Centre for Sustainable Communities Monograph Series No.3

Researching the schoolhouse: Rethinking research on the staffing of rural, remote and isolated schools in Australia (2000-2019)

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# **About the Centre for Sustainable Communities**

The Centre for Sustainable Communities (CSC) contributes to healthy and sustainable social, cultural, ecological and economic futures by providing research and professional development services to communities, government and the private sector.

Our strengths, developed over more than fifteen years, are those of collaborative and participatory research in regional and community development in both Australian and international contexts. Working in partnership with communities and related regional and community agencies, we aim to:

- Build sustainable environmental, social, cultural and economic capacity through partnership in research and development
- Work with communities in the recognition of their own strengths, assets and capacities using processes which respect action learning and collaboration
- Develop strategies for change in response to evolving environmental, social, cultural and economic contexts
- Build leadership and professional networks that support sustainable and cooperative endeavours in communities.

The Centre's research highlights learning and development beyond formal education, in community and organisational settings and contexts where informal learning is significant. We are interested in how this perspective can contribute to the adaptation of formal institutions to the contemporary challenges of social and cultural change.

The Rural Education and Communities (REC) research group, within the CSC, leads research focused on empowering rural schools and their communities. With a focus upon the sustainability of rural communities, the Rural Education and Communities research group aims to make a lasting contribution to both theoretical and practical developments in rural education research. Situated within rural sociology, the sociology of knowledge, educational sociology and social justice, the Rural Education and Communities research group is informed by the spatial turn in social theory and sustainability. The Rural Education and Communities research group focuses upon the following core themes:

- Rurality
- Space, Place & Spatial Justice (Social Justice)
- · Rural Regional Sustainability
- Rural Standpoint

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## **Executive summary**

The staffing of non-metropolitan schools has been a significant concern in Australia since the inception of compulsory schooling. Over the last twenty years a plethora of research has been undertaken into the opportunities and challenges of staffing non-metropolitan schools. In this monograph we explore the research through the approach of a systematic literature review. This method creates a measure of comparison if a review is repeated in future years as a measure of progress on this issue.

The search strategy identified 161 results over the last twenty years, with this number of results highlighting just how problematic this issue is and continues to be. Despite a consistent research effort, Australia has not managed to achieve significant long term positive change. This is an issue that has the potential to impact on students and their future beyond school.

Many of the research studies focus on identifying the same issues as those that have gone before them. That is, while more recent studies undertake research to further advance understandings of the staffing issue, they are often repeating studies that have already been undertaken elsewhere, with another cohort of students. In fact, many studies could be considered program evaluations rather than research studies as they focus on the impact of an initiative undertaken in teacher education. While these studies are important, theoretical advances and methodological advances also need attention. For example, most studies used qualitative methods, were undertaken over a short time period, and involved small numbers of participants. There were few studies involving long term research into the issue, with more than just one cohort of participants, or studies that involved quantitative research methods.

To achieve long-term change in the staffing of non-metropolitan schools we need a divergence from the approaches used over the past twenty years. Future studies need to focus on using new methods, collaborating with all stakeholders, and pursuing sustained efforts to value the distinct nature of the teaching profession in these locations.

# **Key findings**

- 1. Twenty years of staffing research: We are no closer to solving this perennial issue, suggesting a need to rethink approaches to research and practice.
- 2. Stakeholders: Staffing of non-metropolitan schools needs to involve all stakeholders.
- 3. Research approach: New approaches to research are needed to avoid reproducing the same studies and results without change.
- 4. Professional identity, stress and satisfaction: Place impacts on teachers' ability to teach in the way they imagine to be quality teaching.
- 5. Social justice and equity: The long history of staffing issues signals a failure of ideologies and capacities to

- correctly identify and address disadvantage.
- Isolation: It is not enough to simply view isolation in terms of geographical distance, instead, isolation needs to be understood as a multifaceted and complex issue.
- Standardisation and regulation: The increasingly controlled and standardized nature of school education only acts to reinforce disadvantage by marginalising non-metropolitan communities.
- 8. A model for change: Future studies need to focus on using new methods, involve collaboration with all stakeholders, and include longer-term research programs.

## Introduction

The staffing of non-metropolitan, remote, and isolated schools remains a significant issue of concern in Australian education. Over the last twenty plus years, much research has been undertaken into opportunities and challenges of non-metropolitan schools. In this monograph we review the literature on the staffing of schools outside metropolitan locations in Australia and propose ways forward for research into the staffing of non-metropolitan schools.

Here, we use the term 'non-metropolitan' to encompass any location outside the main metropolitan centres in Australia. In terms of schools, this includes those classified as Inner Regional, Outer Regional, Remote, and Very Remote by the Australian Curriculum, Assessment and Reporting Authority (ACARA) on the My Schools categorisation5. This categorisation draws on the Australian Bureau of Statistics (ABS) Remoteness Classifications structure4 that is based on distance, population density and access to services. Remoteness classifications are on a scale of decreasing density and increasing distance to and availability of services, from major cities through to very remote locations. Major cities are considered to have a higher density population, more service availability, and less distance to major services and facilities, and very remote locations have low density of population, services and are larger distances to other locations.4

It is important to note that non-metropolitan locations encompass more than the structural features and measures described by the ABS. Rurality also involves diverse cultural, social, geographical considerations that influence factors such as identity, beliefs, knowledges and actions. This understanding of rurality is crucial to the staffing of non-metropolitan schools and will be explored throughout the monograph.

Research over the past twenty years has highlighted that non-metropolitan schools are hard to staff and that they have a high staff turnover.41 They are staffed by new and young graduates,41,98 there are more teachers teaching out of field, 131 teachers are more transient, 97,106 and teachers often take on leadership roles early in their careers38,39. Research to understand what contributes to these issues focuses on identifying the opportunities and challenges of teachers, why teachers choose to stay or leave non-metropolitan appointments, why teachers choose to work in non-metropolitan locations, and the pre-service teachers' understandings and attitudes about non-metropolitan teaching. Research on strategies to overcome these issues predominantly focuses on preservice teacher education, the role of school leadership, and strategies to attract and retain teachers. Within these focus areas there are suggestions for policy, professional development, and teacher education<sup>28</sup>. In this literature review, rather than simply reviewing the findings of these studies, we continue to explore the question we have raised elsewhere: If we have such a well-developed knowledge of matters related to non-metropolitan school staffing, why does it remain an ongoing issue?28

In raising this question, we highlight the need to focus on the research approach and the impact of these approaches. This includes considering who is responsible for initiatives that contribute to understanding staffing of non-metropolitan schools (the community, institutions, or individuals), the methodology used in the research (qualitative or quantitative) the scale of studies undertaken (the number of participants and locations) and the timeframes involved in the research (short term or longitudinal studies). From an analysis of these factors we argue that to achieve long-term change in non-metropolitan schools we need to focus on a student-centred approach to change. This involves developing a long-term, collaborative approach that values the distinct nature of professional practice in these communities.

