer school results distribution being shown in bold type. The summer school results are for all the Whyalla summer school students, not only the survey respondents.

Table 4   **Summary of academic achievement of students studying the course *Introduction to Law* over a full study period and intensively at Summer School**

Result	2002 %	2003 SS %	2003 %	2004 SS %	2004 %	2005 SS %
High Distinction	0	**0**	0	**0**	0	**0**
Distinction	0	**0**	0	**0**	5	**0**
Credit	25	**50**	35	**42**	25	**33**
Pass 1	44	**34**	53	**58**	55	**67**
Pass 2	6	**8**	0	**0**	5	**0**
Fail 1	0	**0**	0	**0**	0	**0**
Fail 2	25	**8**	12	**0**	10	**0**

Table 5   **Summary of academic achievement of students studying the course *Statistical Analysis in Business* over a full study period and intensively at Summer School**

Result	2002 %	2003 SS %	2003 %	2004 SS %	2004 %	2005 SS %
High Distinction	33	**16**	20	**12**	23	**22**
Distinction	25	**37**	27	**50**	12	**38**
Credit	8	**37**	7	**21**	12	**35**
Pass 1	8	**5**	33	**14**	18	**5**
Pass 2	8	**3**	7	**0**	6	**0**
Fail 1	0	**0**	0	**0**	6	**0**
Fail 2	17	**3**	7	**2**	23	**0**

Discussion

As can be seen from Tables 4 and 5, the overall achievement of summer school students compares very favourably with that of normal-length course students, particularly in the lower percentages of fail grades awarded in both courses. It appears that students who are motivated to attend summer school tend to sustain their commitment for the duration of the course. Some summer school students are repeating and so the summer school course is their second exposure to the course material. However, this is the case for only about a third of the survey respondents. The Law lecturer commented on the number of international students who had formerly failed a course and then did quite well at Whyalla summer school. Some of the improvement in grades can be attributed, it would appear, to factors related to the learning environment provided by summer school in Whyalla.

In the class situation the summer school lecturers have recognised the importance of meaningful learning in their course presentation. The inclusion of real-life situations, whether statistical or legal, enables students to make sense of the new concepts and engage with them. Their students have the advantage of being highly motivated to maximise the learning opportunities offered by this concentrated approach. Other factors identified by the focus group participants and staff interviewed highlight other aspects of the Whyalla summer school context that are conducive to concentrating on the tasks at hand, for example the smaller classes, the collegiality, the lack of distractions, and the ease of access to lecturers.

Some of the facilities issues raised by interviewees and focus groups need addressing, in consultation with library and student association staff. Possibly a rearrangement of opening hours for the library at summer school time could enable better access and use. Students would be aware of what the library had to offer in

their free time if they were offered a brief orientation session there and if some of their classes or discussion groups were to be held in the library, as suggested by a library staff member.

Recruitment and enrolment tend to rely heavily on the University website, but older methods such as posters advertising summer schools and targeting e-mails to students who have failed or withdrawn from the course in the previous year should not be abandoned. It would also be good if lecturers in Adelaide could publicise the availability of the Whyalla summer school to their students, particularly as these two courses are not offered in this way at any metropolitan campus. A lecturer felt that, 'if people enquire but can't enrol before a certain date (because the system doesn't allow it), they lose impetus. There is not much time for them to get their textbooks, organise time off work etc. (all at a busy time of the year)'. The process needs monitoring to see that it does not discourage potential participants. From time to time suggestions have been made to 'export' the Whyalla summer school courses to Adelaide; however, some of the advantages of the regional campus situation would then be lost.

Currently the campus plans to continue offering courses at summer school. The recent retirement of the Law lecturer who initiated Whyalla summer schools means that the offering of that particular course is not certain at this stage, but it is certainly likely that the Statistics course will continue, with possibly additional courses being offered in the summer school format. The Statistics course is to be presented in intensive format to the new cohort of students at the Mount Gambier Regional Centre in the south-east of the state (established this year: Business, Social Work and Nursing programs are delivered by Whyalla staff and local part-time lecturers by blended face-to-face, videoconferencing and online methods). One difference is that this proposed September Statistics course will be *the* way that students there undertake that course, rather than as an option. This may have implications with regard to equity. Other summer school course suggestions have been put forward. In any future building up of the program, accommodation availability, scheduling, workload issues and staff availability all need to be considered. As one staff member stressed, both capacity and capability are vital: good publicity has been built up over the last decade and it is important not to jeopardise that by adding other courses that may not be run so well.

Conclusion

The effectiveness of any learning and teaching context depends on a complex range of factors. These include, of course, the quality of the teaching and resources; however, things beyond the actual classroom and learning materials also play a large part and impinge on the formal aspects of teaching and learning. The ease with which a group of students can become a cohesive group, relating and interacting positively, can have a positive effect on their learning, as they learn from each other as well as from the course lecturer and resources. Summer school in Whyalla has nurtured these rich learning relationships.

A possibility for further research is to seek metropolitan partners and compare the regional campus summer school learning environment with that of courses delivered in this mode at other campuses of the University. If the intensive format meets the needs of students there (including regional students who may wish to avail themselves of city summer school offerings), it would be a loss if purely economic factors were used to determine whether such courses continue to operate.

In planning further summer schools or other intensive courses, organisers need to consider the teaching and learning needs of the potential participants and the requirements of the particular course. Flexibility is the key: whereas some courses may work quite well in an intensive fortnight or less, others, with many theoretical concepts to master, may prove overwhelming in this format and be more manageable if spread out to include rest days. Other formats, such as weekend workshops, have been found successful in the past, and should not be overlooked as possibilities in future course delivery. Mixed formats, with a section of a course delivered intensively and the remainder on a weekly or biweekly basis, for example, could also be explored.

In sharing a regional campus's experience of delivering summer school courses, and the perceptions of some of the participating students, we have highlighted the fact that new ways of learning and teaching can originate in a small campus and provide ideas to be taken up in larger campuses. We have also shown that

the regional campus summer school has its own features that would be difficult to replicate in a metropolitan situation.

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Appendix
Summary of Responses from Staff Interviews and Student Focus Groups with regard to Perceptions of Summer School Learning and Availability

Numbers refer to the number of **interviews** (semi-structured) in which the response was mentioned. In most cases these were individual interviews, but three of the administrative staff opted to be interviewed as a group. The ticks indicate that the item was mentioned in the focus group specified.

Response type	Interviews (11 individuals)			Focus Groups	
	Administrative (6, but 4 interviews)	Student Association(1)	Academic (4)	Statistics (4 students)	Law (6 students)
Motivation					
Get a course out of the way	1	1	2	✓	✓
Catch up a missed/failed subject	3		1	✓	
Finish degree earlier	1	1	1	✓	✓
Lighten semester load			2		✓
Easier to fit in with employment		1	1		✓
Time away from other responsibilities			1	✓	✓
Summer School Advantages					
General positive feedback from students	4	1	2	✓	✓
'Great idea' (staff)	2	1			
Focus on one course at a time	1		3	✓	✓
Fewer distractions	1		1	✓	✓
Accessibility of lecturer	1		1	✓	✓
Understanding confirmed before proceeding			1	✓	
More in-depth discussion possible			2		✓
Easier to ask questions				✓	
Small classes	2				✓
Compact campus	1				
Computer availability	1				
On-campus accommodation	2			✓	✓
Improved collegiality, camaraderie			3	✓	✓
Study group situation continuing at accomm.	1			✓	✓
No opportunity to procrastinate/skip things			1	✓	✓
Better than external studies					✓
Summer School Disadvantages					
Brain overload/lack of time to digest	1	1	3	✓	✓
Heavier than expected workload					✓
Limited hours for library	2		2		✓
On-campus shop not open	1	1	1		
Travel costs	1	1	1		
Extra accommodation costs	1	1	1		✓
Opportunity costs (e.g. paid work missed)			1	✓	✓
Tiring			2		✓
Cuts into summer break	1		1		
Advantages Identified by Staff					
Get to know students well, quickly			2		
Feel energised			1		
Focus on one course			2		
Lighten semester workload			1		
Disadvantages Identified by Staff					
Limitations on taking leave	2				
Harder to fit in Student Village maintenance	1				
Pressure (extra preparation, organisation)			1		
Tiredness			3		
Benefits for Campus					
Financial	2		1		
Word-of-mouth publicity	1		2	✓	
Metro students learn of regional campus	1	1	1	✓	
Disadvantages for Campus					
Marginal reduction of semester class sizes	1				

Teaching in remote Alaskan schools: The *Remote Rural Practicum* program.

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Abstract

In rural Alaska, extreme conditions associated with place effect the staffing of remote rural schools. This presentation explores the impact of a one week remote rural practice teaching experience on a group of 14 pre-service teachers enrolled at Alaska Pacific University. Students traveled by plane to three village schools located in the Southwest Region School District of Alaska where they lived and taught for the week. The students enrolled in these village schools are indigenous Alaska Natives whose language is Yu'Pik. This presentation will report upon both the impact of the remote rural teaching experience as well as examining some of the cultural differences in these villages.

Introduction

Emerging teacher shortages in both North America and Australia have been clearly identified in the literature, especially at the secondary level in Agriculture, Computer Studies, English, Mathematics, Science and Technology Studies, for example: Hardy, 1998; Kirby, Berends and Naftel, 1999; HREOC, 2000; AEU, 2001; Williams, 2002; and Nichols, 2004. In some North American states, there is also an emerging shortage of elementary teachers, for example in Alaska approximately 250 newly trained teachers are produced each year while school districts need about 1100 teachers to replace teachers who retire or leave the Alaskan system. Additionally Alaska is geographically the largest state yet is one of the more sparsely populated states.

Alaska Pacific University is located in Anchorage, Alaska. Alaska is the largest state in the United States and Anchorage is the largest urban area in Alaska, boasting 40% of the state's population. Alaska is also the least populated state in the Unite States, housing approximately 649,000 people in 2004 while Anchorage estimates are at 271,000. (http://quickfacts.census.gov/qfd/states/02000.html accessed 6/27/2005). The remaining 60% of Alaskan residents live in areas as large as 85,000 (Fairbanks) and as small as Twin Hills, with a population of 70. Rural villages are classified as either on the road system or "bush" communities, reachable by boat or plane (or snow machine in the winter months).

The recruitment of teachers for rural and remote schools is a challenging task that all school systems experience and this challenge is increased during times of teacher shortages (Nichols, 2004). School Districts in remote rural places in Alaska regularly participate in teacher job markets in Anchorage, Fairbanks and Juneau as well as participating in job markets in the lower 48 states. Frequently, the Alaskan rural School Districts are unable to recruit qualified teachers to fill all their vacancies. Attracting prospective pre-service students and qualified teachers to rural and remote Alaskan school districts is a priority staffing issue for school administrators at both the district and state level. As noted by Jordan and Jordan (2004) Alaska is classified a rural state no matter what classification system is used.

In recognition of these acute recruiting needs, Alaska Pacific University has responded by developing an innovative program that supports practicum experiences in remote rural Alaskan school districts for its pre-service elementary teacher education students. This program is called the *Remote Rural Practicum* program.

Since 1995, staff of the Education Department at Alaska Pacific University sought opportunities to place select pre-service teachers in rural settings to experience the challenges faced by teachers in those schools. Because all on-campus students in the undergraduate Bachelor of Arts Teacher Preparation Program (TPP) and the Master of Arts in Teaching program (MAT) reside in Anchorage during their educational pursuits, providing them an opportunity to experience teaching and living in a rural village allows first hand experiences, though the practicum lasts for 5-7 days. Rural schools often pay much higher starting salaries than do urban school districts, hence newly certified teachers are wont to "follow the money" and often consider taking a rural position in their first year of teaching. Those new teachers who have participated in rural practicum experiences, we believe, know more about what to expect during their first year of teaching in a rural school and living in a rural community than those who have not been there or not done that**.**

The *Remote Rural Practicum* Program

As part of the pre-service elementary program at Alaska Pacific University, students enrolled in the MAT program and enrolled in the BA TTP program are offered the opportunity to participate in the *remote rural practicum* program.

The goals and objectives of the *Remote Rural Practicum* program are to:

1. experience teaching and learning in a rural Alaskan school;
2. experience rural community living and activities;
3. prepare and teach a unit of instruction in a K-8 classroom in collaboration with the host teacher's assistance; and,
4. prepare and facilitate a community event to showcase student learning.

One of the implicit goals of the *Remote Rural Practicum* program is designed to encourage pre-service teachers to consider applying for a rural Alaskan teaching appointment.

The program has been in operation at Alaska Pacific University for 10 years and is a partnership between the participating rural school districts and Alaska Pacific University with their teacher education students.

The Southwest Region School District operates 9 schools and employs 64 teachers to teach the 719 students attending these schools. The student/teacher ratio is 11.30. 99.6% of students are native Alaskan students. The 2001 expenditure per student was $13,676 (www.commerce.state.ak.us/dca/commdb/CF_BLOCK.cfm accessed 7/04/2005)

The *Remote Rural Practicum* program was conducted over a five-day period with the 4 or 5 students being placed at one of the three participating schools for the whole five day period. The three participating schools were K-12 schools with student populations ranging from 220 in Togiak to 142 in Manokotak. Additionally a faculty member from the university accompanied each group of students to their assigned school.

The planning and organization of the *Remote Rural Practicum* program were managed by the principal author of the paper and included the billeting of APU students with host teachers or in host schools at each rural location.

In April 2005, three professors from Alaska Pacific University and one from Charles Sturt University in Wagga Wagga, New South Wales, Australia, accompanied fourteen pre-service teachers to three rural schools and villages in southwestern Alaska. The three villages were Togiak, New Stuyahok, and Manokotak and ranged in population from 399 to 809 (2003 census). These pre-service teachers lived in the schools or teacherage facilities during their six-day stay. Each was assigned a host teacher and classroom for the duration.

The participants

Fourteen pre-service elementary teachers participated in the *Remote Rural Practicum* program. Nine pre-service teachers were enrolled in a Master of Arts in Teaching (MAT) program and the remaining five pre-service teachers were enrolled in a BA program at Alaska Pacific University.

Self-report questionnaires were administered to the group prior to and immediately after their participation in the *Remote Rural Practicum* program. Student biographical details as well as information about why the students chose to participate in the *Remote Rural Practicum* program and their perceptions about rural teaching were gathered through the questionnaires. All 14 students completed the pre-participation questionnaire. This paper reports on the analyses of responses to the questionnaire administered **prior to** the pre-service students participation in the *Remote Rural Practicum.* Responses to open-ended questions were comparatively analyzed and categorical descriptors were generated to identify emergent patterns in the students' responses.

Results and discussion

Information in Table 1 below revealed that 6 students (42.8%) had lived in rural locations prior to attending Alaska Pacific University. Earlier research by Smith-Davis (1989) and Boylan (1991) has demonstrated clearly that a rural upbringing is a positive indicator of the preparedness to seek a full time rural teaching appointment. More recently, Davis (2002) provided further confirmation of the importance of a rural upbringing in influencing the decision to accept a rural appointment in an analysis of recruitment processes used in 107 small elementary school districts in rural Montana. With 3 of the 14 students in the *Remote Rural Practicum* program reporting they had a rural upbringing, and with an additional 3 students indicating that they had lived in a rural place prior to their pre-service studies in Anchorage, this finding suggested that they were more likely to seek a rural teaching appointment. A summary of the students' biographical information is reported in Table 1

Table 1: Biographical information

	Response		
	No	**Yes**	**If Yes, where?**
Biographical information			
Did you grow up in a rural or remote place?	11	3	Rural Alaska (2) Non USA (1)
Have you lived in rural areas before the university?	8	6	Rural Alaska (2) Rural USA (2) Non USA (2)
Have you completed a rural or remote practicum?	12	2	Peace Corps No details
	Male	**Female**	
Gender	3	11	

For 12 students, they had not completed a practice teaching experience in a remote rural school prior to their participation in the *Remote Rural Practicum* program.

Students responded to a series of open-ended questions concerning: 1) why they chose to participate; 2) what expectations they held about their participation in the *Remote Rural Practicum* program; 3) what expectations they held about learning about teaching and working in rural schools; 4) what they perceived as the challenges in living in a rural community; 5) what challenges they perceived for a classroom teacher working in a rural area; and, 6) their intention to seek an urban or rural teaching appointment following graduation.

The analysis of responses to the first question is summarized in Table 2 below. Respondents were encouraged to provide multiple reasons to each question hence the total number of responses recorded in Tables 2, 3 and 4 was greater than the 14 respondents.

Table 2: Reasons for participation

Reasons provided (n=23)	Response frequency
Why did you participate?	
• Gaining teaching experiences in rural Native schools	11
• Course requirement	7
• Travel costs met	2
• Social interaction	1
• Enjoy rural lifestyle	1
• Feedback from past students	1

The primary reasons for participation in the *Remote Rural Practicum* program centered on gaining school and community related experiences in rural and remote Alaskan native villages (11 responses), e.g. *'It will be very important for a pre-service teacher to experience rural life since some of the students we will be teaching will be from rural Alaska'* (Female, MAT); *'...an important experience for any Alaskan teacher'* (Male, MAT); and *'For the experience, teaching in a small community'* (Female, BA). This was followed by a statement focusing on meeting all course requirements for graduation (7 responses) e.g. *'One: Because it's required. Two: Because I think it will be a fun learning experience'* (Female MAT).

The second open-ended question asked students: *'What do you expect to gain from this Rural Practicum experience?* The 26 responses were categorized by the authors to reflect general themes. The frequencies of themes and examples from student responses follow:

Table 3: Gain from the rural practicum experience

Theme identified	Frequency
First hand experiences regarding challenges teachers face when teaching Native students in rural communities	12
Develop understandings about culture and life in a Native village/community	8
Gain information that will assist Native students in making a rural to urban school transition	3
Gather research project data	1
Interact with rural students	1
Become more open-minded	1

The primary expectation held by many of the students focused on learning more about the 'realities' of teaching Native children in remote villages. Comments such as *'I expect to gain an intimate knowledge of how a rural school is run. I'm interested in how students perceive their setting and the challenges teachers have.'* (Male MAT) and *'A brief but intense exposure to rural education—learning and teaching. We also will see a small glimpse of what it is like to live in a village for a week.'* (Male MAT) reflect this expectation.

The third open-ended question asked students: *'What do you expect to learn about teaching in rural schools from the Remote Rural Practicum program?'* Responses to this question were mixed among the pre-service students. Three major response categories were generated by the authors. Table 4 below lists these categories and the number of responses for each category. Additionally, individual responses indicated that some student's expectations were high or open-ended.

Table 4: Participant expectations about rural teaching

Expectations about rural teaching (n=25)	Frequency
• Rural Pedagogy	12
• Cultural and contextual information	9
• Teacher's work life	3
• Uncertain	1

For 12 students, their primary expectation from the *Remote Rural Practicum* program was a practical focus: they sought a first hand experience in the teaching students in remote rural Alaskan schools, e.g. *'How rural life/culture is incorporated into the classroom. What it's like to teach in rural Alaska. To see how native Alaskan children respond differently to different teaching strategies'* (Female, MAT); *'How teachers from outside the village bridge the gap with the students from the village'* (Male, MAT); and *'How to provide meaningful, authentic activities that integrate culture, community and the native ways of knowing'* (Female, BA). For some students, they specifically identified that they wanted to learn about native Alaskan culture: e.g. *'More of the cultural aspects that are taught in the classroom'* (Female, MAT): and *'How the community accepts teachers'* (Female, BA). Only 1 respondent was uncertain: *'Wait and see – no expectation to limit my experience!'* (Female, MAT).

In the following two tables, students' perceptions of the challenges associated with: a) living (Table 5); and, b) teaching (Table 6) in a remote native Alaskan village were sought. Because of, and sometimes in spite of various media representations of what is available throughout the state, and about what is happening in rural areas, the participants provided a diverse set of responses to this question. In total, 28 statements were analyzed and three resultant categories were generated. Table 5 below lists these categories with the most common responses and their frequencies.

Table 5: Challenges associated with living in a rural village

Category	Examples	Frequency
Access issues	Services (food, shopping malls, theatre, housing)	5
	Recreational (roads, people)	4
	Educational (supplies, opportunities)	3
Community focused problems	Substance abuse	3
	Subsistence lifestyle / attendance	3
	Parental expectations and involvement	2
	Student village lifestyle issues	2
Isolation related problems	Personal (family, friends)	4
	Harsh climate	1

Access issues and community based issues accounted for the majority of the students' responses. The following quotes reflect the perceived challenges of living in a rural village: *'Because many rural Alaskan communities are subsistence base it would be a challenge to maintain continuity in the classroom when it's fishing season, you may end up with ¾ or more of your class being absent. You still have to teach the ones*

that are there and catch the others up when they return.' (Female, MAT) and *'Housing (i.e.) Showers plus running water, flush toilets). How the community accepts non-native teachers. The far away distances from friends, family and major cities.'* (Female, BA)

The second aspect of this question dealt specifically with challenges facing the classroom teacher in rural areas. 34 responses were provided. The authors analyzed these responses and generated three themes to categorize their responses as noted in the Table 6 below.

Table 6: Challenges with classroom teaching in a rural village

Category	Examples	Frequency
Teaching related problems	Lack of supplies/resources	8
	Student motivation and attendance	5
	Lack of teacher networks and professional development	3
	Parent/teacher/student relationship building	3
Adjustment to rural life	Isolation from family and friends	4
	Racial/cultural biases	2
	Boredom / loneliness	2
	Lack of facilities	1
Community related problems	Community support (especially elders)	2
	Substance abuse	1
	Rural peoples' attitudes	1
	No privacy	1

For the students, the major challenge for a classroom teacher was perceived to be related to being an effective and professional teacher. Examples of comments provided included: *'The teachers may not have many resources or exchanges of ideas for new lessons. It's a small very place no privacy. Relationships are very important because students and families are in contact with you or your neighbor. Limited outside resources.'* (Female, MAT) and *'Resources/materials (expensive to ship books and so on). As a non-native teacher I would be concerned about connections with students, parents and community. Being far away from friends and family.'* (Female, BA)

The final open-ended question sought the students' responses to: *'Where do plan to teach?'* All 14 students responded to this question. For 10 students, they indicated that they would seek an urban school appointment within the Anchorage city area. Two students reported that they would seek a rural Alaskan school appointment. 1 Student reported a desire to teach in a different American state but did not indicate whether this person would be an urban or rural appointment and the final student's response was *"I don't know"*.

Conclusion

Collectively, the information gathered from the 14 students indicated that the majority of students held a predisposition for seeking an urban school teaching appointment. Further, most students regarded the opportunity to participate in the *Remote Rural Practicum* program as a way of gathering more information about the conditions of living and teaching in rural and remote communities and their schools. In addition, students regarded the experience as a way of developing deeper understandings of and familiarity with the backgrounds of Native Alaskan students they have taught in other practicum situations or will teach in their student teaching placement classrooms in the coming semester.

From the biographies of the participants, an important recruitment policy recommendation was identified. Given the students' own urban backgrounds and their desire to teach at the urban primary or middle school levels, this study suggested that, for teacher recruitment personnel employed by school districts, their

ability to identify prospective teachers who have had some rural upbringing as appointees to rural and remote schools will enhance the match between expectations and the realities of rural / remote service that can assist with rural teacher retention. This is a significant issue that confronts every Alaskan School District annually.

The *Remote Rural Practicum* program was created to provide rural/remote teaching and learning opportunities and experiences for pre-service teachers. As a consequence of their participation in this experience, there are three possible outcomes:
1. Students who complete the practicum are *comfortable* about seeking employment in a rural/remote school. Having spent a short time teaching, learning and living in the community is appealing and exciting.
2. Students who complete the practicum are convinced that they will *not* seek employment in a rural/remote school. The isolation and lack of familiar amenities for shopping, educational pursuits or recreational not being available erases any desire to live and work in such a setting.
3. Students who complete the practicum have a *new appreciation* for struggles faced by teachers in rural/remote areas and the students they teach. The "learning community" takes on an entirely new meaning, where the school is the activity center.

No matter which outcome (or combination of outcomes) results for individual students, somehow each comes away with new ideas, new questions and a new appreciation for rural/remote teaching. As evidenced in the expectations (see Table 3) listed by participants, most wanted the opportunity to gain first hand remote rural experiences as well as understanding the challenges teachers face when teaching Native students in rural communities and to develop understandings about culture and life in a Native village/community (see Tables 4, 5 and 6). The *Remote Rural Practicum* program enables students to fulfill those expectations and empowers them to make informed decisions about seeking rural/remote employment, to work effectively within unfamiliar community/cultural settings and to become active learning community members in a very short time. These experiences they will never forget as they continue their teacher preparation programs.

There is limited research regarding the impact and effectiveness of rural practicum experiences on recruitment of rural teachers (e.g. Boylan and Hemmings, 1992, Roberts, 2005). Preliminary numbers from the last 10 years of this program's operation indicate that approximately 15% of all graduates from Alaska Pacific University teacher preparation programs are employed in remote/rural schools. As stated by the 14 students involved in this experience 2 out of 14, or about 14%, are interested in teaching in a rural/remote setting. When the practicum ended, two students were still interested and one student was unsure. More research is needed to determine how recruitment and retention of rural/remote teachers can be enhanced in Alaska.

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Creative teaching solutions in difficult remote practice realities

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Abstract

For the past two years, the staff members of Nursing and Rural Health, University of South Australia at Whyalla, have been conducting successfully a health and wellness program at Oodnadatta, a remote Indigenous community in South Australia. This year, another academic tour was scheduled but was curtailed because of transport difficulties on the way to Oodnadatta. An alternative plan was quickly developed to provide students with an equally rewarding academic experience at Coober Pedy, about three hours' drive to Oodnadatta. Participant evaluations of this community visit were very positive. The Coober Pedy experience provided participants with a better understanding of a remote community and its members. More important for the participants was the opportunity for personal and professional growth.

Introduction

Coober Pedy has been identified as a clinical site where Nursing and Rural Health may send students to conduct a community appraisal, to experience remote communities and learn about the roles of nurses in remote areas. It is a site where students can be exposed to primary health care practice and learn about the contributions of other health disciplines in maintaining and promoting good health; and meet and interact with local health workers. This selection of Coober Pedy came about serendipitously after other plans had to be changed.

Educational fieldtrips and workplace-based learning are learning approaches that involve learning in authentic work contexts or situations (Garrick & Kirkpatrick, 1998). Students are immersed in authentic learning environments where problem-rich activities produce meaningful thinking and learning opportunities that represent daily and ordinary practices (Choi & Hannafin, 1995). The theoretical underpinnings of workplace learning can be traced from various adult learning theories such as 'reflection-in-action, critical reflection, and experiential learning' (Garrick & Kirkpatrick, 1998, p. 172). The learning that occurred in this Coober Pedy academic tour is 'situated' and a function of the 'activity, context and culture' in which it occurred (Lave & Wenger, 1991). These short-term academic experiences in culturally diverse work places have been shown to contribute positively to personal and professional development (DeDee & Stewart , 2003; Walsh & DeJoseph, 2003).

Service-learning is not a new concept and is applicable to some aspects of this project as well. Service-learning, developed from an educational philosophy centring on active learning, enables participants to fulfil social responsibilities. It fosters the development of moral judgement, civic duty, cultural competence, and global sensitivity (Kulewicz, 2001). The learning experience provides a link between academic study and the real world of practice in a way that could not otherwise be easily achieved, such as in a classroom or cyberspace. The active participation in the hospital and nursing home was an opportunity to learn about the service. Students learn best when they are actively involved in the service (Kulewicz, 2001).

