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Developing strategies at the pre-service level to address critical teacher attraction and retention issues in Australian rural, regional and remote schools

Final Report 2013

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List of acronyms used

AARE: Australian Association for Research in Education

AEEYSOC: Australian Education Early Childhood Development and Youth Affairs Senior Officials Committee.

AITSL: Australian Institute for Teaching and School Leadership

ARC: Australian Research Council

COAG:Council of Australian Governments

CUCRH: Combined Universities Centre for Rural Health

EREA: Edmund Rice Education Australia

IPCTE: Improving the Practical Component of Teacher Education program

ICPA: Isolated Country Parents Association

ISFIRE: International Symposium for Innovation in Rural Education

OLT: Office for Learning and Teaching (successor to ALTC: Australian Learning and Teaching Council)

REFA: Rural Education Forum of Australia (now disbanded)

RREAC: Rural and Remote Education Advisory Council

RRRN: Rural, Regional and Remote Network

RRRTEC: Renewing Rural and Regional Teacher Education Curriculum

SiMERR: Science ICT and Mathematics Education for Rural and Regional Australia

SPERA: Society for the Provision of Education for Rural Australia

TERRRNetwork: Tertiary Educators Rural Regional and Remote Network

TERRANova:New Ground in Teacher Education for Rural and Regional Australia

WAATEC: Western Australian Aboriginal Training and Education Council

WACSSO: Western Australian Council of State School Organisation

WACUTS: Western Australian Combined Universities Training Schools

WAND: Western Australian Network Dissemination

Executive summary

The following report documents the journey, deliverables/outcomes and recommendations of the project *Developing Strategies at thePre-service Level to Address Critical Teacher Attraction and Retention Issues in Australian Rural, Regional and Remote Schools*.

In 2009 a group of tertiary educators from four universities in Western Australia with an interest and experience in rural, regional, and remote education, and especially in improving the attraction and retention of quality teachers to non-metropolitan locations, formed the Tertiary Educators Rural, Regional and Remote Network (TERRR Network). In 2010 the TERRR Network was successful in obtaining a grant from the Australian Learning and Teaching Council (ALTC) replaced by the Office for Learning and Teaching (OLT) to undertake a project titled: *Developing strategies at thepre-service level to address critical teacher attraction and retention issues in Australian rural, regional and remote schools*.The project aimed to strengthen the capacity and credibility of universities to prepare rural, regional and remote educators, similar to the capacity and credibility that has been created in preparing Australia's rural, regional and remote health workers.

The project achieved the following broad outcomes and deliverables:

- Developing a pre-service t*raining framework* and rural, regional and remote studies curriculum modules linked to the *National Professional Standards of Teachers*;
- Developing models of rural, regional or remote experiences for pre-service teachers who may be teaching in a variety of different locations such as a small rural farming community; a regional mining community; or a remote Indigenous community;
- Linking theoretical and practical teaching and learning processes for example practical field experiences into the curriculum;
- Documenting ways in which the participation rates of regional students in Western Australian teacher education programs can be increased;
- Embedding collaborative strategies between rural, regional and remote teacher educators across four universities in Western Australia;
- Improving communication between teacher educators and regional authorities; and
- Expanding the research associated with rural, regional and remote education.

The development of the *Training Framework for Producing Quality Graduates to Work in Rural, Regional and Remote Australia* provides an overview of the processes and products created during the project. The ten components are grouped into two categories, the 'lens' and the outcomes/products which promoted discussion about the training needs for those about to embark on an appointment to schools beyond the metropolitan fringes. The training framework and teacher guides have been made available on the SPERA website http://www.spera.asn.au and in electronic format on a CD so that universities can upload/embed these files to their Learner Management Systems for pre-service students.



The Training Framework for Producing Quality Graduates to Work in Rural, Regional and Remote Schools is available at http://www.spera.asn.au/school/2013-06-05-training-framework

The National Professional Standards for Teachers (NPST): Graduate Professional Knowledge for Rural, Regional and Remote Context for Graduate Teachers is available at http://www.spera.asn.au/school/2013-06-05-npst-graduate-level

The resource package comprising of seven teacher guides is available at http://www.spera.asn.au/school/2013-06-05-teaching-guides containing:

Teacher Guide Overview

Teacher Guide 1: Understanding the Impact of Remoteness on Student Learning

Teacher Guide 2: Learning in the Remote Context

Teacher Guide 3: Teaching Students from Diverse Backgrounds in the Remote Context

Teacher Guide 4: Aboriginal and Torres Strait Islander Students

Teacher Guide 5: Engage in Professional Learning in the Remote Context

Teacher Guide 6: Engaging Professionally in the Remote Context

Teacher Guide 7: Engaging Professionally: Teaching and Living in the Remote Context

Three recommendations have arisen from the research and development undertaken in this project. These recommendations formed part of those National

recommendationsdeveloped at the *Summit 2011- Rural Futures Matter- A Sustainable Australia* held at Flinders University in September 2011. With the ongoing partnership with the Australian Institute for Teaching and School Leadership (AITSL) the project was influenced by the National reform agenda in education especially the work of the AITSL and the Australian Government's Quality Teaching initiatives and in particular the National Partnership Agreement on Improving Teacher Quality.

Key Recommendations from this Project

- The Australian Government makes resources available comparable to those which are provided in medicine to prepare rural GPs and other healthcare professionals, so that pre-service teacher education students have the option of taking a fully funded semester length rural/remote/regional professional placement, and that appropriate resourcing is allocated to support teacher educators to properly prepare, support and debrief teacher education students who take a rural/remote/regional placement;
- That both State and Federal Governments provide pre-service and early career Country Teaching Scholarshipsto all candidates willing to do a practicumor internship in non-metropolitan locations; and
- Continue to promote the resourcesfrom the two projects, RRRTEC and this current project completed by the TERRR Network,to universities to be used in their teacher education courses to better prepare graduates for teaching in rural, regional and remote Australia.

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Chapter 1

Overview

This report outlines and reflects on the journey the project has taken over the past two years andin doing so considers the work that has been undertaken and achievements gainedespecially in terms of developing an innovative approach to better preparation of pre-service teachers to work and live in rural, regional and remote Australia. More importantly, the report also reflects onthe project becoming the catalyst for facilitating a unique collaborative process across four universities to bring about change in initial teacher education to improve the quality of preparation of the workforce taking up appointments beyond the metropolitan areas of Australia. The report considers the challenges faced during the project and how specified outcomes and deliverables have been refined as a result of networking with a range of interested parties, discussion with stakeholders and other collaborative processes in an attempt to maximise the impact and effectiveness of this particular project.

Chapter two, *Why this work was undertaken* provides a background to the reason for a group of tertiary educators in Western Australia joining forces to address critical teacher attraction and retention issues in Australian rural, regional and schools through better preparation of pre-service teachers. Chapter Three, *Responding to stakeholder and interest groups*, articulates how the project was refined in light of active listening to a range of stakeholders with similar interests in improving attraction and retention rates of quality teachers to rural, regional and remote locations, and with the ultimate aim of advancing student outcomes in those locations. Chapter Four, *Project phases of development*, build on information providedin previous project reports and in doing so maps all of the processes used to realise the outcomes across the two year duration of the project. The achievements of each phase are also briefly identified in this chapter. Chapter Five, *Major achievement againstproject brief*, lists and details the key activities that were undertaken during the course of the project that enabled the targeted outcomes to be met.Chapter Six, *Drawing the achievements together: the development of a Training Framework for Producing Quality Graduates to work in Rural, Regional and Remote Australia*, details how the outcomes were achieved and the products produced as a result of the project create a scaffold for preparing quality graduates to work in rural, regional and remote locations.The report concludes with consideration ofthe directions further work around the preparation of pre-service teachers for non-metropolitan Australia could take and includes a number of recommendations.

Chapter 2

Why this work was undertaken

Traditionally it has been difficult attracting and retaining teachers and other professionals to rural and remote areas (Miles, Marshall, Rolfe & Noonan, 2004). Within the first five years of rural and regional practice, isolation in the way of geography and professional development is likely to result in many professionals leaving their professions in country placements (Herrington & Herrington, 2001). In the metropolitan areas of Australia, professionals account for 20% of the workforce, while in regional areas, professionals comprise only 11% (Miles, et al., 2004). In Western Australia, the Department of Education and Training have identified continuing location and specialist teacher imbalances (Department of Education and Training [DET], 2006). Thus, the expected shortfall coupled with the present difficulty in attracting teachers to rural, regional and remote areas suggests major problems in staffing for many rural, regional and remote schools.

According to the Human Rights and Equal Opportunity Commission (HREOC, 2000) current teaching courses do not equip students with the skills and knowledge to teach in rural, regional and remote locations. Despite the Commonwealth Schools Commission (CSC) report entitled *Schooling in Rural Australia* (1987) concluding that university preparation was insufficient for teachers to teach effectively in rural areas, in particular, because students need to be equipped to face the special challenges and conditions for rural teaching prior to appointment, Boylan (2004) still described the provision of rural pre-service education as "piecemeal" (p. 9). Moir & Gless (2001) found that the early experiences of new teachers serve to set the norms and standards that will guide them throughout their careers. Thus, as the first few years of teaching are the most important it is imperative that universities and schools work together to ensure new teachers have the knowledge, skills and support necessary to help them succeed in their first placements. One proposal is that this success can be achieved through tailoring teaching courses to meet the needs of regional and remote communities and by allowing pre-service teachers the opportunity to experience working in rural, regional and remote areas (Ramsey, 2000). Moreover, this development may entice students to the remote lifestyle and possibly aid in the attraction and retention of teachers to rural and remote areas (Davis, 2002; Gibson, 1994; Halsey, 2005; HREOC, 2000; Murphy & Cross, 1990; Ramsey, 2000).

Thus, it is imperative that pre-service teachers are involved in quality placement programs in rural, regional and remote Australia to learn the necessary attributes needed to be successful in these positions: classroom and school strategies and community awareness and involvement.

Classroom strategies include learning to handle multi age classrooms, curriculum organisation and planning, specific rural teaching strategies, organisation and administration of small schools, role and responsibility of principals, curriculum content, and awareness of a rural, regional or remote teaching role, value clashes and resource

acquisition processes. Community strategies, such as expectations and involvement techniques are particularly important for pre-service teachers to gain an awareness of the role the community plays in school life and in their personal life (Gibson, 1994). Boylan, Sinclair, Smith, Squires, Edwards, Jacob, O'Malley and Nolan (1993) found that teachers tend to cope better if they believed the community appreciated them and was committed to improving and supporting education. Moreover, pre-service teachers reported being more satisfied with their rural teaching positions if they were satisfied with the political, religious and social values of the community. Equipping pre-service teachers with the necessary attributes and expectations for rural, regional and remote teaching may result in attracting and retaining more teachers to these regions.

For a significant number of pre-service teachers, knowledge of life beyond the outer fringes of the metropolitan area is scant. Boylan and Wallace (2007, p. 22) capture the issues:

> *In Australia, most pre-service teacher education courses are based in the capital cities. The majority of students enrolled in teacher education courses are drawn from metropolitan schools. For these courses and their students, rural schools, and their communities are 'unknown', 'to be feared', 'to be avoided' and have little connection with these students' life experiences.*

The importance of pre-service teachers being able to experience the unknown and be provided with the opportunities to enable them to make informed decisions and judgements about teaching and living in rural, regional and remote locations is made by others such as Halsey (2005, 2006), Lock (2006, 2007), Sharplin (2002), and Boylan and Mc Swan (1998).

It is recognisedthat there are issues associated with the preparation of teachers by higher education institutions for work in rural, regional and remote locations. There is commentary that the higher education system has work to do in better preparing pre-service teachers for rural, regional and remote schools (eg. Twomey, 2009) and feedback from graduates is that they are not well prepared for rural, regional and remote teaching and living (Frid, Sparrow, Trinidad, Treagust & McCrory, 2006; Frid, Smith, Sparrow & Trinidad, 2009).

In addition to this, one of the most significant factors impacting on the attraction of teachers to work in rural, regional and remote Australia is fear of the unknown. Using the research of Ankrah-Dove (1982), Boylan and Wallace go on to say that "…this fear of the (rural) unknown can be reduced through more targeted preparation for rural teaching." (2007, p. 22). Many pre-service teachers have not experienced rural, regional or remote community living. To this end, pre-service education institutions need to expose pre-service teachers to: the significant issues relevant to rural, regional and remote education; a broad representation of rural, regional and remote contexts, assisting pre-service teachers to become familiar with the diversity of rural, regional and remote locations and communities; and range of potential experiences. Ideally, pre-service teachers need direct personal experience of rural, regional and remote education in context (Sharplin, 2002).

The issues associated with attracting and retaining quality teachers to rural, regional and remote locations and the limited focus on the challenges of non-metropolitan education at

the pre-service teacher education level are, therefore well documented in the research literature spanning a number of years. It has only been in more recent times however that there has been a strong focus on the impact of these issues on student performance. In their seminal work Lyons, et al (2006) identified the stark gap between the performance levels of rural, remote and regional students and their metropolitan counterparts. Even after taking into account difference performance levels that could be attributed to socio-economic status and Aboriginality, Lyons and his colleagues found that geography and the impact that geographical location has on teachers and teacher quality is the main contributing factor to the difference in student performance levels between metropolitan and non-metropolitan schools.

With this body of evidence in mind and the need to take action the Tertiary Educators Rural, Regional and Remote Network, or TERRRNetwork, was formed in Western Australia. At their very first meeting early in 2009 the decision was made to apply to the Australian Learning and Teaching Council for funding to*Developing strategies at the pre-service level to address critical teacher attraction and retention issues in Australian rural, regional and remote schools.*

Chapter 3

Responding to previous research, arange of stakeholder and interest groups

The project started with the following broad outcomes and deliverables:

- Develop pre-service courses rural, regional and remote studies curriculum modules across four universities that can be used by other universities;
- Develop models of rural, regional or remote experiences for pre-service teachers who may be teaching in a variety of different locations such as a small rural farming community; a regional mining community; or a remote Indigenous community;
- Link theoretical and practical teaching and learning processes: e.g. practical field experiences into the curriculum and reflective journals;
- Document ways in which the participation rates of regional students and especially Indigenous Western Australians in teacher education programs can be increased;
- Develop in conjunction with the Society for the Provision of Education for Rural Australia (SPERA), an online networking tool to link pre-service teachers with an interest in rural experiences;
- Embed collaborative strategies between rural, regional and remote teacher educators across four universities in Western Australia;
- Improve communication between teacher educators and regional authorities;
- Provide opportunities for school students in rural, regional and remote locations to improve their knowledge about teacher education programs and becoming a member of the teaching profession;
- Expand the research associated with rural, regional and remote education;
- Provide an interim report, including a financial and progress summary at the end of year one; and
- Provide the final project report following the Australian Learning and Teaching Council Grants Scheme Guidelines.

Renewing rural and regional teacher education curriculum

In the original application it was noted that this ALTC project would collaboratively work with two major research projects, one completed and the other continuing, investigating rural teacher education. The first of these was an ALTC project referred to as “Renewing Rural and Regional Teacher Education Curriculum” (RRRTEC) and the second known as TERRAnova or “New Ground in Teacher Education for Rural and Regional Australia”, funded through an ARC grant. In light of this collaboration some of the broad outcomes and

deliverables were refined to prevent duplication and to build on previous work.

The former project is very similar to this ALTC project and was funded six months earlier to this project with a significant outcome to produce curriculum resources "to better prepare teachers for the rural workforce" and "create a website to make these resources available to all teacher educators" (www.rrrtec.net.au).

As a result of collaborating with the RRRTEC team the following initial decisions were made in relation to this ALTC Project:

1. The focus areas for the teacher guides to be produced would not duplicate those produced by RRRTEC.
2. The teacher guides produced by this project would fill the gaps and extend the focus learning areas of the RRRTEC Project especially by focusing on the remote teaching and learning context. Noting that 'rural, regional and remote' is different in each state of Australia and this diversity needs to be acknowledged in the initial teacher curriculum.
3. This project would use the RRRTEC website (www.rrrtec.net.au) to make accessible to all teacher educators the teacher guides produced along with any other resources and research undertaken.
4. The teaching guides produced by this project would follow the structure of the RRRTEC modules, namely:module purpose (statement); module outcome(s); module topics; module activities; and module resources/key readings.

Outside of the collaborative process with the RRRTEC group the team members of this projected debated the use of the term 'module' and considered alternative nomenclature such as "curriculum object" before deciding on the term 'teacher guides'. There was consensus that the term teacher guide captured more fully the use of resources produced for pre-service teachers, their lecturers, those recently graduated and experienced teachers new to teaching in non-metropolitan locations and looking for resource material. The intent was to produce materials or 'teacher guides' which could be inserted into any part of a pre-service teacher program.

National Professional Standards for Teachers

The work of the Australian Institute for Teaching and School Leadership (AITSL) also provided a new direction for the project. This new direction impacted in a very positive way on this project's outcomes and deliverables.

AITSL came into existence on the 1st of January 2010 with the expectation from the Australian Government that: "The Institute will drive transformational change and create new levels of teacher professionalism" (Gillard, 2009). AITSL's main means of achieving this goal is through the new standards-based **National Professional Standards for Teachers Framework**. In the Letter of Expectation to AITSL from the Australian Government it was told that its "single biggest priority" was to "continue the work of the Australian Education Early Childhood Development and Youth Affairs Senior Officials Committee (AEEYSOC)"….and… to finalise and oversee a set of national standards for teachers and school leaders" (Gillard, 2009).

The Australian Government along with other jurisdictions across the nation, through the Council of Australian Government (COAG), see the national standards as the main means of raising teacher quality and in doing so improving educational outcomes.