# Methodology

Staffing non-metropolitan schools has been an ongoing concern over the past few decades and is an issue that continues to be revisited in research studies in Australia and internationally. To provide a comparative point for analysis in future years, we undertook a systematic literature review to provide a clearly defined and structured approach that outlines search criteria including the terms used, databases used, years covered, and type of research included (articles, chapters etc.). This approach will enable the issue to be revisited in future years to identify any progress and change that is occurring in the research about staffing non-metropolitan schools. In this section we outline the process and results of the systematic literature review.

### **Research Question**

What strategies have been used to recruit and retain education professionals in non-metropolitan Australia?

### **Search Terms**

- 1. Austra\* AND (rural OR remote) AND (educat\*) AND (recruit\* OR retain\* OR retention\*) AND (staff OR workforce OR teacher OR educator)
- 2. Austra\* AND (rural OR remote) AND (pre-service teacher) AND (prepar\*)

### **Procedure**

- 1. Define the research question.
- 2. Define the search terms and years included in the
- 3. Identify the databases to be searched.
- 4. Search the databases using the 'Title/Abstract/Key words' search.
- 5. Remove duplicates, editorials, commentaries, and non-research papers.
- 6. Screen all articles by title and abstract. This screening is completed by two researchers.
- 7. Retain articles where both researchers agree they should be included.
- 8. Search the reference lists of the articles for additional articles that could be included and review these articles.
- 9. Search for book chapters to be included.

### **Databases:**

- 1. A+ Education
- 2. Education Research Complete
- 3. ERIC
- 4. Teacher Reference Centre
- 5. Proquest Central

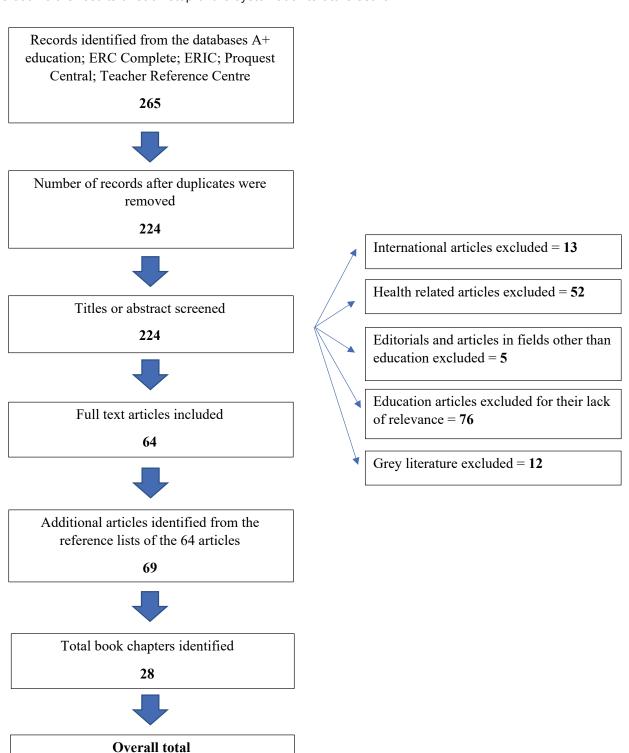
These five databases are the key databases for education research. Parameters were set to ensure only research articles were identified. Grey literature, conference papers, or non-peer reviewed material were excluded.

### **Duration:**

Year 2000 to Year 2019.

## **Procedure and Results**

Here we outline the results of each step of the systematic literature search.



161 literature items included for review

# Twenty years of staffing research

"The problem of staffing in nonmetropolitan schools has been focused on for decades, however we are no closer to solving this perennial issue, suggesting a need to rethink approaches to research and practice."

# Twenty years of research: What has been happening?

Since the year 2000 there have been a number of largescale projects focusing on the staffing of non-metropolitan schools. These include:

#### Staffing the Empty Schoolhouse<sup>126</sup>

This report drew on the experiences of teachers in schools and policy makers to explore approaches and issues around the staffing of non-metropolitan schools in Australia.

#### Rural Teacher Education Program<sup>40</sup> (RTEP)

This project focused on the importance of considering context(s) in teaching. Specifically, it focused on school staffing, the preparation and support of teachers, and productive partnerships in New South Wales schools.

## Renewing Teacher Education for Rural and Regional Australia<sup>91, 123</sup> (TERRANova)

This project focused on developing pre-service teacher education for teachers who may teach in non-metropolitan schools. This involved focusing on recruitment and retention strategies, effective teacher education, promoting non-metropolitan teaching, with the aim of highlighting and making non-metropolitan teaching a worthwhile option.

## Renewing Rural and Regional Teacher Education Curriculum<sup>163</sup> (RRRTEC)

This project focused on pre-service teacher preparation for non-metropolitan communities. It identified what a preservice teacher education program for non-metropolitan communities needs to involve and developed a program package for pre-service teacher education providers to draw on in their courses

# Science, ICT and Mathematics Education in Rural and Regional Australia<sup>117</sup> (SIMERR)

SIMERR is a National Research Centre that undertook a national survey about the needs of teachers in science, ICT and mathematics in non-metropolitan communities.

#### The Rural Education Forum of Australia<sup>52</sup> (REFA)

The Rural Education Forum of Australia undertook research that focused on practicums for pre-service teachers in non-metropolitan locations. This focused on the costs involved, who were interested in these placements, and the issues associated with undertaking non-metropolitan practicums.

#### **Bush Tracks Research Collective** 37,100

This project focused on factors that make teaching in non-metropolitan locations unique. This included focusing on understanding teacher transitions and movements, school leadership, and pedagogical practices that are unique in these schools.

#### Other research

There have been several small-scale research projects focusing on the following factors:

- The experiences of new graduates
- The experiences of non-metropolitan teachers
- Programs where pre-service teachers visit non-metropolitan locations
- Non-metropolitan practicums
- Resources to prepare pre-service teachers
- School leadership in non-metropolitan locations
- Mentoring programs

# Staffing challenges of non-metropolitan schools

Research over the past twenty years has highlighted consistent patterns in the staffing of non-metropolitan schools.