This paper is about creative teaching alternatives. It examines the teaching and learning that transpired during the Coober Pedy academic experience. It discusses the evaluation of the student field experience, which was deemed to be highly satisfying. This initiative is worthwhile continuing on a regular basis.

Background

Whyalla's Nursing and Rural Health students and teaching staff had been undertaking a community awareness project by engaging in health assessment and health promotion activities at Oodnadatta for the past two years. Feedback evaluations of this project suggested that the nursing students gained valuable experience in working in a remote Indigenous community and the faculty members involved in the project

gained much insight into the unique needs of remote Indigenous communities (Penman, Oliver & Buzzacott, 2003). The community members benefited also by engaging in these activities, as gathered from anecdotal accounts by past participants.

This year, the organisers planned another health and wellness program that had been reviewed and modified by our partner organisations, namely the Oodnadatta Hospital and Health Services, Oodnadatta Aboriginal Primary School, Dunjiba Council, and the Spencer Gulf Rural Health School, to meet some of the unique health needs of the Oodnadatta community. The coordinator, in addition to utilising the linkages already established, invited a former Oodnadatta resident to join the tour in order to personally invite family and friends to the health fair being planned. As she was intimately familiar with the people, language and culture, she could act as a mediating person to link us 'outsiders' to her people (Ward, Bochner & Furnham, 2001). This was a strategic approach to ensure better participation in our health activity. A thorough impact evaluation of the project addressing the immediate and long-term effect of the program on the target audience was to be a focus of this trip. The evaluation would further inform our plans for future community engagements at Oodnadatta.

Early in March this year, the University of South Australia opened another regional centre at Mount Gambier in the southeast of the state. The centre, located at TAFE, offers three bachelor degree programs, also offered at Whyalla and delivered by Whyalla staff. The teaching and learning approach taken is called blended delivery, a combination of face-to-face instruction and independent self-directed study. The nursing students enrolled at Mount Gambier were invited to participate in this community visit.

However, our plan to conduct our health and wellness program in remote Oodnadatta was thwarted when our bus broke down while en route to Oodnadatta. We were stranded in the desert for five to six hours before we were rescued and taken back to Coober Pedy. We had experienced no difficulty commuting during our previous visits, but the road seemed more uneven this time. Another bus, exactly the same as the one a we had earlier, was supplied to us by the rental agency late the next day. However, a bus seemed inappropriate for the track because the undercarriage was too low.

We had lost valuable time. Not wanting to take another risk of transport break down, the group decided to stay at Coober Pedy and learn about this community instead. A new schedule of activities was quickly organised and calls and personal visits to various community agencies were made to arrange for key people to meet with students.

Recruitment of participants
Eight first-year nursing students were selected from twelve applicants to participate in the program. Their selection by a staff panel was based on the content and comprehensiveness of their applications. Five students were selected from Whyalla while three students were selected from the Mount Gambier cohort. One Whyalla student, however, had to pull out at the last minute for medical reasons.

Faculty involvement
Two staff members supervised and supported the students during the tour. Prior to the trip, the students were prepared adequately to undertake the activity. Preparation entailed learning about Indigenous people, their history, culture and health. Our sponsor, the Spencer Gulf Rural Health School, helped provide this preparation through a cultural awareness program (Commonwealth Department of Family and Community Services, 2000; Spencer Gulf Rural Health School, 2001). Pre-departure preparation included also learning about team building, occupational health and safety, manual handling, principles of teaching and learning, primary health care, and community assessments. It was imperative that students were prepared for the task; hence, a learning package was organised for these topics.

Induction of students
Students were required to sign an agreement stipulating the conditions of participation in the academic tour. It was underscored that they would be representing the University as ambassadors and that they were expected to respect Aboriginal beliefs, practices and traditions. During orientation, staff members attempted to develop positive understanding and sensitive attitudes towards Indigenous cultures. It was

important to mention that being culturally sensitive did not mean simply 'tolerating differences between groups of people', but rather 'being able to assess elements within the behaviour patterns or social roles of a culture that make it special …' (McMurray, 2003, p. 41). The issue of confidentiality was stressed as well. In order to preserve confidentiality, names were not required in the health inventories that were to be administered. It was pointed out that under no circumstances would a student discuss issues about a client outside the confines of teaching, learning and nursing domains.

The Coober Pedy community visit
The students visited the following community agencies: Coober Pedy Hospital; Umoona Aged Care Services; Coober Pedy Multicultural Community Forum; Aboriginal Housing Authority; Coober Pedy TAFE Campus; Primary Health Care; Umoona Tjutagku Health Centre; Umoona Opal Mine and Museum; and other tourist shops and businesses.

For most of these visits, the students learnt about the objectives of the agency, the services they provided, the types of people employed, the clientèle, strategies they used to benefit the wider community, how they assisted the Indigenous people in particular, and the challenges they encountered in serving the community. The students had the opportunity to speak to key people and understand the dynamics involved in sustaining a community.

They learnt about the relaxed and friendly lifestyle, underground living, and the varied recreational activities available for residents and visitors, such as golf, trail bike riding and hiking. There were many community attractions and educational opportunities available at Coober Pedy. The students enjoyed watching TAFE students cut opals and noodled for some gems themselves. The visit to the Multicultural Community Forum provided them with an understanding of the cultural mix of the community with over forty-five (45) different nationalities represented (Coober Pedy Multicultural Forum, nd; District Council Coober Pedy, 2003) and the role of a financial counsellor in the community (Department of Family and Community Services, 2005). Consultation with the Manager of the Housing Authority gave an insight into the housing needs of Indigenous people and how these were being met suitably.

The time spent at the local hospital was worthwhile and memorable. It provided some hands-on experience for the students who assisted clients in their activities of daily living. Some students helped shower, feed, transfer and make clients comfortable. Others made beds, operated equipment, and measured vital signs. The Director of Nursing of the local hospital went out of her way to teach the students about hospital procedures such as specimen collection and analysis, drug administration, isolation procedures, and occupational health and safety. She explained the different services the hospital rendered to the public, including post-natal, methadone, forensic, rape and detoxification programs. The students gained knowledge about the multiple roles assumed by nurses in remote communities and the many employment opportunities for nurses as well. She emphasised also how important it was to maintain the skills and competencies of her nurses. Interviews given by the pharmacist and mental health nurse at the hospital provided a wider view of the different members of a health team.

The visit to the Umoona Aged Care Services was equally interesting. Students spent time with the residents assisting with personal care and meals. The team leader of the Primary Health Care Service gave an overview of the health maintenance and health promotion activities provided to community members. Students interviewed a social worker who assisted women experiencing physical and/or mental abuse. At the Umoona Aboriginal Health Centre, students met with a registered nurse who explained the many jobs she undertook as a community health nurse. While touring the health centre, she described how medications were dispensed using dosettes, how collection of blood specimens and analysis were conducted, how eye and ear assessments were undertaken, how chronic conditions were managed and how nurses supported visiting medical officers and allied health staff. She proudly informed the group that she had initiated the shower service for the local people, an extremely commendable project of the Health Centre.

Evaluating the alternative program
At the end of the Coober Pedy community visit, the students reconvened as a group for a post-visit conference and evaluated their experience. An evaluation instrument, consisting of open-ended and closed

questions, was administered to determine the usefulness of the activity (Penman, Oliver & Buzzacott, 2003). The instrument was modelled after Hecker's (2000) health fair evaluation. The questionnaire was distributed to the students and staff. The first question identified the position of the survey participant, i.e. student or staff member. The other questions related to the adequacy of learning opportunities, personal and professional advantages in participating, program activities, organisation of the visit, overall opinion of the activity, and ways in which the activity might be improved.

The results were collated and analysed. Data analysis consisted of reading, sorting and coding the data. The organised data were analysed by extracting, reducing into repeating words and phrases representing the participants' meaning, and categorising. The analysis was in line with procedures highlighted by Miles and Huberman (1994) and Strauss and Corbin (1998). Frequency of responses was also counted.

Results of the evaluation

All nine (9) participants testified that there were sufficient learning opportunities from the community visit. The evaluation showed also that the activity was supportive of personal and professional growth for all nine participants. Despite the enforced change of plans, the overall opinion about the activity was very positive, rated by the majority of participants to be excellent (6), very good (2) and good (1).

Feedback showed they gained so much from participating in this community visit. The following quotes illustrate this:

…saw remote communities and visited many different community businesses associations and met a lot of different interesting people

… an understanding of how rural and remote health workers, nurses etc worked. I learnt how diverse the rural nurses become and the many roles we, as nurses, may do.

Valuable information on how to handle patients in a small community… information about a community that differs from lots of others.

…gained so much, because we worked in the hospital – never had before. Gained a great deal of confidence and a greater understanding of the hospital setting. Worked with harder patients – was positive – prepared me more for now and future.

… visiting the Coober Pedy hospital was very beneficial as we could finally put some theory into practice. Also visiting Aboriginal communities gave me an insight to their lives, and also the truth about how they are and act, compared to what's in textbooks.

A greater understanding of what is expected of us as nurses and most importantly of a better understanding of the problems associated with administering and the accessibility of indigenous health programs.

Better understanding of community services at Coober Pedy and the Aboriginal people.

The participants had mixed feelings about the organisation of the tour and this was related to the vehicle breaking down. Participants put forward a number of ways by which the academic tour might be further improved. They mentioned:

Have a contingency plan.

Have emergency procedures and equipment.

Invest in a 4-wheel drive, satellite phone and two-way radio.

In summary, the students and staff gained a better understanding of the dynamics in a remote community, the intricacies involved in looking after the health of Aboriginal people, and the significant contributions of health agencies and health workers. The experience opened their eyes to social and practice realities in remote Indigenous settings. One student recommended adding the Coober Pedy visit to the Oodnadatta program in future academic tours.

Discussion

Coober Pedy, the 'opal capital of the world', 'relies as much on tourism as the opal mining industry to provide the community employment and sustainability' (Department of Industry, Tourism and Resources, 2003). Participants in this academic tour realised how unique the place was, considering its primary industry and style of underground living. Coober Pedy has a small population of 3 500, but these people

come from diverse backgrounds. Students witnessed how workers in community agencies worked towards cultural tolerance and acceptance.

This visit had a positive impact on teaching and learning. It widened students' views about remote communities and Indigenous people, who comprised a third of the population of Coober Pedy. The experience contributed to their professional growth by enriching their academic and clinical experience. During their short encounter with local health workers, the students caught a glimpse of what rural and remote nursing was all about. Students were given the chance to practise some basic nursing skills and work with Indigenous health workers. This contributed to their understanding of Indigenous people and gaining insight about the health needs of the community. The students appreciated also the roles and contributions of other disciplines involved in health care. Their time with the social worker, pharmacist, and financial counsellor was invaluable as some reported. This segment provided workplace-based learning and supported professional growth.

Engaging with the community was beneficial for personal growth. It enhanced their interpersonal and community skills as they were immersed in the group and in the community. One student wrote, *'It was fun with many learning opportunities. Crusey. All members had fantastic attitudes and were very open-minded.'* In developing cross-cultural awareness, knowledge and skills (Pedersen, 1994), students were assisted in creating 'portable cultural comfort zones' which helped them 'develop intercultural competence' (Campbell, 1996, p. 96). This would equip them with the awareness and sensitivity to function in an environment dissimilar to their own. In other words, the students gained not only an understanding of Aboriginal culture, but also learned about themselves and their ability to work in a different and unfamiliar environment (Hutchings, Jackson & McEllister, 2002).

Our emergency enabled us to learn about practice realities in remote areas. Health workers are continually challenged with the tyranny of distance. However, we turned our predicament into something positive and creative. The participants' maturity, flexibility and sense of humour were evidenced by their ability to work around our mishap. These qualities, including resilience and hardiness, must be required for future applicants in cross-cultural visits (Owen, 2003).

The following quotes indicated how we managed to turn our setback to victory:
> *We were able to think laterally and work together as a team. We all contributed, were listened to and worked well together, particularly with our emergency.*
> *We made good use of available learning experiences. We made the most of opportunities.*
> *A great team building exercise!*
> *If you are given a lemon, make a lemonade ...*

The students became familiar with the community living, thereby increasing their awareness of and appreciation for the Indigenous culture and way of thinking; and they learnt about the beliefs, practices and behaviours promoted by people at health care facilities. This socialisation provided opportunities for students to construct their understanding of a community, its strengths and limitations; to work in a diversity of situations; to be confronted with real-life situations that they would be dealing with as future health professionals, and to be enriched with the capacity to interact, reflect, collaborate and value the roles played by community health workers. As mentioned, the experience has enabled these students to learn more about themselves in new learning environments.

We had opportunities to learn and understand the difficult problems confronting health professionals. In addition to distance, some of these included sustainability of community projects and programs, and recruitment and retention of staff. The participants shared the concerns of the people interviewed regarding alcohol, poker machines and other sources of harm. Students and staff concluded that alcohol abuse and addiction to gambling were two useless activities in the community. This realisation expanded the students' views on the importance of health promotional activities. The students were challenged to think about how the health of Aboriginal people might be improved, realising that Aboriginal health status remains dismal and shameful (Wilkinson, 2002). Service-learning had occurred as evidenced by students' active engagement in the social concerns of health professionals and exploring with them how these may be appropriately addressed.

The experience was equally productive for staff members as well. They were challenged to think creatively and construct an alternative teaching and learning program. Determination, initiative and resourcefulness were evident during this time. Note, however, that the alternative program would not have been possible without the enthusiasm and cooperation of the local community agencies. Moreover, it became imperative that staff members examine closely protocols to observe in the event of a similar dilemma in the future.

Conclusion

There were many benefits derived from participating in this project. The academic tour offered rich and meaningful learning experiences. The experience was informative, relevant, and enriching, presenting a different view of the profession and understanding of the role of nurses in a remote community. While we were unable to meet all our initial objectives because of our misfortune while en route to Oodnadatta, our Coober Pedy experience aptly substituted for the Oodnadatta program. This allowed us still to meet some of our original objectives.

The organisers believe in continuing the project and pursuing the partnerships already forged, taking into consideration the suggestions provided to ensure safe transport to Oodnadatta. The Coober Pedy tour will be part of future programs as it primed successfully students to the practice of nursing and afforded them opportunity to experience 'becoming' a nurse. The visit allowed the students to study human living at a deeper level, identifying resources, constraints, means and ends. This challenged them to deliberate about appropriate strategies that might be useful in meeting the health needs of remote Indigenous communities. Engaging with communities has also enabled us to inculcate desirable qualities in our students and has enabled our university campus to play a part in attaining the aspirations summarised in our positioning statement 'Educating professionals, creating and applying knowledge, serving the community' (University of South Australia, 2001).

In closing, a quote from the Director of Nursing of the local hospital is most appropriate. She said, '... *The community visit is an incentive for students to continue their studies. It encourages them to finish nursing. Some of them (the students) may come back to us for placements and employment.'* A student concurred by saying, *'The trip can only be a benefit to all who participate, so please continue to expose the benefits of this program.'*

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Acknowledgements

Local Matters: Regions, Innovation and Vocational Education and Training in the Australian context

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Abstract

The paper reports on current research in the Riverina region of NSW that is investigating relationships between skill formation, knowledge transfer and the innovation process, with a particular emphasis on the role of VET institutions in supporting and diffusing innovation.

In the recent Australian policy context 'innovation' has been conceived as primarily resulting from capital-intensive research and development. This understanding has been largely derived from international literature, in particular OECD materials that identify 'innovation' as part of a necessary public response to the challenges of 'globalisation'. The paper argues that in practice, innovation in organisations is mostly incremental and process oriented. This understanding is particularly relevant for small to medium enterprises, typical of regional Australia.

The paper discusses case study findings from a number of innovative regional organisations, most of which are competing in international product markets. These organisations, and the communities in which they are situated, depend heavily on regional education and training infrastructure to develop skills, knowledge and supporting social capital. The research findings are presented in the context of a critical analysis of key terms used in the overseas literature, where the concept of 'region' has different geographic, demographic and labour market implications than Australia.

Introduction

This short paper has two general aims. The first is to raise, (with a new audience for the author), issues that have been prominent in recent national level debates in the Vocational Education and Training (VET) sector, primarily in response to recent government policy on 'innovation'. The paper seeks to do this through a report of preliminary findings of research into the involvement of VET with 'innovation' and regional development.

This research involves ongoing identification of innovative sectors of regional to identify the skills and knowledge that underpin innovative practices. Three of the case studies are discussed below; two involving innovation in manufacturing industry and the third broadly concerned with innovative arrangements supporting Tourism development. This research program is intended to complement other work, (primarily investigating technical innovations in regional industry), that has been undertaken by colleagues from the School of Management at Charles Sturt University over several years (eg; Bamberry, 2001; Bamberry & Wickramasekera, 1999; Bamberry, 2005).

'Innovation' has been presented in policy as one of a range of apparently necessary responses (such as 'life-long learning') to irresistible forces of 'globalisation', purportedly manifested in new social relationships required by 'the knowledge economy'. Thus 'innovation' in current policy is presented as a virtual cure-all for economic woes to which a range of deterministic and frequently instrumental educational responses can be presented as 'the answer'.

One of the many issues that arise in contemporary policy discourse is that the terms used are rarely defined, or if they are they tend to be accepted uncritically. The concept of 'region' as used in much of the international literature (using examples such as 'Silicon Valley', 'Route 128' or 'Northern Italy') does not reflect the reality of 'region' as the term is applied in rural and regional Australia. Uncritical acceptance and application of incommensurable terms in public policy can lead to poor policy outcomes.

A key to understanding the role of VET sector in innovation is appreciating that it is, *by definition*, directly related to the labour market and hence through the employment relationship to developmental needs of local and regionally based industry. The development of a research program which investigates these relationships is potentially of great interest as it looks at the integration of education/training with labour market (ie. employment) outcomes, regional infrastructure and 'capacity building' (Macadam et al, 2004; Productivity Commission, 2005; RIDC, 2004).

The second aim follows from the first. It is hoped that raising these issues may lead to interest from other researchers, particularly those working in the area of School Education, in undertaking cooperative research to investigate the actual and possible contributions education and training institutions may make to enhance regional development and capacity building.

Paper proceeds as follows. The first section provides an overview of the innovation debate. It notes that while contemporary innovation policy assumes that innovation is primarily dependant on capital intensive research and development the 'shopfloor' reality is that innovation in Australia is primarily the result of incremental or processes, of 'learning by doing'. The second section briefly notes the difficulties in applying OECD understandings of 'region' to rural and regional Australia with its particular challenges of geography and demography. The third section discusses the skills and knowledge which underpin the examples of innovation in the three case study sites. In the concluding section some comments and suggestions are offered about furthering research in the area.

'Innovation' in policy context

For the past decade, 'innovation' has been hailed in a range of OECD policy prescriptions (eg; OECD 1996; 1997; 1999) as the key to national economic success. This international literature has been reflected at a national level (eg; Marceau, Manley & Sicklen, 1997; Marceau, & Manley 2001; Toner, 2004), framed by the discussions and analyses presented in the federal government's initial discussion paper (1999) *Shaping Australia's Future: Innovation Framework Paper*, and gaining momentum following the release of the formal Report (2001) *Backing Australia's Ability*. Following the OECD (eg; 1992), the various reports and policies that have followed have been explicit in linking science and technology with market exploitation of new products and services. The instrumental focus of this material would be broadly familiar to readers engaged with general education policy debates.

The significance of innovation to development is not, however, a recent discovery of social science although many policy documents, (which seem prepared as much for promotional as analytical purposes), may suggest otherwise. At its simplest, innovation' may be understood as introducing something new. In its economic formulation it has undeniably been a key feature of the growth of Western society under industrialism. Economic historians and developmental theorists as diverse for example, as Adam Smith in the 18th century, Marx in the 19th century, Schumpeter ([1911]1934; 1942), Polyani (1944), Rostow (1960), Wallerstein, (1974), Gerschenkron, (1968) and Williams (1987) in the twentieth century have described and variously explained changes in society, originating somewhere between the Renaissance and the establishment of Newtonian science in the 17th century, that have combined scientific and technological development with market expansion,. In historical perspective, market expansion together with scientific and technological development, *that is to say 'innovation'*, has been typical of Western society at least four hundred years.

However, in the narrower context of identifying innovation in a contemporary commercial environment, the OECD provides the standard definition. This identifies innovation as

' ... technologically new products and processes and significant technological improvements in products and processes. An innovation has been implemented if it has been introduced on the market (product innovation) or used within a production process (process innovation). Innovations therefore involve a series of scientific, technological, organisational, financial and commercial activities. An innovating business is one that has implemented technologically new or significantly technologically improved products or processes during the period under review'. (OECD, 1997: 47)

Innovation in the Australian context

There is a long history of 'inventiveness' in the Australian legend, from the stump-jump plough and Federation wheat through to gene shearing technologies (Cull; 1996), although limitations of geography and demography have inhibited the type of commercial exploitation possible in societies (such as North America) with large domestic markets. However, an important aspect of the OECD definition cited above, and one that has particular significance for the Australian National Innovation System (NIS) is the distinction between product' and 'process' (also known as 'evolutionary') innovation. The thrust of current Australian policy, as a number of critics have noted (see summaries in Pickersgill & Walsh, 2003), has been to enhance the commercialisation of product innovation, generally associated with high levels of capital-intensive research and development and emphasising high levels of direct public investment in basic science, or indirect public investment in private research through tax concessions. While investment in pure and applied science is justified for its intrinsic as well as indirect economic benefits, the present focus runs the risk of ignoring the empirical realities of Australian industry. As the Business Council of Australia (BCA) argued early 1990s, most innovation, particularly in Australian industry, is *incremental* and *process oriented.* The BCA, drawing on a range of management literature, rejected as too 'narrow and misleading' the

> '… conventional wisdom…that innovation equals invention plus commercialisation…
> Innovation is not science. Nor is it technology or the ownership of invention'. (Carnegie
> et al 1993: 3)

The significance of *process* rather than *product* innovation in Australian industry has important implications for the Vocational Education and Training system (VET). The VET system is, by definition, necessarily linked to the labour market and hence directly to employment in commerce and industry. In principle at least, this involves VET curriculum developers in a constant dialogue with the contemporary state of technology and work organization practices. *What* to teach, rather than *how* to teach, becomes a primary focus of VET curriculum development. However, as critics have noted, *Backing Australia's Ability* and similar Reports left VET out of the equation (eg: Fitzgerald 2001).

This failure to incorporate the VET sector is significant in two important areas. The first is that if, in practice, process rather than product innovation has particular significance to Australian industry then it is the operational level, comprising those occupations whose skills and knowledge are primarily developed through the VET system, that becomes strategically important.

The second area involves the *diffusion* of innovation. Innovation, to be integrated within a NIS, needs to be 'taken up' by firms and organizations. There is a substantial literature on diffusion analysing processes of technology transfer between multinational corporations and newly industrialising economies (NIEs) (eg; Porter 1990; Mathews & Cho, 1999), frequently expressed in various national 'league tables' of the rate and nature of patent applications (see Dawkins, 2001 for an Australian example). These approaches are unquestionably significant to the charting and measurement of technological development (OECD, 2002a; 2002b). However, given the significance of process innovation in Australia, the function of labour markets in spreading innovation through industry sectors has been less emphasised.

Historically, Australian development has certainly occurred under the constraints of what the historian Geoffrey Blainey famously described as the *Tyranny of Distance*. A relatively small population combined with limited product and capital markets to emphasis import replacement strategies. The production processes of Australian industry have emphasised relatively short production runs in private sector firms that, by international standards, are of small average size. As Adam Smith noted, the division of labour is

constrained by the extent of the market, and this has manifested in Australia through skills and knowledge distributed through occupational labour markets (where skilled individuals move between firms) rather than the internal labour markets (where skilled individuals move upwards within a large firm) more characteristic of firms operating in large domestic markets such as North America, Europe and Japan. This historical development has resulted in the focus by the Australian VET sector on developing 'occupational' rather than 'job specific' skills (Pickersgill, 2004). Broad rather than narrow skill development has lead to great flexibility 'on-the-job' and the capacity of skilled workers (where not constrained by management/industrial practice) to not only move between jobs, but also frequently across related occupations. Movement within these occupational labour markets, combined with the recruitment of VET teachers (both full-time and part-time) directly from industry (with formal teacher qualifications obtained subsequent to employment), provides an important means of diffusion between firms and between VET institutions and local industry.

Thus, what was seen in the sector as a 'neglect' of VET in innovation policy development, and that policy had not taken a balanced view of the reality of Australian industry, lead to range of VET related research projects. The relationships between the historical features of Australian development, the specific nature of the Australian VET system and its engagement with the Australian NIS have been partially addressed in recent National Centre for Vocational Education Research (NCVER) publications (eg: Docherty 2001; Trood et. al, 2003; Dawe [ed] 2004; Curtin, 2004; Callan 2004; Toner et.al. 2004), and reviews and critiques of the role of educational research in assisting policy development (Kearns, 2004).

A critical analysis of this literature is beyond the scope of this paper, however the emphasis on the significance of VET developed skills and knowledge (or 'human capital' in economic jargon) and their role in contributing to regional development and 'capacity building' (Macadam et al, 2004) is important background to the research program whose preliminary findings are reported below.

Regions and innovation

Although the OECD has recently emphasised the contribution of 'human capital' to innovation (OECD, 1996) and commenced programs which attempt to link skill formation, employment and development at regional level, such as the British *Local Economic and Employment Development* program (LEED) and publicised a range of contemporary models of 'regional engagement' (drawn primarily from the eastern United States and the UK), their uncritical application to the Australian context is debateable. The proposals to utilise existing education and training infrastructure, and to integrate educational institutions from schools to higher education in supporting productive employment (OECD, 2005) are not in themselves new or unusual. There is a very old (frequently futile) debate about the social and economic purpose of 'education' and 'training' (eg; Peters, 1965). The role of education and training in adjusting to industry change has underpinned active labour market programs typical of Scandinavian countries since (at least) the end of the Second World War, and are familiar in Australia since (at least) the Kirby proposals of the mid 1980s.

A more problematic feature, for the Australian context, of the regional models proposed in the UK and North America, is the understanding of 'region'. The 'flexible production' thesis (Piore & Sabel; 1986) which strongly influenced the industry and award restructuring policies of the 1980s in Australia (Pickersgill, 2001) was based on generalisations from a handful of textile and design firms in Northern Italy. The LEED models (OECD, 2005) involve regions with significant population and industrial concentrations that are well serviced by extensive transport and communications infrastructure. Other well known exemplars in the United States, such as Silicon Valley and Route 128/Boston Corridor, not only have concentrations of population, industry and financial infrastructure but have as foci major research universities (eg; Princeton, UCLA and MIT) with formal and informal R&D networks connecting a 'critical mass' of research active staff in the universities with local industry.

Apart from a limited application in urban concentrations in the major capital cities, these concepts of region would appear to bear little resemblance to 'regional' Australia. These issues were a topic for VET research at the former ANTA funded *Centre for Research and Learning in Regional Australia* located at the University of Tasmania, and continue to be of interest to former members (eg: Toms et. al, 1998; Falk &;

Balatti, 2004) and other independent research groups (eg: Selby Smith & Ferrier, 2004; Pickersgill & Edwards, 2005), although without the former specialist research funding.

