

# University of New England's submission to the Independent Review into Regional, Rural and Remote Education

## General Comments

The University of New England (UNE) would like to address some of the issues, challenges and barriers that impact on the learning outcomes of regional, rural and remote students as discussed in the Independent Review into Regional, Rural and Remote Education discussion paper.

Our submission addresses a number of the key issues noted, directly answers some of the specific questions from the discussion paper, and offers some innovative approaches to support improved access and success in post school education for rural, regional and remote students.

As stated in the RUN submission, UNE supports the view that Regional universities play a significant role in regional Australia. They are anchor institutions for their regions, and contribute significantly to regional economies. Through their presence in regional communities and outreach activities to schools they encourage aspiration for university study and professional vocations. Around three-quarters of those who study at university in the regions stay in the regions to work where they enrich regional economies and communities, and provide professional role models for regional school students. Only a quarter of those students who go to capital cities to study at university return to the regions. We are therefore of the view that there should be more incentives/encouragement for regional school students to study at regional university campuses.

## Educational outcomes and regional disadvantage

The UNE supported Literacy for [Life Foundation](#) is working with regional and remote communities to successfully educate people and increase participation rates in education. Research conducted by Associate Professor Bob Boughton and Adjunct Professor Jack Beetson shows that at least 40% of Aboriginal adults have minimal English language literacy, which undermines the capacity of a community to support children's learning at school. This level of illiteracy is a major factor in the continuation of intergenerational education inequality, including the low participation and completion rates of Aboriginal higher education students from rural areas.

By the end of this year, the Foundation will have successfully educated 150 Aboriginal adults with low or very low English language literacy in basic literacy courses. The success being achieved through this education is providing flow on benefits for communities, not just in terms of children's participation in schooling, but across a range of social indicators in health, housing, employment and law and justice, which are now being documented through an ARC Linkage study. The performance of children in school is also affected enormously by the experiences their parents and other adult family members are having in relation to these other areas.

SiMERR (National Centre of Science, Information and Communication Technology, and Mathematics Education for Rural and Regional Australia) at UNE began in 1996 and aims to support student achievement and enhance teacher growth through research, preservice, in-service, and community programs, by

working collaboratively with communities, educational authorities, professional associations and industry groups to develop solutions to the problems faced by teachers, particularly those who are professionally isolated.

The vision of the work being conducted at the SiMERR National Research Centre at UNE is that parents can send their children to rural or regional schools knowing that they will experience equal opportunities for a quality education, and that teachers can work in rural or regional schools and be professionally connected and supported. SiMERR works with rural and regional communities to achieve improved educational outcomes for students in Sciences, Maths and ICT, and to reduce regional educational disadvantage.

### **Building and supporting aspirations of regional, rural and remote students**

UNE outreach and engagement activities that are conducted both on and off campus for regional, rural and remote school students from Kindergarten to Year 12 offer benefits by:

- Introducing new opportunities that arise through the pursuit of further education;
- Enhancing aspirations and confidence to pursue a career that requires further education;
- Exposing students to novel careers and pathways to those careers at a local regional university;
- Providing role models in STEM, including women in science and non-traditional roles;
- Helping normalise and often start the conversation early about lifelong learning;
- Enhancing the confidence to pursue further education; and
- Enhancing discipline knowledge through expert teaching and learning.

A selection of current initiatives being run at UNE are:

#### **Far Out Science (previously Science in the Bush)**

- **Far Out Science** is a Higher Education Participation and Partnership Program (HEPPP) funded program that delivers transformational on-campus experiences in science to students from diverse backgrounds in regional NSW, with the aim of enhancing their aspirations and confidence to pursue science as a tertiary study option, or as a career;
- Many of the students that attend these days are from low SES, disadvantaged and indigenous backgrounds and have never been on a university campus;
- The 2-day event attracts over 500 primary and 500 high school students, and their teachers, for hands on science, quizzes and fun;
- In 2015 and 2016, 94% and 91% of ~400 and >500 (respectively) primary students who attended Far Out Science on UNE campus said that after the day they are more interested in a career in science (which includes tertiary education);
- 94% of the same primary students said they would like to attend an event like Far Out Science every year;
- In 2015, 59% of ~400 high school students had considered going to university. In 2016, 61% of >500 high school students considered university;
- The number of students and teachers interested and attending this day has increased consistently year on year.