### Hard to staff



Schools in non-metropolitan schools usually have difficulty attracting staff to the majority of their positions, even those that come with incentives.

### **Staff Turnover**



Teachers and leaders in non-metropolitan schools usually stay for short time periods.

### **New Graduates**



Positions are staffed by a high number of new graduates in non-metropolitan schools.

# Out of Field Teaching



Teachers are likely to teach in a subject area they are not trained in due to staff shortages.

### **Transience**



Teachers are more likely to be transient, moving closer to metropolitan centres of larger regional centres.

### Leadership



Teachers often gain experience in leadership positions earlier than they would in metropolitan schools. Leadership positions are also difficult to staff.

## **Young Staff**



Teachers in non-metropolitan schools are often younger than those in metropolitan schools.

All these issues are more prevalent in schools that are located further away from metropolitan areas.<sup>39,40</sup> Research has been directed into understanding what contributes to these issues and strategies to reduce the impact of these issues in non-metropolitan schools.

# What are the main research responses to the staffing issues?

In response to the identified issues around staffing non-metropolitan schools research has focused on five key areas:



# Long staying teachers

What are the factors that influence teachers to stay longterm in non-metropolitan schools?

How can we draw on the experiences of successful schools with long-staying teachers to inform approaches to attracting and retaining staff?



### **Rural experience**

What is the role of prior experience or a background in non-metropolitan locations in the attraction and retention of staff?

How can pre-service teachers be given the opportunity to experience teaching in non-metropolitan locations?



## School leadership

What is the role of non-metropolitan school leaders in attracting and retaining staff?

What are the opportunities and challenges of school leaders in these locations?



# Opportunities and challenges

What are the opportunities and challenges experienced by teachers in non-metropolitan locations?

What strategies can be implemented to minimise the challenges and increase the opportunities?



# Pre-service teacher preparation

What is the role of pre-service teacher education in the attraction and retention of staff to non-metropolitan locations?

What does the preparation of teachers for non-metropolitan locations need to involve?

# Developing a research program for the staffing of non-metropolitan schools

Research studies over the past twenty years reflect more developed understandings of issues relating to the staffing of non-metropolitan schools, however, they do not present any major change of thinking about approaches to staffing non-metropolitan schools. This, we propose, may relate to a lack of attention to developing the methodologies used in research in this field. It is not possible to improve our understanding of issues faced by non-metropolitan schools simply by repeating studies. Instead, to achieve long-term change, we need to examine both the issues experienced by schools and the research approach used to explore the issues taking place.

In this section we focus on the factors that are involved in the research approaches of studies over the past twenty years. This includes identifying the stakeholders involved in the research, the methods used to understand the issues, the timeframes of studies, and the scale of the research that is undertaken. We do this with the aim of informing a possible path forward in the research about the staffing of non-metropolitan schools.



Stakeholders

Who are the stakeholders that are focused on in the research in the staffing of non-metropolitan schools?

We identify three main groups of stakeholders: the community, institutions, and individuals.



Leadership of initiatives

How, and by whom, are the research initiatives being led?

We determine whether initiatives are being led by one institution, or, if they are a collaborative initiative involving multiple people, places or institutions.



**Participants** 

Who are the participants in the research studies?

We examine the number of participants in research studies and whether they can be considered small or large scale studies.



Methods

What types of research methods are being used to explore the issues related to staffing non-metropolitan schools?

We explore whether the methods used are qualitative or quantitative and whether there is any diversity in the methods used.



Timeframes

What are the timeframes of the research studies?

We explore the timeframe of studies, and whether they are long- term or short-term studies.

Using this analysis, we argue that future studies need to focus on using new methods, involve collaboration with all stakeholders, in a sustained effort to value the distinct nature of the non-metropolitan profession.

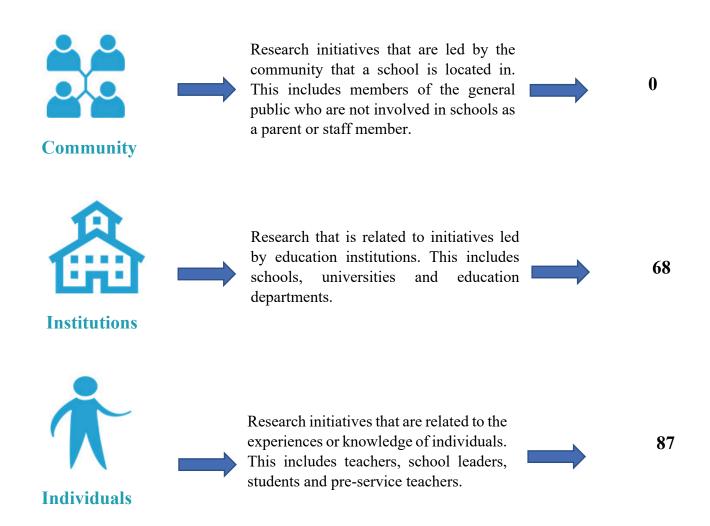
# Stakeholder focus: Communities, individuals, or institutions.

"For the staffing of non-metropolitan schools to be successful all stakeholders need to be involved. Although community and place are crucial in staffing non-metropolitan schools, it is rare for community members to hold the power in programs to support the staffing of their local schools. Instead, the responsibility is placed on institutions or individuals in the school."

## Who are the stakeholders in the research?

Research identifies that staffing in non-metropolitan schools needs to involve all stakeholders, not just jurisdictional staffing officials.<sup>42</sup> This, we ague, needs to include education departments, schools, universities, students, their families, and communities.

In this section we explore which stakeholders are the focus of the research in the staffing of non-metropolitan schools. We identify which stakeholders lead the initiative related to staffing, and which stakeholder is at the centre of the research. We identify three main groups of stakeholders: the community, institutions, and individuals.



\*literature reviews (n=6) have been excluded from these totals

### All stakeholders matter

There are clear and concerning trends in the stakeholders that are the focus of the research. Most of the literature involved research that was initiated by, or focused on, institutions and individuals. There were very few research studies that were initiated by, or that focused on, the direct involvement of community stakeholders.

The high number of research outputs involving research initiated by institutions and individuals is to be expected because institutions are responsible for pre-service teacher education and research, however, the lack of community-initiated initiatives is a concern. The lack of community-initiated initiatives is a direct contradiction to research that identifies the importance of place-conscious, community focused schooling and school staffing, such

as the RRRTEC study.162 This highlights that initiatives to attract and retain teachers that involve the community are reliant on the support of individuals or institutions, rather than being directly driven by the community.