Innovation processes in the Riverina: three case studies

The Riverina stretches from the edge of the Snowy mountains to the open plains of the Hay district in the West, roughly bounded by the Murray River and Murrumbidgee catchment. In area it covers around 60,000 square kilometres and has a population of around 150,000, with the largest regional centre, Wagga Wagga contributing just under 60,000. An agricultural base involves both cropping and grazing, with an important intensive irrigation sector commencing in the Griffith/Leeton/Yanco area. There are also important transport centres in Wagga and Temora, while batch, jobbing and maintenance industries have developed to support the agricultural base. Wagga Wagga is also a major technical training centre for the Australian Defence Forces.

The three organisations reported on were initially identified from a list of known innovative firms presented at a Seminar by the (former) Group for Research in Employment and Training (GREAT) at Charles Sturt University Wagga (Bamberry, 2001). They are, Precision Parts (Wagga Wagga), Flavourtech (Griffith) and the Temora Aircraft Museum (Temora). Although either private or not-for-profit organisation, each has made material available in the public domain through websites noted below. Interested readers can use these to supplement the discussion below.

Precision Parts (Wagga Wagga) http://www.precisionparts.com.au

Precision Parts is a medium sized private company that over the last 25 years has developed into a major automotive supplier of OEM and replacement parts. It specialises in harmonic balancers for local manufacturers, but has developed growing markets in the United States and Europe. It was originally set up by a former RAAF technician. The location of Wagga Wagga on a transport hub assisted the firm's development and also encouraged the original focus of automotive manufacture and repair.

Products, markets and production processes
Production involves the machining of castings into a range of standard products, which have recently focused on General Motors engines. The reason, as stated in interviews, is that the GMH engines are 'global motors'. There is a high performance line developed for automotive racing engines, although this is more a marketing exercise rather than a profit line. The firm has strongly emphasised the adoption of efficient manufacturing and inventory processes, including the introduction of sophisticated computer control systems, developed under licence from the United States. New work organisation practices have been based on team based production unit. The involvement with large retail outlets in the United States, and increasingly Europe, link the firm directly to forces of global competition.

Precision Parts is a clear example in which standard products have been incrementally improved and production processes streamlined, primarily through the application of in-house engineering expertise to product design, work practices and control of production flows.

Skill formation processes
The basic engineering skills are those developed from traditional Australian trade and technician level training in Fitting and Machining, Toolmaking and associated drafting, design and metallurgy areas which have historically formed a core to the VET system. Recent expansion and quality control needs have led to a major upgrade in skills for production workers ('second class machinists'), again provided through the formal VET system, and rewarded through the in-house skill-based classification system. The supply of skilled labour is dependant on the restricted local labour market, hence there is an emphasis on skill retention and the need to maintain links with local VET institutions for external skills enhancement.

Flavourtech (Griffith) http://www.flavourtech.com.au

As described in a previous paper (Pickersgill & Edwards, 2005), Flavourtech is a private company that developed from an engineering supply company, A & G Engineering, which specialised in (mainly) stainless steel products for the local wine industry. Problems with flavour contamination led to a partnership with the CSIRO to eliminate unwanted flavours from wine. A unique 'spinning cone' technology was developed which was able to remove and store unwanted contaminants. This technology has been improved so that it now is able to separate, store and reconstitute a range of flavours across a diverse range of food products. (Interestingly, the original science on which the technology was based was developed in the Manhattan Project to separate radioactive isotopes from ore, although the development and application of the technology now bears little relation to its origins - a not unfamiliar experience with applied technology).

Products, markets and production processes
Flavourtech produces a unique product for the global market, using 'one-off' or jobbing production of individual units based on variations to a core design. However, such modifications to either the size of the machinery, or to control systems, depend for success on considerable background engineering and production expertise. Research and Development depends on initial professional level skills (in chemistry and engineering), supplemented by extensive on-the-job experience with the interaction of the core technology with the both the chemical and mechanical behaviour of different food products.

Flavourtech is an interesting example in which an initial technological breakthrough (a radical innovation) was developed in conjunction with specialised external science research expertise (CSIRO for engineering: CSU for winemaking). Production and marketing success have however depended on evolutionary, incremental improvements and modifications developed by combining professional level (i.e. university) and workshop (i.e. VET) expertise.

Skill formation processes
The design and engineering skills required by the manufacturing process were developed from those originally developed to supply the needs of regional wine industry. These involved university level engineering design skills, but the manufacturing process depends primarily on the tradition trade skills (fitting & machining, metal fabrication, electrical mechanics) developed by apprenticeship training. At the professional level, chemical and mechanical engineering qualifications for the theoretical background, but critical production knowledge is developed through direct experience with the technology. The firm depends on professional level skills imported from the cities, with trade skills supplied through the local labour market and developed in conjunction with the local and regional TAFE colleges.

The Temora Aviation Museum http://www.aviationmuseum.com.au

The Temora Aviation Museum is a not-for-profit organisation, that exhibits, maintains and flies a range of vintage propeller and jet powered aircraft. It is run by a voluntary board, supported by high profile Australian business leaders (such as Westfield) that provides an extremely high level of commercial expertise. The Temora site was originally a Second World War flying school and was chosen to make use of some existing facilities, but also because of the jet quality runway, the ability to control airspace and the mild flying conditions.

Products, markets and production processes
Vintage aircraft are an expensive 'hobby', but notwithstanding the links to corporate Australia, it is the use of volunteers, (from senior pilots employed by international (eg; Qantas) and general aviation sectors through to tour guides recruited from local residents and organizations such as the fire brigade and sporting bodies) that underpin the success of its range flying exhibitions, displays and day to day tourist visits (*Temora Independent*, various dates; Pickersgill & Edwards, 2005). It has developed an international reputation and attracts both domestic and international tourism. Temora has the highest growth rate in the region, and the Museum has, both through generating tourism and employment and though its linkages to Local Government and community groups, been an important part of local capacity building.

Skill formation processes

In addition to the commercial expertise on the voluntary board the museum has a full-time manager with North American aviation experience, supported by a small administrative staff. At a technical level engineering & aircraft tradespersons were originally recruited from general aviation outside the region. Recently a small apprenticeship program in aircraft trades has commenced. Aviation apprenticeship training is not available locally, so off-the-job training is by block release to the specialist metropolitan TAFE colleges. The maintenance of vintage aircraft requires particular expertise in engines and airframes (not to mention great personal interest and commitment) that are no longer formally taught. Many maintenance and parts replacement issues are unique, with the fabrication of new parts to old designs rather than the 'remove and replace' practice in commercial and general aviation. Skill formation is therefore primarily conducted (and transmitted) on-the-job, and by drawing on the shared experiences of other similar organisations around the world. The unique nature of the exhibits, and the extensive use of community based volunteers has also led to a range of (non-compulsory) education and training programs that link the Museum to a range of community based volunteer organisations.

Conclusion

In this overview of innovation in a regional environment some general conclusions may be tentatively drawn. The first is that recognition of the specific incremental and process oriented nature of the Australian innovation system should be acknowledged. This system is, to a significant extent, integrated with local and national infrastructure, and is manifested in a range of local, regional and national networks. In so far as skilled workers are a necessary (if not sufficient) input into maintaining and expanding product and process innovation, the VET system has a significant role. In our investigation the VET system provided skills and training at two levels. The first was in the generic skills developed in the traditional trades, specifically in manufacturing and maintenance areas. These skills are by no means redundant in the purported new 'knowledge economy'. The second was in the AQF 2 levels where a range of formal credentials, and importantly, informal on-the-job training (frequently unassessed) conducted by organizations themselves to the AQF standards, appears to be providing greater consistency and recognition of skill levels within and across important industry sectors. Flexible delivery, *specifically in non-traditional and non-trade areas* appears to assist this process. However, it would be a mistake to conclude that development is primarily responsible for innovation. Innovation is a complex, multiple dimensional process that involves scientific and technical expertise, technical and educational infrastructure, integrated product and supplier networks and effective management and marketing strategies and government support. In terms of policy development, no one single approach is sufficient. The strategy likely to be most effective is one that, as Richard Curtain has recently remarked (Curtain, 2004) incorporates a 'whole of government approach' that involves *all* levels of government.

This would enable the VET sector to diffuse business innovation and enhance its links ... particularly with small and medium-sized enterprises in general and especially those in regional areas. This requires appropriate funding support as part of a more diverse set of performance targets for VET providers.

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Bringing doctors to the bush: celebrating innovation and excellence in medical education at the University of New South Wales School of Rural Health

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Abstract

The paper outlines and discusses the origins and work of the University of New South Wales School of Rural Health (UNSWSORH). The UNSWSORH is a response to a 1998 federal government initiative relating to the under-supply of medical practitioners in rural areas. The Commonwealth's rationale was that if medical students were trained in rural settings they would be more likely to locate themselves in the country following graduation. The then Federal Health and Aging Minister Dr Michael Wooldridge called the establishment in early 2000 of the Greater Murray Clinical School at Wagga Wagga and Albury, 'the world's first medical school established in such an area'. The success of the school led to the expansion of the scheme from late 2000 to include a national network of clinical schools.

The innovative educational curriculum model practised at the UNSWSORH challenges traditional didactic medical instructional approaches through encouraging a patient and student centred focus. The paper outlines this approach and its embedding within rural settings; for example, the placement of students with medical practitioners and their tracking of patients through the various stages of their medical management program. Both student self-directed and problem-based learning are encouraged through this process.

The paper concludes with a brief assessment of the success and future possibilities of the UNSWSORH program.

Introduction: the challenge

In 1867 a South Australian journalist wrote of the work of the country doctor:

> No matter what hour or in what weather his services were required, he never was found wanting. A bold and fearless rider, he went long dreary journeys, over very rough country, ignoring self, so that he might relieve suffering humanity. He went as freely to the poor shepherd's hut as to the wealthy settler's snug head station (Hagger, 1979, p. 162).

From the early to mid-twentieth century country doctors' reputation for innovation, forbearance and service above self reached iconic status following the work of their most celebrated advocate, the Reverend John Flynn. In 1917 Flynn worked with an idea sent to him from medical student Lieutenant Clifford Peel of the Australian Flying Corps, and later QANTAS's Hudson Fish, to establish in 1928 the Australian Inland Mission Aerial Medical Service; from 1954 it was known as the Royal Flying Doctor Service (Bucknall, 1981, pp. 531-534). Australians are subconsciously reminded every day of this work should they tender a $20 note for the purchase of goods or services.

Even into the New Millennium the heroic image of the country doctor persists. In a medical journal obituary celebrating the life of a rural general practitioner, the author writes respectfully of his 'legendary status'. According to one succinct testimony, the long-serving medico was regarded as 'an outstanding remote rural G. P. – no anaesthetic deaths and minimal morbidity with surgery'. A hysterectomy in a remote environment, emergency surgery following a gunshot accident, delivering babies in difficult circumstances – all were conducted with uncommon skill (Cooter, 2004, pp. 128-129).

Both the perception and the reality of the challenge of rural medical practice have always suggested chronic problems of supply. Put quite simply, for the medical graduate or city-based practitioner, the life of the country doctor was regarded as a poor risk-reward career choice. And, given with the reality of Australian's living as 'Coast Clingers' (King, 1978, pp. 107-118) – greater than ninety per cent of the population live in its coastal capitals – qualified and qualifying city-based practitioners tended to practise within their urban comfort zones (Strong et al., 1998, p. vi). One rural medicine research team labeled this urban sensibility 'the persistence of a "metropolitan" mindset', particularly when reinforced by metrocentric policy makers (Humphreys et al., 2002, p. 9). Late twentieth century research on rural medical practitioners and their choices to either stay or leave their practices suggested a foundation to these perceptions. For example, a 1996 study concluded that overwork, poor financial return, a lack of relieving locums, a lack of collegial contact and difficulty in accessing continuing professional development meant many decided to leave the bush for city comforts (Kamien, 1998). Though these issues have been addressed through greater community support and a raft of multi-level policy initiatives, including the importation of overseas trained doctors, the challenges of rural medical supply remain (Veitch et al, 1999; Strasser et al., 2000; Hays et al., 2003).

Given this context it was perhaps unsurprising that at the first meeting on 10 January 2000 in Sydney of the Greater Murray Clinical School (GMCS), based in Wagga Wagga and Albury and the first tangible outcome of a Commonwealth Government and rural pressure groups initiative to train medical practitioners in country settings, the foundation director remarked, 'Well, we are away. Where do we go from here?' (Vine, 2005, p.1). The paper maps some of the evolving answers to this seminal question. The creation of the clinical school is first located within the complex evolution of rural health policy over the 1990s and into the New Millennium. This is followed by an exploration of the space and circumstances within the new clinical school that permitted the creation of its innovative medical education program. The paper concludes with an outline of future program directions.

Context: unraveling the policy environment

'Policy' may be defined simply as 'whatever governments choose to do, or not to do.' Similarly, policy analysis may be construed simply as 'the study of what governments do, why and with what effects? (Taylor et al., 1997, p.35).' The reality of policy, its construction and analysis, however, is complex: it is formed, often precariously, out of the deliberations of contesting interest groups, is sometimes expedient – for example, geared to short term electoral advantage – and subject to change based on shifting social, cultural and economic contexts. The evolution of rural health policy is no exception. The arrival of clinical schools as a relatively recent rural health policy innovation, then, can be seen as one particular outcome of this fraught process, neither pinnacle nor consequence of all that came before.

The trajectory of contemporary rural health policy was shaped from the mid-1970s through the 'discovery' of a range of population health and health services deficits in country areas. The 1976 Hospitals and Health Services Commission, for example, noted shortages of services across the rural health spectrum, with consequent effects on rural well-being. The formation of several rural health professional associations continued this focus. Serving as sites for collegial support and political lobbying, groups including the Council of Remote Nurses of Australia, formed in 1982, and the Rural Doctors Association of Australia, formed in 1991, actively brought to the attention of the Australian public the disparities of urban and rural provision. Non-health organisations such as the Country Women's Association, and even Pauline Hanson's One Nation, similarly achieved success in highlighting rural health issues. Multidisciplinary organisations, the National Rural Health Alliance being a key example, assisted in the consolidation and focusing of likeminded organisations to attract the attention of policy makers (Humphreys et al., 2002, pp. 3, 7).

The flowering of rural health policy assumed two broad and complementary directions. One, which will not be examined in detail in this paper, focused on the health of the rural population, its current state and prospects, and how its challenges could be met through funded and networked service and infrastructure provision (for example, Strong et al., 1998). The other, of direct interest to this paper, concentrated on workforce issues including the supply, education and training, and management of health professionals,

including medical practitioners (Humphreys et al., 2002, p. 4). At a further level of concentration, the paper will focus within this policy segment on initiatives to attract graduate practitioners to rural locations.

United States' research in the 1980s suggested four 'truths' about effective policy making to attract graduates to rural locations. First, students from the country are more likely to return to rural areas to practise their craft. Second, graduates trained in rural areas are more likely to choose rural practice. Third, family medicine, or general practice, is the key discipline of rural health care. And, fourth, graduates are likely to practise close to where they trained (Dunbabin and Levitt, 2003, pp.2-7).

The 1990's Australian rural health policy and practice environment offered a parallel universe to these maxims. A key outcome of lobby group activity was the formation in 1990 of the Australian Health Ministers' Advisory Committee's Rural Health Task Force. One of the task force's negotiated goals was to improve education, training and career structures in rural practice. Initiatives such as the Rural Health Support Education and Training Program (1990), the Rural Training Pathway (1993), which provided registrar training with a rural focus, provided formative structures for the unfolding of rapid program development (Humphreys et al., 2002, pp. 5-8). The Rural Undergraduate Support and Coordination (RUSC) Program, established in 1994, funded medical schools to support an increased rural student cohort, place students in rural settings, encourage the further development of general practice, and establish a benchmark of 25 per cent of all medical students to receive 50 per cent of their medical training in rural settings by 1994 (Higher Education Contribution Scheme – HECS – students only). Medical schools established city-based Rural Health Training Units to facilitate the RUSC initiative (Dunbabin and Levitt, 2003, p. 6; Humphreys et al., 2002, p. 5).

Policy initiatives, including organizational capacity building, rural infrastructure programs, and individual financial and educational incentives developed through to the mid-1990s were further accelerated after 1996 following the election of the Liberal-National Coalition Commonwealth Government. A political rural vested interest and a health minister who paid particular attention to rural health issues provided a 'golden age' for rural health policy making. In 1996 a key federal infrastructure and capacity building initiative was the creation of University Departments of Rural Health (UDRH), each auspiced by an established city-based medical faculty. Six were created from Geraldton to Mount Isa. The UDRH's were entrusted with the complex task of addressing the full range of rural health policy challenges. On the one hand they were to provide an increase in the multidisciplinary rural health labour force through local education and training; on the other, they were to develop or facilitate programs to reduce health differences between rural and urban and indigenous and non-indigenous Australians. A review in 2000 concluded that the UDRHs were meeting their briefs in innovative and productive ways (Humphreys et al., 2000).

From 1997 additional individual inducements to experience rural medical practice were provided through the John Flynn Scholarship Scheme which funds medical students to experience two weeks of rural experience for four years during non-study periods (Humphreys et al., 2002, p. 5). Further schemes include the Rural Australian Medical Undergraduate Scholarships (2000), which provides scholarships to rural origin students in return for a seven year bond to practise in rural areas, the Higher Education Contribution Scheme (HECS) Reimbursement (2000) for graduating medical students to offset their HECS debt by working in rural practice, and the Commonwealth Medical Rural Bonded Scholarship Scheme (2001) which funds medical training in return for a commitment for graduates to practise in rural and remote areas for at least six years after completing their general practitioner fellowship (Dunbabin and Levitt, 2003, p. 7).

New Millennium political assessments of the rural health policy golden age claimed unqualified success for the education and training of potential country doctors. Minister of Health and Aged Care Michael Wooldridge, the policy architect of most of the post-1996 initiatives, stated in 2001 that the number of general practitioners practising in rural areas had increased over the 1996-2001 period from 5 400 to 6 200 (Wooldridge, 2001). Several years earlier these numbers were expressed provisionally as an increase of four per cent in rural areas and nine per cent in remote areas (Wooldridge, 1998).

Establishing Australia's 'world's first' clinical school

Given the apparent success of policy, program, infrastructure and capacity-building initiatives to attract medical practitioners to the bush, one might ask: 'Why rural clinical schools?' Morevoer, why were Wagga Wagga and Albury-Wodonga selected as the site for the first rural clinical school, with a sole purpose to educate and train 'on-site' potential rural medical practitioners? Following Minister Wooldridge's announcement in late 1998 of the 'world's first' clinical school for Wagga, he explained this 'and other measures have been a vital part of our concerted effort to end the decades of neglect that people in rural and remote parts of Australia have suffered' (Wooldridge, 1998). In 2001 in an address to the Sixth Australian Rural and Remote Health Scientific Conference he commented on the regionalization of general practitioner training programs, suggesting that the human and infrastructure resources invested had fomented 'a fundamental and irreversible shift. We are physically taking resources from the city and putting them in rural Australia' (Wooldridge, 2001a, p. 2). He also believed he was responding to overseas experience that suggested success in retention of general practitioners and specialists if they trained for an extended time in a rural area (Vine, 2005, p.1).

The clinical school's role as yet another string in the Commonwealth's rural health strategy bow was supported further by the federal government's 2000-2001 budget commitment to 'expand the capacity of universities to specialize in the unique needs and challenges of rural health' (*More doctors, better services*, 2000, p.22). But, still, why the University of New South Wales, Wagga Wagga and Albury-Wodonga? The Riverina area of southern New South Wales includes Wagga Wagga as the state's largest inland city, Griffith, and the cross-border cities of Albury-Wodonga. The combined cities population of over 170 000 and a total regional population in excess of 250 000 covering an area greater than England and Wales guaranteed diverse sources of rural health challenges and their attendant services provision. Consequently, there pre-existed as part of this service provision a wide range of medical disciplines, from general practitioners to all manner of specialists, many of whom were potential educators and clinical skills role models for a new student cohort (Sturmberg, et al., 2003, p. 4).

But an ideal population base to service the clinical and professional needs of the new school was only a necessary rather than a sufficient condition for its creation in the Riverina. The added incentive came from several years of lobbying by a range of people in Sydney, the Riverina and the then regional Greater Murray Area Health Service (Vine, 2005). The area's political stability as a National Party stronghold was also most likely a factor.

The school's immediate success through 2000 led to the quick establishment of further clinical schools throughout Australia. The GMCS soon grew to include additional campuses in Coffs Harbour and Port Macquarie (*More doctors, better services*, p.11; Wooldridge, 2001; Vine, 2005). The clinical school's new geography led to a name change to the University of New South Wales School of Rural Health (UNSWSORH). The educational reasons for the school's success are now considered.

An innovative curriculum: a community based, patient-centred, student-driven longitudinal model

The GMCS received its first students within two weeks of the Sydney meeting. Since then several hundred University of New South Wales Faculty of Medicine fourth, fifth and sixth year students have passed through the clinical school program (the first three years of the six year course are spent at the UNSW city campus studying academic rather than clinical subjects). Ever mindful of the Commonwealth's edict that 25 per cent of the faculty's students attend rural training environment for 50 per cent of their program, a range of rotation strategies are employed. For example, to 2005 a Fourth Year cohort is required to spend twelve months at one of the campuses; Fifth Year and Sixth Year students study and work for varying periods according to their selected specialties (Vine, 2005). At any one time there may be fifty or more students attending across the campuses.

Prior to and following the establishment of the GMCS city-based Fourth Year students were exposed to clinical skills training in a traditional hospital-based learning environment. This consisted of six, six week terms: three terms devoted to Medicine, two to Surgery and one to Population Health at Liverpool Hospital. Students were attached to tertiary level hospital specialty units to learn their skills –neurosurgery,

cardiology and others – but were expected to learn general medical skills as well. Instruction, including lectures, tended to be didactic rather than facilitative (Vine, 2005, p.1; Sturmberg et al., 2001, p.14).

The GMCS team 'took a different view' (Vine, 2005) to constructing and implementing the clinical skills program. Informed by the practical exigencies of working in and with a 'novel' rural environment in a changing world, and the innovative educational ideas of the foundation staff, the course paved new ground for rural medical education and training. It was first assumed that the modern hospital environment was unsuited to the broad skill base required of the rural practitioner. The post-1970s introduction of universal health insurance (Medibank) had, in effect, 'emptied out' hospitals of long stay patients. Outpatient departments disappeared and were replaced by primary care professionals working in general practice or through specialized outreach services. Consequently, the hospital learning environment became relatively impoverished of diverse learning experiences for medical students. An international example of the same phenomenon determined that of every 1000 adults, one was in a major hospital, five were seeing specialists, 235 were seeing a primary care provider, 500 experienced an illness or accident not requiring medical attention, and 250 experienced no health complaints (in Sturmberg, et al, 2001, p.15). The 'action', then, most often took place outside of hospitals. Second, the GMCS foundation staff assumed, based on rural doctor recruitment and retention data, that students not exposed to the broad nature of non-hospital rural and impoverished population medicine and its potential for rewarding professional practice, would tend not to choose rural medicine as a career (Sturmberg, et al, 2001, p.15). Third, given the lack of variety of education institutions and resources typically found in urban centres, including academic staff, the GMCS would be required to work in cooperation with the broader community and the community of medical practitioners (Vine, 2005, p.2; Sturmberg, et al., 2001, pp. 15-17). Both could potentially provide a rich alternative source of education and training opportunities. Fourth, it was assumed that the 'tyranny of distance' would necessitate a requirement for a range of communication technologies to link staff and students between campuses and with patients and medical practitioners in remote locations (Delaney et al., 2002, pp. 170-171).

The implications of these assumptions on the creation of an effective learning environment suggested a number of 'non-traditional' assumptions about students and their learning styles. First, given the times they may spend away from classrooms and other formal learning environments, they would be assumed to be self-directed adult learners. This process would require them to be eclectic problem-solvers with a capacity to demonstrate reflection on their actions. It would also assume an ability to learn in facilitative as well as didactic learning environments. Second, given the potential range of non-hospital environments in which they would move, they would be assumed to be able to practise effective communication skills with one another, GMCS staff and patients. This would demand, for example, listening skills and a capacity to articulate to patients an effective understanding of complex medical information. Third, there would be assumed a capacity to integrate abstract discipline knowledge into a range of practical patient-based problem scenarios with consequent solutions. Broadly labeled 'problem-based learning', and applied specifically as 'clinical reasoning', an emphasis would be placed on the journey or defining the problem rather than simply attempting to reach an assumed destination or diagnosis. Fourth, they would be expected to demonstrate a capacity for lifelong learning, including a sense of agency, an inquiring mind and a desire for continuing self improvement (Delaney et al., 2002; Foley, 2004; Henry et al., 1997, pp. 11-13).
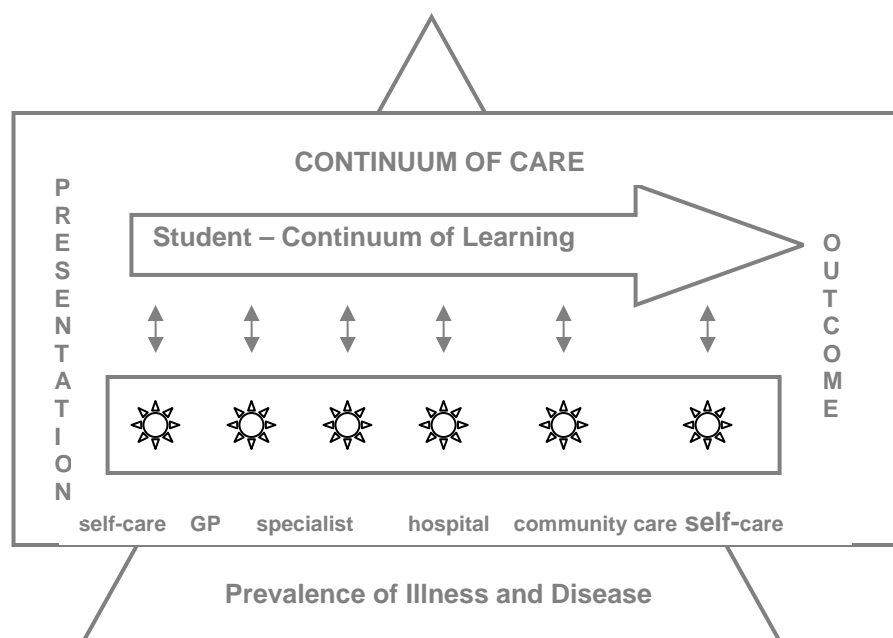
Figure 1: Learning at the UNSWSORH in the community, across the continuum of care and integrated with all health care providers (based on Sturmberg, et al., 2001)

The environmental and educational assumptions outlined informed a powerful and innovative curriculum response. The central tenet of the program is its 'decentred' longitudinal focus on patients in community rather than hospital settings only; that is the student is attached to a patient rather than a medical practitioner or institution. In ideal situations, the student, with a patient's consent, shadows his or her presenting symptoms through all stages of the health care system. Student observations of illness and consequent history taking are managed by academic staff and participating medical professionals, usually general practitioners. Figure 1 outlines the continuum of potential patient care. It can be seen that the student's continuum of learning mirrors this process. Traditional medical training would include only the hospital phase, an obviously more limiting experience. Through the process students are able to experience the natural progression of illness, the various stages of the health care system, and empathy with the patient's frustrations of travel, unplanned delays and the effects of treatment. The process is supplemented by thematic clinical tutorials using patient case scenarios, clinical reasoning and traditional 'bedside teaching'. The unfolding of a few cases in depth rather than many lacking longitudinal detail and complexity is regarded as a far more rewarding student learning experience. It also exposes students to the multidisciplinary approach that constitutes New Millennium medicine. The desired graduate capabilities are summarized in Table 1 (Delaney et al., 2002; Sturmberg et al., 2001; Reid, 2002; Sturmberg et al., 2003).