Specifically, it is envisaged that:

> *"The implementation of a new standards-based National Teaching Professional Framework will provide consistent national processes and principles to oversee a set of national standards for teachers and school leadership and implement an agreed system of national accreditation of teachers based on these standards. The Framework will guide reform in the areas of teacher registration, accreditation of pre-service teacher education courses and accreditation of teachers at the graduate, competent, highly accomplished and lead teacher levels and inform professional learning and performance appraisal" (Gillard, 2009).*

The project team recognised the significance of AITSL's work and strongly believed that the National Professional Standards for Teachers Framework needed to impact on the deliverables and outcomes of the project especially in terms of curriculum development and the enhancement of practicums/field experience opportunities. With this in mind the project team decided to produce the teacher guides around National Professional Teacher Standards and specifically:

1) Know students and how they learn;
6) Engage in professional learning, and
7) Engage professionally with colleagues, parents/carers and the community.

All of the standards are highly relevant to all teaching and learning contexts; however the project team chose these three standards because they believed these were ones that posed particular challenges in the remote context. In line with the pre-service context in which the proposed teacher guides will be used, specific graduate descriptors were then chosen within each of the three as the basis for the teacher guides. More information can be found in Chapter Four about the linkage between the National Professional Standards for Teachers and the subsequentteachers guides produced.

The work associated with refining the outcomes and deliverables has strengthened the working relationships between the four universities involved and the wider community and in doing so raised the profile and encouraged stronger recognition of the fundamental importance of quality teaching experiences in rural, regional and remote schools. In the second year of the project links have been established with Notre Dame University from which representatives attended the project network meeting. No formal contract was established with this private university but a collaborative sharing of resources was agreed upon so all five universities in Western Australia could benefit from this project.

Responding to other aspect of the National Improving Teacher Quality agenda

The new national professional standards for teachers are the key strategy underpinning the national reform agenda to improve teacher quality in Australia (Council of Australian

Governments (COAG, 2009). In addition to ensuring the standards were embedded across the project outcomes, the project team remained aware of the National reform agenda to improve teacher quality and attempted to support and reinforce stated objectives, outcomes and outputs wherever possible.

The most concrete example of this is that the collaboration initiated in this project resulted in three of the partnering universities (Murdoch University, The University of Western Australia and Curtin University) in conjunction with SPERA submitting a joint tender to form the Western Australia Combined Universities Training Schools (WACUTS) to develop and deliver an innovative pre-service teacher training program as part of phase two of the Department of Education's (WA) Training Schools project. In terms of the National Partnership Agreement on Improving Teacher Quality, the Western Australian Training School equate to *Schools of Excellence* which *means the facilitation reform School Centres for Teacher Education Excellence* (COAG, 2009).Winning this tender has meant that the two projects could work in parallel and played a significant role in enabling the development of the *Training Framework for Producing Quality Graduates to Work in Rural, Regional and Remote Australia* detail discussed in Chapter 5. In line with COAG's agenda, this has strengthened the partnership between higher education and Western Australia's major school education service provider and along with establishing a process for quality placement for pre-service teachers as interns. Consistent with COAG's reform agenda, more than 50 mentors will be trained as part of the WACUTS project.

Rural and Remote Education Advisory Council (WA) - RREAC

RREAC was engaged as a key stakeholder in providing the TERRR Network with feedback and strategic advice as the project emerged and developed.

RREAC has representatives from various community groups who are consumers of, or have a strong vested interest in, rural and remote education in Western Australia.
Members of the Council are appointed by the Minister for Education. The Ministerial Council is charged with Terms of Reference and Directions:

- To provide the Minister for Education with evidence-based, and solution-focused strategic advice on education and training issues and developments in rural and remote areas of the state.
- To provide specific strategic advice on the education services that give senior secondary students in rural and remote areas equitable opportunities for compulsory participation in education and training.
- To advise about rural and remote community and consumer interests in education and training.
- To ensure strategic advice is provided from a cross-sectoral perspective across the schools, training and higher education sectors and encompasses both the public and private provision.

The reference group

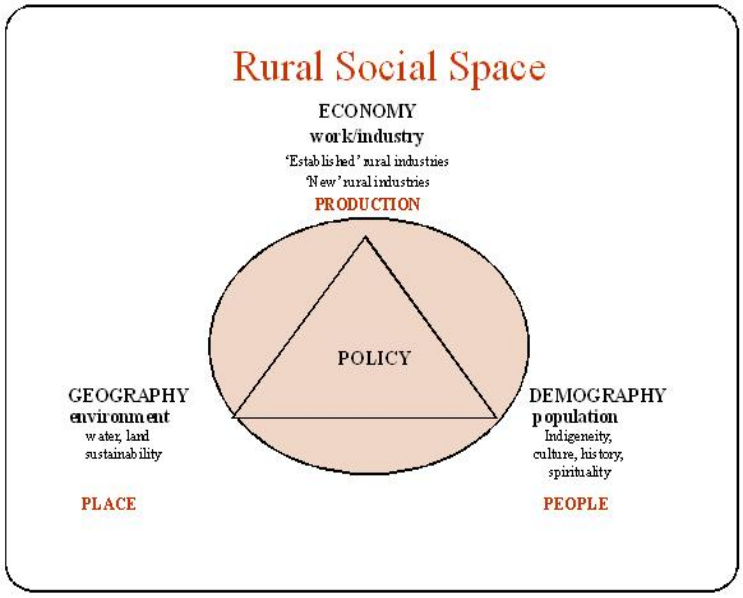
The project reference group comprised of many key stakeholders whose aim was to ensure that rural, regional and remote locations have an adequate supply of quality teachers. .

The project reference group provided feedback through regular meetings and electronic communication throughout each phase of the project as well as providing advice and input into the project activities. In its endeavor to achieve sustainable outcomes, the project reference group played a significant role in ensuring strong collaborative partnerships was formed between key stakeholders. The views and feedback articulated by the reference group are reflected in the final documents and theteacher guides.

Rural (Teacher) Education Project, or R (T)EP, and Renewing Rural Teacher Education: Sustaining Schooling for Sustainable Futures - TERRAnova

As noted in the original application, this project intended to build upon two other major research projects investigating rural teacher education. The work of these two projects (the NSW Rural (Teacher) Education Project, or R (T)EP, and Renewing Rural Teacher Education: Sustaining Schooling for Sustainable Futures - TERRAnova) complement each other, with the latter developing concepts discussed in the former into a theory of successful pre-service teacher education practices. This research called for the need to reconceptualise pre-service teacher education for preparing teachers to teach in non-metropolitan locations (Lock,Reid, Green, Hastings, Cooper & White, 2009; Lock**,** Reid, Green, White, Cooper & Hastings, 2009; Lock, Green, Reid, Cooper, White & Hastings, 2008; Cooper, White, Lock, Reid, Green, & and Hastings, 2009; Reid, Green, White, Cooper, Lock & Hastings, 2008; Green, Letts, Novak & Reid, 2008).

R(T)EP acknowledges the need to consider matters of space, difference and a 'situated practices' framework (Green et al. 2008) in meeting the challenges, and opportunities, of teaching in non-metropolitan schools. Specifically Green et al. (2008) argue the need to consider “notions such as place-conscious education, developing and working with more situated and culturally-sensitive pedagogies, and building more organic relationships and partnerships with (rural) communities (p. 1)” within teacher education. Building on the R(T)EP work, earlier research of Green and Reid (2004), recent work of Donehower, Hogg and Schell (2007), together with contemporary understandings of space and place (Agnew, 1993; Cresswell, 2004; Massey, 2005), and preliminary findings (Lock et al., 2009) the second project is developing a theoretical framework (see Figure 1). This work combines quantitative measurement and attendant definitions of rural space based on demographic and other social data with constructions of rurality in both *geographic* and *cultural* terms (Reid, Green, White, Cooper, Lock & Hastings, 2009).



Source: Reid, Green, White, Cooper, Lock & Hastings (2009).

Figure 1: Rural Social Space

This theoretical framework considered key elements for supporting the development for understanding both the notion of 'rural' and "… for coming to know, and prepare for teaching in rural communities – in terms of the interrelation of economy, geography and demography as key definitional aspects of contemporary rural social space" (Reid et al., 2009, p. 1).

In terms of this project, and as intended from the outset, this theoretical framework (economy, geography, demography) served as the basis for curriculum development so that key aspects of a 'rural, regional and remote teacher curriculum' were developed and implemented in an integrated cohesive manner. As noted elsewhere, aspects of remote have been emphasised in the teacher guides that have been developed. Likewise, in designing the rural, regional and remote experiences for pre-service teachers that are integral to the *Training Framework for Producing Quality Graduates to Work in Rural, Regional and Remote Australia,* the theoretical framework of economy, geography and demography was significant in shaping the activities in which participants will engage.

Other connections and links made by the TERRR Network to help inform the project are illustrated in Appendix A.

Chapter 4

Project phases of development

This project was completed in five phases, allowing the production of exemplar curriculum materials and the development of a rural, regional and remote field experiences and the documentation of outcomes through the production of case studies that are a work in progress. Figure 2 depicts the five phases of the project.

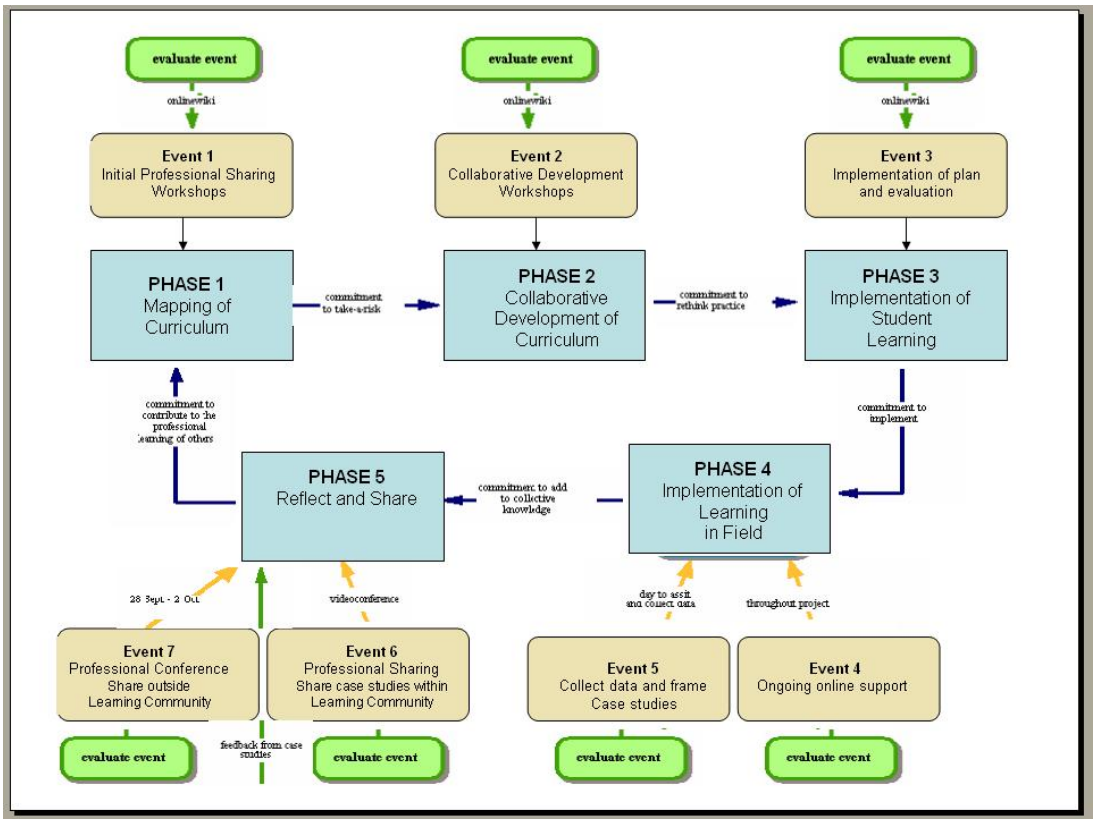


Figure 2: The five phases, events and evaluation of the Project

The strength of the phasedapproach allowed for on-going evaluation of the process and product at each phase through the events undertaken. The use of face-to-face and virtual engagement throughout the project was successful and facilitated the commitment of the partners to 1) take a risk; 2) rethink tasks; 3) implement; 4) add to collective knowledge; and 5) contribute to the professional learning of others.

The following tables provide a summary of each of the phases in terms of the specific outcomes achieved, processes employed to achieve those outcomes and the achievements with the attainment of the specific outcomes.

At the end of each phase is a list of the significant knowledge gained during the completion of the phase to the point of submitting this report along with a summary of the evaluation that has taken place by the evaluator Dr Tania Broadley.

Phase 1: Mapping of the curriculum

Outcome	Process	Phase Achievements
1.1 Identification of structures and processes from Combined Universities Centre for Rural Health (CUCRH) which could be replicated in the field of education. 1.2 Identification of common goals and issues which could serve as a foundation for integrating or emulating education with/within the CUCRH structure.	Investigation of existing structures and processes through examination of documentation and discussions with CUCHR personnel. Investigation of CUCHR approach to Health Worker attraction for application to teachers' education.	Links with the Combined University Centre for Rural Health (CUCRH) in Geraldton was established in order to learn from their experience and to investigate the possibility of synergies that could be developed between the two organisations (e.g. the development of a regional professional network involving education and health professionals). The potential of a Combined University Centre for Rural Education in Western Australia was also being explored.
1.3 Identification of rural, regional and remote education curriculum and/or field experience models used nationally/internationally.	Internet and literature search supported by follow up interviews with specific institutions.	Extensive research covering WA,national and international curriculum and field experiences completed –Appendix C: curriculum mapping. Determined the need to focus on and be directed by the work of ALTC especially in relation to the National Professional Standards for Teachers (NPST). This identification and mapping played a significant role in: • Highlighting the general lack of focus on rural, regional and remote content in the pre-service teacher education curriculum. • Identified that the focus on remote teaching and learning issues were almost non-existent in the pre-service teacher education curriculum.
1.4 Mapping of current Western Australian rural, regional and remote pre-service teacher education curriculum and field experience models and comparison with national information.	Collaborative mapping session between partner universities.	Two day workshop (18-19 Feb 2011) at Curtin University involving staff from all 4 universities. Mapping at the State and National levels were comprehensive and identified that there is not a strong focus in Australian universities on preparing pre-service teachers for the challenges of education provision beyond the metropolitan cities. The exercise did, however, highlight pockets of innovative practice throughout Australia and these innovative approaches helped inform the training framework. Mapping of curricula beyond Australia was selective and determined mainly by knowledge among the TERRR Network of international curriculum initiatives for preparing teachers to address the teaching and learning challenges imposed by geographic remoteness in countries such as Canada. In addition to collaborative mapping the team: • Mapped the WA curriculum against the RRRTEC modules. • Identified key internal stakeholders across all 4 universities • Looked at key content areas and resources and mapped these against the National Professional Standards for Graduate Teachers. • Explored the possibility of aligning practicums/field

		experiences across the four universities along with considering joint collaborative experiences.Appendix B: Practicum calendar. Gap analysis undertaken between RRRTEC and this project. This project developed 7 teacher guides in those areas not covered by RRRTEC specifically with a focus on the remote context and based on NPST 1,6 and 7.

In completing phase 1 of the project i.e. mapping the curriculum the TERRRNetwork team gained the following knowledge:

- Understanding that like the health profession, who see rural medicine as a specialist field, there is a need to see rural education as a unique field of learning.
- There is a general lack of focus on rural, remote and regional teaching and learning issues in pre-service teacher education courses; however, through the work of RRRTEC, TERRAnova, this project and the endeavours of others a focus is emerging.
- This project needs to acknowledge the work of RRRTEC and build on their work. Likewise, the National Professional Standards for Teachers will have a significant impact on pre-service teacher education and there is a need for this project to embed new directions and reforms proposed by AITSL.

Phase 2: Collaborative development of curriculum

Outcome	**Process**	**Phase Achievements**
Identification of key fields of knowledge, central concepts, objectives and course outcomes.	Collaborative planning and mapping of course content. Consultation with potential partners to explore community capacity building, field experience partnerships and other educational synergies.	A module was developed and piloted at Curtin University with the intention of implementation at the other 3 universities. This pilot module appears in the training framework titled *Introductory Module: Social Networking and Teaching in RRR*. This module was developed in the early stages of the project and before the project team decided to build the modules around the National Professional Standards for Teachers (NPST). The module has a strong rural, regional and remote content base and was incorporated into the teaching and learning program for 200 second year pre-service teachers at Curtin University. The students participated in this module in an on-line ICT environment. At the conclusion of the module students were invited to complete a survey on their expected learning if they participated in a non-metropolitan practicum/field experience. The findings of this survey, Going Bush: Preparing Pre-Service Teachers to Teach in Regional Western Australia were presented at SPERA's 27th National Conference/Summit held at Flinders University, 21-23 September 2011. The conferences paper will be published in the Australian and International Journal of Rural Education in 2012. Agreement that the fields of knowledge, central

		concepts, objectives and course outcomes of the new modules would focus on Standards 1, 6, and 7.
Sequencing or clustering of content/concepts.		Sequencing and clustering was determined by the NPST. Agreement that RRRTEC structural framework(see above) was essentially used to shape the new teaching guides. • The new teaching guidesdid not duplicate but built on the curriculum development work of RRRTEC. • Participation in the launch of the RRRTEC curriculum modules and website, along with attendance at the SPERA national Conference/Summit and other events listed Part 2 of this report hasnot only identified but also helped embed links with existing course structures at a national level. • The Reference and Network Groups provided the Project Team with excellent support. Strong links have been made with the Rural and Remote Education Advisory Council and the Remote Teaching Program (Department of Education WA). The partnership with SPERA remains strong and productive.Referenced in Part 2 of this report.
Identification of links within existing course structure.		Mapping completed. Some work was completed during Phase 3 of the project.
Identification of placement options for additional field experience opportunities.		Mapping completed. Implementation was conducted during Phase 4 of the project. The non-metropolitan field experience component of the training framework builds on the benefits of such an exercise identified by Sharplin (2001, 2002, 2009). The first week long field experience is planned for August 2012 with the intention of linking pre-service teachers with schools and their communities, local governments, industry and business, a range of agencies both government and non-government, and the environment as a teaching and learning resource in the Goldfield-Esperance Region. Another intended outcome of the field experience is the strengthening of the rural, regional and remote education network that is emerging as a result of the training framework. Pre-service teachers from all four public universities in Western Australia will be invited to participate in the field experience.
Development of learning modules and field experience options.		Collaborative processes during the latter stages of Phase 2 and early stages of Phase 3 resulted in the project team working together on a Department of Education (WA) tender for the development of training schools in which final year students would work as interns. Central to the tender writing was the endeavour to ensure that rural schools were included as part of the project. The tender was successful and has resulted in formation of the Combined Universities Training Schools (WACUTS).