Problematically, this removes the focus from those who matter most in schooling; the students, their families and the communities in which they are situated. Instead, it places the power with institutions whose decision making is controlled by metrocentric policies that marginalize the interests of non-metropolitan communities. This is concerning as school education needs to serve the students within them, their communities and the interests of their futures. For this to occur, it is important that community stakeholders are involved in this issue.



Figure 1. A student-centered model of staffing nonmetropolitan schools where all stakeholders are involved, a model that informs policy considerations

From these observations we recommend that a model of research that involves all stakeholders is developed. First and foremost, this research must consider what is necessary for the students and their communities, with policy contexts adaptive to these needs. This recommendation responds to previous research that suggests that the attraction and retention of staff in non-

metropolitan schools needs to be considered part of ensuring quality teaching and learning.<sup>43</sup> This means that it needs to be a key part of pre-service teacher education and a policy issue, not just an issue for education departments who currently manage the recruitment of teachers.<sup>43</sup>

"Research first and foremost must consider what is necessary for the students and their communities, with policy contexts adaptive to these needs."



# Research approach

"To achieve long-term change in the ongoing challenges of staffing non-metropolitan schools new approaches to research are needed to avoid reproducing the same studies and results without change."

# Research approach: Key findings

In this section we focus on four key issues in the research approaches of the staffing studies: who leads the research initiative, who the participants are, the methods used in the research studies and the timeframe of the research studies. This aims to understand which approaches have been already used in each of these areas to inform future approaches to research.

#### **Factor**

#### Overview of the factors in the research



**Leadership** of initiatives

The majority of research studies involve individual institutions. There are few collaborative studies across multiple institutions (schools, universities, and departments of education).



The majority of research studies involve small numbers of participants. Studies that involve large numbers of participants are predominantly studies that are not specific to non-metropolitan locations or are part of longitudinal studies.



**Methods** 

The majority of studies use qualitative research approaches. Studies that include quantitative methods are predominantly studies that are not specific to non-metropolitan locations or are part of longitudinal studies.



The majority of studies involve short time frames.

Longitudinal studies are rare and are predominantly studies that are

funded by education departments and the Australian Research Council.

This analysis identified some very clear trends in the research approaches. Most studies focusing on the staffing of non-metropolitan schools are short term, qualitative studies involving a small number of participants in individual institutions. This is a pattern in the research that has the potential to limit the impact and integration with education policy which often relies upon statistical based research for decision making. Further, the lack of long-term research limits our understanding of the long-term impact of these research initiatives. There are few studies that involve longitudinal or follow up research to determine the impact of these research initiatives beyond their immediate implementation. Building on arguments elsewhere <sup>28,128</sup> here we argue for a need to increase a focus on long term research programs that address the above-mentioned limitations.

"To work towards achieving long-term change in non-metropolitan schools we need to learn from history and rethink current approaches to research and practice by focusing on developing a long-term, sustainable, collaborative research approach that values the distinct nature of the profession in these communities."



# Re-thinking the research on the staffing of non-metropolitan schools

Over the past twenty years there have only been minimal changes in approaches to research in the staffing of non-metropolitan schools. Our understandings of issues are now more developed and more nuanced; however, we are still exploring the same issues in predominantly the same way that we were twenty years ago<sup>28</sup>. As such it is time to reconsider how we understand and label the issues involved in the attraction and retention of staff to non-metropolitan locations. This involves re-situating the issues within four key areas of broader education theory:

## Professional identity and satisfaction



Teacher professional identity refers to "the way that teachers, both individually and collectively, view and understand themselves as teachers." [p519] This we argue, influences the challenges and opportunities teachers experience, how they respond to the community they are teaching in, how teachers enact their teaching practice, and their satisfaction with their teaching.

#### **Social Justice and Equity**



Staffing of non-metropolitan schools is informed by a range of notions of social justice that illustrate the contested terrain of justice, equity and the recognition of difference in Australian education and social policy. We argue that conclusions about disadvantage and the solutions they pose expose the metro-centric nature of policy making and a general lack of understanding of the complex social dynamics taking place in Australian non-metropolitan contexts.

## Standardisation and regulation



Education as a profession has become increasingly regulated over the past twenty years. During this time a national curriculum and professional standards for teachers have been introduced, and teacher education programs have been subject to regulation and registration requirements based on metropolitan assumptions. Here we argue that teachers, regardless of context or place, are forced to respond to these changes and navigate their teaching in a way that responds to these issues.

#### **Isolation**



Educational isolation is "complex, grounded in location, situated in access to resources and results in reduced agency for schools." [14] (p4) Isolation is often seen to include, professional, personal, geographical, cultural, and socio-economic isolation. The complexity of isolation is experienced by schools in different ways even though they are all non- metropolitan schools. [114] This we argue, influences how teachers respond to issues as either opportunities or challenges.

These perspectives have been highlighted in broader education literature as key issues influencing non-metropolitan schooling. It is through these theoretical framings that we explore the literature about the staffing of non-metropolitan schools.

# Professional identity, stress and satisfaction

"Teacher professional identity does not develop in isolation. Place impacts upon teachers' ability to teach in the way they imagine quality teaching to be."

#### **Professional identity and satisfaction**

Teacher professional identity refers to "the way that teachers, both individually and collectively, view and understand themselves as teachers." 108 (p519) Stress, satisfaction, and professional identity are related to place and professional and pedagogical standards in a dynamic relationship. The specificities of non-metropolitan locations influence the experiences, opportunities and challenges teachers face in their role. 45,109 How teachers react and respond to these issues may be considered as a matter of professional identity and satisfaction.

Teachers who take up non-metropolitan positions do so as a result of a combination of their attitudes, culture, sociological context and psychology that results in a deliberate action and behavioural intention to apply for the job. The job. Some of the reasons teachers take up positions, that are seen as the opportunities of non-metropolitan communities, include valuing the lifestyle, S4,72,73,83,89 to experience a challenge, S4,90,136 being interested in non-metropolitan communities, s4,90,136 identifying with a non-metropolitan communities, The professional opportunities teachers identified include factors such as leadership opportunities, S2,72,73,90 autonomy of practice, S2,72,73,90 collegial relationships, S5 access to the transfer system, financial incentives, On and more employment opportunities S136.