Personal attributes	Interactional abilities	Applied knowledge and skills
Self-directed learning and critical evaluations skills	Effective communication	Understanding basic and clinical sciences in medical practice
Understanding and applying ethical and legal principles	Working as a member of a team	Understanding the social determinants of health and disease
Development as a reflective practitioner		Patient assessment and management

Table 1:Summary of the desired capabilities of students at graduation (Sturmberg et al., 2003, p.6)

Since the formulation and implementation of the foundation program, pragmatism has suggested a range of variations on the original theme. The GMCS team noticed among some participating practitioners an understandable scepticism of the facilitative approach to teaching, particularly after a personal educational

background of didactic, highly content-focused learning; facilitative models were also difficult to manage in private practice situations. Similarly, some students resisted the context-based approach as it demanded the complex problem-based thinking of the 'real world' of clinical practice rather than the 'easier' recognition and recall skills required of simple discipline based assessments. Overall the GMCS team concluded that 'In practice this shift proved more difficult than was expected' (Sturmberg et al., 2003, p.7).

Contextual applications of the original curriculum model proved to be, in many ways, equally innovative. At the UNSWSORH Port Macquarie campus, for example, the overall program is implemented as 'structured directed learning rather than self-directed learning'. Clinical education is conducted in a small group bedside teaching environment supplemented by regular collective workshops on core curriculum subjects. The Port Macquarie curriculum, as an example of UNSWSORH course offerings, includes the following: Year Four (Medical Surgery, Pathology and Population Health), Year Five (Obstetrics and Paediatrics, and Psychology/Communication), Year Six (Medical Surgery, Critical Care) (Reed, 2005). Within these contexts clinical reasoning is employed as a practical problem-solving technique. Port Macquarie students enjoy the program to the extent that they 'desperately want to come back year after year and want to be residents and interns' (Reed, 2005).

A raft of issue-specific, site-specific and task focused activities introduced progressively into the UNSWSORH also echo strongly the clinical school's founding innovative trajectory. Examples are given in the following summary of activities (Vine, 2005). Students in pairs are attached to small rural communities where they explore how that community achieves medical care. Students spend one week in groups of five at a small town hospital to experience how the community manages health issues when the nearest base hospital is two hours drive away. Population health topics are explored with tutors from the Health Service who are providing care in the community; for example, drug and alcohol counselors and public health clinicians. Sessions are arranged with the local Coroner and the Government Medical Officer to learn about the role of the Coroner in the community. A Farm Safety Day is organized annually to visit a working farm to discuss health and safety issues. This is complemented by visits to town based businesses and discussions about their potential workplace health issues. An Indigenous Health Day provides opportunities for students to discuss health issues with local elders.

A further day is allocated for students to meet with allied health students from the other local universities – Charles Sturt University (Wagga Wagga and Albury) and La Trobe University (Wodonga). The assembled medical, nursing, physiotherapy, occupational therapy, podiatry and social work students work on hypothetical patients with multiple problems. The introduction to the multidisciplinary approach to patient care is designed at an early stage in the students' careers to encourage a multidisciplinary approach to community health management.

Another popular activity is the Integration Tutorial and Topic of the Week. The session is conducted by two experienced general practitioners also trained in Emergency Medicine. The session has many functions, perhaps the most important being an opportunity for students to measure their understanding of health issues against the conclusions of rural health expertise. The session also provides an opportunity for students to present cases they have seen and 'worked up' – the whole group discussed aspects of the case from diagnosis to investigation to management. From these cases arise further Topic(s) of the Week where little may be known by anyone of the condition and a student volunteers to research and present it the following week. The strength of the tutorial is the consistent tutors who are with the students throughout the year and can recognise the strengths and weaknesses of individuals in the group and assist those who may be experiencing difficulty.

Many of these activities are discussed across campuses through state-of-the art video conferencing facilities. Further information is able to be accessed through high data speed Internet connections. Clinical scenarios and other learning activities are also available on-line or through local and well-resources libraries (Delaney et al., 2002, pp. 170-171).

In spite of the challenges posed by the community based, patient-centred, student-driven longitudinal model of rural health education, the GMCS and UNSWSORH appears to have achieved outstanding success. Rural health educators have seized a unique opportunity for developing an innovative curriculum

that deals effectively with the unique challenges of living and working in the bush. The GMCS example has led to further examples of context-based rural health curriculum (Hays and Gupta, 2003) and the bolstering of the case for rural medicine as a separate discipline (Smith and Hays, 2004).

Conclusion: measuring success and building on experience

The UNSW clinical school program is now in its sixth year of operation. Though a detailed evaluation of the program's primary objective to facilitate the entry of graduates to a career phase of rural medical practice has yet to be undertaken, anecdotal evidence suggests a confluence of the program's graduate output with pre-existing international research on rural medical education effectiveness. That is, students from the country are more likely to return to rural areas to practise their craft; graduates trained in rural areas are more likely to choose rural practice; family medicine, or general practice, remains the key discipline of rural health care; and fourth, graduates are likely to practise close to where they trained. A future phase of the UNSWSORH Research Unit will include testing of these or similar hypotheses within the New South Wales context.

Within the UNSWSORH program initial comparisons have been made between the exam successes of rurally-based and urban-based students. At Port Macquarie, for example, Year Four results from 2003-4 were consistently higher than their city counterparts (Reed, 2005). At the other campuses similar results have been recorded, leading to the conclusion that 'students are not in any way disadvantaged…However, what cannot be quantified is the experience that the students have: one on one teaching, patients who enjoy seeing them and will go to extraordinary lengths to oblige, enthusiastic teachers who thrive on the student contact. Irrespective of where they eventually practice, these students will always remember their rural experience' (Vine, 2005, p.3). This, it appears, is all that could be hoped for from the program.

A current review of Year Five and Year Six of the UNSW medical program suggests changes to the logistics of rotations through the UNSWSORH but should not impact on its innovative delivery strategies. The proposed program still sits within the outlined program capabilities. Similarly, the program encourages students to participate in a clinical team or similar service in a health care setting (UNSW Phase Three Course Proposal, 2005, p.3). The proposed 'RIME' individualised learning assessment plan also reflects the clinical school's teaching and learning assumptions:

- **Reporter** – the student can accurately gather and clearly communicate the clinical facts on patients; includes the basic skills of history and physical examination and recognizing abnormal from normal.
- **Interpreter** – the student can assess a patient's presentation and course; includes skills in clinical reasoning, developing a differential diagnosis and interpreting results of diagnostic tests.
- **Manager** – the student can formulate an approach to a clinical problem including diagnosis and treatment; the student should be able to understand and monitor the implementation of the patient's management plan.
- **Educator** – the student can critically evaluate the evidence supporting the management approach; includes abilities in formulating relevant questions and researching literature.

The new program suggests a 'blending' of urban and rural educational approaches. The GMCS founders predicted this as a possible outcome of their innovative work (Sturmberg et al., 2001, p. 17). However, the challenges of life in the bush will always ensure subtle and often wide differences in the context, content and delivery of programs. This is the inherent excitement of professional health practice in rural Australia. Perhaps John Flynn would understand?

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A comparison of two one-teacher rural schools in Australia and Argentina: two different stories

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Abstract

This paper analyses the role of the State in rural education through a case-study comparison of two small one-teacher rural schools: one in the Australian state of Victoria and the other in the Argentinean province of Entre Rios. The Victorian rural school is supported by the State through a carefully planned and structured system that provides the necessary resources to equip rural schools to educate their students. In contrast, the province of Entre Rios has largely failed to fulfil its financial and structural role, and its rural education system suffers from a lack of resources, long-term planning, and poor infrastructure, thus placing the burden on local teachers and the rural populace to meet the educational needs of their students. This international comparison of two small rural schools illustrates at a local-level the pivotal role that the State plays in providing educational opportunities to rural youth.

Introduction

The presence or absence of the State has contributed to the strikingly different situations found today in the rural education systems of Australia and Argentina. Both countries share many common features such as large landmasses relative to their small and highly urbanized populations, sparsely scattered rural communities consisting of a significant proportion of indigenous peoples, and rural poverty problems. Regarding the education system, they both have a federal system of education, where the constitutional power lies with the states or provinces rather than at the national level. However, despite these similarities their rural education situations differ significantly. Australia, despite some critical problems, has advanced in the last half century in the promotion and delivery of accessible, quality education in rural areas, while Argentina has lagged behind, increasing the gap between urban and rural education and, thereby, condemning rural students to a second-class education.

This paper analyses the role of the State in rural education through a case-study comparison of two small one-teacher rural schools: one in the Australian state of Victoria and the other in the Argentinean province of Entre Rios.[1] Both rural schools are located close to a small rural town of less than 5,000 people but more than 150 kilometers from an urban centre. They are one-teacher schools and have seven and twelve students respectively. However, the reality of both schools differs in the quality of education that they provide to the students. The Victorian rural school has enough resources to help the teacher to perform her role and deliver a high quality of education. In contrast, the Entre Rios rural school lacks resources and infrastructure increasing the teacher's work burden to the detriment of her students' quality of education. Moreover, this government lack of support for the Argentinean teacher burdens her with additional responsibilities beyond her teaching role, such as, provider of school supplies, students meals, and even driving students to school.

As the figures will show, both governments are deeply involved in the provision of education. The province of Entre Rios has approximately 1,080 rural schools, out of which almost 97% are state owned (Dirección Nacional de Información y Evaluación de la Calidad Educativa, 2000). Moreover, almost 80% of 30,764 Entre Rios teachers work exclusively in government schools, relying on the State for salary and professional training provision (Dirección Nacional de Información y Evaluación de la Calidad Educativa, 2005). Victoria has 772 non-metropolitan government schools out of a total of 1,618 government schools, providing education for 175,543 full-time rural students (Department of

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[1] The study of the Entre Rios school was part of the author's research for his forthcoming book, while the Victorian one, is part of his PhD research in Victorian rural schools.

Education & Training, 2005a). Definitely, a consistent strong state investment in teacher training and salaries, school infrastructure and administrative personnel, among other issues, is critical to guaranteeing a basic equal educational opportunity to every child in the country.

In summary, the Victorian rural school is supported by a planned and structured system where the State fulfils its essential role as provider of good infrastructure and resources to equip schools with the necessary tools to educate young rural people. In comparison, the Entre Rios rural system lacks long-term planning and a consistent funding scheme and is based on improvisation and a heavy reliance on the personality and skills of the teacher and on the solidarity, charity and support of the general population. This contrast is a clear demonstration of a State that has not abandoned its obligation to its citizen, without matter of their geographical location versus one that has retreated from its most basic duties.

The Argentine rural education

In order to understand the state of rural education in Argentina it is important to, at least, briefly discuss the central issues of the educational reform implemented in 1993. As in the Australian education system, the constitutional power in the Argentine system lies with the provinces or states. The creation of this "federal" system was the national government's core idea underlying educational reform in the early 1990s, labelled as: a "Ministry of Education without schools". As part of a general reform of the state, the management and sustainability of schools were devolved to the provincial sphere, by introducing policies of decentralization, deregulation and privatization of the social services (Feldfeber, 2000). The Federal Education Law in 1993 gave the provinces, without distinction of the existing socioeconomic inequality between them, the management of the school system, the sustainability of schools, and the funding of teacher's salaries, among other responsibilities (Feldfeber, 2000).

Especially significant, the educational reform established a paradox: on one hand, a transfer of the educational services and management to the provinces, and on the other hand, the national government retained the power to design and act in the transformation process of the curriculum under the "Contenidos Básicos Comunes" (Basic Common Contents) (Feldfeber, 2000; Puigross, 1996). The national government devolves to the provinces the right and duty of education but keeps the control of the curriculum design, therefore, maintaining mechanisms of regulation and social control. Even more, it has the power to allocate money and resources, through localized compensatory programs, to specific schools in any province that are assessed as disadvantaged, especially in rural schools (Donini and Schillagi, 2003; Duschatzky and Redondo, 2000).

Even though national school enrolment figures increased since the introduction of the reform, the quality of education is still poor, especially for students from low socioeconomic background and from rural schools (Cuervo, forthcoming; Donini and Schillagi, 2003). More significantly, article 61 of the Federal Education Law, which stated the progressive increment of public funding to education that would have made the national government reached the funding to 6% of it GDP, as suggested by international organizations has not been carried out. Instead, public funding to education has increased from a 2.53% in 1991 to a 2.97% in 2002 (Rivas, 2004; Puiggrós 1999).

The Argentine rural education system presents several critical deficits, ranging from poor school facilities, lack of consistent teacher development training, an absence of a bus system, and the lack of rural context in the curriculum. These deficits are, at least, denouncing an absence of the State. In addition, the socioeconomic rural context is one of poverty, which combines a high level of unemployment, constant migration to urban centres -looking for work opportunities- and severe cases of malnutrition in different provinces, therefore, introducing to its daily academic activities the functions of feeding, clothing and housing many of their students (Cuervo, forthcoming).

The deficient provision by the State of facilities and resources, such as building infrastructure, stationery supplies and computers and Internet connection, creates an inadequate educational environment for rural students (Cuervo, forthcoming; Rodríguez, 2004). Finally, a curriculum that is out of context to rural settings, based on urban stories and representations, does not help rural children to identify with their present and future and foster a sense of belonging to their surroundings (Cuervo, forthcoming). All these deficits are inserted into a context of poverty, children malnutrition, and lack of employment opportunities (Redondo, 2004; Tedesco, 2003), thus, creating a desolate situation for rural education in Argentina

Australian rural education system

The planning, structure and delivery of education to rural and isolated areas acquired a significant place for the Australian Federal government more than half a century ago. The efforts to assure that rural Australians could have access to education had a landmark occasion in the 1950s with the introduction of the 'Correspondence Schools' (Wyn et al., 2001). In addition, in the same decade the 'School of the Air' was implemented for students living in isolated rural areas, taking advantage of the already implemented plan of the 'flying doctors service' to receive additional classes by a system of radio transceivers (Wyn et al., 2001).

In the 1970s Australian educational policies, beginning with the Karmel report in 1973, addressed the issue of equity and equal educational opportunity to promote the development of different disadvantaged groups (Haynes, 2002). Since the Karmel Report, different educational areas were targeted, such as, disadvantaged schools, migrant students, the education of girls, rural and remotes students', and so on; becoming educational policies that had equality of educational opportunity as their goal (Haynes, 2002).

However, the last two decades have seen an economic-oriented focus in educational policies. The pursuits of economic competitiveness supported by the development of economic rationalism policies have shaped the educational landscape (Taylor et al., 1997). As a result, the shift of education theory moves from issues of social justice and group disadvantage to individual choice and school efficiency and effectiveness (Haynes, 2002).

Different policy documents and research studies around issues of rural education demonstrate the varied and diverse interest by academics and government authorities to tackle some of the problems faced by rural schools (Boylan and Wallace, 2003; Ministerial Council on Education, Employment, Training and Youth Affairs, 2001; Sidotti, 2001; Human Rights and Equal Opportunity Commission, 2000). Nevertheless despite the concern expressed by the national, state and territory governments on the issue of rural education, current research shows there are still some important problems across the vast Australian territory. To summarize them, the main difficulties faced by the Australian rural education are recruiting and retaining staff, teachers' professional development, the curriculum breadth, cost of services related to education and extracurricular activities, and some isolated schools having a lack of infrastructure and information technology (Boylan and Wallace, 2003; Sidotti, 2001; Wyn et al., 2001; Human Rights and Equal Opportunity Commission, 2000).

Two similar schools, two different realities

Despite the different problems that the Australian and Argentinean rural education systems face, the case studies provided here will illustrate the abysmal gap between one system and the other. They are two complete different realities: one school supported by the State and another one that has to rely almost solely on the work of the teacher and on the solidarity of the people, especially from big urban centres. As a result, one school is functioning as a school and the other fulfilling a "refuge" role. In an attempt to make the comparison as clear as possible, I will follow a typical day of class in both schools to provide a clear explanation of the situation in each school and how the presence or absence of the State impacts rural students.

The journey to school

The significant differences between these two one-teacher schools begin with the students' journey to school. One of the most critical challenges for rural students in both countries is the physical distance they have to cover to get to school. In Argentina, the lack of a bus system is a significant deficit for many rural students that have parents that cannot take them to school resulting in students missing many days of classes (Cuervo, forthcoming). There are many stories of rural students walking or traveling by horse many kilometers, with severe low or high temperatures, and crossing hills or even creeks, have been constantly documented in the newspapers since the Argentine socioeconomic crisis of 2001-2002 (Pastrana, 2005; Testa, 2005; Rodríguez, 2004).

Rural students in vast parts of Victoria have access to a school bus system that allows them to travel for free –as long as they attend the nearest school to their home- to school. Interestingly, after conducting a "State Government's Review of School Bus Services", the Victorian government decided to boost rural and regional school bus services with an increase of $31.3 million over the next four years (Department of Education and Training, 2002). Among other recommendations, the review suggested a new scale for private car travel reimbursement where a free bus service was not available, a special allowance to travel by private car or taxi for blind and deaf students, and that the decisions to vary the bus route will no longer need the minimum requirement of five students, now being determined on a case-by-case basis.

The students from the Victorian one-teacher school do not need the bus system and come to school in their parents' cars. There are seven students two of which are brothers. They all live in a radius of 25 kilometers from the school. Fortunately for them, the parents have a car and can bring them to school.

The students from Entre Rios are not so lucky. They face a real challenge when it comes to getting to school. Considering that one of the main problems of rural education in Argentina is the difficulty making the transition from primary school to secondary, mainly due to the fact that students may not have a secondary school in their area, the provincial government, in the year 2000, installed a "transport scholarship" for students from year 7, so they can continue studying (Inaubepro, 2000). Currently, the "transport scholarship" benefits 10, 000 rural students from year 7 to 12, and the financial resources comes from a 2% tax on professional workers' incomes (Inaubepro, 2005a). Evidently, this policy neglects and discriminates students studying in the years prior to year 7, as the school of this case study. As a result, the policy concerned with early-school leavers wrongly assumes that all young people will make it to year 7. This is a significant issue because Entre Rios has approximately 30,600 rural students in the years before to year 7 and 24,100 students from year 7 to year 12 (Dirección Nacional de Información y Evaluación de la Calidad Educativa, 2000).

Interestingly, the provincial government declared that addressing the early-school leavers issue was a top priority (Gobierno de Entre Rios, 2005) and the provincial law of education –Law 9330- states in its second article that the provincial State will be the guarantees of the right to education for everybody (Ley 9330, 2001). However, still more than half rural students are abandoned by the State and denied the same educational rights as their counterparts, as they face additional costs to access school.

The 12 students from Entre Rios found different ways to come to school. Two brothers, 5 and 7 years old respectively, ride the family horse to school. Their parents bring a few of them and the teacher picks five of them up on the road. This last way of coming to school has many legal liability issues because the teacher is not technically allowed to transport any student to school, and if an accident occurs she could face legal charges. However, the teacher claims that if she does not pick up the students, they would not come to school, and that in some instances when she does not find the children by the side of the road she goes to their homes to convince their parents to let them come (Cuervo, forthcoming).

The solution to this issue is not difficult to find, the provincial policy on transportation of students should include children from preparatory level to year 12, ensuring that the daily journey to school is not already taking energy and resources from parents and students. Bus drivers could be easily be found considering Argentina's high level of unemployment, 14% (INDEC, 2004) and, currently, the "transport scholarship" is only $60 Argentine pesos (approximately $35 Australian dollars) a month per student living more than 10 kilometres away from the school (Inaubepro, 2005b).

The other issue faced by Entre Rios' students in their journey to school is the last 5 kilometers of unpaved dirt road. After heavy rains the dirt road will be impassable to for any small vehicle, like the one the teacher drives. During inclement weather, the teacher and students need to rely on the generosity of a neighbour, who owns a truck, to transport them to school (Cuervo, forthcoming).

Breakfast at school

The Victorian students will usually arrive almost half an hour before the bell rings at nine in the morning and upon arriving at the school, the teacher is waiting for them. They do not need to have breakfast at school, fortunately for them; they have already eaten at home. They just play or talk among each other waiting for the bell to ring.

It is impossible to talk about the current state of education in Argentina and neglect the impact of the increasing levels of poverty on the educational system. During the 1990s, Argentina experienced a model of social exclusion, developing high levels of unemployment and poverty, where after the socioeconomic crisis of 2001, 53% of the population was poor (Tedesco, 2003). More dramatically, seven out of ten children from ages below 14 became poor (Tedesco, 2003).

Compared to the Victorian counterparts the Entre Rios' students face a different reality. Once all the students arrive at school the cook will provide them with breakfast. According to the teacher, Monday is a day where students typically have a larger appetite, reflecting what she fears; that parents rely on the school to properly feed their children (Cuervo, forthcoming). This dramatic situation happens with children in many areas of Argentina, urban and rural (O'Donnell, 2002). However, it is interesting to note that Entre Rios is not one of the poorest provinces in Argentina and it is consider one of the rich "farming areas" of a country that has relied on its agricultural sector to recover from the 2001-2002 socioeconomic crisis. According to a study carried out by the United Nations development program, Entre Rios is considered an intermediate province in the national development scale (PNUD, 2002). Lacks of resources, unemployment, lack of knowledge, or unavailability of land, are factors that contribute for parents' incapacity to feed their children.

The Entre Rios school begins a transformation of its role, from an educating to "refuge" one. The alimentary role is just one of the many that the school and the teacher have to fulfil. The food for breakfast and lunch comes from the organic orchard that the teacher developed with the help of the students' parents (Cuervo, forthcoming). The municipal government of the rural town –35 kilometers from the school- where the teacher lives contributed with seeds and tools. However, this municipal government contribution followed an informal process, while no government policy gives the school the right to the tools and seed. Only, the good relationship between the mayor and the teacher provided an informal access to this benefit.

Designing your own curriculum

There is a consistent body of literature showing that in the curriculum issue both systems offer some problems, especially in terms of the curriculum context and its lack of breadth (Cuervo, forthcoming; Herschell, 2001; Human Rights and Equal Opportunity Commission, 2000). Rural students lack the same course options that their urban counterparts have, and they also have textbooks that recreate urban stories and ignore rural experiences. This last issue is very common in Argentine rural education (Cuervo, forthcoming). On the other hand, rural students, particularly ones attending a one-teacher school found have a slight advantage based on the fact that they receive more attention from teachers due to the school's low enrolment (Cuervo, forthcoming; Tomazin, 2004). The teacher knows every student and parents in-depth, and with these personal connections builds support for school activities from the surrounding small community. In addition, parents feel that students receive more attention in the critical early years of schooling (Tomazin, 2004).

The Victorian students enjoy a weekly opportunity to attend a bigger primary school in a nearby town. The seven students are separated into their respective years and interact with the other students in class. However, during the breaks the seven students, in two or three groups, tend to hang-out together, and when asked if they prefer their school or the bigger one, they all agreed to choose their little resourced school.

The situation, again, is radically different for both one-teacher schools. The Victorian teacher follows the curriculum design by the State, while the Entre Rios colleague adds to it her personal values and beliefs. She feels that their students come from a very poor socioeconomic background and they need a different kind of curriculum than the encyclopaedic one provided by the national Department of Education. As a result, the formal curriculum is modified by extracurricular activities and classroom lessons about agricultural, cultural and citizenship values and practical issues. In her classes, she will talk about the importance of savings, to countermand the gambling and alcohol problems that many rural children face at home. She will teach the children how to work the land and provide themselves lunch everyday, as well as some extra vegetables to take home. Finally, she also took a training course in dentistry offered by the provincial Ministry of Health to teach her students how to keep their teeth healthy.

The curriculum in the Entre Rios school not only is out of context but it is more identified with the development of survival skills and basic knowledge than with an academic base that will provide students with a solid foundation to enter secondary school.

The provision of Infrastructure and resources

The investment in school facilities is one of the critical issues where the Argentinean system fails to deliver, while the Australian system provides a much better infrastructure. McColl and Malhoit (2004) argue that a good education is composed of high quality teachers, an enriched and diverse curriculum, an extensive bus system, strong leadership and adequate facilities. Therefore, the inability of the State to supply good school facilities is a negation of equal educational opportunity for rural students. In the case of Entre Rios, as 97% of schools are public, the role of the State becomes critical to give every student the chance to learn in a friendly environment, especially when many rural families and communities do not have the economic resources to support the school infrastructure.

Victorian rural government schools receive funding from the State government through their school budgets, associated grants and, even, government rurality allowances. The 2005-2006 Victorian education budget is focused on providing city and country government schools with the same Internet speed access, to reach the provision of notebook computers for 95% of the teachers, and in investing $83.4 million for new and renovated schools facilities around rural Victoria (Department of Education and Training, 2005b).

In 2004, the Victorian government acknowledged the current problem of recruiting rural teachers and focused their efforts on encouraging teachers to relocate to rural areas, while also promoting more training for rural teachers (Department of Education and Training, 2004). Despite these efforts, rural recruiting, retaining and professional development are still a critical issue for rural education in Victoria and Australia. The financial cost and time-consuming effort for teachers in small rural towns to attend professional development training session in urban or regional centres is still a significant problem (Department of Education and Training, 2004; Human Rights and Equal Opportunity Commission, 2000).

In Argentina, the lack of professional training for rural teachers is another critical deficit (Cuervo, forthcoming; Testa, 2005). In many cases teachers have to travel to urban centres, at their own economic cost, or rely on a non-government organizations to receive any professional training (Cuervo, forthcoming). This situation adds to the already precarious labor and geographic location issues to make rural teachers feel more isolated and abandoned.

Rural families and schools in Australia are entitled to a variety of different funding, resources, programs and projects, ranging from curriculum issues, personnel, information communication technology and school-community partnerships (Rural Education Forum Australia, 2003). One of the most important funding schemes, among others, is the Commonwealth Government "Country Areas Program (CAP) that assist rural and isolated schools with funding grants, itinerant specialist teacher services, communication, among other resources (Rural Education Forum Australia, 2003). Another interesting program, that has already benefited our Victorian school, is the different funding to implement school initiatives and projects financed by the Victorian organization, Country Education Project (CEP). CEP supports more than 400 educational communities all across rural Victoria (CEP, 2003).

During the 1990s, the Argentine national government implemented the "Plan Social Educativo" (Educational Social Plan) with a two-fold objective: improvement of school infrastructure and the quality of education (Duschatzky and Redondo, 2000). Some of the results of this program were successful, such as: the delivery of computers, textbooks, and improvement of schools infrastructure (Duschatzky and Redondo, 2000). However, the implementation of both the Country Areas Program and the Plan Social Educativo can be seen an intrusion of the national government into the provincial areas of education.

When coming back to our two schools, the resources differences are overwhelming. While the Victorian school has a good book and video collection, one computer per student, all connected to the Internet, a basketball court, and a special arts room to fully develop their creativity. The Entre Rios school has two old computers, neither connected to the Internet. The Plan Social Educativo contributed

with books and some videos and a television and video machine but the collection is becoming outdated and needs to be renovated. The Victorian teacher has an office beside the classroom with her computer, fax, Internet, telephone line; she is connected to the world. There is no office for the Argentine teacher, nor Internet, fax or telephone. When at school, the students, the teacher and the cook are disconnected from the rest world.