Phase 3: Implementation of student learning

Outcome	Process	Phase Achievements
Development of rural, regional and remote curriculum modules – (now referred to as Teacher Guides) (content, learning experiences) resources, assessment tasks.	Collaborative discussion to outline scope of curriculum modules. Individual writing of modules Consultation and review of modules using online collaborative tools.	**PHASE 3A** An additional survey of 2010 graduates who participated in the Remote Teaching Service Scholarship program was undertaken. The intent was to identify the strengths and weaknesses of existing teacher education courses and field experiences/practicums. This informed future curriculum development and implementation and field experience programs. An extensive survey of the trial module has been undertaken and analysis informed the scope of the teaching guides. A survey was conducted with 200 students in Primary and Early *Childhood Teacher Education course.*As part of their engagement with the learning object *Social Networking and Teaching in Rural, Regional and Remote Western Australia* pre-service teachers were invited to complete an online survey designed to gauge the extent to which, as a result of participating in a non-metropolitan practicum/field experience, they expected to enhance their knowledge and skills associated with 23 different fields of teaching and learning. The survey results have recently been published in the *Australian and International Journal of Rural Education* (Trinidad et. al, 2012) and part of the data collected is summarised in Figure 2. **PHASE 3B** *Teacher Guidesare aligned to the National Professional Standards (Graduate Level based on:* **Standard 1: Know Your Students and How They Learn** Teacher Guides based on 1.1; 1.2;1.3 and 1.4 **Standard 6: Engage in Professional Learning** Teacher Guide based on 6.1 **Standard 7: Engage in Professional Learning** Teacher Guides based on 7.3 and 7.4.
Planned implementation process within each university.	Identification of placement of curriculum modules within existing course structures Development of timeline for implementation within each institution. Amendment of existing course documents using online collaborative tools.	*Teacher guides embedded in current and existing courses. Teacher guide outline:* 1. Standard; Focus Area; Graduate Descriptor 2. Introduction 3. Outcomes 4. Topics 5. Suggested Activities / Assessments 6. Key Readings Writing of teacher guides completed along with a training framework. The deliverables/outcomes of the project team's endeavours is encapsulated in the *Training Framework for Producing Quality Graduates to Work in Rural, Regional and Remote Australia* which is made up of nine components, namely: • The National Professional Standard for Teaching. • Pre-serviceteacher curriculum mapping • An introductory module titled *Social Networking and Teaching in Rural, Regional and Remote Western Australia*.

		• A pre-practicum survey. • The National Professional Standards for Teachers (NPST): Graduate Professional Knowledge for Rural, Regional and Remote Context. • A resource package comprising of seven teachers guides. • A practicum calendar for the four public universities in Western Australia. • A field experience that links pre-service teachers with rural, regional and remote schools, communities local governments and business. • The placement of interns in rural, regional and remote training schools. • A post-graduation survey. Teacher Guide Overview and Teachers Guides 1-7 see http://www.spera.asn.au/school/2013-06-05-teaching-guides
Development of resource repository in a virtual location.	Development of resources. Development of resource repository and/or adaptation of existing site through SPERA.	The team built on the repository developed by the RRRTEC team, avoiding duplication. A thorough analysis identified the gaps to be addressed in terms of remote education.
Implementation of a pilot curriculum module within each university.	Individual lecturers to teach curriculum modules. Ongoing consultation, problem solving and refinement of the curriculum, learning materials.	A pilot module was trialled at one university and is now being trialled in the partner universities.*Social Networking and Teaching in Rural, Regional and Remote Western Australia* is a curriculum learning object in the form of a guided set of tasks that focuses on rural, regional and remote education linked to technology. The curriculum learning object was developed at Curtin University and initially used with first year teacher students enrolled in the Early Childhood and Primary programs in 2011. Following the success of the Curtin University trial the learning object was refined and adapted for use by the three other public universities involved in the project. This pilot module appears in the training framework titled *Introductory Module: Social Networking and Teaching in RRR*. The learning object has been a popular inclusion in the teaching and learning program reinforcing the role that technology can play in helping to address the challenges imposed by geography. It promotes the idea of participating in a regional, rural or remote practicum/field experience along with the notion of teaching in non-metropolitan locations on graduation needs to be embedded early in First Year programs. The survey has been repeated in 2012 with first year students enrolled in teacher education programs at the four universities involved in this project. The data collection process is an important component of the training framework. The framework is evidence-

		based and through ongoing data collection and analysis, will remain dynamic. A student survey will be undertaken at the partner universities and in conjunction with the Graduate Training Program at Kingston Primary School.

The project team worked on restructuring this phase to align with the RRRTEC project and the National Professional Teacher Standards. During this time the presentation and linking with an innovative model "Graduate Training Program" at Kingston Primary School was made and pre-service students involved in that program followed up on with interviews and data collection.

Phase 4: Implementation of learning in the field

Outcome	Process	Phase Achievements
Implementation of Welcome to the Bush or other field / practicum experiences.	Development of the Welcome to the Bush strategy in consultation with partner organisations. Development/adaptation/extension of other field/practicum experiences. Marketing of opportunities to students. Implementation of the strategy	Following consultation meeting with the Deputy Chair of the Rural and Remote Education Advisory Council (RREAC) the ALTC team developed a formal submission, 'Welcome to the Bush' for consideration re Royalties for Regions funding. We are still awaiting the outcome of this submission. An outcome of this project has been the awarding of a contract by the Department of Education (Western Australia) to the Combined Universities Training School partners. The Training Schools project is a partnership between Murdoch University, The University of Western Australia, Curtin University and The Society for the Provision of Education in Rural Australia (SPERA), to develop and deliver an innovative pre-service teacher training program. The Training Schools Project is part of the Australian Government's *Smarter Schools National Partnership for Improving Teacher Quality* to increase the capacity and work readiness of pre-service teachers in both metropolitan and rural areas. A corner stone of the Combined Universities Training School project is the placement of interns, final year pre-service teachers from the participating universities, in schools between two and three days pre-week over the entire school year. The project has placed 50 interns of which 19 are in rural and regional schools.Refer to Training Overview.

It became clear that resources from the two projects, RRRTEC and this current project completed by the TERRR Network, need to be promoted to universities and used in their teacher education courses to better prepare graduates for teaching in rural, regional and remote Australia.

Phase 5: Reflection and sharing

Outcome	Process	Phase and Final Project Achievements
Implementation of review process Development of Case studies Modules/Objects Sharing of professional learning Sharing of curriculum and field experience models	Assembling of existing data. Data analysis. Development of Modules/Objects. Development of findings and recommendations. Refinement of curriculum materials and resources. Presentation of project outcomes through ALTC Exchange, conference presentations, and to stakeholders. Seminars and publicity of the case studies and project outcomes to state, national and international audience.	The first and foremost stated deliverable in the TERRR Network application was the development of: *Regional, rural and remote teacher education curriculum teacher guides for pre-service courses across four universities, based on the guidelines being developed by the parallel ALTC project "Renewing Rural and Regional Teacher Education Curriculum" (RRRTEC) that can be used by other universities*. The resource package consists of a Training Framework, Overview and seven Teacher Guides. In keeping with the intention of building on the work of the RRRTEC, the TERRR Network team committed to focusing the Teacher Guides on teaching and learning in the remote context. The RRRTEC project considers the rural and regional context in depth while the teachers' guides from this project challenge the pre-service teacher to come to terms with what it means to address the National Professional Standards for Teachers at the Graduate level in the remote context. Within the scope of the project the TERRR Network concentrated on three of the Standards and selected Focus Areas and Descriptors within those three Standards. The entire NPST framework is important in every context and requires all teachers, no matter where they are teaching, to engage in deep thinking about their work across all Focus Areas and Descriptors. The TERRR Network believe, however, that Standards 1, 6 and 7 provided a good starting point for the development of Teachers' Guides as work associated with these Standards represent significant challenges for Graduates.

Through establishing strategic partnerships especially those made with AITSL the sustainability of this project, after the funding has concluded, has increased significantly.

Chapter 5

Major achievements against project brief

A number of key activities were undertaken during the course of the project allowing the project to meet its targeted outcomes. The following are major achievements:

Phase 1

- Project Managers appointed – Don Boyd & Emmy Terry (job-sharing).
- Project reference group and project partners established. Information / feedback provided at the project reference group and project partner meetings held in July 2010, August 2011 and June 2012.
- Established Groupsite Website http://terrr.groupsite.com to disseminate information; to become a repository for documents/works in progress/research articles; feedback and general communication between the leadership team, the partners and the reference group.
- Ethics application developed and approval granted (Approval HR 156/2010)
- Database of national and international contacts maintained.
- Dissemination plan was developed and almost completed. Finalised by 30 June 2011.
- Project managers ALTC Project Management Workshop Leading and Managing Projects in Sydney in November 2010.
- Project team meeting regularly (monthly with additional communication through email and Groupsite Website http://terrr.groupsite.com)
- Phase 1 – Curriculum mapping completed.

Phase 2

- Links established with Faculties for Indigenous Studies/Aboriginal Studies in WA universities (Centre for Aboriginal Studies, Curtin University; School of Indigenous Studies, The University of Western Australia, Kurongkuri Katitjin, Edith Cowan University, and Kulhardi Wangkiny Indigenous Centre, Murdoch University).
- Identification of common goals and issues which served as a foundation for integrating or emulating education with/within the Combined University Centre for Rural Health CUCRH structure in Geraldton, Western Australia.
- Engagement and ongoing communication with Department of Education WA – Remote Teaching Program.
- Alignment of key fields of knowledge and content with National Professional Standards for Teachers at the graduate level.
- Mapping of field experiences/practicums at the four WA universities to inform Phase 4 of the

project. Links made with the Western Australian School Experience Committee.

- Development of a trial object/module at Curtin University that was subsequently trialled at the partner universities.

Phase 3

- Analysis of the National Professional Standards and identification at the graduate level re focus, key concepts and student resources/ links as it could apply to regional and remote teachers.
- Pilot module implemented focusing on a rural and remote unit linked to technology embedded into a unit at Curtin University.
- Initial online survey undertaken with approximately 200 pre-service students in Early Childhood and Primary Education courses.
- On-going planning for the implementation of curriculum objects / modules within each university.
- Survey of 2010 graduate teachers that formed part of the Department of Education Remote Teaching Scholarship Program – approximately 100 graduates.
- Links established with the Wheatbelt Development Commission re trial implementation field experience/practicums.

Phase 4

- Establishing firm links with the Deputy Chair, Rural and Remote Education Advisory Council.
- Development of a formal submission called 'Welcome to the Bush' for consideration for Royalties for Regions funding. During this phase it was clear that funding needed to be sought to financially support students to undertake their experience in the regions.
- Successfully developing and submitting a tender for the Western Australian Combined Universities Training Schools (WACUTS) program aimed at supporting the mentoring of 3rd year and 4th year pre-service teachers to gain work integrated experiences in a year-long paid placement.
- Dissemination of the project outcomes with project partners and reference group

Phase 5

- An intensive writing week was scheduled in February 2012 that resulted in establishing the design of the teaching guides.
- Successfully aligned the NPST at the graduate level with the teaching guides to be developed.
- Collaboratively developed seven teaching guides including:
    - The Training Framework
    - Teacher Guide Overview
    - Teaching Guide 1: Understand the Impact of Remoteness on Student Learning
    - Teaching Guide 2: Traditional Ways of learning versus connected learning

    - Teaching guide 3:Teaching Students from Diverse Backgrounds in the Remote Context
    - Teaching guide 4:Aboriginal and Torres Strait Islander Students
    - Teaching guide 5: Engage in Professional Learning in the Remote Context
    - Teaching guide 6: Engaging Professionally in the Remote Context
    - Teaching guide 7:Engaging Professionally: Teaching andLiving in Remote Contexts
- Hosted the teacher guides on the SPERA website.
- Published the modules for dissemination and for ongoing implementation at the partner universities in print, CD and on-line formats.
- Hosted a launch of the project and its outputs on 20 June 2012 that included project partners, project reference group, Deans of Education/Teaching at the partner universities, invited guests and the project team.



Launch with Member for the Agricultural Region; Chair: Rural and Remote Education Advisory Council, the Hon. Brian Ellis MLC, Project Team Reference Group, Project Partners and invited Guests 20th June 2012.

Chapter 6

Drawing the achievements together: the development of a Training Framework for Producing Quality Graduates to Work in Rural, Regional and Remote Australia

Through the ongoing evaluation built into the phased approach to the work the concept of the 'training framework' for more effective preparation of pre-service teachers to work and live rural, regional and remote locations began to emerge. The products and processes created during the project were ordered into a sequence which promoted discussion about the training needs for those about to embark on an appointment to schools beyond the metropolitan fringes. Figure 3depicts the *Training Framework for Producing Quality Graduates to Work in Rural, Regional and Remote Locations* that emerged and underpinned the project.

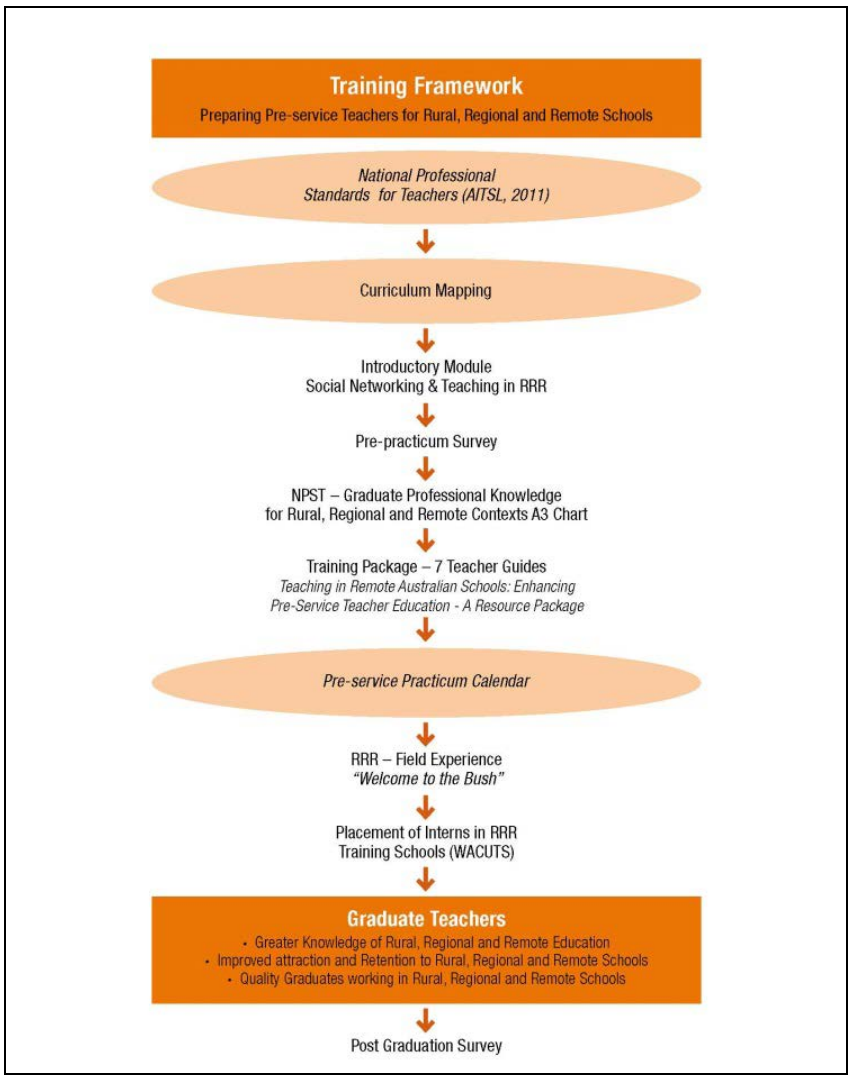


Figure 3: The Training Framework

Applying the framework has three expected outcomes.Firstly, as a result of applying the framework it is expected that pre-service teachers will have a greater knowledge of rural, regional and remote education and what it means to be a quality teacher in those demanding locations. Secondly, as a result of having access to authentic knowledge about rural, regional and remote Australia, it is expected that more pre-service teachers will apply to work in non-metropolitan locations on graduation. Thirdly, it is expected that the processes and support materials inherent in the training framework will improve the quality of graduate teachers who take up the challenge of living and working in rural, regional, and remote Australia. The fact that the training framework is grounded in the National Professional Standards for Teachers (Graduate Level) provides the quality assurance foundation in that "they define the work of teachers and make explicit the elements of high-quality, effective teaching in the 21st century schools that will improve educational outcomes for students" (AITSL, 2011).

The Training Framework for Producing Quality Graduates to Work in Rural, Regional and RemoteSchools is made up of ten components, namely:

- The National Professional Standard for Teaching
- Pre-service teacher curriculum mapping
- An introductory module titled Social Networking and Teaching in Rural, Regional and Remote Western Australia
- A pre-practicum survey
- The National Professional Standards for Teachers (NPST): Graduate Professional Knowledge for Rural, Regional and Remote Context
- A resource package comprising of seven teachers guides
- A practicum calendar for the four public universities in Western Australia
- A field experience that links pre-service teachers with rural, regional and remote schools, communities local governments and business
- The placement of interns in rural, regional and remote training schools
- A post-graduation survey

The ten components are grouped into two categories, the 'lens' and the outcomes. Those that appear in the oval shapes are the 'lens' through which the experiences and outcomes have been developed and achieved. These lenses serve two functions. First, as in the case of the National Professional Standard for Teachers, the lens provides a focus on the national initiative to improve the quality of teaching. Second, through the lens of providing the curriculum mapping and the practicum calendar there is a focus on the need for greater attention on rural, regional and remote education in the four universities involved in pre-service education. As well as providing a focus on the gaps in the pre-service curriculum, this second lens provides a foundation for the training framework, and in particular the materials produced as part of the framework, with more than a "rural lens" (Boylan and Wallace, 2007) expanding the outcomes to "regional and remote lens". It is through this lens that consolidated and innovative strategies to better prepare teachers for working and living in non-metropolitan Australia have been developed. As Boylan and Wallace identify,

applying a rural lens offers a practical means by which we might return to rural education issues with a rural rather than an outsiders' agenda and embrace rural education in the process (2007, p. 15).