Once teachers take up non-metropolitan appointments it is important to consider that the challenges they encounter may also influence their levels of stress and their ability to teach in the way they imagine quality teaching to be. Teachers in non-metropolitan locations identified challenges that related specifically to their location associated with the perceived professional, personal and social isolation. <sup>6,35,55,72,73,81,90,109,116,143</sup> This includes issues with accessing professional development (PD), <sup>22,36,55,90,116</sup> managing relationships with colleagues, <sup>61,109</sup> teaching out of field, <sup>36,81,90,131</sup> and the distance from family and social supports. <sup>61,62,72,73,81,90</sup> Teachers also encountered challenges fitting into the community, <sup>83,90</sup> and adjusting to the new environment. <sup>6</sup> These are all factors that influence

teachers to stay or leave non-metropolitan appointments.

The way that teachers respond to issues they encounter influences their professional satisfaction. Although new teachers implement strategies to respond to challenges with resilience, they are at a stage of their career where they are developing their teacher identity which is influenced by the challenges they encounter. 109 As a result they may struggle to feel competent in their role without support.22 For example, newly appointed teachers who were teaching out of field felt this influenced the quality of their work life and levels of dissatisfaction as a teacher. 131 Their expectations and experiences in their role and the way they evaluated these influenced how they integrated into a new school and community.135 Factors such as gaining information and support within their community help to create positive connections with the community. a factor that influences the quality of their work life. 135 Without these factors a teacher is likely to experience instability and withdraw from the community and their role. 135

Staffing contracts are also a contributing factor to the way teachers made connections in their community.<sup>87</sup> Many contracts are only short-term appointments<sup>119,137</sup> which creates insecurity for staff.<sup>87</sup> This also influences their relationship and dedication to the school community<sup>119,138</sup> as long staying teachers are more likely to develop stronger community relationships.<sup>155</sup>

# **Professional satisfaction of school leaders**

Their reasons for applying for leadership roles relate to professional, personal, place-based reasons, as well as pragmatic, opportunistic, and idealistic motivations. However, financial reasons were not a high motivating factor for potential leaders applying for leadership roles, 53 indicating a need to focus on professional factors when considering the staffing of non-metropolitan leadership roles.

In their roles school leaders also experience similar opportunities and challenges to teachers that may contribute to their sense of professional identity.<sup>76</sup> These opportunities and challenges relate to understanding and navigating community, culture and context. 49,76,85,141,142 These include adapting policy for contextual needs,49,86,141,142,169 relationships, 21,38,39,112,141 building managing personal and work priorities,38,39 adjusting to the environment and lifestyle,89,166 experiencing social and professional isolation, 21,33,105,112,141,142 developing their confidence, and being prepared to respond to the unknown.76 They also felt they experienced issues managing school staffing,49,50 issues of school sustainability, equity and social justice for their students, and policy matters. 49,141,142 Many of these factors relate to the added administrative challenge of the dual role of teacher and principal.86

One key issue impacting principals is the nature of short-term contracts and their experience in leadership roles. Principals on short term contracts were less likely to want to implement changes and invest time in their school and community. This is problematic because long term commitment and sustainable leadership is influenced by knowing the context and developing relationships with the community. Less experienced school leaders also experienced more demand in terms of staffing their school, as did leaders in more remote schools. 30

Women perceived their roles and experiences of leadership to be different to that of men. 17,18,168 They felt that they took a more collaborative approach to leadership, focused more on mentoring new staff than men, 17,18,103,104,113 and worked to involve the community in their role. 36 However, they also felt they experienced challenges in obtaining opportunities for leaderships, 104,113 working in a male dominated culture of school leadership, working with community expectations and fitting into the community. 103,104,113 Further, they felt that despite the trend of early leadership in non-metropolitan schools, their

opportunities for leadership came from their history and experience in roles, rather than early opportunities due to difficulties staffing positions. 103,113

# Professional identity and teacher educators

Teacher educators have a crucial role in preparing teachers for their profession. Their personal biography is considered to be influential in the preparation of teachers for non-metropolitan practice. 154 This has been explored by several researchers by drawing on the self-studies methodologies.<sup>154</sup> In these self-studies teacher educators consider the impact of their personal histories, their doctoral research, their careers as teacher educators and their histories prior to having roles in teacher education research. These studies have identified the importance of teacher educators understanding non-metropolitan difference to inform teacher education programs with the aim of supporting the attraction and retention of teachers in these regions. 66,80,151,158 These include understanding the myths and realities of rurality, 66,80,151,158,179 and cultural diversity.80 These factors inform ethical practice,80 understandings, and positionings as teacher educators as well as the research work teacher educators undertake in non-metropolitan locations. 66,79,80,151,158

All these examples indicate that teacher educators' histories and connections to non-metropolitan places impacts professional practice. However, it is also important to note that a teacher educator, researcher or teacher practitioner, does not have to be non-metropolitan or have a non-metropolitan history to work in this space. Examples of discussions around this issue draw on insider and outsider research, research positionality, and rural standpoint theories.<sup>160</sup>

# Social justice and equity

"The long history of problems in staffing non-metropolitan schools is not a natural phenomenon: indeed, it signals the failure of ideologies and capacities to correctly identify and address disadvantage over many decades."

#### Social justice and equity

How educational and social disadvantage of nonmetropolitan communities is constructed is an important social justice and public policy issue. The long history of problems in staffing non-metropolitan schools is not a natural phenomenon: indeed, it signals the failure of ideologies and capacities to correctly identify and address disadvantage over many decades. In general, conclusions are informed by a range of notions of social justice that illustrate the contested terrain of justice, equity and the recognition of difference in Australian education and social policy. Often conclusions about disadvantage and the solutions they pose expose the metro-centric nature of policy making and a general lack of understanding of the complex social dynamics taking place in Australian nonmetropolitan contexts. A consequence of this approach is the belief that because non-metropolitan areas are falling behind in standardised measures they need to be given more resources. What they should get more of and how much of it they should get is however determined by others far away from the site of the supposed disadvantage. Many of these policies are influenced by a distributive approach to justice, rather than other forms of justice.<sup>23</sup> In this section we highlight examples of these policies and approaches.

### Support from a distance

The distributive approach to justice is exemplified through the use of online professional development and teacher preparation in the interests of equity for non-metropolitan staff and potential staff.