Since the socioeconomic crisis in 2001-2002, the Argentine media has realized how disadvantaged rural schools were, provoking a flood of generosity and solidarity from people in urban centres (Testa, 2005; Rodríguez, 2004). The Entre Rios teacher found in people's and organizations solidarity and charity different resources, from books, shoes and food, to computers and a trip to visit a city museum. However, this solidarity flood demonstrates the retreat of the State and the abandonment of its citizen. Even more, so far private organizations, foundations, business companies contain the fragile situation of poor sectors of society and general public, the State can continue in retreat. It is the State's, national and provincial, duty to provide a good quality of education and state of art facilities for every student in the country, and not a private endeavor.

The time for lunch

Classes finished at midday in the Entre Rios school and the students know it is time to have lunch. The early morning routine is repeated, with a meal, the brushing of students' teeth, taking care of the horse, walking and car travel. Also, all of them will help at home or on the farm, where their parents are employed. At an early age, the time for playing or study is limited by working duties. In contrast, all the Victorian students will have lunch, prepared at home, in school. When at home, only two of the seven students will work on the farm. Meanwhile, the Australian teacher will return home to rest and enjoy her family, while her Argentine colleague will go back home and think of other ways that she can find more resources to improve the quality of education and life of her students.

Conclusion

Two countries with a significant rural education population present different scenarios. The most important reason for this striking difference is the role of the State. In the case of Argentina, the withdrawal of the State in the last three decades has condemned rural students to a second-class education. The decentralization of education brought by the 1993 reform did not bring any improvement for the rural students of the Entre Rios school. The "Plan Social Educativo" implemented in the 1990s only provided them with some textbooks, a television and some building renovations. Overall, it was the driving force of the teacher in the case of Entre Rios that made a significant difference in improving the general conditions of both, school and students.

On the other hand, the Victorian school presented a different situation. The school is fully supported by the State government, performing its role as provider of the essential conditions to learn in an educational friendly environment. The students and the teacher have only one major concern at school, which is to learn. On the contrary, the Entre Rios students and teacher have different concerns, ranging from alimentary to transport issues. Additionally, many rural schools do not have the advantage of having an "enterprising" teacher and, therefore, suffer from poor infrastructural conditions, high drop-out rates and malnutrition problems, among other critical issues (Cuervo, forthcoming; Rodríguez, 2004).

The deterioration of the access and quality of education condemns a society to socioeconomic backwardness and jeopardize social cohesion. Rural education in both countries, Australia and Argentina, still has different areas where progress is needed; especially, regarding staff recruitment and retaining, curriculum breadth, and financial support, among others. However, the Argentine rural education presents a dramatic situation of abandonment by the State, combined with high levels of unemployment and poverty. In addition, its problematic situation is tied to an absent State and a country without a clear and precise planning and structure. In conclusion, it is time for the public opinion to call the State to increase both the quantity and quality of its involvement because the future of the Argentine rural students is at stake.

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Raising student achievement in rural schools – A school adviser's perspective.

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Abstract

This paper explores some aspects of the work we do as Leadership and Management Advisers with rural school leadership teams, in order to raise student achievement and develop leaders of learning. Since the introduction of the Education Standards Act (2001), and nation-wide requirements surrounding school planning and reporting, there has been a greater need for school leaders to better understand student achievement data, and how this data can be used in order to improve the learning outcomes for students in our New Zealand schools. Much of our work now focuses on the establishment of professional learning communities both within schools and across clusters of schools.

Overview of schools in New Zealand

Most of the small schools in New Zealand are in rural areas. Nearly a third of all New Zealand schools are rural schools and approximately 10% of New Zealand children attend a rural school.

According to recent Ministry of Education statistics (2004) there are 2647 schools in New Zealand:

- 430 (16.25 percent) of our schools have rolls of under 50 students;
- 786 (29.7 percent) have rolls of under 100;
- 1264 (47.75 percent) have rolls of under 200 (Ministry of Education, 2004).

School Planning and Reporting

As Martin and Gray (2003) commented in their presentation at the 19th SPERA conference in Canberra, changes in legislation introduced in 2001 now require New Zealand schools to have a comprehensive school charter which incorporates the school's direction, usually expressed as mission and vision statements, a strategic section which sets out priority goals for the next three to five years and an annual plan including targets for student achievement.

The school planning and reporting requirements, which have a major focus on planning for student achievement, have led to a paradigm shift from considering school strategic planning as an ordered incremental event, to the notion of strategic intent. Davies (2002, p.6) notes "strategic intent allows an organisation to plan in a turbulent environment with a broad understanding without the necessity to engage in obsessive detail in the planning process".

One of our early challenges, as school leadership and management advisers, was to explain this shift and suggest models of documentation that would be appropriate for schools, in particular our small rural schools. Prior to 2001 much of the strategic talk in schools centred mainly around buildings, maintenance and infrastructural developments. We were particularly conscious of the need to develop models appropriate for small rural schools in the light of constraints posed by workload and which focussed school leadership teams on making the raising of student achievement a priority for their schools. We were also conscious of the dynamic nature of small schools and the pressures faced by issues such as falling rolls and school amalgamations and closures, issues often beyond the control of the school and its Board of Trustees and staff.

Prior to the 2001 changes in legislation, schools were required to have a charter, a strategic plan and an annual or operation plan. For some schools, there was little relation between the lofty mission and vision set out in the charter, the direction of the strategic plan and student achievement. Similarly the

relationship between the strategic plan and the operation plan was sometimes problematic. Thus one of our key tasks as advisers over the past few years has been to assist school leaders make sense of the legislation and to ascertain what the changes in the legislation would mean for them in practice, in particular planning strategically to raise student achievement.

Future Directions
Long Term Section

Mission and Vision

Core beliefs and values

Unique position of Mäori culture and New Zealand's cultural diversity

Thinking that informs our goals

Strategic Planning

Student learning and achievement

(Students)

Developing a quality learning community

(Teachers/Programmes/ Community)

School organisation and structure

(Systems)

Goals and strategies that inform our annual plan

National Priorities

Self Review

Annual Plan
Priorities and actions

Priority areas for improving student achievement

Targets

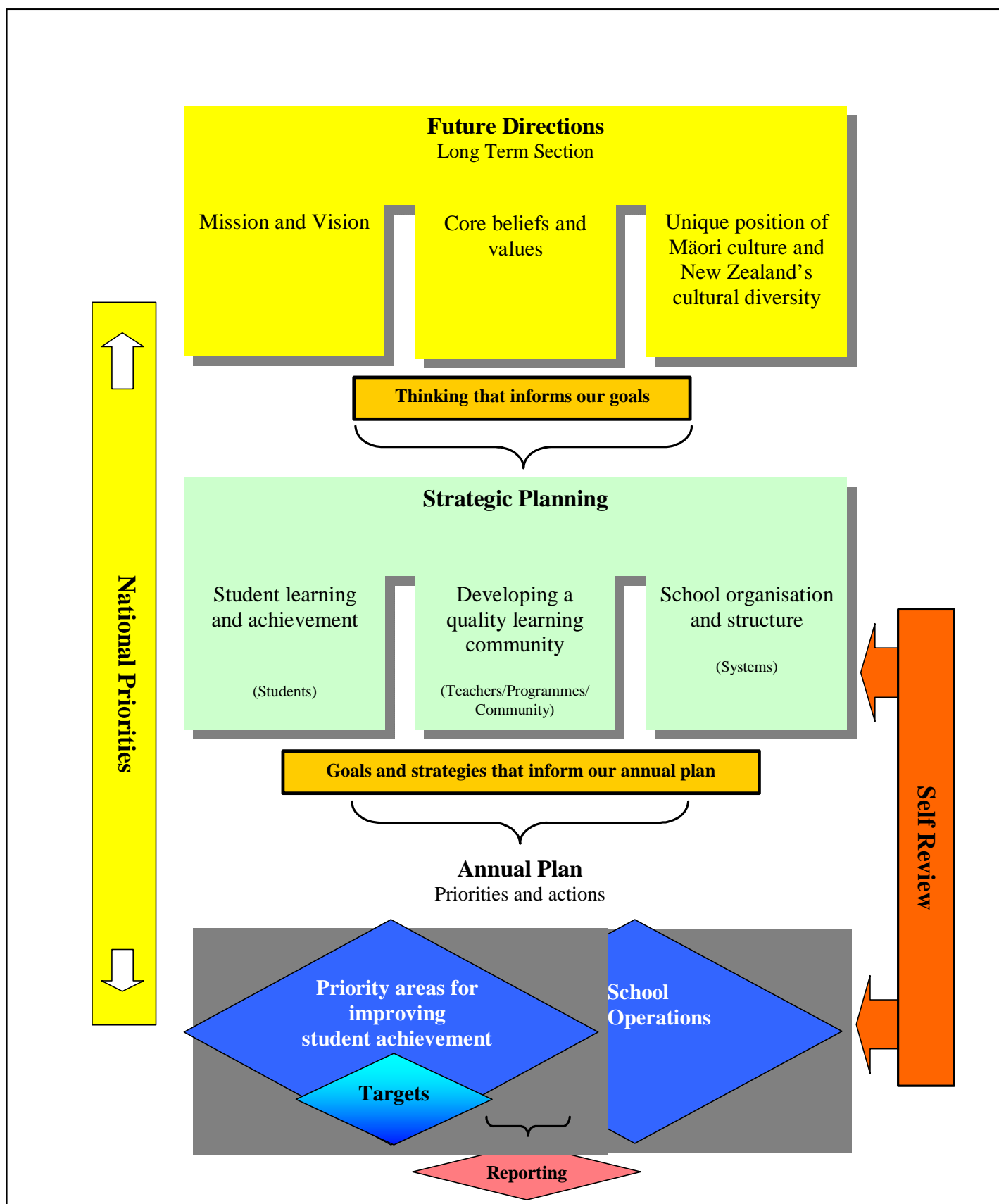**School Operations**

Reporting

Diagram One: The school charter

The diagram (diagram one) above shows how as a team of advisers we attempted to develop a charter model which incorporated future thinking, strategic intent, strategic planning and annual planning, including the setting of targets for raising student achievement.

The future thinking section encourages schools to look at their direction over ten to fifteen years and to develop their vision in terms of achievement for students at the school. It also suggests establishing and stating an agreed set of core education values and beliefs about effective teaching and learning. The strategic section focuses goals on the priority areas for developing student achievement, supported by goals for developing the school community and school operating systems. The annual section requires schools to focus planning for student achievement in the priority areas identified at the strategic level and set specific targets for achievement (Martin and Gray, 2003).

Accompanying this diagram (diagram one), the team developed the following thinking tool (diagram two) which allows school leadership teams to focus more on student achievement and priority areas for learning.
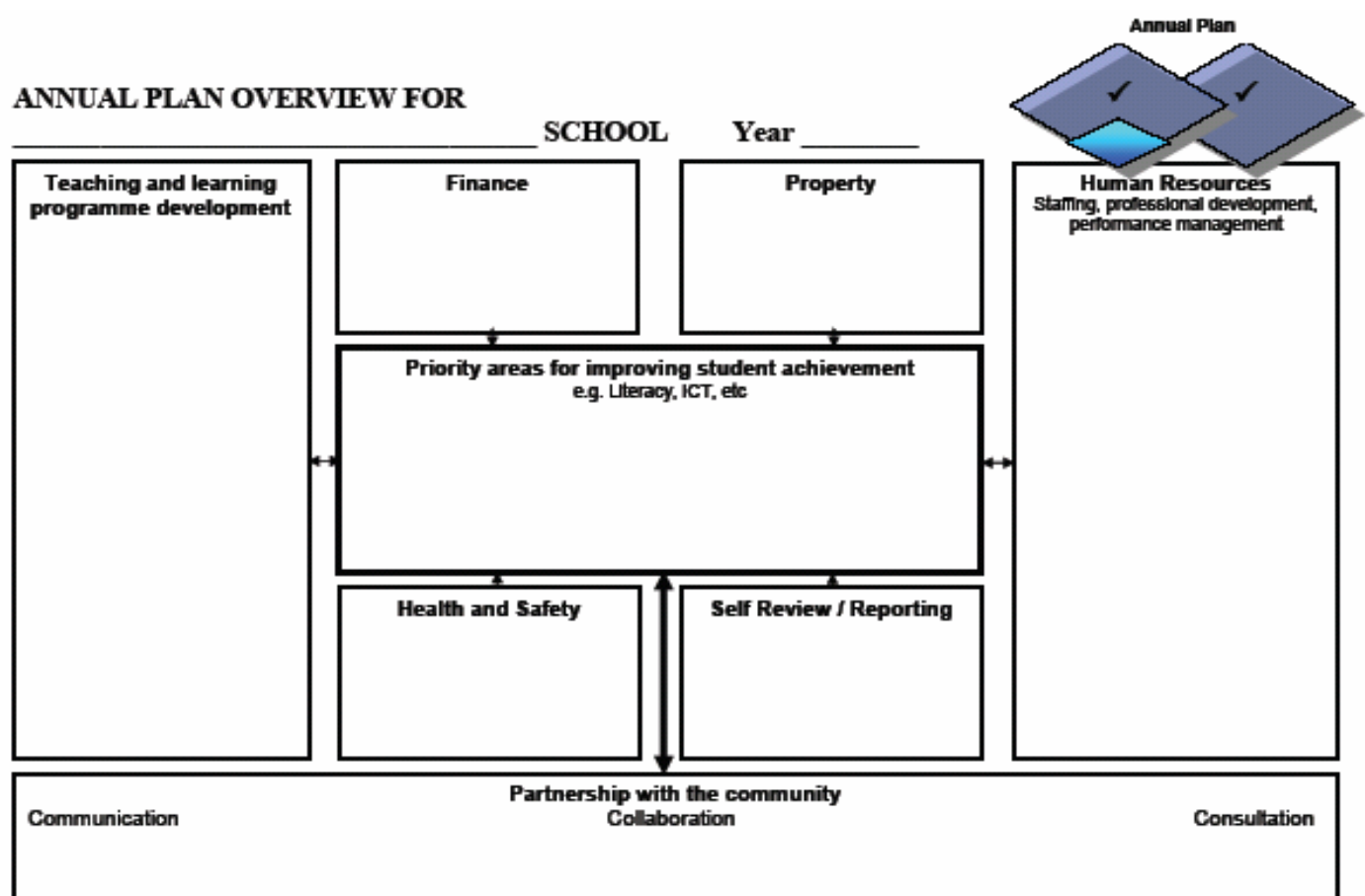
Diagram Two: Revised small school operation plan model

The principal change to previous models of annual planning was to shift the learning areas identified as strategic goals to the centre of the plan and use them to drive the annual planning process thus emphasising the importance of quality teaching programmes and professional development. Other planning areas such as finance and property should support the priority areas at the centre of the plan not dominate them.

These simple changes have allowed small schools to use a more traditional planning format but view the plan through the lens of student achievement rather than the more traditional management-based operational planning.

One of the major changes we have observed in our work since 2001, as leadership and management advisers, is the desire of school leaders to work more collaboratively to gather, analyse and more importantly use student achievement data to inform both their planning at a school level and their teaching at a classroom level. This has resulted in the establishment of professional learning communities, both within ones school and across schools, along with a genuine need to understand how to best analyse and use student achievement data in effective and meaningful ways.

Using Data to Drive Decision Making
A major change since the implementation of the school planning and reporting has been the increased talk about student achievement data. Prior to the 2001 changes much data was collected about student achievement, however very little data on student achievement appeared to be used in terms of informing school development and planning. Schools were relatively data rich, but information poor. Often data was merely stored for future reference, used in funding applications or to show the Education Review Office and/or Board of Trustees differences being made in student achievement. The use of such data was mainly summative.

Since the 2001 changes we have noticed the development of more formative uses of data, both at classroom and school wide level. Staff meetings are increasingly focussing on student achievement data with some now being called achievement meetings and the day to day business of school operations being addressed in other ways. Requests for leadership and management advisers to work with school leaders on how to analyse student achievement data and use such data in school wide planning are increasing. Schmoker (1996, as cited in Pete and Sambo, 2004) argue that for too long education has been more driven by process, adopting or rejecting practices based on leadership, topical movements, or legislated mandates. He advocates creating schools that are driven by results instead. Schmoker implies, teachers working together, with data and with goals is one of the most powerful ways to change achievement in the classroom. Recent New Zealand research on raising student achievement (Alton-Lee, 2003) has identified quality teaching as a key influence on educational outcomes for students. The evidence reveals that up to 59% of variance in student performance is attributable to the quality of classroom teaching, while up to 21%, but generally less, is attributable to school level variables such as physical resources, and leadership and governance (Alton-Lee, 2003, p. v).

Pete and Sambo (2004) argue what we need is Data, Dialogue and Decisions. Our role as leadership and management advisers is to assist school leaders develop ways to use data, set up professional learning communities to explore student achievement data in order to make decisions in terms of school wide planning and strategic thinking. As Harris (2002) comments, external change agents can assist schools in understanding and using data for improvement purposes.

Before concluding this section we feel it is important to note an issue specific to small schools that has arisen in the area of target setting. As mentioned earlier the new planning and reporting requirements require schools to set specific annual targets for student achievement and these targets become part of the annual section of the charter, a public document. Examples of targets created by schools in the first few years of planning and reporting applied generally to the progress or attainment of selected cohorts such as year groups e.g. Year 5 boys. For many rural schools, setting targets for a specific group of children has caused problems, as in small schools, the children in the cohort are readily identifiable. Very small schools have had to look at more generic targets worded in such as way as to protect the privacy of individual students. The challenge of formulating a meaningful target worded in an appropriate way is just another example of the complexity of rural education.

As a way of overcoming this some areas have established a clusters of schools working together to pool their student achievement data to identify trends and issues over a number of schools. The main benefit of this being an increased sample size in which more realistic observations can be made about student achievement. In doing this groups of schools are then able to work together and pool resources or coordinate more effectively use of resources such as literacy and other relevant curriculum advisers.

Establishing Professional Learning Communities.

As advisers, we believe the establishment of Professional Learning Communities as being an important factor in raising student achievement in rural schools. Professional Learning Communities can operate both within schools, between schools or within a cluster of schools.

We view our role as advisers as actively encouraging the setting up and fostering of Professional Learning Communities. Strategies used to establish Professional Learning Communities include sharing enthusiasm by showing an interest in the topic and being actively involved in the formation of a Professional Learning Community. We aim to facilitate productive dialogue in regards to student achievement along with providing information, resources and activities to facilitate that dialogue.

As advisers we work towards increasing an awareness of the purpose and nature of a Professional Learning Community and assist to build relationships, make connections and build a common language amongst the Professional Learning Community through dialogue. In creating a culture of challenge and support we attempt to build capacity and sustainability including leadership capability. As Dufour (2002) says," the overall purpose of a Professional Learning Community is to find common ground. It's what unites us rather than separates us."

A major focus of our work with schools surrounding the development of Professional Learning Communities is to develop a clear understanding of what a Professional Learning Community is and how one might function. That is, developing knowledge of the actual concept of a Professional Learning Community, what the key components are and what strategies might be used to apply and utilise a Professional Learning Community in school based situations. As Hord (2004) comments, for learning communities to function productively, supportive conditions include the physical or structural conditions that enable shared leadership, collective learning, and shared practice.

Conclusion

Schooling improvement research is based on the rationale schools make a difference (Harris 2002). We hope the work we do as leadership and management advisers will assist school leaders in raising student achievement and minimise the rural disadvantage. However "there are no 'silver bullets' in teaching and no guaranteed ways to improve student achievement. Each school and each teacher has to learn how to create the conditions that will produce the results they desire (Robinson 2003, p. 28).

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Pre-Service Country Teaching in Australia: What's Happening - What Needs to Happen?

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The Problem

Ensuring that Australia's rural and remote schools are staffed by appropriately qualified teachers has been problematic from both the supply side (pre-service education and training), and the demand side (recruitment to vacancies), virtually since the introduction of free, secular and compulsory education in the mid nineteenth century.

The experiences and issues of education in rural Australia have parallels in a number of countries, principally Canada and the United States of America, where vast distances and relatively thin and dispersed populations also place pressure on education systems that are similarly underpinned by funding models principally based upon large aggregations of people.

This paper presents and considers research undertaken by the Rural Education Forum Australia in 2004 and 2005 to map what is happening in pre-service country teaching placement programs and in particular, the inhibiting issues associated with them, and what needs to be done to address these. A complete copy of the mapping research report can be downloaded at www.refa.edu.au

Background

As recently as the late 1960's, one of Australia's most rigorous and wide ranging enquiries into education- Education in South Australia 1969-1970, often referred to as the Karmel Enquiry- devoted a very substantial section to preparing and appointing qualified teachers for the rural and remote areas of the state.

Reporting under the heading of "Special Problems of Rural Areas", after making a few remarks about some of the advantages of small rural schools like "individual progression and the development of independent work…(and) a sense of belonging to a community small enough for each individual to be valued and important"(p 204), the Karmel Report focuses on the issues and shortcomings of rural schools of the day.

"Many teachers in charge of small rural schools are in their first and second year of teaching, and have had little or no experience in larger schools where more professional help is available. They are, in addition, often poorly qualified" (p 205).

As well, "we think there are objections to sending inexperienced teachers to remote schools where no person experienced in the field is available for consultation"(p206) but, " (t)he provision of teachers with an adequate range of qualifications for teaching these (remote) secondary pupils is difficult, particularly in special rural schools where the numbers may be very small"(p207).

The problematics of staffing rural schools are further evidenced in a number of the Karmel Enquiry Report's recommendations, two of which are quoted here as illustrations of them:

> *"Teachers appointed to small and remote country schools should in general have served for at least one year in a larger school where professional assistance is available"* and,

> *"In area schools and any remaining special rural schools where the majority of pupils are in primary grades, secondary classes should be taken by four- year- trained primary teachers (preferably with a degree) who have undertaken a special course to*

prepare them for such work in addition to having specialised in a broad subject area in their tertiary studies" (p 209).

Turning to more recent times and reports on education, in 1987, the Commonwealth Schools Commission presented a report to the then Minister for Employment, Education and Training, the Hon JS Dawkins, entitled *Schooling in Rural Australia*. From the Introduction:

> "Attracting staff and maintaining reasonable staffing continuity can be difficult in schools in remote areas. Staff in these schools can find that their preparation for teaching in remote schools and the extent of professional support available are insufficient". (p1)

In developing the case for changes to the way teachers are prepared for rural and remote schools, the report argued that "teachers in rural schools face special challenges and conditions not necessarily experienced by other teachers" (p 139). It also asserts that "a successful adjustment to a rural appointment…includes the preparation for teaching prior to appointment" (p 140).

Education authorities and teachers who made submissions to the report repeatedly stated "teachers feel, or are, ill-equipped to face the realities of living and working in rural and remote areas" (p 141). And, "adjustment to rural teaching can be facilitated through improved pre-service teacher preparation" (p 142). As well, "there is considerably more that teacher training institutions could do to encourage their students to consider teaching in rural areas, especially those students who show a predisposition towards an appointment to remote schools" (p 145).

Well over a decade later, the Human Rights and Equal Opportunity Commission (HREOC) initiated the National Inquiry into Rural and Remote Education in Australia in 1999. The Inquiry was guided by a key question—"What is necessary to ensure that, by the age of 18, each child in Australia has received the education he or she requires to participate to his or her full potential in the social, economic, political and cultural life of the country?" (HREOC, 2000a, p 4).

The Commission presented a report to the then Federal Attorney General of Australia, the Hon Daryl Williams, containing 72 recommendations derived from the evidence presented to it via written submissions, community meetings and formal hearings. The recommendations were developed through an international human rights evaluative framework, which stipulated that "education must be available, accessible, affordable, acceptable, adaptable" (HREOC, 2000b, p 19).

In relation to the preparation of teachers for rural and remote schools, HREOC found: 'most teacher training does not adequately equip new recruits with the skills and knowledge needed for teaching in rural and remote Australia' (HREOC, 2000b, p 43).

The Commission accordingly made the following recommendation:

> *"All teacher training institutions should require undergraduates to study a module on teaching in rural and remote communities, offer all students an option to undertake a **fully-funded** practical placement (teaching experience) in a rural or remote school and assist rural communities in the direct recruitment of new graduates for their schools".* (HREOC, 2000b, p 44, my emphasis).

Gibson (1993) has analysed the policies and practices education systems in Australia used to select and appoint teachers to rural and remote schools. These were contrasted with a sample of teachers' perceptions of what extra pre-service preparation for country teaching was needed. The research found an urgent requirement to improve the pre-service preparation of teachers for rural and remote school appointments in ways that enable individuals to understand and work with the demands and opportunities of rural and remote locations.

A literature review on teaching in rural and remote schools from an Australian stance, but also taking into account research from other countries like Canada and the United States, by Yarrow, Ballantyne, Hansford, Herschell and Millwater (1999) provides additional layering to the complexities of pre-service preparation for rural and remote teaching. A key finding of the review is 'there has been little in the way of a unified or cohesive response…[to] preparing, attracting and retaining teachers in rural and remote area schools in Australia' (p 2).

Boylan(2003) in a paper presented on rural pre-service teacher education to the Australian Association for Research in Education conference based upon an extensive review of state and federal reviews on the subject since the 1980s, similarly concluded that "the current situation can best be described as piece meal" (p7).

Research Focus

Against the backdrop of the preceding overview of a selection of reports and commentary on rural education and the preparation of teachers for rural schools, I have researched, on behalf of the Rural Education Forum Australia (REFA), one component of teacher education and preparation for rural postings namely, country pre-service placements (also often referred to as country practicums).

The research attempts to do four things in particular- establish the dimensions of pre-service placement programs in Australia, identify the issues which function as pre-service country placement inhibitors, ascertain the perceived benefits of pre-service country placements and, determine the comparative pattern and distribution of effort for pre-service country placements between metropolitan and regional universities.

Many kinds of incentives have been used, and continue to be used, to attract and retain teachers for rural and remote schools. All of them are of a compensatory nature like extra salary, cheaper housing, additional leave entitlements and increased promotion prospects. One of the impacts of this approach is that the professional demands and specialisations of rural and remote education are displaced out of the foreground of professional considerations vis a vis, to teach or not to teach in a country school.

Also, REFA is particularly interested in doing and promoting research that produces data and information for evaluating and then proposing changes to government and other kinds of policy, for progressing better opportunities for individuals and families to access education in rural and remote locations that meets the minimum requirements of "…affordable, acceptable, adaptable"(HREOC 2000 b,p19).

Research Design

The research design for the pre-service country teaching placement programs in Australia has its origins in a roundtable which REFA hosted in Canberra in October 2003 involving representatives from the Australian Council of Deans of Education (ACDE), senior education department officers from several states, field practice administrators, pre-service teachers and members of REFA. The roundtable was held to assess support for the proposition that all students taking a teacher education degree course should have the choice of a high quality, extended and well resourced country placement as part of their overall education to become a teacher.

The research design of the pre-service country placement programs mapping was shaped by the deliberations of the roundtable and is encapsulated by the following five main research parameters.

Firstly, the imperative to collect data and information that was as current as possible in order to maximise the impact of its analysis and synthesis on possible changes to policy settings- as already stated.

Secondly, it was agreed to use and emphasise an invitational opportunity to participate in the research. It was hypothesised that findings from the research that would challenge current practices were likely, and therefore ensuring all providers had the choice of participating would more likely than not, optimize their preparedness to consider changes to pre-service placement policies and programs.