The National Professional Standard for Teaching

As noted in Chapter Two, the National Professional Standards for Teachers have provided considerable guidance for this project. By way of explanation of the impact of the Standards the project and the subsequent training framework the following detail is provided.

On 1 January 2010, in the early stages of the TERRR Network project, the Australian Institute for Teaching and School Learning (AITSL) came into being. One of AITSL's first tasks was to assume responsibility for validating and finalising the National Professional Standards for Teachers (NPST) which had been commenced by the National Standards Sub-group of the Australian Education, Early Childhood Development and Youth Affairs Senior Officials Committee (AEEYSOC) in 2009. AISTL completed the development of the NPST during 2010 and these standards were endorsed by MCEECDYA in December of that year. The NPST are a major milestone for teaching and learning in Australia as the Standards that articulate a national approach to what teachers are expected to know and be able to do at four career stages: Graduate, Proficient, Highly Accomplished and Lead (AITSL, 2011). The TERRR Network acknowledged this important major initiative in Australian education by focusing the training framework and the teacher guides around the Standards.

The TERRR Network was also aware that AITSL is keen to develop supporting documentation for the NPST for the context of teaching in rural, regional and remote schools. As noted in Chapter Two, the NPST are an integral component of the National reform agenda to improve teacher quality. It is therefore important that theNational Professional Standards for Teachers (NPST) provide the lens for focusing the training framework. A major outcome of this project has been the partnership formed with AITSL. AITSL is keen to develop supporting documentation for NPST for the context of teaching in rural, regional and remote schools. Therefore, in addition to modelling the use of the Standards in the development of pre-service curriculum, the TERRR Network is supporting and supplementing the work of AITSL in providing documents that will assist graduates and proficient teachers to apply the Standards to their work in the rural, regional and remote context.

Curriculum mapping

One of the first tasks of the project was to undertake was a mapping exercise of the pre-service teacher education curriculum in Western Australia, as well as at the national and international level. Mapping at the state and national levels was comprehensive and identified that there is not a strong focus in Australian universities on preparing pre-service teachers for the challenges of educational provision beyond the metropolitan cities. The exercise did, however, highlight pockets of innovative practice throughout Australia and these innovative approaches helped inform the training framework.Reference is made in Chapter Two to some of this innovative work and an example is provided in Appendix C.

Mapping of curricula beyond Australia was selective and determined mainly by knowledge among the TERRR Network of international curriculum initiatives for preparing teachers to

address the teaching and learning challenges imposed by geographic remoteness in countries such as Canada.

Introductory module

Social Networking and Teaching in Rural, Regional and Remote Western Australia is a curriculum learning object in the form of a guided set of tasks that focuses on rural, regional and remote education linked to technology. The curriculum learning object was developed at Curtin University and initially used with first year teacher students enrolled in the Early Childhood and Primary programs in 2011. Following the success of the Curtin University trial the learning object was refined and adapted for use by the three other public universities involved in the project.

The learning object has been a popular inclusion in the pre-service teaching and learning program reinforcing the role that technology can play in helping to address the challenges imposed by geography. The idea of participating in a regional, rural or remote practicum/field experience along with the notion of teaching in non-metropolitan locations on graduation needs to be embedded early in First Year programs.

Pre-service survey and data collection

As part of their engagement with the learning object Social Networking and Teaching in Rural, Regional and Remote Western Australia pre-service teachers were invited to complete an online survey designed to gauge the extent to which, as a result of participating in a non-metropolitan practicum/field experience, they expected to enhance their knowledge and skills associated with 23 different fields of teaching and learning. The survey results have recently been published in the Australian and International Journal of Rural Education (Trinidad et. al, 2012).The survey has been repeated in 2012 with first year students enrolled in teacher education programs at the four universities involved in this project. A number of research papers are being written with one very strong outcome from the 2011 and 2012 cohorts that over 60% of students in first year pre-service education would consider a regional placement.

The data collection process is an important component of the training framework. The Framework is evidence-based and through ongoing data collection and analysis, will remain dynamic.

Professional knowledge for graduates in the rural regional, and remote context

The A3 chart titled Professional Knowledge for Graduates in the Rural, Regional and Remote Context makes a start at mapping the key knowledge, skills and concepts that need to be mastered at the Graduate level for successful teaching in rural, regional and remote Australia. The project reference and network groups contributed to the chart. The intention is that the chart remains dynamic and the team encourages pre-service teachers and their lecturers to keep adding content to the document. As noted, the chart onlyreflects a small percentage of the body of knowledge available in the complex topic of regional, rural and remote education.

Teachers guides and the resource package

The first and foremost stated deliverable in the TERRR Network project application was the development of: regional, rural and remote teacher education curriculum teacher guides for pre-service courses across four universities, based on the guidelines being developed by the parallel ALTC project "Renewing Rural and Regional Teacher Education Curriculum" (RRRTEC) that can be used by other universities.

The resource package consists of seven teacher guides and is a key component of the overall training framework. In keeping with the intention of building on the work of the RRRTEC, the TERRR Network team committed to focusing the teacher guides on teaching and learning in the remote context. The RRRTEC project considers the rural and regional context in depth while the Teachers' Guides from this project challenge the pre-service teacher to come to terms with what it means to address the National Professional Standards for Teachers at the Graduate level in the remote context.

Within the scope of the project the TERRR Network concentrated on three of the Standards and selected focus areas and descriptors within those three Standards. Specifically:

- Standard 1: Know Your Students and How They Learn
    - Teacher Guides based on 1.1; 1.2; 1.3 and 1.4
- Standard 6: Engage in Professional Learning
    - Teacher Guide based on 6.1
- Standard 7: Engage in Professional Learning
    - Teacher Guides based on 7.3 and 7.4

The entire NPST framework is important in every context and requires all teachers, no matter where they are teaching, to engage in deep thinking about their work across all focus areas and descriptors.

The TERRR Network believe, however, that Standards 1, 6 and 7 provided a good starting point for the development of teachers' guides as work associated with these Standards represent significant challenges for graduates.

Practicum calendar

This part of the project resulted in mapping the practicum times during the year on to a singular calendar with the intention of identifying common times where all four universities have pre-service teachers on practice placements. With this knowledge the TERRR Network have worked towards maximising opportunities for non-metropolitan practicum placements, for example; establishing a network of schools that are willing to accept a number of practice students from all four universities, the possibility for pre-service teachers sharing transport and accommodation, building strong rural, regional and remote practicum networks encompassing all key stakeholders and enabling action research.
The work associated with mapping both the pre-service teacher curriculum and the practicum placement times has also provided an opportunity for the four universities to provide a joint non-metropolitan field experience. An example is provided in Appendix B.

Non-metropolitan field experience

The non-metropolitan field experience component of the training framework builds on the benefits of such an exercise identified by Sharplin (2001, 2002, 2009). The first week long field experience is planned for August 2012 with the intention of linking pre-service teachers with schools and their communities, local governments, industry and business, a range of agencies both government and non-government, and the environment as a teaching and learning resource in the Goldfield-Esperance Region. Another intended outcome of the field experience is the strengthening of the rural, regional and remote education network that is emerging as a result of the training framework. Pre-service teachers from all four public universities in Western Australia will be invited to participate in the field experience.

Placement of interns in rural and regional training schools

An outcome of this project has been the awarding of a contract by the Department of Education (Western Australia) to the Combined Universities Training School partners. The Training Schools project is a partnership between Murdoch University, The University of Western Australia, Curtin University and The Society for the Provision of Education in Rural Australia (SPERA), to develop and deliver an innovative pre-service teacher training program. The Training Schools Project is part of the Australian Government's Smarter Schools National Partnership for Improving Teacher Quality to increase the capacity and work readiness of pre-service teachers in both metropolitan and rural areas. A corner stone of the Combined Universities Training School project is the placement of interns, final year pre-service teachers from the participating universities, in schools between two and three days pre-week over the entire school year. The project has placed 50 interns of which 19 are in rural and regional schools.

Graduate survey

An adapted version of the pre-practicum survey was used to survey new graduates in 2011. This data collected assisted with the development of the materials. The survey will be used to follow up future graduate teachers.

An overview of the training framework has been included in the resource package available on the SPERA website at http://www.spera.asn.au

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Chapter 7

Future Directions and Recommendations

The project team is confident that the stated outcomes and deliverables have been met. Based on early feedback, the products resulting from the project have been well received with positive indications that they will be used in a number of universities. To increase their usage, the products will be made available from the SPERA website with a covering message encouraging widespread dissemination and application.

In terms of future work and directions, the project team has identified two broad areas of ongoing endeavour; one in relation to the work that the TERRR Network would like to pursue and the other that needs effort and the allocation of resources on a macro scale.

Firstly, in relation to future work for TERRR Network there is a need to:

- Continue and build on the collaborative work taking place across the universities in Western Australia in relation to preparing pre-service teachers to work in rural, regional and remote schools;
- Further the implementation of the training framework and conduct future trials of the teacher guides;
- Maintain the research effort; and
- Based on the feedback gained through trialling the teacher guides, modify them and add more to the set.

The project team also acknowledges that two of the ten project outcomes were only considered in a minor way, namely:

- Document ways in which the participation rates of regional students and especially Indigenous Western Australians in teacher education programs can be increased;
- Provide opportunities for school students in rural, regional and remote locations to improve their knowledge about teacher education programs and becoming a member of the teaching profession.

The TERRR Network is keen to address these two outcomes in more detail.

In this respect, the TERRR Network wish to extend the project and will, in due course, seek project extension funding from the Office for Learning and Teaching.

The TERRR Network makes the following recommendations:

Key Recommendations from this Project

- The Australian Government makes resources available comparable to those which are provided in medicine to prepare rural GPs and other healthcare professionals, so that pre-service teacher education students have the option of taking a fully funded semester length rural/remote/regional professional placement, and that appropriate resourcing is allocated to support teacher educators to properly prepare, support and debrief teacher education students who take a rural/remote/regional placement;
- That both State and Federal Governments provide pre-service and early career Country Teaching Scholarshipsto all candidates willing to do a practicumor internship in non-metropolitan locations; and
- Continue to promote the resourcesfrom the two projects, RRRTEC and this current project completed by the TERRR Network,to universities to be used in their teacher education courses to better prepare graduates for teaching in rural, regional and remote Australia.

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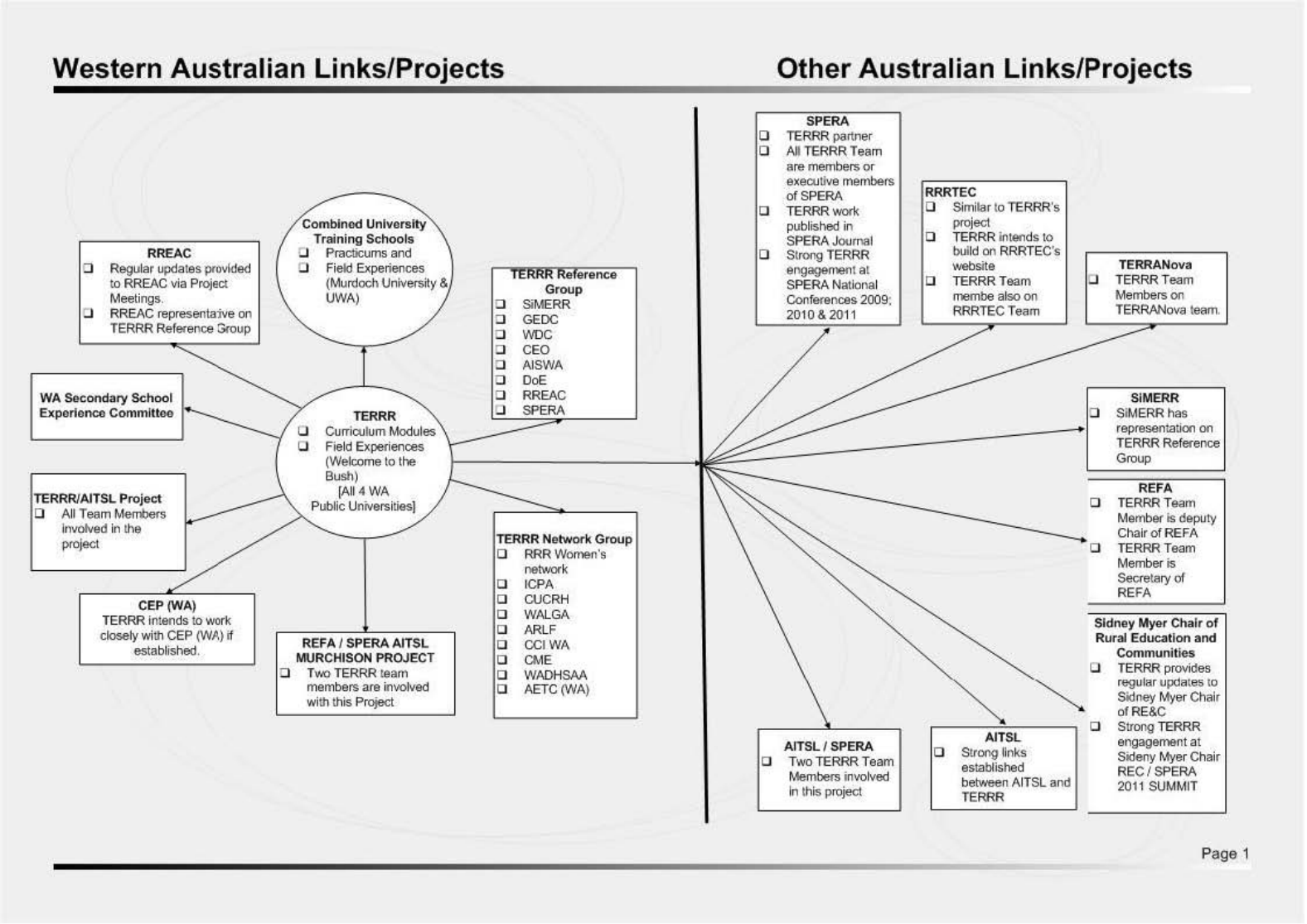
Appendix A

Project Links



WESTERN AUSTRALIA LINKS/PROJECTS

AISWA	Association of Independent Schools Western Australia
ARLF	Australian Rural Leadership Foundation
CCI WA	Chamber of Commerce & Industry WA
CEP	Country Education Project; Western Australia
CEO	Catholic Education Office (WA)
CME	Chamber of Minerals & Energy
CUCRH	Combined Universities Centre for Rural Health
DoE	Department of Education (WA)
GEDC	Goldfields Esperance Development Commission
ICPA	Isolated Children's Parents of Australia
REFA	Rural Education Forum of Australia (now disbanded)
RREAC	Rural and Remote Education Advisory Council
RRR	Rural Remote and Regional Women's Network
SiMERR	Science ICT and Mathematics Education for Regional and Rural Australia
SPERA	Society for the Provision of Education in Rural Australia Inc.
TERRRN	Tertiary Educators Rural, Regional and Remote Network
WADHSAA	Western Australian District High Schools Administrators Association
WALGA	Western Australia Local Government Authority
WACUTS	Western Australian Combined Universities Training Schools
WASSEC	Western Australian Secondary Schools Experience Committee
WAAETC	Western Australian Aboriginal Education Training Council
WDC	Wheatbelt Development Commission

OTHER AUSTRALIAN LINKS / PROJECTS

AITSL	Australian institute for Teaching and School Leadership
REFA	Rural Education Forum of Australia (now disbanded)
Prof John HALSEY	Sidney Myer Chair Rural Education and Communities
RRRTEC	Renewing Rural and Regional Teacher Education Curriculum
SiMERR	Science ICT and Mathematics Education for Regional and Rural Australia
SPERA	Society for the Provision of Education in Rural Australia Inc.
TERRANova	(renewing) Teacher Education for Rural and Regional Australia; plus ARC project: Renewing Rural Teacher Education: Sustaining Schools for Sustainable Futures.
TERRRN	Tertiary Educators Rural Regional and Remote Network