Resources for pre-service teacher level include online discussion forums, virtual simulations of non-metropolitan teaching, and online access to professional support from the university. It has been suggested that in-service teachers be provided with access to online professional development and support to overcome some barriers and challenges they experience.<sup>78</sup> These methods of distributing resources have several professional

opportunities and challenges. In-service teachers for example identified that access to online professional development was beneficial, however, a mix of in-person and online methods are required for the use of technology to be successful. 12,120 In online discussion forums and online mentoring, participants described benefits such as increased discipline knowledge, understanding of the profession, 20,34,97,120,121,130 resources, 20,34,95,120,121 and communication skills. 25,34,130 They also felt it reduced their sense of professional, personal and social isolation and helped them develop networks.<sup>34,130</sup> Pre-service teachers were able to post questions, reflections and discuss issues while on placement and receive feedback from their peers and university staff. 25,34,74,95,120,121 However, pre-service teachers identified difficulties engaging online because of time constraints, 34,120,121,130 failures in the technology they were using,<sup>34,129,130</sup> and a lack of confidence.<sup>34,120,121</sup>

An additional approach used is online role playing and simulation software programs that enable pre-service teachers to practice their teaching in situations they may not encounter in a metropolitan location, such as multiage group teaching. 46,63 Overall, pre-service teachers felt that these scenarios were beneficial, with participants identifying it had alleviated some of their concerns about non-metropolitan teaching and increased their opportunities to develop their teaching skills 46,63 These online simulations were also seen to have a positive effect on pre-service teachers' coursework grades, especially when undertaken with a unit about teaching in non-metropolitan schools; however, they are not seen to be a replacement of placements in non-metropolitan schools. 46,63,70

The recent Independent Review into Regional, Remote and Rural Education recommended that ICT infrastructure needed to be improved in non-metropolitan locations to better enable the utilisation of online resources. 48 However, during the COVID-19 pandemic, when population in all locations had to utilise online resources, there have been many complaints about the perceived substandard of online resources. This leads us to question why online

resources are considered to be a solution for nonmetropolitan regions when they are not considered to be high enough standard for all communities.

### **Remote Indigenous teaching**

The opportunities and challenges of remote teaching are very similar to these described in previous sections of this monograph.

There are several factors that contribute to the retention of teachers in remote schools. From institutions, a collaborative approach is needed as well as pre-service teacher education that effectively prepares teachers for practice in these locations. 11 Teachers who are regarded to be successful are those who have more experience, are able to adapt to change, and are able to develop networks in their community and beyond.<sup>69</sup> Indigenous teachers felt that successful teachers need to adopt a team approach, working with Indigenous cultures to develop quality teaching.47 This involves considering attitudes, sources of power, and including communities in decision making about schooling. Teachers in schools need to be able to recognise their role in the community and share goals and expectations with the community.69 Familiarity with Indigenous cultures and education were also crucial.47

Pre-service teachers who participated in specific units on Indigenous education, or who undertook an internship in remote locations, felt this helped prepare them for teaching in these locations.<sup>59</sup> The majority of pre-service teachers who participated in internships indicated a willingness to stay in their school long term.<sup>59</sup> Induction, community support, and relationships with other teachers also supported the experiences of new teachers in remote schools.<sup>69</sup>

Teachers identified several opportunities and challenges to teaching in remote locations. The opportunities related to the remote lifestyle and personal growth in their positions. For example, the isolation, 11,144 natural environment, relationships, and opportunities for

personal and professional growth<sup>144</sup> were all considered to be opportunities. Many of the challenges related to the remote lifestyle and the isolation this encompassed. In particular, teachers identified feeling unprepared for the context, experiencing culture shock<sup>144</sup> and difficulties developing culturally responsive pedagogy, a factor that may have been affected by their confidence and experience with these practices.<sup>75</sup>

Research suggests that approaches to encouraging qualified local Indigenous teachers to stay in their own communities should continue due to the benefits they provide communities.<sup>107</sup> They also provide a template for all non-metropolitan communities to develop local capitals and staffing.

#### Pre-service teacher education

Pre-service teacher education about schooling in remote Indigenous communities focused on allowing student teachers to experience teaching in remote contexts. This included service-learning<sup>84</sup> and placement opportunities<sup>4,101</sup> in remote Indigenous communities.

Programs such as these benefitted pre-service teachers professionally and personally from the skills and insights they gained during these experiences. Professionally, pre-service teachers felt they increased their cultural and linguistic awareness and were able to challenge their pre-conceived notions about remote Indigenous teaching. 6,60,101,107 They were also able to develop networks, develop professional teaching skills and learn about the role of community in schooling. 60,84,101 Pre-service teachers identified personal gains in their confidence and they felt they had the opportunity to develop outside their comfort zone. 60,84,101 Pre-service teachers also identified challenges in these programs. The challenges all related to their understandings of culture, particularly, that they did not perpetuate current issues of marginalisation, or were not influenced by stereotypes about Indigeneity. 4,84

# Community teacher education programs

A priority in remote Indigenous school staffing is encouraging Indigenous people to become teachers. Additional aims of these programs are to ensure culturally relevant teaching practice, 94 and to encourage teacher retention in remote locations. 93 This usually involves initiatives that provide opportunities for teacher's aides to train to become teachers while largely remaining in their own community. 7,93,94,149 These programs usually involve the delivery of teacher education remotely, using ICT and community site visits from teacher educators, mentoring, and rely upon partnerships between stakeholders, such as universities and departments of education. 118,172 Of key importance is how these programs recognise and draw on the prior learning and experience of community members. 118

These programs have several benefits for both the teacher in training and the local community. The community felt schooling valued their culture<sup>149</sup> and there were increases in student attendance, retention, and community involvement in schooling.<sup>93,94</sup> Indigenous people were able to become a teacher without moving away from their home location, they had the flexibility to balance their work and their life in the community, and they felt a sense of accomplishment and success from the program.<sup>7,94</sup> An overall benefit for teacher education was the inclusion of culturally responsive pedagogy in teacher education training<sup>7,94,149</sup>

However, these programs, like many in remote locations, involved challenges around time, relationships development, literacy levels, funding and personal commitments of time from the teachers involved. 93,94 Further, the process of recognising students' prior learning can be difficult. 118

Research suggests that approaches to encouraging qualified local Indigenous teachers to stay in their own communities should continue due to the benefits they provide communities.<sup>107</sup> They also provide a template for all non-metropolitan communities to develop local capitals and staffing.

#### Incentives<sup>1</sup>

One strategy that education authorities use to attract and retain staff are incentives offered to teachers above and beyond employment conditions offered to teachers in metropolitan locations. However, while incentives may attract teachers to non-metropolitan locations, they do not always encourage teachers to stay in non-metropolitan communities. Incentives are overwhelmingly focused on financial inducements and compensation that are informed by forms of economic and employment rewards. These see motivation in economically informed, human capital means. Offering extrinsically motivated incentives identifies non-metropolitan schools as disadvantaged. There is a very limited focus on internal professional motivations or skills based human capitals.