Thirdly, opportunity for respondents to the survey and interviews to have scope for focussing on the benefits of existing arrangements as well as the identification of issues.

Fourthly, the research designed had to provide scope for collection of statistical information that would clarify the overall dimensions of the annual pre-service teacher placement effort in Australia for the quantitative framing of policy proposals.

Finally, it was considered very important that the design for the research provide an opportunity for government and non government officers with policy and /or operational responsibilities for staffing

rural schools in the various states and territories, to comment on country pre-service placements from the perspective of the value attributed to them by their agency.

The on-line survey of teacher education providers comprised twenty six questions arranged into three sub groups- those dealing mainly with university data and information, those mainly about student issues and, those mainly on school and community issues. The scope, clarity, comprehensiveness of issue coverage and content validity of the questions were assessed prior to surveying with members of the Reference and Work Groups established for the mapping, which comprised representation from stakeholders such as the Deans of Education and Education Department Senior Executives. A copy of the survey, the instructions for it and a glossary of terms to assist with its completion and return, is in appendix 1 of this paper.

Information and commentary from government and non government personnel referred to above were collected by pre-arranged telephone interview. Each interview lasted approximately twenty minutes and four broad questions were used as the basis of the interviews viz *:*

- *What is the policy of your organisation in relation to country teaching experiences for pre-service teachers?*

- *How do your organisation and schools work with university teacher education programs and pre-service country teaching programs in particular?*

- *What is the value and benefit of pre-service country teaching programs to your organisation?*

- *In what ways could the current arrangements be improved consistent with the Rural Education Forum Australia's country teaching pre-service objective—ensuring that pre-service teachers can access a quality well resourced country teaching experience as part of their professional preparation?*

These were preceded by an explanation of the background, purpose and overall design of the mapping research.
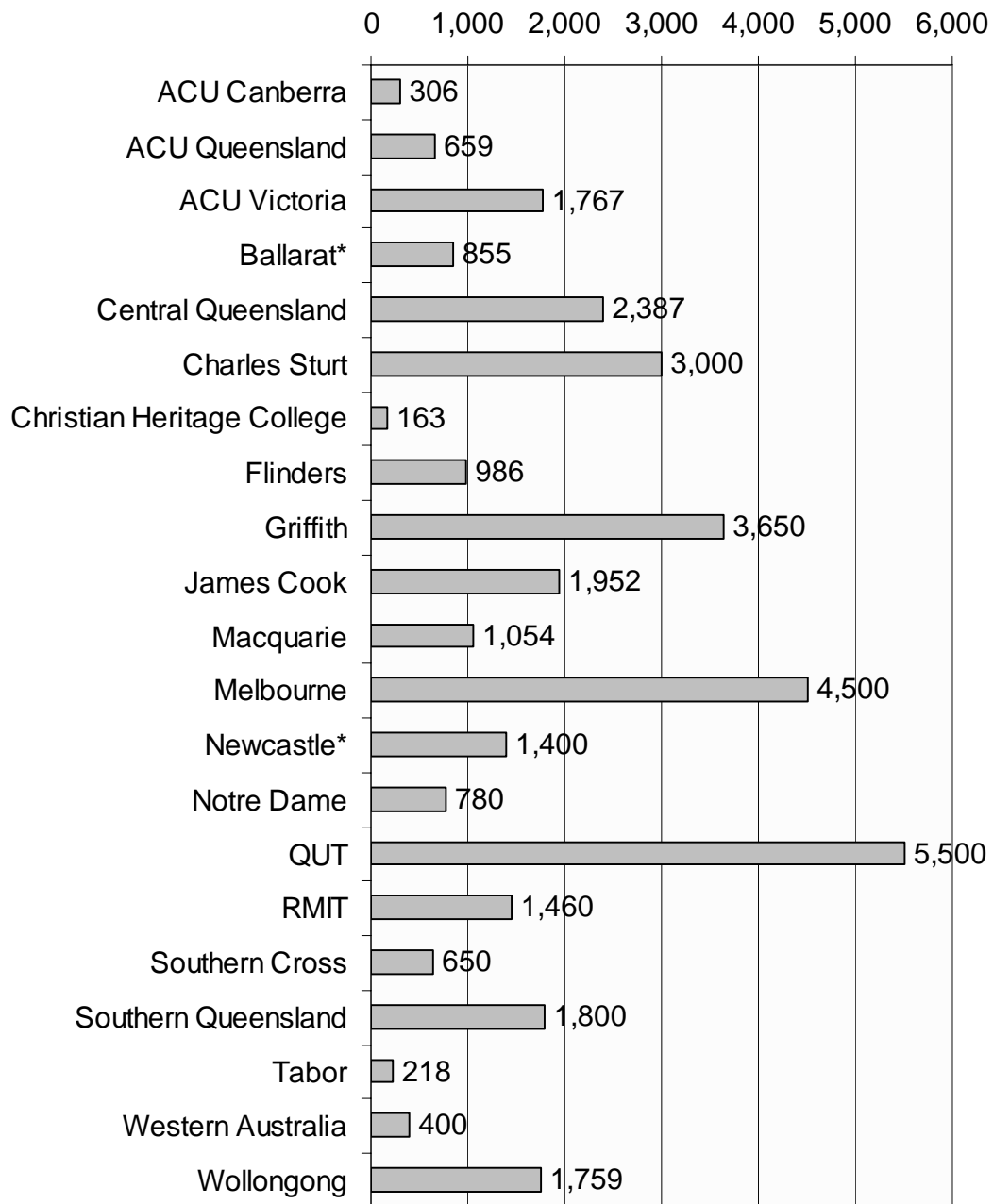
Findings

Twenty three providers of teacher education programs responded to the survey- see appendix 2 for details, and thirteen interviews were conducted with a mix of government and non government education personnel.

Firstly, **some dimensions** of pre-service teaching placements in Australia:

- the survey respondents organised 39,556 pre-service teaching placements in 2004 representing 764,608 days of teaching

- by the definitions used by each of the participating institutions, 22.7% or 8967 of the placements were in country locations, of which 433 were considered to be in remote areas

- the universities located outside capital cities arranged 7923 of the country pre-service placements

- the city based universities arranged, on average, one rural placement for every 25 city and urban placements

- for rural based universities, the figures there were two rural placements for every one non-rural placement

- the mean length of a rural pre-service teaching placement was 19.3 days

- the duration range of a rural pre-service placement was 4 to 60 days.

Graphically, the total placements, the rural and remote placement breakdowns and the duration distribution are as follows.

Figure 1. Total placements by providers listed in alphabetical order

Provider	Placements
ACU Canberra	306
ACU Queensland	659
ACU Victoria	1,767
Ballarat*	855
Central Queensland	2,387
Charles Sturt	3,000
Christian Heritage College	163
Flinders	986
Griffith	3,650
James Cook	1,952
Macquarie	1,054
Melbourne	4,500
Newcastle*	1,400
Notre Dame	780
QUT	5,500
RMIT	1,460
Southern Cross	650
Southern Queensland	1,800
Tabor	218
Western Australia	400
Wollongong	1,759

Figure 5. Number of placements categorised as rural or remote

University	Rural	Remote
Wollongong	15	0
Macquarie	12	3
Christian Heritage College	17	0
Tabor	14	12
Western Australia	27	1
RMIT	22	8
ACU Queensland	28	10
ACU Canberra	48	9
Notre Dame	81	1
Griffith	48	50
Flinders	100	20
Melbourne	140	10
Newcastle*	100	100
ACU Victoria	224	4
QUT	257	57
Central Queensland	544	31
Southern Cross	650	0
Ballarat*	363	363
James Cook	1,113	59
Charles Sturt	750	750
Southern Queensland	1,620	180

■ Rural □ Remote

Figure 3. Number of placements by duration frequency
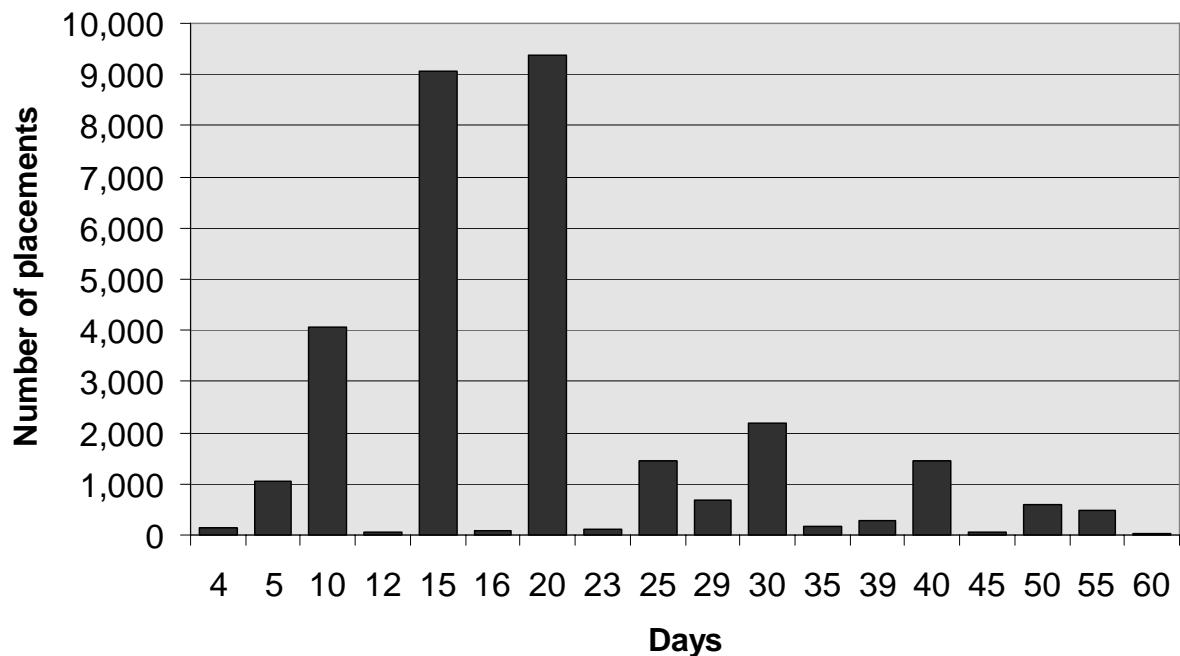
Secondly, **the qualitative and issues finding**:

- For pre-service teachers, the main cost pressures are paying for placement accommodation and maintaining their rent commitments; travel to and from a placement; loss of income from part-time work (as well as the possibility of losing their job or missing out on wage increments) and extra costs associated with living in the country.

- For universities, there are the costs of administering placement programs and providing supervision by either university staff and/or staff engaged at a more local level. For some programs, there are payments for school supervisors and mentors, and there are also the hidden costs of the personal time provided by lecturers. It was reported that the time associated with travel to country placements in some instances is not calculated as part of workloads.

- There are school-based and some system and sector costs associated with supervision and the overall coordination of state-wide processes and initiatives where they exist.

- Universities encourage—and in some cases strongly encourage—but do not mandate country placements as part of course completion requirements.

- Church affiliated teacher education programs often use their community networks to support students with accommodation and introductions via social networks while on a pre-service country teaching placement.

- Typically, teacher education programs place year level stipulations on when a pre-service country teaching experience can be undertaken, or they require evidence of satisfactory performance in a previous placement.

- There are linkages between what happens in a placement program and what happens in curriculum studies and teaching studies units. Debriefing and follow

- up occurs quite extensively following country pre-service placements. The main forms of debriefing and follow up include evaluative workshops, discussions involving all key players

that incorporate links between theory and practice, and taking up issues raised by students as part of rural education and curriculum topics or electives.

• There appears to be a significant lack of fundamental budget information for effective and efficient management of pre-service placement programs, such as: what are the main sources of funding for them and how much programs cost to run?

• Personal circumstances—like the need to care for family and to maintain paid employment—of pre-service teachers, play a significant role in decisions about participation in a pre-service country teaching placement.

• The perceived benefits of a pre-service country placement were reported to outweigh the downsides and include the opportunity for rural schools to use country placements to 'job test' pre-service teachers for recruiting to vacancies.

• Communities gain from pre-service country teaching placements, as do teachers and school students, because pre-service teachers often bring expertise and knowledge, which are not available locally, into communities and schools. This is most obvious, and apparently highly valued, when the expertise is visible-and non contentious—like the ability to play a musical instrument, participate in a local drama production or play sport. There are also economic benefits that flow into small businesses from local goods and services purchases.

• In terms of supervising teachers, pre-service placements can provide valuable extended professional development, as well as the assistance of extra resources to handle the many tasks of a multi-grade classroom. From a pedagogical point of view, it is probably the case that the presence of a pre-service teacher means that some students have their learning styles needs met, perhaps for the first time.

• Although not reported in either the survey of the universities or in the interviews with schooling sector personnel, it is well known to a number of the member organisations of REFA that pre-service teacher placements in rural and remote communities can introduce potential relationship partners into a community. This is a very significant matter beyond the scope of this report, but one that is critical to the long term maintenance and renewal of a number of primary industries which are currently heavily biased towards males. The gender imbalance is exacerbated by more young females than males moving out of rural communities.

Discussion

The quantitative findings of the survey reveal that pre-service teacher placement programs are both very large and very complex components of teacher education. Given that 23 other sites did not respond, it is reasonable to conclude that the total annual pre-service teacher placement effort is in excess of one million days annually. This represents not only a major national, institutional and individual commitment to the preparation of teachers, it also represents a major resource constantly moving in and through schools and communities.

The figures from the survey returns are very instructive *vis a vis* the emphasis and effort being directed towards preparing teachers for work in rural and remote contexts as compared to urban and city contexts. Of a total of nearly 40,000 pre-service placements organised annually by the university survey respondents, fewer than 9000 are classified as country by them. This represents approximately 23% of total placements. Further, universities in the survey in rural locations account for almost 8000 of the country placements with the remaining 1000 country pre-service placements being arranged by the 16 metropolitan or large regional centre universities that replied to the survey.

The qualitative findings of the project survey show that there are a number of key issues endemic to country pre-service teaching placements which inhibit their provision and take up. As well, the qualitative findings show that there are a number of very enabling and highly valued features of placements which provide a substantial basis for developing and implementing ways and means for improvements.

The most frequently cited inhibiting factor associated with country pre-service teaching placements is cost. Although the survey of the universities did not ask students directly what issues were the most problematic for them in terms of taking a country pre-service placement, the widespread reporting of cost imposts for students testifies that it is a genuine matter that has to be dealt with better than is currently the case, if there is to be an expansion in the number of pre-service teachers taking a country

placement. From an institutional perspective, there are also a number of cost factors affecting the availability and duration of pre-service country teaching programs, principally clustering around supervision.

For pre-service teachers, there are also inhibitors to participating in a country placement other than cost. A major one is accommodation. Another is dealing with the 'unknowns' and the extra pressure this creates for an already pressured and high stakes objective—achieving a well rated pre-service placement report. An aspect of the 'unknowns' is weighing up the risks of showing you are interested in a country pre-service placement and then this being taken by others—presumably by supervisors or future employers—as being interested in employment in a rural school.

There are institutional factors that inhibit the ready availability and support for pre-service placements in addition to the limited amount of funding allocated to placement budgets. They include the space and status accorded to inclusion of a pre-service country teaching experience as part of course completion requirements or options.

A country pre-service placement is something that has to be earned by first proving that you can satisfactorily teach in a city or urban context. Universities are very reluctant to place anyone in a school that is a long distance from home base. This reluctance appears to be greater for placements in remote indigenous communities. As well, pre-service country placements are used by schools to recruit to vacancies. This was reported in responses from universities and also by government and non-government school representatives when commenting on the value and benefits of country pre-service placement programs. In other words, pre-service country placement programs are integral to human resources units within education departments and non-government school sectors meeting their staffing obligations.

Communities gain from pre-service country teaching placements, as do teachers and school students. There are some things shared and some things unique to each group. The common features are that many pre-service teachers bring into a community and a school, expertise and knowledge which are not available locally. For supervising teachers, pre-service placements can provide valuable extended professional development as well as the assistance of extra resources to handle the many tasks of a multi-grade classroom. From a pedagogical point of view, it is probably the case that the presence of a pre-service teacher means that some students have their learning styles needs met, perhaps for the first time.

For the community, there is also the potential for a modest but welcome, extra source of cash for small businesses from pre-service teachers. Although not reported by either the universities or in the interviews, it is well known to a number of the member organisations of REFA (and others) that pre-service teacher placements in rural and remote communities can introduce potential relationship partners into a community. This is a very significant matter beyond the scope of this report, but one that is critical to the long term maintenance and renewal of a number of primary industries which are currently heavily biased towards males. The gender imbalance is being exacerbated by a greater movement of young females than males out of rural communities.

Progressing the findings

The Rural Education Forum Australia has developed eight recommendations in two categories, which it is in the process of promoting and profiling to address what it sees as the work and changes needing to occur to substantially improve the place of pre-service country teaching placements in teacher education programs. They are:

Policy Framing Recommendations
The recommendations in this category focus on creating policy orientations for expanding support for pre-service country teacher placement programs.

1.   That universities and other providers of teacher education programs be strongly encouraged to develop policies to increase significantly the number of pre-service country teaching placements arranged and taken annually.

2. That choice for individuals and institutions is used as a key value for guiding decisions about the provision of, and participation in, pre-service country teaching.

3. That resources for pre-service country teaching placements are based on the actual costs for students, universities, schools and communities and that the data required for determining costs is regularly monitored and assessed.

4. That cooperation and collaboration between and among pre-service teachers, universities, participating schools and communities are necessary, but not sufficient requirements in themselves for achieving increases in the size, scope and quality of pre-service country teaching placement programs.

Operational Recommendations

The recommendations in this category focus on changes to key operational aspects of pre-service country teaching placement programs.

1. That pre-service country teaching placement programs be strongly encouraged wherever and whenever possible to place students in groups or clusters of schools, or place at least two students at a site, for example, one coming from a mainly metropolitan background and one from a mainly rural background.

2. That metropolitan universities and key stakeholders be strongly encouraged, and provided with incentives, to progressively and significantly increase the proportion of their teacher education cohort that participates in a country pre-service placement.

3. That procedures for schools to notify teacher educators of their willingness to participate in pre-service country teaching placement programs be reviewed and, where required, modified, to ensure that the site pool includes all schools that have the human and other resources required for participation in placement programs.

4. That further research be conducted into the funding of pre-service country teaching placements and that the terms of reference for the research include:

– determining the costs of placements from the perspective of pre-service teachers, universities, participating schools and communities

– determining the amount and disbursement of the funds currently allocated by government for pre-service teaching placements

– determining benefits that may accrue to employing authorities from pre-service teachers who have taken a country placement(s) prior to employment

– investigating current country education funded initiatives like the Country Areas Program as a vehicle for receiving and disbursing funding required for pre-service country placements developing and evaluating new models for funding country pre-service placements that are based upon user choice and incentive grants for teacher education providers and, schools and communities that participate in placement programs

Summary

The challenges and complex issues endemic to staffing rural and remote schools in Australia have been part and parcel of the growth and development of the nation for well over a century.

Many strategies have been used, mainly by governments who have been required by legislation to essentially guarantee educational provisioning, to ensure qualified teachers have been available for country children and families. In recent years in particular, there seems to have been increasing emphasis placed on "push out into the bush factors" being used as the best way to deal with meeting staffing obligations. These are basically a raft of incentives to make what would otherwise not be someone's preference, palatable. And there are of course, many teachers whose preference it is to live and work in rural and remote contexts and this fact needs to placed appropriately in the whole discussion and search for improving the attraction and retention of professionals to country locations.

However, the situation remains that staffing rural and remote schools and allied educational services continues to be substantially more problematic than staffing schools in metropolitan locations. It is the case that within any metropolitan centre there are schools known to be harder to staff than others and

often there are policies to address this situation. But in the largely metro- centric country that we live in – even though much of the national identity is drawn from and continues to be nourished by rural images, icons and stories as well as the power of evocative landscapes- the fact remains that a country posting generally involves greater disruption and disturbance to an individuals personal domain than does a city appointment.

The Rural Education Forum Australia believes that it is timely to now work towards moving from a reliance on push out factors to genuine attraction factors that are imbedded in the professional challenges and rewards of teaching and living in rural and remote Australia. Integral to achieving this kind of re-orientation is ensuring that all pre-service teachers have the choice of an extended, high quality and well resourced country placement so that they can *focus on teaching and the specialised opportunities of this in an other than metropolitan context*, rather than worrying about what is happening at home base and to their part-time job and…

"… in the modern era there are the binary oppositions between signifier and signified, knowledge and non-knowledge, center and periphery…[But] is there ever a relation between two terms…? One always has Three. There is always the Other" (Lefebvre,1980, 53)

The challenge is to find the "Others"!

Appendix 1

Pre-Service Country Teaching Mapping Project Survey and Explanatory Notes as Distributed Online to all Providers of Teacher Education Programs

EXPLANATION

The Australian Government's Department of Education, Science and Training funded the Rural Education Forum Australia (REFA) to map the range of pre-service country teaching programs currently available in Australia.

The funding for the mapping was made available as a result of REFA hosting a roundtable in October 2003 in Canberra involving representation from the Australian Council of Deans of Education (ACDE), senior education department officers from several states, field practice administrators, pre-service teachers and members of REFA.

REFA hosted the roundtable because it is committed to ensuring that pre-service teachers can access a quality well resourced country teaching experience as part of their professional degree preparation or postgraduate program. REFA believes that this is essential to achieve sufficient numbers of teachers available and keen to teach in rural and remote locations and to make, in a more general sense, a significant contribution to the professional learning of teachers.

REFA also believes that major improvements to the quality and availability of pre-service country experience programs will help ease the pressure being placed on metropolitan locations to provide sufficient places for all student teachers.

DEFINITIONS/GLOSSARY OF TERMS

Pre-Service Teacher

There are various terms used to describe those enrolled in an education degree or a graduate entry course in order to become a teacher. For the purposes of this project, the term pre-service teacher is used to describe them.

Pre-Service Country Teaching Program

For the purposes of this survey also, a pre-service country teaching program is one that is designed to enable a pre-service teacher during their undergraduate or post-graduate program of teacher education to spend an extended period of time in a rural or remote school or other site of learning services provision like a distance education facility.

Extended Period

An extended period of time means a minimum of 10 continuous working days of teaching and/or observation at a site or combination of sites. The definition of an extended period is intended to include the weekend linking the 10 continuous days.

Rural and Remote

Rural and remote are both terms that are frequently ascribed meaning according to context and are often used in conjunction with, or instead of, country. Distance from a city and/or a regional centre and population size and density are some of the common contextual factors that influence the assigning of rural or remote labels. The Australian Bureau of Statistics has a suite of definitions and a glossary for gradations of remoteness see www.abs.gov.au/

The Mapping Project was based upon individual respondents providing a definition of and/or policy on rural and remote. Question 5 provides opportunity for this.

COMPLETING THE SURVEY

The survey is designed with variable size text boxes to provide opportunity for respondents to tailor their responses to the particularities of their program(s). The format has provision for the survey to be distributed to a number of staff to complete specified sections. The final consolidated 'whole of institution' completed survey should be sent to ………………. by………………………..

It is acknowledged that the survey will take a significant amount of time to complete. In some contexts, the questions may provide an opportunity for site/program specific professional development to occur. In other cases, the survey may be of assistance in planning for future options and opportunities.

REFA acknowledges that it is a busy time of year for universities, but strongly encourages your institution to participate. All participants will be acknowledged in the final report that is produced from the data and information received. All will also receive a copy of the collated results and report.

To assist with the completion of the survey, the questions have been grouped, but it is recognized that there is some porosity between the groups – hence the grouping titles – Mainly University Issues; Mainly Student Issues; Mainly School and Community Issues.

Thank you for making the time available to complete the survey.

QUESTIONS

Completion/Contact Details

University	Date
Faculty/School	Phone
Completed by	Email

Mainly University Issues

1. What was the total number of individual teaching experience placements organized by your institution in 2004?

2. How were they configured in terms of the number of days in each?

e.g. (say) 300 placements of 10 days in length: 110 of 25 days in length etc.

3. How many of these placements does the institution consider to be country   placements?

4. Of this total number of country placements, how many were regarded by the institution as

−   Rural?

−   Remote?

5. Do you have a policy or definition on what is rural and what is remote in terms of the location of country placements? Please specify.

It would be particularly useful if you could provide the location names of country   placements your institution has arranged in 2004 as well.

6. Do you have a policy/practice of attempting to give pre-service teachers an   experience in a rural/remote school that has a significant number of Aboriginal and Torres Strait Islander students? If yes, please provide details.

7. Of the teacher preparation programs offered by your institution, which of them include a country pre-service placement?

8. Where country placements are made in a particular program, are they optional or are they compulsory?

    –   If optional, what is the rationale?

    –   If compulsory, what is the rationale?

9. What proportion of each of your teacher education programs is allocated for pre-service country teaching ?

10. What are the main factors that determine the availability and the duration of pre-service country teaching? Please comment. Nature of the program

    –   Cost

    –   Supervision

    –   Changing nature of student cohort

    –   Availability of suitable placements

    –   Other

11. In a 4 year degree or in a graduate program at what stage(s) does pre-service country teaching typically occur?

    –   How does it articulate with the on-campus elements of teacher preparation?

12. What networks and/or support mechanisms has your institution established for pre-service country teaching rural and remote communities?

Mainly Student Issues

13. Describe the main features of any specific preparation of pre-service teachers for country teaching experiences including any selection processes of candidates for country placement.

14. Does post country teaching experience debriefing and follow up occur with students and staff? Yes( ) No( ). If yes, please briefly describe the main features of the debriefing and the key issues that are raised.

15. How is supervision and support (including on-line ICT services) provided to pre-service teachers from the institution during country teaching experiences and how frequently is it provided?

16. What are the main cost pressures of county teaching pre-service programs?

17. What is the total budget for the country teaching programs in your institution and how is that funding allocated?

    –   Are there any subsidies available from government or other sources?

18. List any costs that pre-service teachers themselves typically have to meet in order to participate in a country teaching program. Are there any allowances or subsidies paid to pre-service teachers who undertake a country placement e.g. for travel, accommodation etc?

19. What reasons do students give for not wanting to/not being able to participate in country teaching pre-service programs? Please rank up to the top 5 in each group.

20. How is accommodation for pre-service teachers arranged and managed?

Mainly School and Community Issues

21. How are schools that participate in the country teaching experience selected? In schools that are selected, how are the cooperating teachers determined? Are teachers in those schools who accept pre-service teachers given any special preparation by your institution? Please provide details.

22. What strategies does your institution use to facilitate pre-service teachers having an authentic country teaching experience including relationships with communities?

23. In your view, what are the benefits and downsides for schools that participate in country teaching programs for pre-service teachers?

24. Please rate the importance assigned by your institution to country pre-service programs for pre-service teachers on a 1(no importance) to 6(indispensable to the preparation of teachers) scale.

25. How effective has your institution been in ensuring that pre-service teachers can access high quality pre-service country teaching placements? Please describe.

26. Please use the space to provide any other information about the pre-service country teaching program at your institution that you would like to make known to the Mapping Project.