## UNE Discovery

- **UNE Discovery** is a program that promotes the long term vision for UNE as a regional university of the future, which is to engage with young leaders and learners on our campus in Armidale and across northern NSW;
- The initiative aims to enhance childhood development during the years of greatest change and learning in a human's life, with the ultimate goal to enable children to do better at primary and secondary schools, and to better prepare them for university study;
- UNE recognises that it is during childhood that children benefit from variety in their daily life, and where unrestricted opportunities for self-directed exploratory play offer powerful neurological gains, cultivating characteristics like curiosity, confidence, creativity and a collaborative and can-do attitude;
- These years (2 through to 15 years) are also where the conversation about further, and indeed lifelong, education can be normalised to enhance the attitudes and beliefs about the value, attainability and relevance of higher education and further education and training;
- Supported by HEPPP funding, UNE Discovery currently engages with a broad demographic off the UNE campus to deliver transformative and exploratory experiences in science, art, music, languages and movement to students from Kindergarten to Year 10 across northern NSW in regional rural and remote schools.
  
- The **UNE Discovery Voyager** school outreach program has operated since August 2016 and in just over 6 months of operation has visited over 90 schools and 5500 students across regional, rural and remote northern NSW. During this time our team has come to appreciate the needs of students and teachers in these areas, and the constraints they face every day in delivering a high quality education to their diverse student cohort.
- Through this program, we see six primary benefits of visiting schools with innovative, play-based activities in STEM, all leading to enhanced aspirations to pursue further education:
  1. Exposing students to new ways of thinking about a topic/knowledge area;
  2. Supporting new learning and extensions of the curriculum;
  3. Exposing students to a broad range of pathways to an increasing number of jobs/career;
  4. Changing the language and culture around STEM knowledge and a love of learning (the 'nerd' factor!);
  5. Championing women in science;
  6. Enhancing the motivation, knowledge and confidence of teachers to invigorate their STEM lessons.
  
- There are many programs, online and otherwise, in STEM and other discipline areas that align to curriculum, offering novel, interactive activities and ideas for delivery. We know that school teachers, particularly in regional, rural and remote areas, lack the time, confidence and capacity to deliver content-rich programs across every topic and are increasingly faced with administrative, behavioural and social challenges that compromise their ability to facilitate their ideal classroom educational experience. UNE Discovery is unique in that the programs are developed by scientists, communicators and educators, in conjunction with researchers. But furthermore, they are delivered by the very same people that developed them. There is nothing lost in translation, the programs are flexible and allow delivery to students from Kindergarten to Year 10, and the dedicated team are able to interact with a diverse student cohort on each visit.

- UNE's **Boilerhouse Discovery Space** is the future on-campus delivery of UNE Discovery, stimulated by funding provided by a benefactor. This project supports the development of a children's discovery centre at UNE, focussing on engaging children in exploratory and unrestricted play via direct interaction, tinkering, inventing and doing, rather than looking. This will be only the second children's discovery centre in Australia, both of which are based on a university campus, and the first in northern NSW, designed especially for children from all demographic sectors.

#### **Schools and Universities Connect**

- The primary goal of UNE's HEPPP funded Schools and University Connect Program is to provide direct support to schools with high numbers of students from low SES backgrounds in developing pathways to university;
- Professional learning is provided for school staff based on successful initiatives that have proven to increase access to and retention at university;
- Specific sessions are held with Aboriginal Education Officers, careers teachers, and school leadership personnel responsible for student aspirational engagement;
- The program also includes:
  - Education programs for parents;
  - Training to improve communication between schools, parents and the community;
  - A mentoring model that places pre-service teachers and social work students in schools as mentors;
  - University campus visits;
  - Engaging Careers teachers in professional learning based on increasing access of students from low SES backgrounds to university;
- Complementing this range of activities are professional learning workshops on communications, community engagement and strategies to engage Aboriginal and Torres Strait Islander students;
- Collaboration across government sectors is also undertaken to support teachers in addressing some of the identified underlying social determinants in education, health, housing and employment which contribute to the inhibition of educational outcomes for students from low SES backgrounds.

#### **Change in regulations creating barriers for regional education students**

The underrepresentation of students from regional, rural and remote backgrounds in higher education is linked to poorer educational opportunities in general, as well as aspirations of young people as revealed in recent data (Gore, 2016, Aspirations: Longitudinal study) being less focused on tertiary education options.

Entry hurdles to education courses at universities including the recently mandated 3 x Band 5 HSC results (above 80%) including English, provide a huge barrier to regional, rural and remote students:

- While we applaud the thinking behind increasing entry standards to education courses to raise the standard of teaching, this is an artificial barrier that reduces the opportunities for students living in areas where results are typically below this level;
- Previous practice has shown that students from regional, rural and remote backgrounds do not, however, perform at a lower level than their metropolitan peers in these courses.

Another consequence of the increased entry requirements is reduced availability of early entry schemes (e.g. based on school principals' recommendations), which has been an alternative entry pathway for students from regional, rural and remote backgrounds since the 1970s.