Incentivising the profession in this way runs the risk of further contributing to the staffing problem. While they attract teachers, without preparation for the specificities of non-metropolitan practice, teachers are encouraged to leave after their mandated duration of service is complete.<sup>157</sup> A better balance is needed.

<sup>&</sup>lt;sup>1</sup> For a full overview see (127)

## The multifaceted nature of isolation

"It is not enough to simply view isolation in terms of geographical distance. Instead, isolation needs to be understood as a complex and multifaceted issue influencing the staffing of non-metropolitan schools that requires more attention."

#### The complexity of isolation

Isolation is multifaceted and includes professional, personal, geographical, cultural and socio-economic factors related to location. It is influenced by access to resources, influences a school's agency and is experienced by schools in different ways. 114 Isolation is one of the issues that will either enable a teacher to thrive, or merely survive in their role. Some teachers enjoy the isolation and perceive it to be beneficial, while others find it a barrier to their professional and personal life. This has been described as the paradox of non-metropolitan school leadership and teaching.90 Many of the suggested support mechanisms to reduce the issues associated with isolation have the potential to support teachers in non-metropolitan areas if they are developed from a nonmetropolitan perspective, rather than in a way that aims to provide teachers with access to the same resources and services provided in metropolitan locations. By doing this, support mechanisms have the potential to undermine the value of the non-metropolitan profession and encourage teachers to seek to return back to the metropolitan locations.

### The challenges of isolation

Challenges related to isolation were evident in the experiences of staff in non-metropolitan locations. From a social perspective, teachers cited issues such as difficulties integrating into a new community and making new friends, the lack of social activities and distance to social activities, the vast distance from family and frien ds, 55,61,62,72,73,80,81,90,131 their visibility in the community, 61 and issues adapting to living close to their colleagues. 83,90 Teachers also indicated feeling less connected to their community than members of the community who were not teachers. 26 From a professional and personal perspective, teachers cited issues with a lack of support, 81,90,116,143 difficulty adapting to the context and environment, 141 lack of resources, 34,89 the costs of everyday living and the costs involved with relocating to their new community. 55,90

Teachers in non-metropolitan locations also struggled to balance the needs of their family with the demands of their job.<sup>83</sup> For instance, they felt it was important to consider their children's futures over their role. Teachers who felt that their children's education needs were being met, and that they lived near to their extended family, were more likely to stay. This can create tensions for teachers particularly if they choose to send their children to a school other than their own.<sup>83</sup>

# New teacher support and professional development

More support is needed for new graduates in non-metropolitan locations with any resources targeted to the specific needs of non-metropolitan schools. 70,71,90,98 At different stages of their career teachers require different professional development, 72,73,135 with their transition to teaching being a particularly crucial stage for PD. In the first few weeks of their role it is crucial they are supported with information, in the first half of the year they need feedback, and in the three months leading up to the end of the year, they need support to feel a sense of stability and certainty. 135

Many teachers felt they needed more professional development, 12,35,55,72,73,81,90,110 with their access being affected due to challenges such as time, distance, availability, relevance, access to casual teachers. 12,72,73,110 Teachers identified a need for more PD to develop their teaching skills as well as their personal skills. This included PD in leadership, ICT use, behavior management, out of field teaching, gifted and talented pedagogy, literacy, nonmetropolitan specific pedagogy, cultural awareness and pedagogy for students with additional needs.72,73 From a personal perspective, teachers identified a need for support to develop resilience, mental health management, 89,135 and to develop networks in their school171 and community.62 Support could include mentoring in-school and within the community. Partnerships are particularly important in developing sustainable, effective and context based professional development.<sup>140</sup> This enables all participants to participate from the perspective of leading professional learning and learning.<sup>140</sup> With community members supporting teachers when they are new to non-metropolitan teaching by initiating connections and relationships.<sup>6</sup> Teachers also need opportunities to develop networks with teachers from other schools to build their professional skills and knowledge base.<sup>116</sup> Support for teachers to access PD is also needed.<sup>12</sup> This may include a system of casual teachers rostered to replace staff away at PD,<sup>72,73</sup> and offering PD online.<sup>12,78,103</sup>

#### **Support for school leaders**

Attracting leaders to non-metropolitan schools needs to include a focus on providing preparation for, and support in the role in non-metropolitan locations. 15,19 Preparing and supporting leaders for their role needs to include support to understand their community and the role of context in their job. 16,18,19,30,49,56,141,167,168 This includes the culture, history, politics, and influence of geography on communities.<sup>167</sup> To enable this to occur, principals may need more time for handovers from previous principals, developing networks for isolated principals and a consultant to support these school leaders,89 opportunities to work with understanding policy adaptation and systemic issues. 167 However, while some school leaders who received more formal preparation for the role had higher levels of job satisfaction,29 school leaders who felt most prepared for their role also indicated that there were more challenges in non-metropolitan school leadership, a factor that indicates they may understand the complexity of issues and interrogate the issues involved. 169

National policy needs to address the concerns and highlight the opportunities of these roles.<sup>49</sup> Further, the qualifications and experience of potential leaders need to be considered due to their importance in success as a school leader.<sup>30</sup> It is also important that leaders are offered appropriate conditions for the role, including remuneration for the role and attractive housing.<sup>30</sup> Better mental health supports are also important.<sup>21</sup>

Once in the role, support for principals is needed in the areas of mental health services, opportunities to develop resilience, developing personal skills such as relationship building and understanding diversity, opportunities to develop administrative skills, separate to address the attraction and retention of staff, separates to professional associations specific to non-metropolitan locations, further qualifications specific to non-metropolitan leadership.

# Standardisation and regulation

"The increasingly controlled and standardised nature of school education only acts to reinforce disadvantage by marginalising non-metropolitan communities."