Practicum Calendar



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Appendix C

Curriculum mapping

INSTITUTION	LANGUAGE LITERACY	TECHNOLOGY	INCLUSIVITY	INDIGENOUS EDUCATION	MATHEMATICS	SCIENCE	ASSESSMENT
CURTIN UNIVERSITY							
CURTIN Descriptor	**Literacy Education 135**	**Technologies for Learning 160**	**Educating Students with Diverse Abilities 250**	**Indigenous Australian Education 370**	**Mathematics Education 145**	**Science Education 225**	**Learning Teaching & Assessment 155**
	An examination of a range of historical and theoretical persepctives underpinning teaching and learning of language and literacy. There is a focus on early literacy and language development, with identification strategies applied, analysed and critiqued. Literacy is conceptualised as incorporating speaking, listening, reading, writing and viewing.	This unit introduces students to ways in which information and communication technologies can impact upon learning and teaching. It equips them with the knowledge and skills to use a range of software and hardware technologies effectively in educational contexts. These technologies will be characterised as tools for enhancing the quality of learning experiences, increasing teaching effectiveness and fostering professional development. This unit will focus upon approaches to the utilisation, development and evaluation of electronic educational resources that are applicable across a broad range of learing areas.	Normal and atypical development of children and adolescents. Legal, social and educational imperitives for inclusive education. Develeoping, implementing and evaluating iclusive practices in educational settings. Individualised assessment plans, curriculum adaptation, modified teaching, learning and assessment strategies. Social and behavioural aspects of inclusion. Major categories of atypical development and their specific educational implications. Role of teacher in collaboration with parents and multidisciplinary professionals.	This unit focuses on complex cultural environments and roles interconnected with Indigenous Australian education. Students develop the skills to critically reflect and assess their own teaching abilities in an Indigenous Australian context.	This unit will provide an overview of modern primary mathematics teaching and learning. It will focus on strategies for effective teaching, and understanding and application of modern theories of learning, and an audit and development of personal mathematics content knowledge. The 'shape' strand will be the main context for learning.	This unit introduces students to key concepts and approaches in the Science learning area in order to investigate, understand and communicate about the world around them. Science teaching and learning skills, strategies and concepts will be developed through an appreciation of scientific literacy, learning theory, science curriculum and science pedagogy. The four conceptual areas of Earth and beyond, Energy and Change, Life and Living and Natural and processed Materials, along with the process area of Investigating, will be developed. The unit emphasises an inquiry approach to science where developmentally appropriate hands on-on and minds-on, authentic and contextual experiences are incorporated.	Provides an overview of the key theories related to learning, teaching and assessment. There is a focus on cognitive, social, behavioural and humanistic theories. Issues related to motivation and assessment will be examined.
CURTIN Outcomes	1. Analyse and critique views on teaching, learning and assessment perspectives in language and literacy.	1. Explain the role and uses of learning technologies in supporting teaching and learning.	1. Outline and explain the principles and policies, including an international perspective, underpinning inclusive education.	1. Identify and analyse personal and cultural imperitives in Indigenous Australian contexts.	1. Identify, describe and effective teaching strategies for teaching mathematics.	1. Explain scientific concepts in the physical, biological and technological world.	1. Explain the key terms, theories and concepts related to teaching, learning and assessment.
	2. Identify and describe typical literacy development in young people.	2. Demonstrate through application of information and communication technologies, their professional development as a competent and reflective practitioner.	2. Indetify and describe thevarious specific needs students may have in educational settings.	2. Engage in research that interprets Indigenous contemporary and historical themes to inform teaching roles and practices in an Indigenous Australian context.	2. Analyse and critique strategies for teaching mathematics in primary classrooms.	2. Critically analyse the natural world and recognise the place of evidence in science.	2. Collect, analyse and synthesise data from diverse sources and provide solutions to to a problem related to the improvement of a learning environment.
	3. Plan, implement and evaluate an appropriate language and literacy experience.	3. Use appropriate technoligies to enter and store information that enhance its educational effectiveness.	3. Analyse and assess a variety of strategies or interventions to assist students who need teaching and learning adjustments and explain how these may be implemented and assessed appropriately.	3. Select and apply appropriate teaching strategies in indigenous Australian context.	3. demonstrate knowledge of documents connected to teaching mathematics in Western Australia.	3. appraise the purpose of scientific communication in appropriately presenting information that assists with interpretation of the scientific world.	3. Use several assessment strategies and evaluate their relevance to various contexts.
	4. Identify and use a variety of evidence based learning and teaching strategies for early literacy development.	4. Evaluate varied available electronic learning resources to determine their educational effectiveness.	4. Explain the role of a teacher in effectively and ethically working with students with diverse abilities, their peers, their parents and other professionals.	4. Critically reflect on teaching strategies and philosophies to develop a proactive learning environment.	4. Show personal knowledge of mathematics suitable to a teacher of primary aged children.	Apply scientific knowledge and skills across a range of contexts and consider the impact of the process and products of science.	4. Categorise inhibitors to learning and nominate teaching, learning and assessment strategies that will promote learning.

INSTITUTION	LANGUAGE LITERACY	TECHNOLOGY	INCLUSIVITY	INDIGENOUS EDUCATION	MATHEMATICS	SCIENCE	ASSESSMENT
	5. Show personal literacy skills and knowledge suitable to a teacher of primary aged children.			5. Identify and evaluate various stakeholders and resources that support he implementation of an Australian indigenous learning environment.		5. Select strategies to develop appropriate learning experiences and environments to support the investigation, understanding and communication of the physical, biological and technological world.	
CURTIN Descriptor	**Literacy Education 230**				**Mathematics Education 245**		
	This unit has a particular emphasis on the role of writing as a social construct, and on building understanding and knowledge about language and how it works. Students will study a wide range of texts written by children and gain insights into acquisition of literacy skills, the features of different writing forms and the processes involved in writing such as planning and revision. progress maps, diagnostic instruments, intervention programs and resources are examined. Opportunities are also provided for the practical application of a repertoire of writing and reading strategies and instructional practices that are suitable for teaching English in primary schools.				This unit will focus on the number strand of mathematics teaching. It will review strategies and principles of effective teaching of mathematics. Modern issues of numeracy teaching and number sense development will be explored, critiques and applied to primary classrooms. Classroom practice in teaching number will ne analysed.		
CURTIN Outcomes	1. Describe and explain the role of an effective teacher of writing. 2. Analyse, critique and evaluate views on teaching, learning and assessment persepctives in English. 3. Make instructional choices for teaching writing in primary schools based on knowledge of the individual child and the WA curriculum documents. 4. Analyse and evaluate a variety of writing interventions.				1. Explain and use in the classroom the Number strand of WA Mathematics documents and related components from around the world. 2. Demonstrate appropriate teaching and learning activities for children in the area of Numeracy and number areas. 3. Analyse and critically reflect upon a variet of resources and activities designed for the learning of number concepts and skills. 4. Assess children's knowledge in aspects of number in order to formulate teaching plans.		

INSTITUTION	LANGUAGE LITERACY	TECHNOLOGY	INCLUSIVITY	INDIGENOUS EDUCATION	MATHEMATICS	SCIENCE	ASSESSMENT

CURTIN Descriptor	**Literacy Education 335**				**Mathematics Education 440**		
	A range of historical and theoretical perspectives underpinning teaching and learning in english in primary schools is examined. There is a particular focus on the role of reading and viewing. Students will gain insight into the children's acquisition of reading and viewing skills and the different processes involved in reading and viewing. Examination of the repertoire of practices used by readers and viewers. Students will also examine and implement a range of general strategies for teaching reading and viewing. Opportunities are also provided for the practical application of a repertoire of diagnostic and instructional practices suitable for primary school children.				students will discuss and explore the chance and data, working mathematically, and measurement strands of mathematics. It will also consider further strategies for assessing the effectiveness of teaching. Issues relating to classroom organisation and planning, especially for a range of abilities, will be incorporated into programs and personal philosophical statements and beliefs about mathematics teaching and learning.		
CURTIN Outcomes	1. Describe key theoretical approaches that have influenced current understanding of the English learning Area. 2. Apply knowledge of the English components of the curriculum to teach reading and viewing. 3. Describe and justify a diagnostic teaching process within the English Learning area. 4. Demonstrate careful planning to meet the needs of individual students. 5. Synthesise, analyse, evaluate and reflect upon a range of information, materials and experiences to promote reading development.				1. Compose lesson plans and lesson sequences that integrate working mathematically. 2. Construct learning experiences that adapt a range of strategies and resources for a variety of contexts and children. 3. Demonstrate knowledge of documents connected to teaching mathematics in WA and internationally. 4. Argue in reasoned and informed waysb about issues and ideas raised in mathematics education.		

EDITH COWAN UNIVERSITY							
ECU Descriptor	**LAN1000 Literacy for Teachers**		**EDP3100 Students with Special Needs in the Primary Classroom**	**EDF3101Working with Indigenous Australian Children, Youth & Their Families**	**SAM1000 Science & Mathematics for Teachers**	**SCE2010 Science Education in the Primary School**	**EDP3105 Diagnosis, Intervention & Enrichment Focus on Numeracy & Literacy**

INSTITUTION	LANGUAGE LITERACY	TECHNOLOGY	INCLUSIVITY	INDIGENOUS EDUCATION	MATHEMATICS	SCIENCE	ASSESSMENT
	This unit will develop and extend the skills that students require for different types of writing and reading associated with their work as teachers. Students will engage in the writing process in the workshops, and will be given opportunities to extend their strengths in this area. The unit will cover writing and reading for both academic and classroom purposes, for example writing for examinations, letters to caregivers, and reports on scientific experiments. It will also provide sufficient background to enhance their teaching of literacy skills in school settings. Contextualisation of writing and reading tasks will be a feature of the unit.		The main focus of the unit is on the education of students with disabilities and learning difficulties in the regular classroom. The aim is to develop pre-service teacher awareness of the needs and assessment of students with intellectual, physical, sensory, emotional and/or behavioural disabilities or learning difficulties and those who may be gifted or talented. A second aim is to give pre-service teachers an opportunity to develop strategies for meeting the diverse needs of these students within the regular class. National and state policies in the area on the education of students with disabilities will also be examined.	This unit provides students with an overview of Indigenous Australian social, historical and linguistic contexts and an insight into intercultural relationships to assist them to work effectively with Indigenous Australian children and their families. It explores the cultural and social factors that impact on the lives of Indigenous Australian children. Family socialisation, patterns of language, health issues and the significance of relationships are explored in relation to their impact on the care and education of Indigenous Australian children and youth. Factors such as history, social justice, racism and representations of Indigenous people, and written, oral and graphic discourses are also examined in this context. This unit develops in students the skills and strategies to enable Indigenous Australian children to reach their potential in both Indigenous and mainstream cultures	This unit supports students in developing their numeracy and basic scientific literacy. As well as addressing skills in process outcomes related to working mathematically and investigating scientifically, students are assisted to improve their personal content knowledge in mathematics and science beyond that normally covered in the primary school curriculum.	This unit will provide opportunities for pre-service teachers to examine the purpose and nature of science teaching and learning. Pre-service teachers will reflect on and develop their own scientific literacy and knowledge, and will identify and analyse the processes underpinning scientific investigations as an essential element for science teaching and learning. There will be a focus on pre-service teachers exploring and investigating the literacies of science, and pedagogies associated with effective teaching. Pre-service teachers will inquire into classroom practice to critically reflect upon current science teaching practices.	Classroom teachers need to have knowledge of assessment processes and skills in using and interpreting a range of assessment tools, particularly in literacy and numeracy. In this unit, pre-service teachers will be introduced to skills in collecting, analysing and responding to assessment data, and the implications for teaching practices.
ECU Outcomes	1. Recognise that there are different genres of writing that have differing purposes, structures and features, and apply this knowledge to their reading and writing of a range of these genres.		1. Demonstrate an understanding of the issues and principles of including students with special needs in educational settings;	1. Discuss the significance of Indigenous Australian social, historical, cultural and linguistic contexts on the care and education of Indigenous Australian children and youth.	1. Science process and investigation skills appropriate for primary school teaching.	1. Identify the purpose and value of scientific inquiry in a primary setting;	
	2. Select from a range of reading skills and strategies according to purpose.		2. Demonstrate an understanding of the issues and principles of including students with special needs in educational settings;	2. Discuss the significance of Indigenous Australian social, historical, cultural and linguistic contexts on the care and education of Indigenous Australian children and youth.	2. Science content knowledge in Energy and Change, Natural and Processed Materials, Life and Living, and Earth and Beyond at lower secondary level.	2. Reflect on and develop their own scientific literacy and knowledge;	1. Select and use appropriate standardised and informal assessment tools in numeracy and literacy to determine student achievement levels.
	3. Understand the relationship between writing and its context and make their writing appropriate for the context.		3. Assess the learning needs of students using appropriate strategies across a range of curriculum areas;	3. Discuss the impact of family socialisation, language, health and relationships on the care and education of Indigenous Australian children and youth;	3. Working Mathematically and Appreciating Mathematics at a level appropriate for primary school teaching.	3. Demonstrate the processes of Working Scientifically;	2. Evaluate assessment data and classroom observations to identify students who may require further testing.
	4. Develop strategies to enable them to use standard English spelling and punctuation.		4. Demonstrate knowledge of current policies, resources and support for students with special needs.	4. Develop strategies to engage, support and work in partnership with Indigenous Australian families, communities and Indigenous support staff.	4. Mathematics skills and content knowledge in Number, Measurement, Space, Chance and Data and Algebra at lower secondary level.	4. Use a range of effective science teaching and learning pedagogies;	3. Use diagnostic assessments, interpret the results and develop student profiles and reports.
	5. Reference their work correctly and understand how to avoid plagiarism. Draft, revise, edit and proofread their work as appropriate.			5. Analyse the potential impact of written, oral and graphic discourses on Indigenous people		5. Critique current science teaching practices in primary schools;	4. Plan, implement and monitor the effectiveness of intervention or enrichment strategies/practices that target identified areas of need in literacy and numeracy in individual students.

INSTITUTION	LANGUAGE LITERACY	TECHNOLOGY	INCLUSIVITY	INDIGENOUS EDUCATION	MATHEMATICS	SCIENCE	ASSESSMENT
				6. Develop skills and strategies in Indigenous Australian children and youth that will enable them to reach their potential in Indigenous, and mainstream cultures.		6. Enhance the development of science concepts, skills and values using environmental education and field trips.	
ECU Descriptor	**LIT1010 Literacy and Language Education 1**				**MAE2010 Primary Mathematics Education 1**		
	This unit provides an introduction to communication, spoken language and literacy and to the diversity of language and literacy learners. Pre-service teachers will critically examine a range of theories about language learning and teacher/child interaction; explore ways in which language is constructed and learned in a range of social and cultural contexts; reflect on the variety of language backgrounds and experiences of individuals and groups of people in our society; and examine the structure and function of language in context. The concept of multilingualism and multi-dialectalism will be introduced. Pre-service teachers will plan, implement and reflect upon language learning experiences and teaching approaches for diverse groups of learners in various contexts. Children's literature will be embedded within this unit.				This unit serves to introduce pre-service teachers to the teaching of mathematics in primary school. The structure and content of the mathematics curriculum in primary schools will be examined as well as a range of teaching and learning strategies based on constructivist principles and working collaboratively. Affective issues relating to mathematics will be addressed. Pre-service teachers will plan, implement and evaluate learning activities with small groups of children and begin the development of a mathematics resource file.		
ECU Outcomes	1. Discuss language learning theories and the relationship between oral language and literacy learning. 2. Discuss the structure and function of language. 3. Recognise the diversity of learners' language backgrounds and discuss the implications of this diversity for teachers. 4. Analyse the way social and cultural contexts shape language practices.				1. Identify the main features of the content and structure of contemporary curriculum documents as they relate to primary school mathematics. 2. Select appropriate strategies for the teaching, learning and assessment of a range of mathematics topics at different levels. 3. Plan, conduct and evaluate mathematics activities with small groups of children; 4. Select teaching and learning resources, including manipulative materials, appropriate for teaching mathematics in primary schools.		

INSTITUTION	LANGUAGE LITERACY	TECHNOLOGY	INCLUSIVITY	INDIGENOUS EDUCATION	MATHEMATICS	SCIENCE	ASSESSMENT
	5. Plan, implement and reflect on learning experiences that facilitate the development of oral language and literacy.				5. Demonstrate a positive attitude towards mathematics and use suitable approaches to motivate children. 6. Demonstrate a level of skill and knowledge of mathematics appropriate for a teacher of mathematics.		
ECU Descriptor	**LIT2010 Literacy & Language Education 2**				**MAE 3010 Primary Mathematics Education 2**		
	This unit explores the complex nature of reading and writing and the latest research findings on effective early years literacy teaching and extends the student's knowledge of the relationship between spoken and written language. The emphasis of the unit is the development of the pre-service teacher's knowledge and competence in effectively addressing literacy learning needs within early years' classrooms. It focuses on theories of literacy and literacy learning and teaching, the alphabetic nature of the English writing system, teaching practices and approaches and their implications for the teaching, learning and assessment of early literacy. Pre-service teachers will reflect on literacy teaching practices through interactions with a variety of multimedia resources.				This unit enables pre-service teachers to take a broader view of the teaching and learning of mathematics. An emphasis will be placed on Working Mathematically and developing number sense as well as covering other content areas of the primary mathematics curriculum. Pre-service teachers will develop their own problem solving skills as well as identify strategies for using a problem solving approach in the classroom. The extension of classroom planning and assessment skills to cover extended periods of time will be addressed, including the use of technology, as well as the integration of content both within the mathematics curriculum and across to other learning areas. Current issues and policies of the various education systems in WA will be examined. Pre-service teachers will extend their own mathematics competence to enable them to use a wider range of teaching and learning resources and strategies to improve mathematics outcomes for students.		
ECU Outcomes	1. Articulate a theory of literacy learning and teaching. 2. Discuss the relationship between spoken language development and literacy learning. 3. Discuss the alphabetic principle and its importance in early literacy learning.				1. Plan and assess mathematics learning experiences in the context of Working Mathematically. 2. Discuss the importance of developing children's number sense as distinct from their ability to apply rote methods. 3. Develop medium to long term learning and assessment programs for mathematics in the primary classroom based on contemporary curriculum document.		

INSTITUTION	LANGUAGE LITERACY	TECHNOLOGY	INCLUSIVITY	INDIGENOUS EDUCATION	MATHEMATICS	SCIENCE	ASSESSMENT
	4. Monitor student progress using appropriate observational/assessment tools. 5. Plan, implement and reflect on research-based early years literacy teaching activities.				4. Discuss the implications for their teaching role of the policies and guidelines of the government and independent school systems in WA. 5. Develop resource files of materials to support the teaching of primary school mathematics. 6. Demonstrate a personal level of competence in mathematics comparable with that expected of middle years secondary school students in WA		
ECU Descriptor	**LIT2011 Literacy & Language Education 3**						
	This unit examines the theoretical knowledge and teaching and learning models that are relevant in developing the competencies of fluent literacy learners in the areas of reading, writing, listening, speaking, viewing and critical literacy. Pre-service teachers will critically examine a variety of teaching practices and organisational approaches and explore methods for adapting these in order to cater for the specific needs of students. The unit also introduces planning for literacy learning within a framework that considers the relationship between assessment, planning, teaching and evaluation. Pre-service teachers will investigate different approaches to the assessment of children's literacy knowledge and will learn to create forward plans for the teaching of literacy where consideration is given to relevant curriculum documents and policies, different literacy learning contexts and the individual needs within groups of students.						
ECU Outcomes	1. Articulate theoretical and research knowledge that informs good literacy teaching. 2. Identify and critique a range of literacy teaching strategies. 3. Develop a forward plan for the teaching literacy to children with a diversity of the literacy learning needs. 4. Discuss the link between assessment, teaching and learning.						