Appendix 2

The heart of the mapping report is the survey results from the 23 teacher education programs (out of a total of 46) around Australia that accepted the invitation to participate. They were: Australian Catholic University Canberra, Australian Catholic University Victoria, Australian Catholic University Queensland, Central Queensland University, Charles Sturt University, Christian Heritage College, Flinders University, Griffith University, James Cook University, Macquarie University, Newcastle University, Notre Dame University, Queensland University of Technology, Royal Melbourne Institute of Technology, Southern Cross University, Tabor College, University of Melbourne, University of Ballarat, University of New England, University of South Australia, University of Southern Queensland, University of Western Australia and, University of Wollongong.

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The Pilbara Education District (WA)

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Abstract

The State of Western Australia is challenged by vast differences and a sparse population. There are only 1.2 million people who live in WA and the vast majority of those live the South-West corner. There are ten regional towns and the remainder live in small communities dotted around the State.

Comparative size of Western Australia and other places around the world.

As you can see, the State is one of enormous dimensions and the task of the Department of Education and Training is complex and challenging. The role of the Department is to provide education to all school aged students and training for adults (lifelong learning).

From a school perspective, that translates into approximately 850 schools, 20,000 staff and 200,000 students.

Figure 2: Education districts provide services across the State.

Schools in WA range from very large senior high schools and primary schools with student populations up to 2000, situated within a 5 to 20 km radius of the city centre, to small country schools of 10 to 100 students located more than 3000 km away.

Some schools are situated in remote communities that comprise Aboriginal inhabitants only, and in addition to being distant from the city centre, they are also distant from major town sites and services.

All schools are encouraged to work with parents and community groups, involving them in school decision making. Every school has a School Council that is inclusive of key stakeholders with a view to ensuring that the school and its community are closely connected and working together. Within every community there is a level of expertise that can provide students with 'real' and relevant learning experiences and enhance learning outcomes.
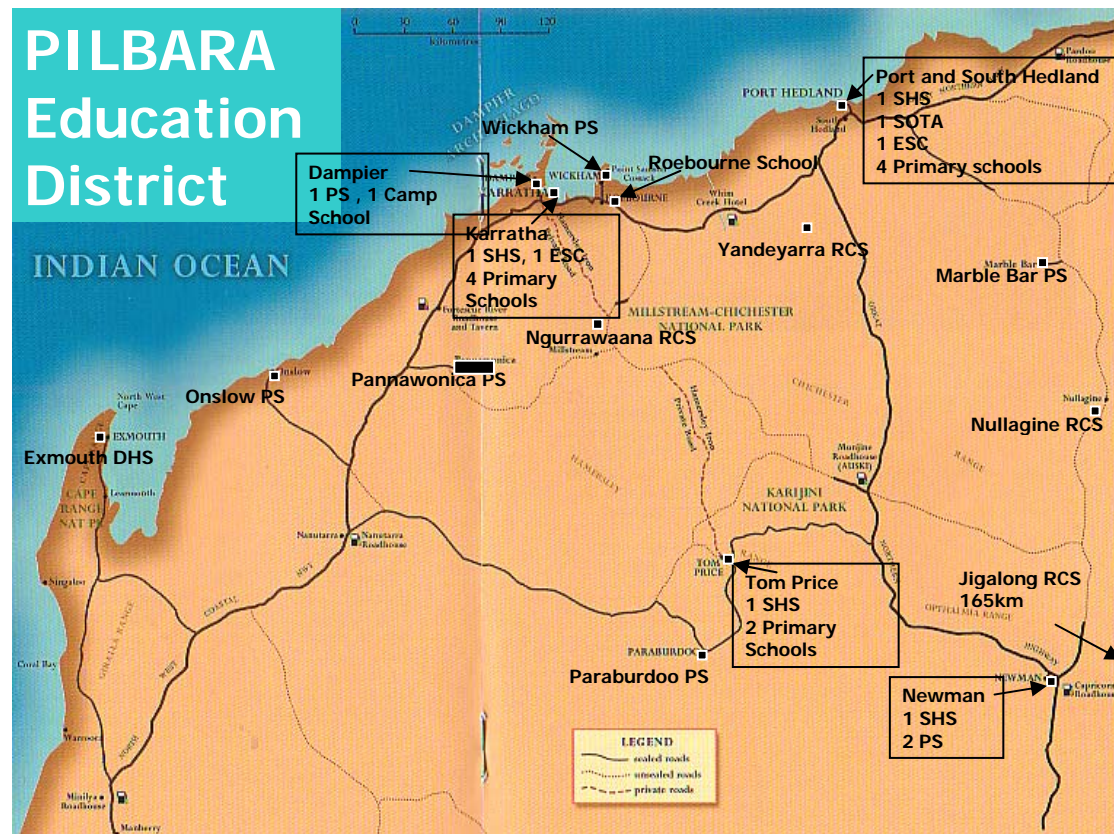

Figure 3 Map of Pilbara region

Situated in the North West of Western Australia, the Pilbara is a mineral rich region of spectacular scenery thought to be around 2.8 billion years old.

Extending from the Indian Ocean to the Northern Territory border, the Pilbara covers more than 500,000 square kilometers. The region comprises four local government authorities - the Shires of Ashburton, East Pilbara and Roebourne, and the Town of Port Hedland.

The Pilbara is one of the most vital and dynamic wealth producing regions in Western Australia, responsible for the production of goods and services worth more than $16 billion per annum. The region's economy has shown significant growth over the last five years, with the value of production growing more than 60 percent from 1997/98 when the region's production of goods and services was valued at approximately $9.6 billion per annum

More than 39,000 people (39,676 estimated population by the Australian Bureau of Statistics for 2000/2001) live in the Pilbara enjoying the relaxed community life style, the magnificent climate and

unique environment it provides. While most residents live in the region's towns, many choose the rugged lifestyle of the pastoral stations.

Whilst the Aboriginal population comprises approximately 12% of the general population in the Pilbara, with enrolments of over 2000 Aboriginal students making up over 27% of the student population there appears to be a rapidly expanding Aboriginal population in the area.

There are over 8000 students currently enrolled in Pilbara schools with potential to increase as the resource sector expands in many areas.

Table1: Rural School Education Districts

District	No Of Schools	Students	Teaching Staff	Area (sq km)
ALBANY	27	7327	571	22515
BUNBURY	37	12778	926	5638
ESPERANCE	20	3400	281	162000
GOLDFIELDS	34	6498	480	1000000
KIMBERLEY	23	4542	375	421451
MIDWEST	47	8455	731	550000
MIDLANDS	49	6467	581	78000
NARROGIN	30	4701	417	50000
PILBARA	31	8326	611	510000
WARREN-BLACKWOOD	24	7604	597	17701

DIFFICULT TO STAFF (DTS)

The Department's Difficult To Staff (DTS) Schools Initiative commenced operation in 1999 with the aim of increasing the number of teachers attracted to DTS locations in the State and to strengthen retention rates by reducing teacher turnover. To support this initiative the DTS package comprises a combination of financial and professional incentives for both teachers and administrators.

REMOTE TEACHIING SERVICE (RTS)

The purpose of the Remote Teaching Service (RTS) in Western Australia is to enhance educational equity and achievement of student outcomes in the most remote schools in the State. These objectives can be achieved only through the recruitment of quality teachers who can work with a flexible 'teaching framework' that has been designed to ensure a relevant program is delivered effectively in complex and challenging environments.

Employment conditions under the RTS package offer a unique range of financial incentives and other benefits to attract and retain teachers and administrators in RTS locations.

DIFFICULT TO STAFF SCHOOLS

This section shall apply to country schools classified as Difficult to Staff (DTS) as outlined in Schedule C – Difficult to Staff Schools.

65 FINANCIAL INCENTIVES

65.1 This clause shall only apply to school based Education Act teaching staff and school administrators.

65.2 Persons employed in a Difficult to Staff School shall be entitled to a financial incentive as provided for in SCHEDULE C – Difficult to Staff Schools. The incentive contained in SCHEDULE C is, initially, to be paid over a 3 year period. The first installment of the incentive was paid in July 1999.

65.3 Payment of the incentive prescribed in SCHEDULE C shall be in accordance with the following installments:

- 1st year of continuous good service in a DTS School - 20%
- 2nd year of continuous good service in a DTS School - 35%
- 3rd year of continuous good service in a DTS School - 45%

65.4 For every year after the completion of 3 years continuous good service in a DTS school, employees shall be entitled to receive 30% of the total allowance prescribed for in Schedule C – Difficult to Staff Schools.

65.5 The parties agree that payment of this incentive shall normally be payable in December of each year, unless otherwise agreed between the employee and employer.

65.6 Subject to the approval of the employer, the employee may elect for the financial incentive (partial or complete) to be used to directly fund travel and/or the cost of professional development rather than be paid directly to the employee as income.

65.7 Employees can access up to 5 additional days sick leave for each completed year of good service in a DTS school to access a recognised health facility or service. Employees who do not work in a full time capacity shall receive this entitlement on a pro rata basis.

66 PROFESSIONAL INCENTIVES

66.1 Employees shall be granted permanency with the Education Department upon the completion of 2 years continuous good service in a Difficult to Staff school.

66.2 For each year of continuous good service in a DTS school employees shall receive bonus transfer points, subject to the completion of 3 years continuous good service in a DTS school.

66.3 The bonus transfer points will be as published by the Staffing Directorate from time to time in consultation with the Union.

REMOTE TEACHING SERVICE

The application of the provisions contained within this part shall only be applicable to persons employed in the Remote Teaching Service.

The provisions contained within this part cease to have effect when an employee ceases to be employed in the Remote Teaching Service.

Where a provision in this section is inconsistent with any other provision contained within this Agreement, the provisions of this part shall apply.

67 PRINCIPLES PERTAINING TO THE REMOTE TEACHING SERVICE

67.1 Focus of Actions

The Department seeks to focus on:

- The best possible service delivery for students, communities and teachers;

- "Location specific" flexibility and accountability with clearly defined outcomes;
- An emphasis on equity through well designed and implemented management practices that conform with the principles of natural justice, fairness and merit;
- • An ongoing development program through the recruitment and maintenance of highly skilled employees, and;
- Resource allocation to meet specific needs.

67.2 Style of Management

The Department will encourage the following representative styles of management:

- Consultative management;
- Co-operation and teamwork;
- Recognition of the individual;
- Flexible school year;
- Flexible school structures;
- Networks and networking;
- Workplace orientation
- Effective and efficient use of resources to ensure the best possible results, and;
- Strategic and timely responses to the use of resources that affect the nature and quality of student outcomes.

67.3 Committed to Employees

The Department makes the following commitment to employees:

- Allowances to provide flexibility for individual needs;
- Leave with pay options;
- Other leave provisions;
- Travel entitlements;
- Ongoing professional development;
- A focus on "quality of life" issues; and
- A guaranteed transfer on completion of tenure for teaching staff.

68 APPOINTMENT PROVISIONS

68.1 Induction

(a) All new employees to the Remote Teaching Service will be required to

participate in structured induction programs prior to and during the early part of

their appointment.

(b) The form of induction may be determined by the timing of appointment , local issues and/or teacher needs.
(c) The induction will be undertaken during both the employee's own time and employer time.

68.2 Probation
(a) The parties agree that while an employee may be a competent teacher, s/he may be unsuitable for work in the Remote Teaching Service. All employees entering the Remote Teaching Service will be subject to a six month probationary period in order that the employer can determine their suitability for work in this environment.
(b) The RTS probationary period within this Part does not override the probationary period requirements contained within clause 12 – Period of Probation of this Agreement, where these have not already been successfully completed by the employee.
(c) Permanent employees who:

(i)   do not successfully complete a probationary period of employment will be transferred back into the general teaching service , or

(ii)   determine that they are unsuitable for the Remote Teaching Service are eligible to make application to be transferred back into the general teaching service in accordance with the applicable Departmental processes.

Pilbara district schools and their locations

PILBARA SCHOOLS DIRECTORY		
SCHOOL	**ADDRESS**	**PHONE FAX**
BALER PS	Baler Close South Hedland 6722	Ph: 91721955 Fax: 91721588
CASSIA PS	Boronia Close South Hedland 6722	Ph: 91722495 Ph: 91722444 Fax: 91722573
CASSIA ESC	Boronia Close South Hedland 6722	Ph: 91723162 Fax: 91721612
DAMPIER PS	PO Box 243 Dampier 6713	Ph: 91831174 Fax: 91831400
DAMPIER CAMP SCHOOL	PO Box 220 Dampier 6713	Ph: 91831374 Fax: 91831626
EXMOUTH DHS	PO Box 105 Exmouth 6707	Ph: 99492633 Fax: 99491855
HEDLAND SHS	45 Roberts Street South Hedland 6722	Ph: 91721244 Fax: 91723797
JIGALONG RCS	PMB 8 Newman 6753	Ph: 91757022 Fax: 91757042
KARRATHA PS	Turner Way Karratha 6714	Ph: 91851026 Fax: 91853622
KARRATHA SHS	Searipple Rd Karratha 6714	Ph: 91852155 Fax: 91442010
KARRATHA ESC	Searipple Road Karratha 6714	Ph: 91852916 Fax: 91444157
MARBLE BAR PS	PO Box 20 Marble Bar 6760	Ph: 91761037 Fax: 91761194

MILLARS WELL PS	Gawthorne Drive Karratha 6714	Ph: 91852400 Fax: 91851319
NEWMAN PS	PO Box 166 Newman 6753	Ph: 91751352 Fax: 91778085
NEWMAN SHS	PMB 6 Newman 6753	Ph: 91758100 Fax: 91778004
NGURRAWAANA RCS	PO Box 1633 Karratha 6714	Ph: 9184 5158 Fax: 91845162 Mb: 0439522003
NTH TOM PRICE PS	Tanunda Street Tom Price 6751	Ph: 91891299 Fax: 91891342
NULLAGINE PS	Via PO Nullagine 6758	Ph: 91762023 Fax: 91762006 Mb: 0408932027
ONSLOW PS	PO Box 12 Onslow 6710	Ph: 91846062 Fax: 91846145 Mb: 0417848191
PANNAWONICA PS	C/- Pannawonica PO Pannawonica 6716	Ph: 91841172 Fax: 91841301
PARABURDOO PS	PO Box 223 Paraburdoo 6754	Ph: 91895353 Fax: 91895030
PEGS CREEK PS	Galbraith Road Karratha 6714	Ph: 91444141 Fax: 91444074
PORT HEDLAND PS	PO Box 292 Port Hedland 6721	Ph: 91731114 Fax: 91731448
PORT HEDLAND SCHOOL OF AIR	Locked Bag 168 Port Hedland 6721	Ph: 91728100 Fax: 91728130
ROEBOURNE SCHOOL	PO Box 186 Roebourne 6718	91821244 Fax: 9182 1255 School Mb: 0419925869 Fax: 9182 1499
SOUTH HEDLAND PS	Weaver Place South Hedland 6722	Ph: 91721977 Fax: 91722484 Mb: 0419930567 (camp use only)
SOUTH NEWMAN PS	PO Box 61 Newman 6753	Ph: 91751061 Fax: 91778381
TAMBREY PS	Lot 4225 Tambrey Drive Karratha 6714	Ph: 91442020 Fax: 91442644
TOM PRICE PS	857 Wattle Street Tom Price 6751	Ph: 91891030 Fax: 91892549

TOM PRICE SHS	Milpera Street Tom Price 6751	Ph: 91438100 Fax: 91892158
WICKHAM PS	Oleander Place Wickham 6720	Ph: 91871089 Fax: 91871728 Mob:0409201381
YANDEYARRA RCS	PMB 2 Sth Hedland 6722	Ph: 91764932 Fax: 91764958 Sat: 0404057034

ROLE OF PILBARA DISTRICT EDUCATION OFFICE

The Pilbara District Education Office is a branch of the Education Department of Western Australia. It intermediates between the Education Department of Western Australia's Central Office located in Perth and the 30 Government primary and secondary schools located within the Pilbara District.

There are over 30 staff in the District Office providing services to the district including a Director and Area Director.

The Pilbara District Education Office provides a range of services;

Curriculum Improvement - Curriculum implementation, assistance and support

- Promote and support whole-school and collaborative approaches to implementation of the Curriculum Framework and the Outcomes and Standards Framework in line with Departmental policy.
- Act strategically to effectively and efficiently provide high quality curriculum services and professional development
- Build capacity in school based leadership skills and curriculum understandings
- Focus on assisting schools to implement the Curriculum, Assessment and Reporting Policy.
- Communicate best practice and innovative curriculum strategies in order to ensure accountability and quality assurance.
- Develop and model action learning, reflective practice and sharing of professional understandings through networking

Student Services - psychological services

The overarching goals of Student Services is to assist schools to improve the learning outcomes for all students by providing support in the areas of: -

- Alienation
- Behaviour Management
- Child Protection
- Education Support
- Health and Well Being
- Identification of Learning Difficulties
- Inclusivity
- Retention and Participation
- Special Needs
- Students at Educational Risk

Aboriginal Education

- Provide support to and review, evaluate and develop the Aboriginal/Islander Education Officer (AIEO) Programme within the district.

- In collaboration with the RAPP Officer provide assistance and support to schools in relation to the Attendance Package.
- In Collaboration with communities manage, coordinate and support the Pilbara District Aboriginal/Islander Education Council

District Operations

- Provide, Financial, Human Resources, Policy and legal advice to schools within the district.
- Provide administrative support to the District Office.

STAFFING PROFILE OF DISTRICT OFFICE

- District Director
- Area Director
- Managers x 4
  o District Operations
  o Student Services
  o Curriculum
  o Aboriginal Education

- Curriculum Improvement Officers

- School Psychologists

- Retention and Participation Officers

- Support Staff – Clerical, Finance, Facilities, Vehicles

- Aboriginal Liaison and Coordination

- Administrators

- Principals – Total   32
                 Acting   13   = 40%
                 Substantive 19   = 59%

- Deputies - Total   39
                 Acting   14   = 35%
                 Substantive 25   = 64%

OTHER RESPONSIBILITIES
- Raising the leaving age

- SAL – School Apprenticeship Link

- Child Protection

- Outcomes Based Education

- Aboriginal Literacy Strategy

- Women in Leadership

- The Leadership Centre

- Selection, Recruitment and Appointment Processes – Merit Selection

- Regulatory Framework

- Rural Universities

- Scholarships

- SIDE (School Isolated and Distance Education)

- Video Conferencing

Digital Reporting at Maningrida Community Education Centre

Lyn Hollow
Principal
Maningrida Community Education Centre

Abstract and dedication
This presentation is dedicated to the staff of the Maningrida Community Education Centre and to all educators living and working in remote localities who are prepared to step outside the box in order to meet the challenges of some very confronting educational contexts.

Introduction
Maningrida is an Indigenous community some 550km east of Darwin located at the mouth of the Liverpool River. There are approximately 2000 to 3000 people in the community and surrounds and at any time, there are 200 non-Indigenous people included in this population.

Maningrida is located in what is known as Central Arnhem Land. Road access to this community is only available after May when 'the wet' finishes and the roads and rivers dry out. People of this community have strong family ties with other communities in the area including Ramingining, Millingimbi, Bullman and the communities of Bathurst Island.

Ceremony plays a very important part in the lives of the Indigenous people of this area. Ceremony can include seasonal ceremonies, traditional moon related ceremonies, ceremonies to honour families, ceremonies for educating young men and young women, and funerals. The people of Maningrida are a strongly traditionally oriented group of people. When ceremonies are held, people move out to ceremony sites for anything up to 3 or 4 months. If we can, we provide school at the ceremonies so there can be some continuation of school learning while traditional learning is occurring.

The Maningrida School provides education from Preschool to Year 12. In 2003, Maningrida became an accredited provider of Senior Secondary programs. In 2004, the first 4 students graduated from Maningrida with their Year 12 NT Certificate of Education (NTCE). The achievements of these students were celebrated traditionally early in 2005 by the whole community.

The Hub School at Maningrida is a Bilingual or Two Way School. Children have the opportunity to learn through their first language or home language throughout their Primary schooling. In the Secondary school students have the chance to use their knowledge of vernacular languages in their Senior Secondary studies.

Maningrida also provides Homeland education to 13 Homeland Centres or Outstations. There are 13 homeland Centre Schools operating around Maningrida. Teachers travel to Homelands and spend 4 days/3 nights camping at these Homelands and working with Indigenous Assistant teachers in order that educational programs can be delivered continuously.

What is a digital report?
At Maningrida a digital report is a power point presentation. The power point presentation takes the place of a paper report. There are 600+ children enrolled at the Maningrida School. Attendance is a problem and we expect teachers to provide a report on children who have attended regularly enough in order that teachers have information to report on. Teachers will complete between 10 and 20 reports each semester.

We are going to have a look at a sample report. This is Charlene. She is an Ndjebbana Speaking student. Deb is her teacher and Judy is her Ndjebbana-speaking Assistant Teacher.

Both Judy and Deb take the opportunity of providing comments about Charlene's progress. As a Bilingual School/Two Way School we take every opportunity to have the vernacular languages of this community written. Deb provides comments and these comments are not a translation of Judy's comments, but rather both statements complement each other.

Charlene has learnt about writing through her home language, Ndjebbana. Judy works with Charlene and the other students in the class. She is also undertaking training in preparation for becoming a teacher in her own right.

Charlene has learnt to read in Ndjebbana. The report has a recording of the child reading. This absolutely delights parents who have generally not heard their children read, especially in their home language. With limited vernacular reading materials in the community, for some parents this is the first time they have heard their child read in the vernacular.

All of the Ndjebbana Speaking children participate in Culture Days at the school. The comments provided on these days are general comments and provided to all parents. We value the vernacular language which is perfectly suited to cultural description.

Currently at Maningrida English is the primary language of Mathematics. The application of Maths knowledge, numeracy, is undertaken in both English and the vernacular. In this report Charlene has demonstrated her work in Measurement. Samples of her work are scanned into the report.

An important part of the report is to provide parents with knowledge about what happens at school. Scanning the students writing into the report show parents what their child has been doing at school.

The report also has Charlene reading in English. It is quite reasonable in a bilingual context for Charlene to be beginning transference of her literacy understandings across to English at this stage in her schooling. Having literacy understandings in both her first language and in English will make her a stronger learner.

The report also provides profiling data for English and Maths against the Northern Territory Curriculum Framework. Charlene is profiled against the ESL (English as Secondary Language) area of the Framework.

Parents wanted to know what children were doing in Darwin. We paired up with a school in Darwin with Indigenous children and provided samples of work for parents to see.

An important part of the report is the attendance data. This shows parents how many days the school was open, the days that the child attended and the days the child was absent. Throughout the report the slides are designed to open up discussions about what is happening at school and the work of their children. The Attendance slide provides an opportunity to discuss the importance of children coming to school.

Why did we start to use Digital Reports?
- Paper reports were not informing parents about what went on at school
- Paper reports did not create a meaningful dialogue between parents, teachers and students.
- It was difficult to make the language and information appropriate for everyone in a paper report.
- Paper reports did not support student learning.
- Parents wanted to see what kids in Darwin were doing.

How did we start?
As Principal I negotiated with a teacher to trial Digital Reports through an NT system initiative. It was successful with his class, other teachers saw this success, and the new direction was born. This teacher undertook Professional Development throughout the school to introduce staff to the idea and to the technology.

How do we keep it going?
It keeps going because teachers see the value of it as compared to a paper-based report. It is involving Indigenous parents in their school and provides them with an opportunity to witness their children's learning.

We have reporting and assessment policy statements, a basic electronic reporting manual, and we use a 'buddy system' for staff new to the school to assist them with the process.

Expected Benefits
- Everyone enjoys the reports.
- Parents are witnessing their children's learning.
- Parents can come to school to see the reports or we can take the reports to the homes (laptops on Toyotas).
- Provides a culturally appropriate way for teachers to engage with Indigenous people.
- There is meaningful engagement rather than the teaching talking at the parents.

Information Technology
Teachers and Assistant teachers have been called on to develop very extensive skills with a variety of information technologies. They use digital cameras, scanners, microphones for recording sound, video cameras and most recently laptops through the Laptops for Teachers program.

Electronic reports have seen the up-skilling of teachers and Assistant Teachers in terms of their knowledge and confidence with many forms of technology. This has increased their ability to pass this knowledge on to kids in the classroom.

Digital reports are giving parents a better and more accessible picture of what goes on at school, and of their own child's progress. This has allowed parents to more meaningfully engage with teachers about school, to ask questions and make suggestions.
Electronic reports allow students to be part of the process of reporting to parents so making reporting a more positive and meaningful experience and allowing them to better understand and articulate what goes on at school to their parents.

Digital reports provide teachers with a more efficient and effective way of compiling and providing relevant information to other teachers and parents.

The 'Glitches'
Initially we had major technological glitches in respect to storage of information. But when you want something badly enough you don't let anything stand in your way. Digital reports do take up a lot of time however we are getting better at embedding the technology into classroom teaching, and when asked whether we should return to paper-based reports there is a resounding 'no'.

Summary
We are seeking to 'close the gap' between home and school with digital reporting. The truth is that at Maningrida, as in many other places, there is a huge gap between home and school. Western culture, of which schooling is a major construct, is invasive. Maningrida people struggle, on a daily basis, with tensions that exist between traditional Indigenous cultures and values and the march of western life.

At Maningrida we are 'closing the gap' but are doing so by recognizing that the gap exists, and respecting the gap. We build many bridges at Maningrida. Digital reports are just one of those bridges. We try to make sure that all of our bridges have lanes in both directions and that they are open all the time with no toll to pay.

Aboriginal Literacy Strategy

Rosa Lincoln and Sue Knight
Western Australian Department of Education and Training
Pilbara District

Outcomes

- Improved English language and literacy outcomes among all students in participating schools.
- School literacy program cohesion and effectiveness to be maintained despite constantly changing personnel.

Principles

- Not a moment wasted.
- Having a "why" for everything we do.
- Pooling expertise and funding from a range of sources to form one unified effort.

Key Program Features

Unrelenting focus on quality English language and literacy instruction

- Explicit permission/requirement for participating schools to focus and resources on literacy.
- High quality, whole-school professional learning, based on solid research evidence of what works re: language and literacy teaching.
- Principles as instructional leaders – taking the lead in knowing what literacy outcomes are about and what effective language and literacy teaching looks like.
- Ongoing expert support provided between professional learning workshops.
- Whole-school planning to systematically address students' identified literacy needs through the whole-class, small group and individualised instruction.
- Students are provided opportunities to develop a sense of control of SAE through the active use of, and reflection about, Standard Australian English in a wide range of communicative activities.

Evidence based planning and teaching

- Systematic collection and analysis of evidence of students' development in reading, writing, speaking and listening and viewing with a focus on the aspects of contextual understandings, processes and strategies, conventions and use of text.
- Explicit teaching using a range of instructional strategies based on students needs, targeting groups and individuals for specific and relevant instruction.
- Use of First Step Development Continua, ESL Bandscales and the K-7 Literacy Net to inform data gathering and assist analysis of student learning needs.

- Ongoing assessment, monitoring and reporting of student progress across the English outcomes – starting with the collection of baseline data in Feb/March 2005.
- Systematic reviewing, adjusting and re-planning to facilitate further progress.

Consistency and Sustainability
- Whole school program in which the principals' leadership is pivotal.
- Program consistency despite constant changes to school personnel, high levels of transiency among students and low rates of school attendance.
- Established routines, activities, patterns of classroom organisation and instructional strategies that are known to support effective language and literacy learning.
- All stakeholders (staff, community, students) involved and informed, accepting and supportive of the learning program.