## **Teaching in rural, regional and remote areas**

To meet the continuing professional development needs of teachers in rural, remote and regional areas, education authorities, in partnership with schools and communities, universities, and professional organisations could develop a range of strategies to ensure equitable access to ongoing quality professional learning. Approaches could include:

- The development of flexible staffing and school timetabling arrangements to allow scheduling of professional development;
- The development of improved systems and strategies for collaborative face-to-face and online modes of professional development for teachers in rural and regional locations;
- Promoting cross-sectoral collaboration in meeting the professional development needs of teachers on a local basis;
- Funding research, development and dissemination of strategies to teach science, ICT and mathematics to the diverse range of students found in rural and regional classrooms;
- Implementing strategies for mentoring rural and regional mathematics, science and ICT teachers at various career stages, e.g., establishment of local networks such as the Association of Rural Educators, and initiatives such as the Rural School Leadership Program.

One strategy that education authorities, in partnership with universities, local councils, industries and businesses could develop is to promote the advantages of living and teaching in rural communities.

- Strategies could include publicity campaigns promoting rural teaching, aimed at both pre-service and experienced teachers;
- Education authorities could also collaborate with university education faculties to engage experienced rural teachers to address pre-service teachers about the benefits and challenges of rural schools;
- Another strategy could be the development of programs whereby groups of pre-service students visit rural and remote schools (e.g., Beyond the Line in New South Wales) if something similar is not already in place.

Another strategy could be that state/territory education systems sponsor the establishment of a professional Association of Rural Educators, with a central office in a regional area or University of each state/territory and branches in rural areas. The charter of the association could include:

- Supporting the orientation of new teachers;
- Supplementary peer support;
- Advocating for rural teachers;
- Enhancing the status of rural service;
- Promoting a sense of collegiality between rural teachers;
- Maintaining the institutional memory of the profession in rural areas.

A further recommendation could be that education authorities, in collaboration with universities and professional organisations, establish a Rural School Leadership Program. This program could have both an

incentive and a developmental dimension, be highly selective and competitive, and target experienced teachers with significant leadership potential. Components of the program may include:

- Further university education, such as accredited action research (towards a masters or doctoral degree);
- Links to international rural teacher networks, with the possibility of an exchange program;
- Fast-tracked entry into regional and state Succession Planning programs;
- Provision of personal online coaches/mentors to assist with professional learning pathways and skill acquisition.

Programs such as the above would enhance the attractiveness of rural service among experienced teachers and the status of rural teaching in general.

The parties involved in the emerging national and state/territory standards frameworks for pre-service education should consider including standards that require:

- Primary teachers are adequately prepared for teaching mathematics, science and ICT;
- All teachers are able to address the learning needs of students in rural and regional areas, especially Indigenous students.

Further, it would be advantageous if education authorities, in collaboration with professional organisations (including an Association of Rural Educators), develop and monitor induction and orientation strategies to support the particular needs of teachers new to rural and regional schools including, as appropriate:

- Teaching Indigenous students, including an awareness of Indigenous cultural issues within local contexts;
- Teaching multi-grade and multi-subject classes;
- Teaching out of curriculum area;
- Working with limited resources including support staff;
- Teaching students with special needs;
- Living in rural communities.

## **Specific Answers to Consultation questions:**

### **6.6.2 What other entrepreneurial education opportunities exist for regional, rural and remote schools?**

A number of RUN universities have or are developing active innovation centres / incubators / accelerators and are teaching and developing entrepreneurial skills in their students. There are some outreach activities that involve engaging with regional, rural and remote schools in entrepreneurialism.

The UNE SMART Region Incubator is a project developed with funding support from the NSW Government's \$12 million Building Business Innovation Program. One of the objectives of the business incubator is to help build prosperous, resilient regional communities. It provides an environment for small to medium start-up businesses to build a robust, innovative framework.

The chance of success is greatest if the incubator environment is tied to a university, introducing the latest multi-disciplinary research to business planning. UNE has a particularly strong background in agriculture

and agricultural technologies and we are offering access to data from research clusters like the UNE SMART Farm and Centre for Agribusiness.

### **6.6.3 Are there other examples where entrepreneurial education has improved outcomes for regional, rural and remote students?**

The UNE SMART (Sustainable Manageable Accessible Rural Technologies) Farm showcases the latest technologies aimed at improving productivity, environmental sustainability, safety, workflow, and social/business support networks on Australian farms. The [SMART Farm Innovation Centre](#), linked via AARNet and the national broadband network (fibre, terrestrial wireless AND satellite, serves as a research, education and outreach facility and is a national demonstrator site, aiding as a test-site for new technologies. The SMART Farm is a connected classroom where the community as well as students of all ages can access the [latest data streaming](#) in from a range of field, animal and machinery sensors.