INSTITUTION	LANGUAGE LITERACY	TECHNOLOGY	INCLUSIVITY	INDIGENOUS EDUCATION	MATHEMATICS	SCIENCE	ASSESSMENT
	5. Discuss spelling and handwriting development in children and methods for furthering spelling competence and handwriting fluency.						

ECU Descriptor	**LIT4010 Language & Literacies for Diverse Learners**						
	This unit provides students with an awareness of the capacities and experiences of learners for whom English as an Additional Language (EAL) or Standard Australian English is an Additional Dialect (SAEAD). Pre-service teachers will explore the needs of linguistically and culturally diverse learners in the mainstream classroom and will investigate a range of approaches for addressing these needs. The unit will be informed by current perspectives and issues relating to language and language acquisition and teaching approaches to multiliteracies in curriculum content areas. Pre-service teachers will be introduced to formal and informal methods of evaluation and assessment of EAL learners.						
ECU Outcomes	1. Utilise the characteristics of EAL and SAEAD students in developing a needs analysis. 2. Utilise the characteristics of EAL and SAEAD students in developing a needs analysis. 3. Discuss the effects of the first language on the learning of English as a Second Language. 4. Distinguish between social and academic English language usage and recognise the specialised discourses of different curriculum areas. 5. Implement strategies which facilitate the development of English language receptive and productive skills of EAL and SAEAD students. 6. Apply formal and informal methods of evaluation and assessment of EAL and SAEAD learners. 7. Evaluate current policies, resources and support for EAL and SAEAD students.						

MURDOCH UNIVERSITY

INSTITUTION	LANGUAGE LITERACY	TECHNOLOGY	INCLUSIVITY	INDIGENOUS EDUCATION	MATHEMATICS	SCIENCE	ASSESSMENT
MURDOCH Descriptor	**EDN111 Language for Learning & Teaching**	**EDN113 Living & Learning with Technology**	**EDN334 Inclusive Education**	**EDN224 Education for Social Justice**	**EDN110 Mathematics for Teaching**	**EDN115 Thinking Scientifically**	**EDN 221 Learning Teaching & Assessment**
	Develop understandings of concepts about language and literacy learning essential for teachers in all school settings. This unit aims to equip students with fundamental skills needed to support language development in their own classrooms by focusing on oral language development, the formal characteristics of written texts including grammar, and the use of language for positive classroom interactions and literacy learning. Concepts presented will be further explored in EDN112 Understanding Teachers' Work and EDN223 Teaching English and Literacy in Primary Schools.	This unit focuses on technologies, not as hardware and software that are objects of study themselves, but as tools for personal learning and contemporary teaching. The unit will give students the opportunity to explore technology as social beings, as student learners and researchers at the university, and as classroom teachers. Tasks will be compiled in the course e-portfolio and will focus on the creation of real and useful products (such as web pages and digital teaching resources).	This unit focuses on the special educational needs of students who may be 'at risk' of developmental delay or educational difficulties, either through impairments or disabilities, or for other reasons. It will assist participants to identify and understand diverse learning needs, develop and implement strategies to enhance learning outcomes, and monitor student progress.	This unit deals with historical and contemporary social issues and policies relevant to Aboriginal education in particular and antiracism teaching in general. To fulfil the unit's requirements (and to become effective education practitioners), students will need to read critically, analyse and reflect on issues such as teaching strategies, curricular issues and the general learning environment for children from culturally and linguistically diverse backgrounds.	This unit is designed for students who have not successfully completed Stage 2 or above of Year 12 Mathematics. It aims to further enhance their skill and understanding of critical mathematical concepts and processes needed to teach primary school mathematics and science. The content will address key elements of the primary school curriculum: number and algebra; measurement and geometry; and statistics and probability.	For students intending to be primary or lower secondary school science teachers, or for those who wish to strengthen their knowledge and skills in science and scientific reasoning. Students study key unifying themes of science: working scientifically; natural and processed materials; earth and beyond; energy and change. Emphasis will be on understanding the conceptual bases of science. The unit will concentrate on the culture of science, developing skills in investigating, communicating and evaluating the relevance and importance of scientific literacy.	Along with EDN222 Learning, Teaching and Assessment 2, this unit addresses learning, teaching and assessment across all levels of education. It addresses the psychological and educational bases of major theories of learning, motivation and engagement, aspects of affective and social development, and their implications for educational practice. It also addresses the principles, functions and methods of assessment and evaluation as integral parts of the teaching-learning process, including assessment for decision-making and monitoring standards and progress of education.
MURDOCH Descriptor	**EDN223 Teaching English & Literacy in Primary Schools**			**EDU425 Australian Indigenous Education (Elective)**	**EDN 114 Thinking Mathematically**	**EDN442 Teaching Primary School Science**	**EDN222 Learning Teaching & Assessment**
	This unit aims to prepare students for teaching English in primary classrooms. Focusing on teaching and learning literacy from a balanced perspective, language modes such as reading, speaking, listening, viewing and writing are introduced. The unit also discusses theories of language acquisition and language learning, which underpin work in reading, language arts and language across the curriculum. This unit has a school-based component.			Effective teachers are crucial to effective teaching/learning for all students but especially so within the context of Aboriginal education. Thus this unit is designed to provide education practitioners with the necessary background and conceptual knowledge, as well as the skills to maximise learning outcomes for Indigenous students. Whether dealing with health issues or discussing truancy, whether the focus is on literacy and numeracy, the key questions relate to teachers' work and what teachers can do to make a difference.	This unit is designed for future teachers of K-10 mathematics. We explore the nature of mathematics in our everyday world and its origins in our past to understand its prime place in school curricula. Both the content: number and algebra, geometry and measurement, probability and statistics, and the characteristic processes of problem solving, reasoning and numeracy are addressed. Students in the 200-level version complete an additional project related to teaching secondary mathematics. The unit has extensive online resources.	This unit aims to prepare students for facilitating effective learning in 'Science', with particular application to the primary classroom. The unit promotes the use of 'inquiry' or an investigative approach to learning.	Along with EDN221 Learning, Teaching and Assessment 1, this unit addresses learning, teaching and assessment across all levels of education. Address the psychological and educational bases of major theories of learning, motivation and engagement, aspects of affective and social development, and their implications for educational practice. Address the principles, functions and methods of assessment and evaluation as integral parts of the teaching-learning process, including use of assessment for diagnostic purposes and for monitoring the standards and progress of education.
MURDOCH Descriptor					**EDN333 Teaching Mathematics & Numeracy in the Classroom**		

INSTITUTION	LANGUAGE LITERACY	TECHNOLOGY	INCLUSIVITY	INDIGENOUS EDUCATION	MATHEMATICS	SCIENCE	ASSESSMENT
					This unit aims to assist students in acquiring knowledge and skills which will facilitate primary school children's active learning of mathematics. In particular, students will be expected to demonstrate sufficient knowledge of mathematics and of how children learn mathematics to understand and implement a program directed towards the development of children's mathematical skills and the ability to work mathematically. Attention is given to the demands and opportunities for numeracy across the curriculum.		

UNIVERSITY OF WESTERN AUSTRALIA							
UWA Descriptor	**EDUC8516 Literacy Across the Curriculum**	**EDUC8618 Teaching & Learning with New Technologies**	**EDUC8514 Differentiating the Curricuulum**	**EDUC8429 Aboriginal Education**	**EDUC8502 Teaching Mathematics in the Early Years**	**EDUC8508 Early Childhood and Primary Science Education**	
	Students examine the literacy requirements for vocabulary development, comprehension and grammar for writing that is required for understanding and producing more complex text, including multimedia text; plan and sequence teaching and learning strategies for more advanced reading and writing skills; examine and analyse a range of literacy practices; and investigate strategies to support whole, small group and individualised literacy instruction. Components in the unit are differentiated to allow students to contextualise their learning according to primary and secondary levels.	Students explore a range of computing and mobile technologies, including web 2.0 and related tools, which are relevant to early childhood, primary and secondary teaching, with a particular focus on relevant pedagogical approaches. Students also explore the use of new technologies for the advancement of teacher competencies and educational networking. They consider social issues, digital safety, and other challenges in the use of new technologies in education.	Students examine concepts of difficulties, disabilities, giftedness and talent, and support and extension; analyse and evaluate student learning and strategies for identifying individual student needs; learn basic strategies to support children who are speakers of languages or dialects other than standard Australian English; plan and sequence teaching and learning strategies for students with particular learning needs; and formulate and evaluate programs for individual students.	This unit provides an introduction to some of the issues affecting Aboriginal people within the Australian/Western Australian education system. The unit begins with an examination of the historical relationship between Aboriginal and non-Aboriginal Australia and the impact of governmental policies and practices on all aspects of life and in particular education. 'Aboriginal education' is considered in the context of social justice and Indigenous rights issues which continue to affect Aboriginal people and their relationships with the wider Australian community. With the help of Indigenous and non-Indigenous guest speakers, the unit examines the dissemination of information about Aboriginal people to Australian society as a whole and students are asked to consider their own and the wider society's attitudes towards Aboriginal people, what people mean when they speak of 'Aboriginal education', and what Aboriginal people seek to gain from education.	This unit is delivered as a series of interactive workshops where best teaching practice is modelled and the latest resources are trialled. A different pedagogical issue is explored in each workshop including how to link teaching with children's informal skills and concepts, use storybooks to help students make sense of mathematics and involve parents in their children's mathematics education.	Students become familiar with early childhood and primary Science curriculum requirements; appraise a range of teaching and learning strategies and resources suitable for Science at the early childhood and primary school level; plan and sequence teaching and learning experiences appropriate for early childhood and primary school children; evaluate both disciplinary and integrated approaches to teaching and learning; and begin to build a resource file and professional library as a means of developing their own science knowledge.	

INSTITUTION	LANGUAGE LITERACY	TECHNOLOGY	INCLUSIVITY	INDIGENOUS EDUCATION	MATHEMATICS	SCIENCE	ASSESSMENT
UWA Outcomes	1. Students are able to articulate a theory of literacy learning and teaching for the middle primary to lower secondary years of schooling based on an understanding and critical analysis of research evidence that includes the specific areas of fluency, vocabulary development, comprehension and grammar for writing.	1. Students demonstrate knowledge of and skills in the use of new and emerging technologies, especially web 2.0 technologies; 2. An understanding of how to employ new technologies in a pedagogically grounded manner appropriate to early childhood, primary and/or secondary learning contexts; 3. An ability to use new technologies to build and demonstrate professional competence; 4. An ability to access, draw on and contribute to professional educational networks.	1. Students are able to plan for differentiated learning in everyday primary and early childhood settings in support and extension of individual children's skills and abilities across the curriculum with a special emphasis on literacy and numeracy; 2. Demonstrate knowledge of a range of diagnostic and other assessment types; use a range of approaches to make appropriate interventions and evaluate them 3. Use EAL/D strategies in support of English language development across the curriculum.	1. Students become aware and understand the impact of historical and cultural factors on education for Indigenous students. 2. Identify a range of culturally and educationally appropriate strategies that may be useful in teaching Indigenous students given a geographically and culturally defined situation; and in writing, suggest ways of incorporating Indigenous studies into the curriculum.	1. Students understand the importance of young children developing certain key understandings and skills in mathematics and are able to plan effective lessons that foster this learning.	1. Students demonstrate understanding of a range of processes and procedures for teaching science; 2. Develop their own science knowledge; and prepare an early childhood or primary science teaching and learning program.	

UWA Descriptor	**EDUC8504 Language & Literacy in Early Childhood**		**EDUC8509 Interventions in Primary & Early Childhood Education (Language, Literacy, Numeracy, the Arts)**		**EDUC8505 Teaching Mathematics in the Middle & Upper Primary School**		

INSTITUTION	LANGUAGE LITERACY	TECHNOLOGY	INCLUSIVITY	INDIGENOUS EDUCATION	MATHEMATICS	SCIENCE	ASSESSMENT
	Students examine concepts of language development and the components of language and a range of key literacy teaching practices, including strategies for teaching reading and writing, speaking and listening; learn about key foundational skills such as phonological awareness and phonics knowledge; and explore a range of texts that are important in early childhood literacy learning contexts, including children's literature, informational texts, multimedia texts, rhymes and songs.		Students begin to develop expertise in the planning, delivery and assessment of targeted interventions in early childhood or primary education in relation to a 10-day professional practice placement in a student selected specific learning area. Options include interventions in numeracy, literacy or the arts. Students plan a focused intervention project for individual school students or groups of students. The project represents a response to a particular need identified at individual, group, class or school level in consultation with school partners. The unit contains a strong action-reflective practice and research-informed dimension.		This unit is delivered as a series of interactive workshops, each focused on a specific practical aspect of mathematics teaching including preparing an engaging lesson introduction; linking teaching to lesson objectives; assessing quality, understanding and outcomes specified in the Curriculum Framework; enhancing learning with technology; and promoting student discussion.		
UWA Outcomes	1. Students demonstrate knowledge about and skills in the teaching and learning of written and multimedia literacies in early childhood. 2. Account for the development of oral language and the role of the teacher and caregiver in facilitating speaking and listening competencies. 3. Design learning experiences to support literacy learning; evaluate a range of literacy teaching practices. 4. Develop and reflect on their own practice on the basis of research evidence.		1. Students develop an evidence-based plan of action on the basis of diagnostic assessment (where appropriate) or other information about an individual child/group of children who require intervention; and implement and reflect on a short-term intervention in a selected curriculum learning area.		1. Students show an understanding of how mathematics is learned and demonstrate the skills required to plan, teach and evaluate a mathematics program that fosters learning in the middle and upper primary years.		

SOCIETY & ENVIRONMENT	T & ENTERPRISE	THE ARTS	HED & PED	SOCIOLOGY/POLICY	TEACHING / DEVELOPMENT	CURRICULUM
Society & Environment Education 315	**TEE2110 Technology & Enterprise Education in Primary Schools**	**Arts in Education 260**	**Health & Physical Education 360**		**Development & Education 150**	**Introduction to Curriculum 110**
An examination of curriculum planning in the Society and Environment learning area. Current developments in curricula including curriculum documents, progress maps and syllabuses. Exploration of the approaches to teaching, learning and assessment in Society & Environment and integration into other learning areas. lesson planning and program development including assessment and evaluation. An exploration of the importance of values and civis as a critical part of the learning area.	This unit provides an introduction to the Technology and Enterprise Learning Area. It develops the pre-service teachers' confidence and competence in the use of a range of resources to resolve issues in an enterprising manner. The philosophical basis and values of the learning area are explored through rich tasks. Pre-service teacher understanding of pedagogical approaches for the classroom is developed through an examination of current research. The content and methodology are examined in relation to learning and development to meet the needs of a diverse range of children.	This unit will examine the 'Art' learning area as defined in WA curriculum documents. It will consider the learning associated with the Framework and associated documents. Design lessons and a series of lessons based on these outcomes. It will consider assessment of learning in the Arts.	The unit will explore planning and effective teaching in Health & Physical Education. Planning and assessment will be related to the WA Curriculum documents but will be informed by broader perspectives in Health and Physical Education. Participants will consider factors for effective and safe indoor and outdoor settings to support the development of fundamental movement skills.		Development of the cognitive, social, emotional, physical, moral and gender domains is addressed across the lifespan. Development is presented as a continuum in which a range of changes are expected in correspondence with an age group. Asynchrous development and the relationship between development and education are examined.	General introduction to the curriculum field including key terms, alternative viewpoints and the processes and products of curriculum. Current developments in curriculum planning and implementation locally, nationally and internationally. Planning at different levels (1) macro level: introduction to the Curriculum framework and supporting documents from the Curriculum Council of WA, Education Dept Outcomes & Standards Framework and syllabuses. (2) micro level: planning with objectives and outcomes. Lesson planning and program development, including evaluation of lessons. Select content and planning learning experiences. Scope and sequence in planning. Introduction to assessment including key terms, purposes, collecting, recording and reporting evidence for assessment. Evaluation of curriculum.
1. Identify and analyse the ideas and concepts which underpin curriculum.	1. Identify the purpose and value of the technology process in early childhood and primary settings.	1. Demonstrate knowledge on the Arts and teaching of the Arts from relevant curriculum documents.	1. Apply knowledge, skills and values from appropriate curriculum documents in physical education and health to primary classrooms.		1. Identify and explain key terms and concepts in the domains of human development.	1. Identify key concepts of curriculum.
2. Design a project that can be integrated across the curriculum.	2. Manipulate a range of common materials and computer programs, using the technology process, to collaboratively negotiate rich tasks.	2. Apply knowledge of the Arts to teaching situations in the primary school.	2. Plan creative and safe indoor and outdoor learning environments.		2. Explain links between human development and educational outcomes contexts.	2. Alayse the Primary school curriculum in WA comparative to national and international models.
3. Analyse the curriculum and demonstrate the importance of societal values and improved cultural literacy.	3. Design integrated rich task technology and enterprise learning experiences suitable for use in a range of classroom settings.	3. Assess children's work in the Arts and relate it to appropriate outcomes and learning.	3. Analyse the elements of effective teaching of physical education and health and apply them to classroom practes.		3. Collect, analyse and interpret data with respect to cognitive, moral, social, emotional, psychological and physical development.	3. Plan learning experiences using a variety of curriculum documents.
4. Formulate appropriate resources and instructional techniques.	4. Investigate assessment strategies for the technology and enterprise learning area.	4. design learning experiences using individual, or combination of, the constituents of the Arts.	4. Assess the level of skill development in children related to physical education in a variety of settings.		4. Apply developmental theory to construct and interpret a variety of contexts.	4. Interpret appropriate curriculum resources and materials for a development sequence of lessons.