Valuing and broadening students' linguistic and cultural repertoire
- Students treated as individuals with their own backgrounds, needs and interests.
- Students have opportunities to demonstrate and build on their own linguistic and cultural knowledge.
- Tasks and activities are linguistically and culturally appropriate with opportunities to hear "comprehensible input" – moving from the known to the unknown.
- Opportunities provided to focus on, talk about, purposefully practice and reflect on Standard Australian English forms, skills and strategies across a range of contexts.
- A two-way approach to teaching and learning is embedded at system, district, whole school and class levels. There is on-going participation of Aboriginal people.
- There is a deliberate focus on the teaching of aspect of SAE.
- High but realistic expectations for all learners, ensuring that there is rigour in all Literacy Sessions. This is not a pared-back literacy program.

Innovation with Centra Symposium

Enver Malkic
Project Manager : Centra
DECS Technology School of the Future
South Australia

Centra is a web based software application designed to provide the tools and facilities to conduct 'live' online lesson delivery, professional development, training and meetings.

To tap into this unique learning environment participants need access to a PC with an internet connection.

Students are able to work collaboratively through features including virtual whiteboards and 'breakout rooms' for smaller group work. Centra is allowing teachers to engage students in a rich learning environment with teachers reporting a greater eagerness on the part of their students to study, work collaboratively and to experiment with freer written expression. It also is allowing students to receive more immediate feedback on their learning, pursue learning outcomes in social skills, literacy and a range of socio-cultural perspectives.

This software is having a huge impact in lesson delivery and teaching methodologies as well as quality teacher professional development to educators outside the major metropolitan areas.

DECS is supporting the local delivery of curriculum amongst cluster schools with the use of Centra Symposium and these schools are working together to offer increased subject choices with the virtual classroom environment. Centra is enabling PD&T and meetings to take place within a virtual environment and it has increased the efficiency of these opportunities as well as OHS&W benefits.

I have been working with Centra Symposium for over 3 years to bring the virtual classroom to students around the state as well as overseas students.

The workshop would include a short presentation followed by a live Centra demonstration.

Contact details
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Presenter Biography

Enver has worked in distance education for over a decade and has had experience as a teacher, course developer of online curriculum and currently manages online learning, training and development at the college. He also works at the system level providing support for schools wishing to share curriculum between diverse locations.

The Open Access College has developed a reputation as a world leader in media rich, student-centred resources and is always examining, evaluating and trialling new delivery methodologies. The latest of these is Centra Symposium, which staff are using to deliver curriculum R-12 across the state, interstate and to international students.

Enver has presented workshops at a number of national and international forums and has begun a placement at The Technology School of the Future where he is managing the training and support structures for Education department sites using the 'Virtual Classroom' software of Centra Symposium.

EXMOUTH DHS

Pilbara Education District (WA)
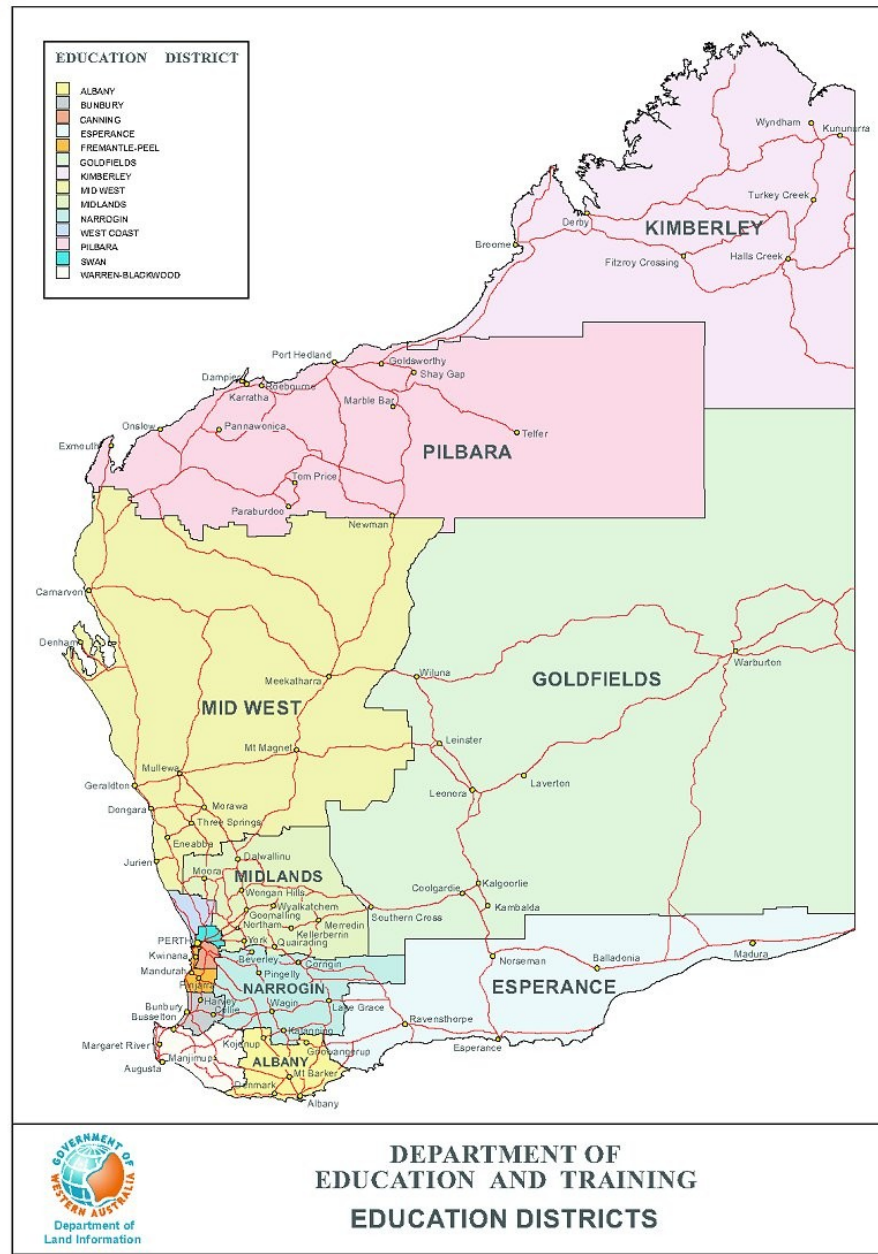
Alan Power
Manager Student Services - Pilbara
WA Department of Education & Training (Pilbara)

Overview

The Pilbara – DET

Figure 1:Map of the Pilbara region

The Pilbara- Regional Map

Exmouth District High School

Total Staff:	56
Full time students:	329
Indigenous students:	15

Classification: Level 5 DHS Non-remote

LOCATION and POPULATION

The NorthWest Cape covers a huge area with the Ningaloo reef stretching 260 km from slightly north of Exmouth to Amherst Point, south of Coral Bay. Exmouth is a small town of approximately 2500 people and is situated 1270 km north of Perth.

CLIMATE

Exmouth has a "holiday" climate, with no wet season, it's dry and warm all year. In summer months the daytime temperatures range from the mid to high 30's while a typical winters day reaches around 25 degrees. Water temperatures vary throughout the year from 18-28 degrees.

AIRLINE ACCESS

Skywest Airlines operates daily flights from Perth to Learmonth Airport.

Learmonth airport is located 37 km from Exmouth and 120 km from Coral Bay.

ROAD ACCESS

If you are travelling north to Exmouth along the North West Coastal Highway, travel 152 km north of Carnarvon and turn left at the Minilya Exmouth Road. And a further 200 km to Exmouth townsite. If you are travelling south to Exmouth turn off the North West Coastal Highway 110km south of the Nanutarra Roadhouse. From here it's 80 km to the Minilya Exmouth Road. At this junction, turn right to Exmouth (89 km).

Distances from Exmouth

Exmouth - Perth	1270km
Exmouth - Geraldton	848km
Exmouth - Kalbarri	813km
Exmouth - Monkey Mia	721km
Exmouth - Carnarvon	367km
Exmouth - Mt Augustus	843km
Exmouth - Coral Bay	155km
Exmouth - Karratha	560km
Exmouth - Tom Price	625km
Exmouth - Port Hedland	784km
Exmouth - Broome	1394km
Exmouth - Darwin	3366km

beyondblue

In developing *beyondblue,* the Commonwealth, State and Territory governments have provided a national focus and leadership designed to increase the capacity of the broader Australian community to prevent depression and respond effectively to it.

beyondblue groups its activities within the following priority areas:

Partnerships
beyondblue has strong partnerships with mental health and other health related organisations, as well as a wide range of companies and community-based organisations.

Prevention and early intervention

To support programs that provide opportunities to prevent depression and/or promote early intervention and to rigorously evaluate the impact of these programs.

ALONG WITH:

- Community awareness and destigmatisation

- Consumer and carer

- Primary care

- Research

Collaboration with other districts and *beyondblue* led to the following proposals:

A combined initiative across the two largest districts in Western Australia with some of the most isolated schools in the country.

Professional development of staff from various government and non-government organisations:

- Psychologists
- Teachers
- Administration
- School nurses
- CAMHS
- Chaplains

DESIRED OUTCOMES

To reduce stigma by increasing awareness of the symptoms, causes and treatments of depression and by promoting the experiences of people whose lives have been affected.

To promote a community-wide response to and advocacy for the issues raised by people with depressive illness and their carers.

To assist primary care practitioners to increase their community education and treatment roles.

To promote depression-related research, particularly in relation to service delivery and measurement of program outcomes.

CONCLUSION

A CLEAR MESSAGE:

Young people in isolated areas need and deserve high-quality support across the ENTIRE community.

What does a successful staffing system for rural, remote and isolated schools look like?

Phil Roberts and Dorothy Lean
Bowral High School and Collarenebri Central School

This paper introduces the conclusions from <u>'Staffing an Empty Schoolhouse: attracting and retaining teachers in rural, remote and isolated communities'</u> Eric Pearson Study Report 2002 by Phil Roberts (2004). The full report is available for download at <u>www.users.bigpond.com/philiproberts</u> The following is a brief overview of the main themes of this paper, while the symposium will discuss the proposed model and examples of its application throughout Australia.

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'Staff retention rates can be an important determinant of the quality of education being delivered to rural and remote children.'[2]

There are clearly many issues affecting the quality of education received by students in rural and remote communities, however, this research contends that the most significant factor in education quality is the provision of appropriate, quality and stable staff. If the living and working conditions of teachers in these communities continue to compare negatively to their metropolitan colleagues there is no hope of attracting them to or retaining them in these communities. There is, therefore, a strong industrial argument, as well as a human rights argument, for improving the conditions experienced in these communities. It is in no way suggested that this proposed model would solve the problems facing many rural and remote communities. However, if education is a path which may help break the cycle of disadvantage and dislocation experienced by many of these communities, then ensuring that the schoolhouse is not empty is certainly a major step to achieving such an outcome.

Method

Research on which this paper is based explored a range of issues associated with the attraction and retention of teachers to rural and remote schools and aims to suggest appropriate improvements. Naturally a number of suggestions of the HREOC inquiry were espoused; however, in many instances greater detail was required. It is the detail of a number of the suggestions, such as what exactly are incentives to offset the cost of living, which the original research and the report aimed to provide. Similarly it is issues embedded within some of the concerns raised, such as a sense of professional isolation, which needed to be explored.

A literature review of available research related to the staffing of rural and remote schools was conducted. This literature review uncovered a range of associated issues and considered possible solutions to these concerns. While academic research has its place there is also a considerable amount of knowledge to be gained from studying the policies and practices of the education departments throughout Australia to staffing their rural and remote schools. To inform this research about the present situation around Australia, an analysis of the rural and remote area staffing policies of the various state and territory public education unions was conducted. This provided a comprehensive view of what is currently available and more importantly, the success or otherwise of these approaches.

To complement the study of policies and literature review a survey of teachers in rural and remote areas was conducted. The survey explored issues affecting the attraction and retention of teachers in rural and remote schools throughout Australia. These survey results provide evidence of what teachers working in

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[2] HREOC (2000). Emerging themes. <u>National Inquiry into Rural and Remote Education</u>. Canberra, Human Rights and Equal Opportunity Commission.

rural and remote schools believe will assist in providing and retaining staff in their schools for an appropriate period of time. The survey results have been correlated against the staffing policies in each state and territory to support a proposed model of successful staffing policies and to identify unsuccessful initiatives.

Background

The Human Rights and Equal Opportunity Commission (HREOC) inquiry into rural and remote education, the Inquiry into the Provision of Public Education in NSW and a number of other Inquiries have highlighted many areas of concern and suggested solutions they are still only a scratch on the surface of a greater problem. The limited examination of the staffing concerns in rural and remote schools is explained by the holistic nature of these inquiries.

The Universal Declaration of Human Rights, to which Australia is a signatory, has clearly stated that 'everyone has a right to education'[3] while 'The Convention against Discrimination in Education', to which Australia is a party, states that an inferior standard of education can amount to unlawful discrimination.'[4]. The surest way to provide for this right and ensure that rural students are not discriminated against is to ensure that all schools are staffed adequately with appropriate, qualified, experienced teachers and support staff.

In Australia this view has been adopted by the Ministerial Council for Employment Education Training and Youth Affairs (MCEETYA)[5] in the Adelaide Declaration on the National Goals for Schooling in the Twenty-First Century. This Declaration stated that education contributes to 'a socially cohesive and culturally rich society'.[6] The Declaration also states that:

> ' 3. Schooling should be socially just, so that:
> 3.1 Students' outcomes from schooling are free from the effects of negative forms of discrimination based on sex, language, culture and ethnicity, religion or disability; and of differences arising from students' socio-economic background or geographic location.
> 3.3 Aboriginal and Torres Strait Islander students have equitable access to, and opportunities in, schooling so that their learning outcomes improve and, over time, match those of other students.'[7]

Our rural communities are facing many challenges brought about by the changing global economy and the economic policies of Australian Governments. These challenges have further been exacerbated by the current drought. It is in the context of a general rural decline that education is so important. In many ways what is needed are provisions that overcome the effect of this economic breakdown by ensuring a positive and happy school to strengthen communities.

Overcoming disadvantage is an issue for all schools and education systems[8]. In light of the Human Rights and MCEETYA declarations there should be no differences in the quality of education received by students in rural and remote communities compared to their metropolitan counterparts. However, this is not the case as the quality of education in rural and remote areas is adversely affected by high teacher turnover, a higher concentration of beginning teachers, teachers teaching outside their subject area and a lack of commitment by education bureaucracies which encourage teachers to leave rather than stay. If schools

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[3] (1948). United Nations: Universal Declaration of Human Rights.
[4] HREOC (2000). Emerging themes. National Inquiry into Rural and Remote Education. Canberra, Human Rights and Equal Opportunity Commission.
[5] MCEETYA. http://www.mceetya.edu.au/
[6] MCEETYA (1999). The Adelaide Declaration, Ministerial Council for Employment Education, Training and Youth Affairs.
[7] Ibid.
[8] Connell, R. W., V. M. White, et al. (1990). Poverty, Education and the Disadvantaged Schools Program. S. o. B. Sciences. Sydney, Macquarie University.

have a role to reproduce equity in societies and deconstruct divisions[9] this educational discrimination cannot continue.

With the impending teacher shortage and the acceleration of economic decline in many rural areas the ability of education bureaucracies to staff their rural schools will only get worse. The Australian Education Union recognises that rural and remote regions are already the hardest hit by the teacher shortage. To overcome this they are calling for a 'specific country strategy that addresses the particular needs of country communities and acknowledges the needs for special measures to attract and keep high quality teachers in the country'[10].

Conclusions

A number of the issues which discourage teachers from accepting positions in rural and remote communities are beyond the control of education departments. What is needed, therefore, is a coordinated, whole-of-government approach to address the staffing needs of rural and remote schools. Without such an approach equity will not be achieved as quality teachers are not enticed to rural and remote areas. As Australia's report for the UNESCO working party on attracting, developing and retaining effective teachers states:

> 'The issue of effective teachers is not only instrumental and pragmatic; it takes us to the roots of society and the quality of life that is being sought'[11].

A constant theme throughout the original report is that of improving the professional satisfaction of teachers in rural and remote schools. This theme is similar to that of the Vinson Inquiry into the Provision of Public Education in NSW which uses the theme of enhancing professionalism throughout its report[12]. Such an approach is important as too many of the existing 'incentives' related to rural and remote schools relate to either economic gain or encourage teachers to leave. While these are and will remain essential components of any scheme to attract and retain teachers they ignore the primary motivation of teachers to enter and remain in the profession; an enjoyable and rewarding career.

Enhancing the status of the teaching professional generally will assist in this process. However, there must be a corresponding enhancement of the conditions under which rural and remote teachers work. As remuneration is linked to professional status it must be enhanced in recognition of the work teachers do and their role in society. This will only go part way to achieving that all important job satisfaction which numerous academic studies have linked to teacher retention. In addition to remuneration the conditions under which rural and remote teachers work should also reflect their professional status. It is imperative, however, that we avoid the conservative interpretation of professionalism and deregulate the staffing of schools with the introduction of contract employment. This move has only accelerated the educational discrimination experienced by rural and remote communities and impacted negatively on union membership density where it has been introduced.

In compiling the original report there were significant gaps in the research and existing government reports which needed to be addressed. There was a considerable amount of literature available on pre-service teacher training, beginning teacher issues and strategies, mentoring and the access to education (curriculum) in rural areas. Most of these are general, however, and do not contain a strategy about how to specifically address these in rural and remote areas. There were limited references available on staffing issues, ways to attract and retain teachers or effective rural pedagogy. A number of reports on rural education were primarily concerned with student access to the curriculum. Most of these reports, including the HREOC and Vinson inquiries, contained a few pages stating that attracting and retaining teachers was

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[9] Ibid.

[10] AEU (2002). "A National Teacher Shortage: A Solution from the Australian Education Union."

[11] Skilbeck, H. C. a. M. (2003). Attracting, Developing and Retaining Effective Teachers: Australian Country Background Report. Canberra, Commonwealth Government Australia.

[12] Vinson, T. (2002). Inquiry into the Provision of Public Education in NSW - First Report. T. Vinson, Inquiry into the Provision of Public Education in NSW.

an area of concern. While these reports often suggested some possible remedies they were invariably brief and not linked with any reasoned argument or evidence. This absence appears problematic as none of the issues raised in any of the reports can be overcome without the provision of appropriate, quality and stable staffing of rural and remote schools.

When lobbying for improved 'incentives' it may be useful to consider using the word 'compensation' instead. In South Australia the phrase 'overcoming disadvantage' is used rather than 'incentives' while Western Australia has changed its wording from 'incentives to attract and retain' to 'compensation and incentives'. This changed wording is in recognition that housing, professional development, technology, travel funds etc are not incentives but necessities. The only real incentives are permanency and transfer points. Overcoming disadvantage is similarly important as it recognises the economic and social impact of accepting a position in rural and remote schools. While being mindful to avoid a deficit approach, which only compounds existing disadvantage and makes it harder to attract teachers, campaigning for 'compensation' is more descriptive and of itself suggests further improvements. It is therefore suggested that we refer to measures for our rural teachers as incentives to attract, compensation for unfavourable living conditions and incentives to retain.

Broad Directions
From the report four broad directions for improving the attraction and retention of teachers in rural and remote areas were identified. These directions indicate a model of rural staffing which encourages professionalism, recognises rural difference, compensates for economic loss and limits social isolation. The proposed model of rural staffing has deliberately not been divided into attraction and retention as they should be seen as interlinked concepts. Thus the conditions and professional value of rural teaching should be such that teachers who are attracted are also those that would be retained.

- **Social.** This direction recognises that teachers in rural and remote locations live away from their family and friends and spend significant amounts of time travelling to seek social support. Issues related to this have consistently been highlighted as significant disincentives to accepting positions in these locations. Similarly the conditions under which teachers are forced to live are often in stark contrast to how they would choose to live if they were working in a large metropolitan centre.

- **Economic**. Living and teaching in rural and remote locations also has significant economic costs that include the cost of living, transport, travel and access to services. Many allowances don't extend to the initial appointment and many teachers only become eligible after a period of service, by which time other limitations have already persuaded them to leave. Retention in a rural or remote location limits them from entering the economic cycle, such as home ownership, and similar purchases are often undervalued in their locations.

- **Rural Difference**. Teaching in a rural or remote location is a very different professional challenge. Many teachers operate in isolation from colleagues and mentors as well as being forced to assume significant responsibilities in their first years. There are often large cultural differences to be overcome in their schools and communities for which they have had no formal preparation. In addition to these challenges their schools often operate on limited resource bases and with an unusual staff mix and perennial vacancies in key subject areas.

- **Professionalism**. Teaching in rural and remote locations needs to be recognised as the rewarding professional experience that it is. Many teachers in these areas highlighted the lack of accessible training and development, limited collegial support in their subject / expertise area and the high turnover of staff and leadership as negative influences on their satisfaction. Similarly in deregulated staffing systems these limitations put teachers in an uncompetitive position when it comes to promotion and transfer. Their relative isolation also precludes teachers from further study, professional associations and access to a range of resources.
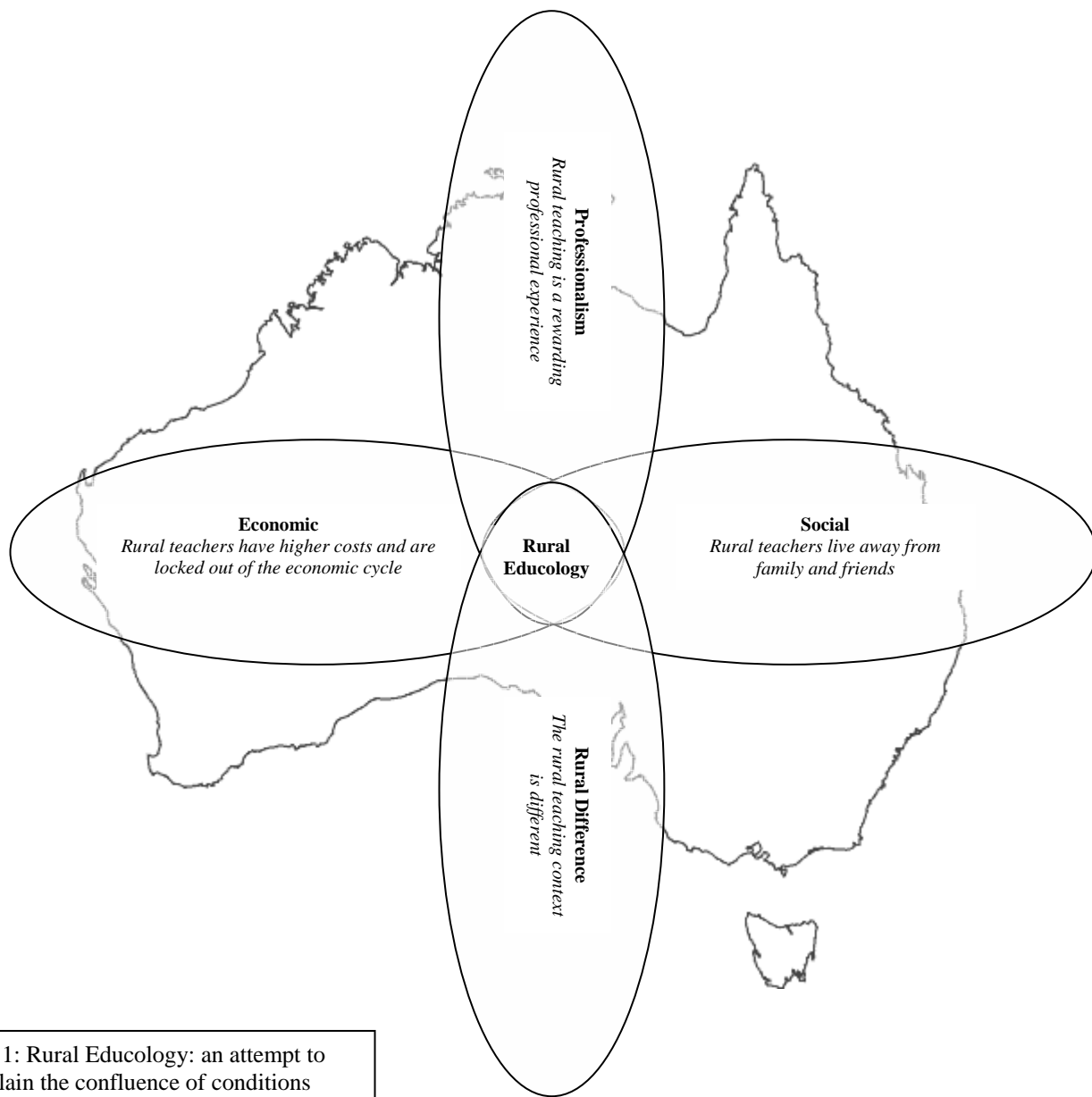
Fig 1: Rural Educology: an attempt to explain the confluence of conditions created if the four broad directions for rural staffing are realised.

Professionalism
Rural teaching is a rewarding professional experience

Economic
Rural teachers have higher costs and are locked out of the economic cycle

Rural Educology

Social
Rural teachers live away from family and friends

Rural Difference
The rural teaching context is different

Fig 2: A model of rural staffing which encourages professionalism, recognises rural difference, compensates for economic loss and limits social isolation.

Social	Economic	Rural Difference	Professionalism
Rural teachers live away from family and friends	*Rural teachers have higher costs and are locked out of the economic cycle*	*The rural teaching context is different*	*Rural teaching is a rewarding professional experience*
• Increased paid personal leave • Increased paid medical leave • Increased leave with period of service • Paid sabbatical / study leave • Support rural community development • Community programs to support new teachers • Effective induction programs • Provide quality housing • Limit shared accommodation • Travel time at each end of vacations • Enhance staffing formulas to ensure education meets their children's needs • Enhance incentives to support families • Guaranteed transfer • Increased transfer points with the period of service • Maintain a state wide staffing system to facilitate movement	• Pre-service teacher education scholarships • Entry scholarships • Paid HECS • Paid removals on initial appointment • Acceptance payments to cover the cost of setting up a home • Vehicle allowances • Increased allowances for the cost of living • Cash payments which increase with the length of service • Standard rental subsidies • Increasing rental subsidies with the period of service • Subsidised utility and food freight costs • Increased paid travel • Paid removals on transfer • Subsidised home loan	• Encourage and support trainee teachers from rural and remote areas • Increase the number of Indigenous teachers • Specific pre-service training on rural and remote teaching • Support pre-service practicum in rural and remote schools • Increase the resources available to rural and remote schools • Change staffing formulas to ensure all subjects are taught by appropriately trained teachers with the appropriate number of face to face lessons • Select appropriate teachers • Include specific standards for rural teaching in any standards developed by a teaching institute • Guaranteed transfer for professional growth • Maintain a state wide staffing system so that rural service is not devalued • Increase inbuilt district relief	• Specifically train teachers for the rural and remote teaching context • Improve staffing formulas to ensure all subjects are taught by trained teachers and all subjects have the correct number of face to face lessons • Increase the training and development budget • Allocate further time to professional development • Facilitate interaction between teachers in surrounding schools and other areas • Improve information technology • Support further study by paying HECS and study leave • Encourage experienced teachers to take up appointments in rural and remote schools • Provide effective leadership by allowing principals a 'trial period' before accepting positions • Support beginning teachers with effective mentoring programs • Improve consultancy support • Maintain a state wide staffing system to ensure quality • Extend initiatives to and specifically target casual teachers

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NON-REFEREED

CONFERENCE

POWERPOINT

PRESENTATIONS