### **6.6.4 What gaps need to be addressed to help students transition successfully to further study, training or work?**

Both State and Federal governments are giving increased attention to employment issues in regional Australia. Labour market data ([lmip.gov.au](http://lmip.gov.au)) indicates unemployment and underemployment rates are persistently higher in areas outside the capital cities. Adjustment to the realities of the changing nature of work is not experienced uniformly across the country and the strategy for 'jobs and growth' in the regions is complicated.

Youth Action NSW released a policy paper on Tuesday 18 July 2017 with recommendations to NSW Government on improving career guidance in schools:

- [Career Guidance Youth Action Policy Paper \(July 2017\)](#)
- The recommendations include:
  - Assisting schools to develop a minimum level of career guidance;
  - Strengthening support for career advisers; and
  - Tailoring programs for the disadvantaged.
- Creating linkages between schools, industry and tertiary education is a key element of this proposal;
- The report discusses the additional barriers to career transition facing regional students, those with a disability, and those from migrant or indigenous backgrounds.

### **6.9.2 Are there innovative models of accommodation delivery that could benefit regional, rural and remote tertiary students studying away from home?**

The University of New England is well regarded in its provision of the Residential College System that provides an on-campus set of live-in experiences set in an attractive parkland environment/setting with a series of colleges each with a slightly different focus and ethos.

The cost of these accommodation provisions has recently been reduced, and the accommodation types diversified. This is attractive to students from a range of socioeconomic backgrounds.

The college system provides a series of academic, social, cultural and recreational offerings. There is an holistic approach to supporting students from a range of social, economic, cultural and diverse backgrounds.

Anecdotally, there are colleges that are strongly affiliated with the rural and remote socio-cultural milieu. In many rural and remote communities, the parents and teachers of future students recommend UNE as an excellent provider of a supportive environment.

Community housing within Armidale is moderately priced when compared to metropolitan settings. This also provides the flexibility of having shared housing with yards, gardens, and park-like settings.

Students undertaking professional experience (practicum) in schools in rural contexts face circumstances that differ markedly from urban contexts, and require additional supports. The discussion paper (p.25) draws attention to the costs of accommodation and it is suggested that one way to reduce this impact and to encourage teacher education students towards placements in regional or rural areas is to provide subsidised accommodation in designated housing near to regional, rural and remote schools. The NSW Education Department is currently re-considering such options, and UNE is ideally placed to work with the department and to promote this scheme to increase both enrolments and affordability.

### **6.9.3 What can be done to address the directional flow of regional, rural and remote students moving to cities for further education and/or training?**

Some strategies that could be employed to address regional, rural and remote students moving to the city for further education and/or training include:

- Increase the incentives for students to study in regional and rural universities, such as re-introducing the offering of Commonwealth Scholarships in teaching;
- Employment opportunities in the surrounds of regional universities for students must be assured for the students (finding part time work to support them while studying);
- Revisit the past practice of marketing the comparative cost of attending a university set in regional and rural locations versus those located in metropolitan areas;
- Market UNE as the rural and regional university specialising in the needs of accommodating students from regional, rural and remote Australia;
- Create alternative pathways into undergraduate initial teacher education courses, allowing rural, regional and remote students who do not meet the mandated “three HSC Band 5s including English” requirement to meet them through the completion of approved bridging units or discipline studies in their first year of candidature;
  - o Create an online ‘teaching solution finder’ to provide quick and easy access to the options available to students for the initial teacher education options and how to navigate the new three band 5 admission requirements.

Other UNE initiatives include:

- Scholarships offered by the Department, in programs such as the Enhanced Teacher Training program, to provide scholarships for final year students to be placed in high enrolment Aboriginal schools;
- Support from UNE’s Aboriginal Centre, Oorala;
- Teaching into Difficult to Staff Schools through the UNE VITAL project;



- A focus on STEM;
- A focus on ASELL (science experiments into schools).

## **CONCLUSION**

UNE supports the notion that new and innovative practices need to be pursued to assist in increasing the aspirations and opportunities for rural, regional and remote students to seek higher education. We believe that exposing rural, regional and remote school students to conversations about differing career paths and opportunities through education, and providing motivating mentors allows them to broaden their horizons and seek out higher education.

Through this response, we have endeavored to address some of the key issues, challenges and barriers that particularly impact rural, regional, and remote students, providing some innovative approaches to addressing said challenges. It is hoped that the suggestions can assist to inform the final discussion paper.