SOCIETY & ENVIRONMENT	T & ENTERPRISE	THE ARTS	HED & PED	SOCIOLOGY/POLICY	TEACHING / DEVELOPMENT	CURRICULUM
5. Examine and explain appropriate content from the learning area.	5. Develop and maintain an electronic portfolio as a reflective medium.	5. Integrate the Arts into other learning areas to support and develop learning particularly from culturally diverse origins.			5. Conceptualises individual differences and their relationship to educational contexts.	5. Apply the processes of evaluation and assessment to curriculum processes.

					Integrated Programming in Education 410	**Constructing Curriculum in Education 310**
					Preparation for Internship. Review of the personal Philosophy of Teaching through reflection following the previous professional experience. Integrated planning in terms of the all encompassing nature of the curriculum and outcomes based education (as reflected in current mandatory curriculum documents) and how it must reflect a well-informed teaching philosophy. Development of integrated planning techniques including the use of a wide range of instructional, management and assessment strategies, as well as a range of technologies and resources, aimed at maximising the learning of all students. The writing of clear, detailed and assessable learning outcomes. Factors influencing the development of engaging and empowering learning environments.	Curriculum as a construction shaped by cultural and social forces. Curriculum as reproduction or reconstruction. Moral and ethical issues as a basis for teaching and the importance of values in the curriculum. The principles of inclusiveness and differentiation as well as integration, scope and balance in WA curriculum documents. Principles of multicultural and civis education and planning for diversity in classrooms. School culture and innovation and change as processes in curriculum development. Teachers as change agents and the importance of school leadership.
					1. Evaluate the effectiveness and appropriateness of the Personal Philosophy of Teaching and apply it, in its revised form, to the planning of an integrated program of learning. 2. Review the complex and diverse needs of a group of children with the view to developing a comprehensive integrated program aimed at meeting those needs. 3. Formulate an integrated teaching and learning program that uses a range of technologies, teaching practices and resources, in the context of current curriculum and support documents. 4. Demonstrate the ability to work autonomously as well as collaboratively to develop an effective teaching philosophy and integrated teaching program.	1. Identify, research and report on social and cultural forces which shape the construction of curriculum. 2. Analyse the importance of values and other social issues in determining the curriculum, learning areas and teaching and learning practices. 3. Plan learning experiences within an inclusive framework which provides responsive and relevant learning experiences for students. 4. Analyse the moral and ethical basis of teaching.

SOCIETY & ENVIRONMENT	T & ENTERPRISE	THE ARTS	HED & PED	SOCIOLOGY/POLICY	TEACHING / DEVELOPMENT	CURRICULUM
					5. Design assessment strategies, based on clear, detailed and assessable learning objectives, to enable professional judgements to be made about group and individual progress.	
					Professional learning in Education 460	
					Students will develop reflective and analystical skills required to critically examine education practices. It will develop skills and knowledge associated with professional learning, cognitive coaching, the Dept of Ed Competency Framework for teachers, and the WA College of Teaching Professional Standards for Teaching. Research skills will be used and techniques developed throughout the program to inform a personal professional learning project.	
					1. Design and conduct a professional learning project to enhance classroom practice. 2. Demonstrate principles in education that underpin effective crriculum planning, design and development. 3. Examine critically the purposes and processes of classroom based professional learning as a means of enhancing learning. 4. Analyse relevant professional reading to inform and suport a professional learning project.	
SSE2101 Society & Environment Education in Primary Schools		**DSE1115 Drama Education in the Primary School Community**	**HPE1010 Health & Physical Education in Primary Schools**		**EDF1105 Becoming More Effective Learners**	

SOCIETY & ENVIRONMENT	T & ENTERPRISE	THE ARTS	HED & PED	SOCIOLOGY/POLICY	TEACHING / DEVELOPMENT	CURRICULUM
This unit will investigate the nature and scope of the Society and Environment learning area within the context of contemporary curriculum documents. It will examine the conceptual foundation from which the learning area is derived, the key embedded learning processes and skills and the values framework that underpins the learning area. The unit will explore how students learn in relation to concepts, skills and values and will provide opportunity to experience active citizenship and to become familiar with the connected notion of reorienting towards a sustainable future. It will provide an opportunity to develop a range of socially just and culturally responsive pedagogical and assessment strategies for active engagement in the Society and Environment learning.		This unit engages pre-service teachers in active, inquiry based learning and addresses the use of drama as a vehicle for primary school aged students' physical, intellectual, social and emotional development. The unit introduces spontaneous dramatic play, activity based learning, dramatisations arising from student imagination and drama experiences suitable for the primary school context.	This unit engages pre-service teachers in the understanding of the conceptual basis of school based health and physical education and how a range of outcomes can be achieved through different curricular orientations. The effective management and teaching strategies for the Health and Physical Education Learning Area and programs, including sport, dance and physical activity will be demonstrated and analysed with respect to the diverse needs of learners. Program structure, organisational patterns of delivery, principles of effective teaching and contemporary issues and resources will be described and explored.		In this unit students will engage with learning theory and reflect on learning practices that they observe in the field. The three broad theoretical perspectives of behavourism, social learning and cognitive learning will be introduced. The significance of varying cultural approaches to learning will be explored. Links will be made between motivation and learning and students will be expected to examine the implications of these theories and approaches for individual learners using a case approach and observations from the field. Furthermore, the unit will focus the students on themselves as learners in order to enable them to critique and refine their own professional learning practices and set goals for future learning.	
1. justify the nature, scope and purpose of the Society and E		1. Discuss the use of drama as an expressive learning process to create, convey and contextualise meaning.	1. Advocate the need for Health and Physical Education in school settings.		1. Examine and critique current literature on learning theory.	
1. Describe the theories, processes, strategies involved in planning, teaching and learning the concepts in the Society and Environment learning area.		2. Apply drama skills and processes within an outcomes approach to Arts Education.	2. Describe, analyse and evaluate current health and physical education principles, issues, models,practices and resources in primary schools;		2. Understand how learning and development are linked.	
2. Outline inquiry based pedagogical approaches together with processes and strategies involved in planning, teaching and learning investigation, communication and participation skills.		3. Develop a structure that supports children participating, creating, expressing and reflecting in a personal, social and cultural contexts.	3. Apply Health and Physical Education Learning Area outcomes to an educational context with a focus in primary school environments.		3. Understand the contextual and cultural influence on learning.	
3. Promote active citizenship by developing opportunities to foster the values associated with democratic process, social justice and ecological sustainability.		4. Plan and implement drama programs for the Primary learning area.	4. Plan, implement and evaluate learning experiences to meet the health, movement and physical activity needs of learners.		4. Make links between learning theory and practical application of teaching skills.	
4. Select and use varied written, multimedia, practical and community-based resources in meaningful and relevant integrated contexts.			5. Demonstrate effective teaching and management strategies in health and physical education lessons and different learning environments.		5. Reflect and critique their own learning using a meta-cognitive model of critique.	

SOCIETY & ENVIRONMENT	T & ENTERPRISE	THE ARTS	HED & PED	SOCIOLOGY/POLICY	TEACHING / DEVELOPMENT	CURRICULUM
5. Develop assessment processes and strategies for monitoring and evaluating progress in achieving Society and Environment learning outcomes.			6. Describe assessment principles and practices in the Health and Physical Education Learning Area.		6. Carry out observation tasks in educational settings and make links to learning theory. 7. Identify own learning style and set goals for future learning.	
		VAE3010 Visual Arts in Primary Schools			**EDU4020 Professional Issues in Teaching (Option 1 Year 4)**	
		This unit introduces visual arts learning outcomes in the primary years. Through visual response and studio workshop activities, pre-service teachers will understand why the visual arts offer unique ways of expressing, interpreting and communicating ideas and feelings. Studio workshop sessions will allow pre-service teachers to develop their observation skills and imagination using a variety of materials and processes. The unit provides opportunities for pre-service teachers to use information technology to support the visual inquiry process. Contemporary visual arts teaching methods will be examined for their relevance to primary school classrooms.			This unit explores matters of teacher professionalism, accountability, classroom practice and system requirements. Students will critically engage with educational issues, both in the Western Australian school setting and beyond. The unit also prepares students to make an effective transition from university to employment as a classroom teacher in a range of primary school contexts.	
		1. Demonstrate a mastery of techniques and use of materials appropriate for visual arts activities for the primary school context. 2. Identify the characteristic ways in which primary children develop visual arts awareness and their performance at different stages of development. 3. Develop strategies that promote creative thinking in primary school children. 4. Describe the past and present contexts of visual arts.			1. Apply their professional knowledge to complex teaching and learning scenarios. 2. Discuss the connections between professional practice and contemporary research. 3. Engage in meaningful and structured reflective practice and articulate their current progress against teacher competencies (course outcomes) when planning further professional learning 4. Use policy documents to guide their professional practice and interactions with the school community.	

SOCIETY & ENVIRONMENT	T & ENTERPRISE	THE ARTS	HED & PED	SOCIOLOGY/POLICY	TEACHING / DEVELOPMENT	CURRICULUM
					5. Evaluate school-level decision making processes. 6. Describe the role of professional associations in responding to current issues in education.	
		MUE3010 Fundamental Elements in Music Education This unit examines the role of music in the development of children aged six to twelve years. Appropriate music experiences, which incorporate the diverse needs of children, will be studied. Pre-service teachers will engage in music-making activities as a means of understanding the fundamental elements of music. Using contemporary curriculum documents, Information Technology and other music education resources, pre-service teachers will produce and implement a series of class and group activities. Music across time and cultures will also be explored as a means of enhancing and extending their music literacy.			**EDU4226 School Based Project (Option 2 Year 4)** This unit provides opportunities for pre-service teachers to engage in designing and implementing a school-based project. The nature of the project will be determined by negotiations between the pre-service teacher, school and unit coordinator.	
		1. Demonstrate music skills through practice with classroom instruments. 2. Present a repertoire of appropriate songs, games and instructional materials appropriate to the needs of children. 3. Demonstrate effective teaching techniques within a music education context.			1. Demonstrate an awareness of ethical principles in professional practice and the conduct of research. 2. Identify a conceptually and/or professionally significant topic. 3. Identify and explain the key issues and problems of implementing a school-based project.	

SOCIETY & ENVIRONMENT	T & ENTERPRISE	THE ARTS	HED & PED	SOCIOLOGY/POLICY	TEACHING / DEVELOPMENT	CURRICULUM
		4. Examine a variety of assessment and reporting strategies used in music education. 5. Describe how music from other cultures and eras may be incorporated into the teaching and learning program. 6. Discuss the importance of music to the individual and communities.			4. Outline a range of school-based strategies and tools that encourage engaged learning. 5. Demonstrate generic skills, attitudes and knowledge in the design, implementation and reporting of a school based project.	

SOCIETY & ENVIRONMENT	T & ENTERPRISE	THE ARTS	HED & PED	SOCIOLOGY/POLICY	TEACHING / DEVELOPMENT	CURRICULUM

SOCIETY & ENVIRONMENT	T & ENTERPRISE	THE ARTS	HED & PED	SOCIOLOGY/POLICY	TEACHING / DEVELOPMENT	CURRICULUM
EDN441 Teaching Society & Environment in the Primary Schools		**EDN225 Teaching Arts in Primary Schools**	**EDN226 Teaching Health & Physical Education in Primary Schools**	**EDN331 Students & Schools in Context**		
This unit aims to prepare students for facilitating effective learning in 'Society and the Environment', with particular application to the primary classroom. The unit promotes the use of 'inquiry' or an investigative approach to learning.		This unit explores teaching and learning the Arts in primary schools. Teaching and learning; Dance, Drama, Media, Music and Visual Arts. Integrating the Arts in the Curriculum. How the arts shape and express experience and learning the arts as ways of knowing and making meaning; how the arts help us know what it means to be human, developing arts literacy and capacity to engage with, reflect on and make informed judgements about the arts.	This unit focuses on the Health and Physical Education (HPE) curriculum in primary schools. Emphasis will be on creating embodied learning experiences including the establishment of connections between the cognitive, kinaesthetic and affective dimensions of learning. The unit will explore: the rationale for inclusion of HPE in schools; health issues and the promotion of health and well-being; integration of HPE in the primary curriculum; the skills needed for confident participation in sport and recreational activities.	This unit introduces students to the larger social context of education. Students will examine the relationship between education and the larger society; the aims of education and the ways these aims are expressed through policy and practice; and issues related to social division. Sociological, philosophical and political perspectives are used to explore how social justice relates to curriculum and classroom practices. The unit culminates in the development of a research paper which analyses a sociological or political aspect of education.		
				EDN332 Students & Schools in Context 2		**EDU488 Curriculum Development for Practitioners (Elective)**
				This unit introduces students to the larger social context of education. Students will examine the relationship between education and the larger society; the aims of education and the ways these aims are expressed through policy and practice; and issues related to social division. Sociological, philosophical and political perspectives are used to explore how social justice relates to curriculum and classroom practices. The unit culminates in the development of a research paper which analyses a sociological or political aspect of education.		This unit deals with curriculum development from the point of view of the person developing, modifying or improving a teaching-learning program. It is of value not just to professional classroom teachers, but to anyone involved in the practicalities of education and training in an educational institution, a corporation or public service organisation. The unit content covers the basic processes of program development (i.e. design, production, implementation and evaluation) at the local level and also examines wider curriculum issues.

SOCIETY & ENVIRONMENT	T & ENTERPRISE	THE ARTS	HED & PED	SOCIOLOGY/POLICY	TEACHING / DEVELOPMENT	CURRICULUM

EDUC8501 Early Childhood & Primary Soceity & Environment Education		**EDUC8520 The Artistic & Creative Child**	**SSEH7689 Physical Development, Movement & Health**		**EDUC8485 Development, Teaching and Learning: Theory & Practice**	
Students analyse key features of the Society and Environment learning area—a broad, interdisciplinary study which focuses on the interactions of individuals and communities with social and natural environments over time. Emphasis is on understanding and developing effective teaching and learning practices (including enquiry and problem solving), competence in planning and implementing quality teaching and learning programs, selecting relevant resources, designing appropriate assessment tasks and integrating both disciplinary and integrated approaches to Society and Environment education in early childhood and primary school settings.		Students examine philosophical foundations, developmental principles and conceptual frameworks for the arts, and for education in and through them. Active participation in arts tasks focus on extending students' own artistic competencies and on planning and programming for early childhood and primary education. With particular emphasis on music and the visual arts, the unit deals with the unique agency of the arts and artistic expression in comprehensive and integrated child development, through everyday play, practice, teaching and learning.	Students examine models of children's physical and psycho-motor development; explore developmental and conceptual frameworks for health and physical education in early childhood and primary school settings; learn the theory and practice of Fundamental Movement Skills programs; analyse a range of health and physical education practices; plan, implement and evaluate teaching activities and strategies within a differentiated framework; examine curriculum expectations in relation to sector and government policies.		Through lectures and readings students explore evidence and theories from a range of the sciences of childhood disciplines to develop a critical overarching framework for understanding children's learning and development and the interconnectivity of social, emotional, physical and cognitive domains. Components in the unit are differentiated to allow students to contextualise their learning according to Early Childhood, Primary and Secondary levels. Students begin a reflective journal that will be used throughout the course and will ultimately be used to inform their professional portfolio.	

SOCIETY & ENVIRONMENT	T & ENTERPRISE	THE ARTS	HED & PED	SOCIOLOGY/POLICY	TEACHING / DEVELOPMENT	CURRICULUM
1. Students are able to use relevant curriculum documents and resources to develop, implement and assess learning programs with a focus on Society and Environment.		1. Students are able to plan, implement and evaluate learning activities to support the development of artistic and expressive competencies; integrate art and music ideas, concepts and activities with a wide range of early childhood and primary curriculum areas; 2. Demonstrate a comprehensive understanding of the basis for, and key developmental principles in, arts education; demonstrate knowledge of key arts concepts 3. Demonstrate basic competencies in handling simple materials and forms in the visual arts and music.	1. Demonstrates a comprehensive understanding of children's physical and psycho-motor development and proficiency; 2. Applies developmental and conceptual frameworks for Health and Physical Education (HPE); 3. Designs, teaches and assesses a developmentally appropriate PE and health program; 4. Plans, teaches and assesses students using the Fundamental Movement Skills program 5. Displays knowledge and application of HPE pedagogies to enhance student outcomes; 6. Examines curriculum expectations in relation to education sector and government authorities; 7. Evidences knowledge of key issues in children's health and wellbeing and their implications for teachers 8. Applies skills and knowledge in HPE to other teaching and learning areas in early childhood and primary education		Students are able to synthesise key evidence, concepts and theories in child development from pre-natal stage through to adolescence and young adulthood, with pedagogical theory and teaching and learning practice; and apply this knowledge to selected teaching areas (Early Childhood, Primary or Secondary).	

Developing Strategies at the Pre-service Level to Address Critical Teacher Attraction and Retention Issues in Australian Rural, Regional and Remote Schools

Final Evaluation Report

June 2012

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Executive Summary

The *Developing Strategies at the Pre-Service Level to Address Critical Teacher Attraction and Retention Issues in Australian Rural, Regional and Remote Schools* project was an idea borne out of a chance meeting of like minded academics attending an international conference on rural education in the eastern states. From four public universities in Western Australia, these academics held a collective concern for the adequate preparation of pre-service teachers in terms of preparedness for teaching in regional and remote areas of Western Australia.

The project sought to strengthen the capacity and credibility of universities to prepare rural, regional and remote educators; however building on a previous ALTC project *Renewing Rural and Regional Teacher Education Curriculum (RRRTEC)* it was further refined to place considerable emphasis on strategies required for remote teaching.

Over the two-year period; through presentations at state, national and international events and publication in international journals; a wide variety of dissemination has occurred. Promotional information including poster information and regular newsletter updates were delivered at these events throughout the project. Further, mapping of curriculum over four universities, a calendar of pre-service teacher practicums, a training framework and a teacher resource package was developed for dissemination at the final launch and planned for future events. These plans for further promotion and dissemination of this resource package include a national conference in September 2012 and an international conference in January 2013.

This evaluation report highlights the commitment of the project leader, Professor Sue Trinidad and her Project Team to plan, research and develop a curriculum resource that is underpinned by the AITSL professional standards in relation to teaching in remote areas.

It is my great pleasure to commend this project to the Office for Learning and Teaching (formerly the ALTC) and the Department of Industry, Innovation, Science, Research and Tertiary Eduction.



Dr Tania Broadley, July 2012.

Introduction

The *Developing Strategies at the Pre-Service Level to Address Critical Teacher Attraction and Retention Issues in Australian Rural, Regional and Remote Schools* project is an ALTC-funded project carried out from June 2010- June 2012. The project sought to strengthen the capacity and credibility of universities to prepare rural, regional and remote educators. This was aimed to be achieved through: provision of an exemplar curriculum; development and extension of rural, regional and remote field experiences; community capacity building; and sustainable partnerships to promote and support the preparation of teachers for work in rural, regional and remote Australia.

The Project Team was led by Professor Sue Trinidad on behalf of Curtin University. The team consisted of Associate Professor Graeme Lock (Edith Cowan University), Assistant Professor Elaine Sharplin (University of WA) and Ms Sue Ledger (Murdoch University). Project Managers employed for the entire duration of the project were Ms Emmy Terry and Mr Don Boyd (Society of the Provision for Education in Rural Australia). Midway through the project Dr Matt Byrne (Edith Cowan University) was invited to join the Project Team due to his expertise in indigenous education, however, after attending one meeting was noted as an apology for the rest of the project. In summary, the core of the Project Team has been stable for the entire two years of the project.

Dr Tania Broadley was engaged to conduct the evaluation of this project over the two-year period. The evaluation has been formative, where the evaluator has been a consistent attendee at most meetings, events and reference group activities over the course of the project.

This is the Final Evaluation report for the two year project. It provides an overview of the evaluation process, including the evaluation methods selected, the evaluators' presence throughout the project, evaluation questions applied, findings and conclusion.

Evaluation Methods

Role of the Evaluator

The role of the evaluator was to be a critical friend to the Project Team, regularly attend project meetings, ask searching questions to challenge thinking, monitor the progress of the project, record the processes of the project including decision-making and management, and provide regular formative feedback to the Project Team.

Evaluation Approach

In the initial planning phase of this project, a decision was made by the Project Team to source a formative evaluation in order to inform the Project Team as they progressed through the project milestones. The evaluation was essentially undertaken to provide the Project Team with areas of improvement as they arose and generate an assessment of overall merit and worth. As described by Scriven (1996) the evaluation was intended to focus on process and outcome.

The evaluation approach was underpinned by the ALTC Evaluation Framework (Chesterton & Cummings, 2007), and the following questions guided the evaluation:

- What processes were planned and what were actually put in place for the project?
- Were there any variations from the processes that were initially proposed, and if so, why?
- How might the project be improved?
- To what extent have the intended outcomes been achieved?
- Were there any unintended outcomes?
- What factors helped and hindered in the achievement of the outcomes?
- What measures, if any, have been put in place to promote sustainability of the project's focus and outcomes?
- What lessons have been learned from this project and how might these be of assistance to other institutions?
- How was the dissemination strategy implemented, and what has been its impact?

Evaluation Phases and Project Meetings

Phase 1: Mapping of Curriculum

Phase 1 included a rigorous investigation into an exemplar model of a combined university initiative within the health sector (CUCRH). From this investigation, common goals were identified to inform the project deliverables. In order to identify the existing regional, rural or remote curriculum and field experience/practicum models, extensive mapping of the current pre-service teacher education curriculum in the four partner universities was conducted. As a result, the Project Team produced a detailed document that informed Phase 2 of the project.

Phase 2: Collaborative Development of Curriculum

The development of curriculum commenced in January 2011. Elements contributing to the successes of this phase included an intensive planning meeting, held over two days, in January 2011. The initial planning day focussed on revising the project objectives and deliverables, which provided a very clear direction for the next day of curriculum planning. This allowed the Project Team to clarify what curriculum development would involve. Further consideration was given to the practical application of the curriculum into pre-service teacher programs at all universities. From this meeting, it was decided to develop generic objects and modules of curriculum, rather than entire units. Research suggested this would assist with the implementation of curriculum.

Phase 3: Implementation of Student Learning

The implementation of student learning, in Phase 3, commenced in Semester 1, 2011. This phase involved an extensive data collection process from pre-service teachers and graduate teachers. The trial curriculum module was implemented in one unit, at one university. A post-implementation survey was conducted with the student cohort involved in the curriculum trial to gather both quantitative and qualitative data. These data were then analysed and used to inform the training package of seven teacher guides focused on preparing pre-service teachers for teaching in a remote context.

Phase 4: Implementation of Learning in the Field

This part of the project included an intensive practicum placement mapping of the four universities, in order to identify common times throughout the school terms that students were in the field. From this shared understanding of practicum placements, synergies across the universities arose that encouraged strong regional and remote school networks to enable practical improvements such as shared transport and accommodation costs for students to be placed in non-metropolitan areas.

At the time of this evaluation, planning had been undertaken to conduct a cross-university field experience in the Goldfields region for one week in August 2012.

Phase 5: Reflection and Sharing

The reflection and sharing phase of this project has been deeply embedded throughout the events in the past two years. Through a range of national and international conference presentations, peer-reviewed journal articles, WAND forums and reporting to a parliamentary advisory group. The final dissemination of the project culminated in a launch of the training package including the framework and teacher resource package.

Meetings and Events Attended by the Evaluator

Date	Type of Meeting	Outcomes
9 June 2010 3:00-5:00pm	Project Team Meeting	Dissemination plan, curriculum writing plan, groupsite for communication update, Remote Teaching Service guest speaker.
20 July 2010 2:00-4:00pm	Reference Group Meeting	Introductions, background, overiview, roles defined, discussion.
8 November 2010 12:30-2:30pm	ALTC WAND (WA Network for Dissemination) Forum	Networking & showcase of project through poster presentation
17 January 2011 9:30-3:30pm	Planning Day	Project objectives and deliverable clarification, curriculum mapping, field experience plan.
18 January 2011 9:30-12:30pm	Curriculum Development	Develop framework, revisit phases, set clear directions for future.
6 March 2011 1:30-3:30pm	Project Team Meeting	Catholic ed update, national standards grid, practicum mapping, student/staff survey, plan first year report.
6 April 2011 1:30-3:30pm	Project Team Meeting	Guest speaker from Department of Education Attraction & Retention, national standards grid development, practicum mapping started, dissemination strategy update.
1 June 2011 1:30-3:30pm	Project Team Meeting	Student survey results, first year report to ALTC, external evaluator interim report, trial module feedback.
27 July 2011 1:30-3:30pm	Reference Group Meeting	Overview of project, interim evaluator report presented, launch of RRRTEC discussed, trial modules, survey analysis, overview

		of papers & presentations, where to from here, communication strategies.
14 September 2011 1:30-3:30pm	Project Team Meeting	Project Update, Newsletter, Ref Group Feedback
7 November 2011	Project Team Meeting	Review of Reference Group Meeting, AITSL Proposal for Annotated Illustration, Gap Analysis of Curriculum Modules/Objects, Negotiate Timelines, Research Assistant introduced.
23 November 2011 12:30-2:30pm	Project Team Meeting	Gap analysis of RRRTEC modules, plan forward, feedback from WAND, field experience models, training schools.
1 February 2012 8:30 – 3:30pm	Project Team Meeting/Curriculum Writing	Exemplar document reviewed, Decisions made about content & timeline, Combined field experience
6 March 2012 1:30-3:00pm	Project Team Meeting	Review modules, situational analysis, set date and plan launch.
20 June 2012 9:30-1:30pm	Launch Project Outcomes	Dissemination and celebration.

Overall Impression

The commitment and dedication of the project leader, Professor Sue Trinidad and the project managers, to complete the project and to deliver meaningful outcomes to the ALTC and to the sector has been a constant element throughout the project. The Project Team has been supportive and engaged in all events and activities surrounding the project, however, at times the completion of milestones was impacted by the intense workload allocations of their academic positions and competing priorities.

Evaluation Questions

(developed from ALTC Evaluation Framework (Chesterton and Cummings, 2007)

1. ***What processes were planned and what were actually put in place for the project?***

   Initial plans were based on a five phased framework that would assist the Project Team to deliver the project outcomes within the two year timeframe. There were a number of external events that occurred within the timeframe of the project and these were included to enhance the deliverables. Firstly, the endorsement and release of the National Standards for Teachers by AITSL in 2010 provided an opportunity for the curriculum modules to be tailored to include the standards. Further, the project had planned to build on the work of a previous ALTC project entitled Renewing Rural and Regional Teacher Education Curriculum (RRRTEC) and was awaiting the release of their curriculum website to further inform the direction of the curriculum development. RRRTEC's

website was launched in July 2011 and at that time a gap analysis was undertaken by the Project Team. The Project Team found the focus of RRRTEC to be on rural and regional education rather than remote. With a remote focus, the Project Team were able to move forward to develop a resource package, including teacher guides, that would enhance the work of the previous project and ensure duplication did not occur.

2. *Were there any variations from the processes that were initially proposed, and if so, why?*

The resource package was initially planned to encompass rural, regional and remote; however as noted above, the release of the RRTEC website required the Project Team to refine their focus to the remote context.

3. How might the project be improved?

In terms of the intended outcomes, this project has mostly achieved its goals. The five phases of the project included a considerably large amount of work to be undertaken in the two year time period. While all Project Team members commented that the phased approach provided clarity and direction; a number of members agreed that the timeframe was too short to achieve complexity of the intended outcomes. Interviews with Project Team members stated:

> 'I think the methodology stands as excellent – I think the timeframe was too short, given the challenge of having to renegotiate some of our direction because of the work emerging from the other ALTC project [RRRTEC].'

> 'In hindsight we perhaps took on a bit too much.'

The training package is a major outcome of this project and includes teacher guides for three out of seven of the national professional standards. This package could be improved by addressing the other four standards, however as time was a critical factor, the team achieved as many as possible within the timeframe.

4. *To what extent have the intended outcomes been achieved?*

As documented in the Training Framework, there were a large number of strategies implemented within this project in order to achieve the intended outcomes. In addition, the inclusion of unintended outcomes, such as the National Professional Standards guiding the resource development, impacted on the scope of the work achieved.

It is necessary to note that the initial project aims were overly ambitious. Original planning documents indicate a goal to develop curriculum, implement modules within each university either within existing course units, through the creation of new course units, the adaptation of special project units or through cross institutional enrolments. While one introductory module *Social networking and Teaching in RRR* was trialled in one university; the late development of the training package impacted on the timeline to implement across the four

universities. Ultimately this project has created a strong foundation of which to move forward with the implementation strategy.

5. ***Were there any unintended outcomes?***

The Project Team worked closely with a wide range of groups with a vested interest in pre-service teachers and rural/remote education. These collaborative relationships enabled a number of unintended outcomes to occur:

- Development of close relationships across four universities
- Awarding of Smarter Schools National Partnership on Improving Teacher Quality Funding to the WACUTS tender, which includes three members of the Project Team.
- Development of a National Professional Standards for Teachers matrix which indicates the professional knowledge required by graduates, yet explicitly focused within rural, regional and remote contexts.
- Development of an Australian Research Council submission by three members of the Project Team.
- Awarding of AITSL funding to develop annotated illustrations of practice.
- Strong working relationship with AITSL and ACARA.

6. ***What factors helped and hindered in the achievement of the outcomes?***

The largest factor that helped to achieve the outcomes within this project was the dedication and commitment of a strong project leader in Professor Sue Trinidad and the two project managers employed to run the project. The project managers attended the national training offered by the ALTC and this was reported to be of great value and ultimately contributed to the achievement of the outcomes.

> 'Task requirements and timelines were established and communicated by the project managers to the Project Team members with more than adequate notice.'

In terms of factors that challenged the project, these were limited to time commitments and personal circumstances of the Project Team. Interview data from the team supported this as follows:

> 'There were changing circumstances in regards to time allowances that impacted on how much the team could contribute to the project in the second year. One Project Team member was finishing off her PhD and one was promoted to Acting Head of School.'

> 'My personal commitment wasn't as strong as it should have been – productively speaking.'

7. ***What measures, if any, have been put in place to promote sustainability of the project's focus and outcomes?***

The focus and outcomes of this project will be sustained through the many ongoing projects that will continue to involve these committed team members.

The training framework and resources developed in this project will provide a foundation for further research grant applications, the government training school tender (WACUTS), the Society for the Provision of Education in Rural Australia conferences and the AITSL annotated illustrations of practice. Further, the Project Team is considering ways of procuring a grant that will allow them to complete teacher guides for the entire suite of professional standards.

8. ***What lessons have been learned from this project and how might these be of assistance to other institutions*?**

The development of the National Professional Standards for Teachers and its application to the regional, rural and remote context has resulted in a matrix that will be useful to other pre-service teacher education programs within Australia.

The development of a resource package, including teacher guides, that can be implemented to compliment existing pre-service teacher curriculum in other institutions.

The training framework has evolved from the systematic processes undertaken throughout the two-year project. This framework could assist other institutions with the preparation of pre-service teachers for rural and remote education.

The Project Team has included a representative from the four public universities in Western Australia and this has allowed a collaborative institutional approach to develop. The importance of this cross-institutional curriculum collaboration can be used as a model to benefit other institutions.

9. ***How was the dissemination strategy implemented, and what has been its impact?***

The dissemination strategy for this project was planned within the project proposal stage. It was a key priority for the Project Team to ensure this project would be disseminated at state, national and international levels. The broad range of conference presentations and journal articles in both national and international audiences has allowed for the dissemination strategy to be achieved. Through developing relationships with key ministerial advisory groups and societies with a rural focus, the project has been further disseminated within relevant networks.

Conclusion

As evident in this report, this project has been well planned and managed. It has built on extensive research and has successfully formed an extensive network of partnerships with key stakeholders involved in rural, regional and remote education. These networks and the extensive variety of dissemination strategies undertaken have allowed for peer-review, guidance and external perspectives to inform the final outcomes.

While the outcomes have been largely achieved, there were aspects such as implementation of curriculum, that clearly needed further consultation with key people within the universities, in order to embed into the necessary programs.

The responses from people attending the launch confirmed the immense value of the curriculum modules and indicated the interest of potential implementation in the future.

In the future, the Project Team might consider the potential to develop further teacher guides to complete the suite of seven professional standards. The evaluator recommends the consideration of future grant applications in order to support this work.

References

Chesterton, P & Cummings, R. (2007). *ALTC Project Evaluation Resource.* Retrieved May 30, 2012 from http://www.olt.gov.au/evaluation

Scriven, M. (1996). Types of Evaluation and Types of Evaluator. *American Journal of Evaluation.* (17) *2,* (151-161).

Appendix 1: Interim Evaluation Report – Dr Tania Broadley

The role of evaluator for this project has included attending monthly meetings, intensive planning days and several points of dissemination. As a result, the evaluator has developed a thorough understanding of the aims, deliverables and outcomes for the project.

An initial meeting of the Reference Group was held on 20th July 2010. This meeting included stakeholders with a vested interest in rural, regional and remote education, including educational governance, community and industry partners as determined by the Project Team. The Reference Group provided a broad range of expertise and perspectives which informed the future directions, actions and outcomes of the project. The relationship between the Project Team and the Reference Group continues to provide a consultative process whereby guidance and feedback is received as required.

Phase 1 included a rigorous investigation, by the Project Managers, into an exemplar model of a combined university initiative within the health sector (CUCRH). From this investigation, common goals were identified to inform the project deliverables. In order to identify the existing regional, rural or remote curriculum and field experience/practicum models, extensive mapping of the current pre-service teacher education curriculum in the four partner universities was conducted. As a result, the Project Team produced a detailed document that aimed to inform Phase 2 of the project.

Phase 2, including the development of curriculum, commenced in January 2011. Elements contributing to the successes of this phase included an intensive planning meeting, held over two days, in January 2011. The initial planning day focussed on revising the project objectives and deliverables, which provided a very clear direction for the next day of curriculum planning. This allowed the Project Team to clarify what curriculum development would involve. Further consideration was given to the practical application of the curriculum into pre-service teacher programs at all universities. From this meeting, it was decided to develop generic objects and modules of curriculum, rather than entire units. Research suggested this would assist with the implementation of curriculum.

The implementation of student learning, in Phase 3, commenced in Semester 1, 2011. This phase involved an extensive data collection process from pre-service teachers and graduate teachers. The trial curriculum module was implemented in one unit, at one university. A post-implementation survey was conducted with the student cohort involved in the curriculum trial to gather both quantitative and qualitative data. This data is currently under analysis and will inform the future development and implementation phase.

Within the first year of the project, a significant unintended outcome has been documented that will positively impact on the future direction of rural, regional and remote education in Australia. During Phase 1, whilst mapping the existing curriculum and field experience models, the Project Team applied the National Professional Standards to graduate teachers working in rural, regional and remote teaching locations. This included the creation of two additional columns within the standards document that identified key concepts relating to teaching and learning in regional, rural and remote areas and listed key resources. The endorsement of the National Professional Standards occurring in December 2010 was timely in the context of this project.

Within the first year of this project, the Project Team has successfully formed an extensive network of partnerships with key stakeholders involved in rural, regional and remote education. These networks and the variety of dissemination strategies undertaken have allowed for peer-review, guidance and external perspectives that will inform the final year of the project.

Appendix 2: Confidential Interview Questions for Project Team

1. What main outcomes have you derived from the project?
2. If you would do anything differently in designing the methodology of this project what would it be?
3. Tell me about any obstacles that impacted on progress in the project?
4. Tell me about the Project Outcomes and your opinion of what has been developed?
5. What impact do you think the report from this Project will have upon pre-service educators?
6. What have been the unintended outcomes from the Project?
7. What main impact(s) has the project had upon you personally/professionally?
8. Are there any issues you think are important and should be aired?
9. Are there any claims about this Project that you would like to make?
10. Do you have any concerns about the implementation of this project?
11. Do you have any concerns about how this project will be reported?
12. Please comment upon Project management over the past two years.