#### Standardisation and regulation

In Australia, the profession of education has become increasingly regulated over the past twenty years. During this time a national curriculum and teacher professional have been introduced. and standards education programs have been subject to regulation and registration requirements. These policies have been critiqued for being grounded in metro-normative assumptions and approaches which marginalise nonmetropolitan schooling. These factors all impact the staffing of non-metropolitan schools as context is a key factor that influences practice in non-metropolitan locations. 42,111,122,139,156,161,162,164

Beyond these metro-normative assumptions, it is important to view the problem of high teacher turnover in the context of the social and political issues and influences.<sup>97</sup> This can be explored by drawing on areas such as rural geography, sociology and understandings of spatiality, place, mobilities and displacement.<sup>96,97</sup> These theories encourage local people, places and perspectives to be valued. Policy and teacher preparation need to respond to these diverse considerations, rather than focus on a standardised approach. These are areas that have been focused upon and identified in previous reviews as areas of importance.<sup>9</sup>

# **Understanding non-metropolitan** teaching

Providing successful teachers to non-metropolitan communities is a concern for education authorities, with some authorities seeking to identify non-academic attributes that relate to successful teaching in non-metropolitan locations through aptitude tests. 32 Successful non-metropolitan teaching requires teachers to value non-metropolitan locations as distinct and unique. This includes drawing on community relationships, the specificities of place, and the strengths of non-metropolitan communities. 42,51,111,121,125,139,156,161,162

teachers' attitudes, Pre-service biographies, experiences with non-metropolitan locations were all influential factors in their views about non-metropolitan teaching. Pre-service teachers who had positive views about non-metropolitan teaching, 6,62 those who were from non-metropolitan locations,62 and graduates who felt a personal connection to non-metropolitan communities,81 were more likely to stay and teach in these communities. Further, how pre-service teachers rated their own metrocentricity (their identification with city habits) was a factor that influenced how they viewed non-metropolitan teaching and whether they wanted to take up a nonmetropolitan teaching position.13 This was more of a predicting factor than pre-service teachers' background location.<sup>13</sup> Problematically, some pre-service teachers only held idyllic or hellish views about non-metropolitan teaching, a factor that influenced their interest in nonmetropolitan teaching. 134 Negative stereotypes about disadvantage were more prevalent in younger pre-service teachers, however, they also identified that they lacked experience to draw conclusions about non-metropolitan places. 150 Teachers were also more likely to teach in areas similar to where they lived while they were pre-service teachers, 61,72,73 and with the majority of universities and the population being located in metropolitan locations, this is an important issue to consider. 61 With these factors in mind it is important to ensure that the benefits of nonmetropolitan teaching are publicised and students have adequate information to make informed decisions about where they will teach. 72,73,134

### Promoting and experiencing nonmetropolitan teaching

At a pre-service teacher level, universities, in partnership with jurisdictional education departments, may offer programs where students are encouraged to complete a non-metropolitan practicum or participate in programs where they visit non-metropolitan schools. These programs aim to increase pre-service teachers' understanding of non-metropolitan places, challenge students pre-conceived notions of non-metropolitan living

and teaching, highlight the benefits of non-metropolitan teaching, and increase the likelihood pre-service teachers will take up a position in non-metropolitan communities when they graduate. 14,16,124,133,134,147,162,148,173 All of these aims were also identified by pre-service teachers as reasons for applying for these programs. 8,124

Pre-service teachers who participated in such programs identified a number of benefits to the programs. They had more of an idea about what this might entail, they gained more realistic expectations, understood more about living in non-metropolitan communities, and the opportunities of non-metropolitan teaching. 14,24,99,67,68,88,124,132,146,162,173 They gained professional skills such as teaching in multi-age groups, 82 working with Indigenous pedagogies, 99 and skills in assessment and planning. 67 Schools also reported that the presence of pre-service teachers benefitted the community and teachers. 82,132,133,137

Pre-service teachers did however report some disadvantages to these programs, many of which were similar to the challenges experienced by teachers in these communities. The challenges included professional and personal isolation, 65,82 racism, 99 family and employment commitments, 147 and the costs involved. 1,65,90,135,145 The short timelines of these programs also made it more difficult for pre-service teachers to come to know and understand their community and what it means to teach there. 1,115

Evaluations of programs that enable pre-service teachers to experience teaching in a non-metropolitan location have recommended that they continue, 8.68 with some suggestions for improvements to increase their success and support pre-service teachers who experience challenges. Extending the programs for longer periods of time, 115,145 and opportunities to understand the role of schools in small communities 1.82 are some ways to support pre-service teachers to gain more realistic understandings of non-metropolitan teaching. Partnerships between community, schools, universities are key to facilitating successful opportunities for pre-service teachers.14

Universities need to collaborate and share resources to enable these programs to go ahead and minimize costs involved, including costs for pre-service teachers, <sup>130</sup> as well as offer group placements to support pre-service teachers to network and overcome possible isolation. <sup>130</sup> Placements in non-metropolitan locations are also the responsibility of metropolitan universities, not just those located in non-metropolitan locations. <sup>65</sup> More promotion of opportunities for placements outside metropolitan locations is needed to encourage pre-service teachers in all universities to consider non-metropolitan teaching. <sup>8,68</sup>

#### **Teacher education courses**

Teacher education courses are one of the most important ways for teachers to learn about the distinct nature of the profession in non-metropolitan communities, which in turn has the potential not only to arm pre-service teachers with understandings of these communities, but also to influence pre-service teachers to consider nonmetropolitan teaching as a desirable and valuable option.<sup>42</sup> Without appropriate preparation for non-metropolitan schools the staffing problems that many non-metropolitan schools face continue to affect the educational outcomes and aspirations of students in these schools. This is an issue for early childhood teachers as well as primary and high school teachers.44 Teachers in non-metropolitan locations indicated they felt just as effective overall as their peers in metropolitan regions, however, there were some differences where they felt less prepared which related to contextual factors their studies did not prepare them for.79 Preparing more teachers is not the solution, instead, teacher educators need to take a rural standpoint to prepare teachers for non-metropolitan appointments.<sup>159</sup> This involves ensuring that teachers are aware of the opportunities, challenges and differences in these settings, despite the metrocentric approach to teacher education. 42,164 This includes opportunities for pre-service teachers to develop understandings of critical pedagogy and practice, as well as ethnographic research skills through modelling in their coursework.27 To successfully achieve this teacher education needs to

change to incorporate non-metropolitan perspectives, not just include a supplementary program where pre-service teachers visit non-metropolitan areas.<sup>42</sup>

Teacher education needs to support pre-service teachers to be prepared for the unique opportunities and challenges of non-metropolitan teaching, and include a strong focus on understanding the places and communities they will work in. 27,42,81,88,98,115,161,162 Pre-service teachers need opportunities to learn to recognize and value local knowledges, resources, relationships and people and understand the connection between the classroom and community.<sup>27,42,81,88,98,115,161,162</sup> This includes understanding how to develop relationships and supports in the community, 35,111,162 learning to work with diverse student populations, and learning to engage with the curriculum in meaningful ways for the students, learning to use technology to collaborate in their work,162 managing their own emotions and developing resilience, 58,143 and manage their visibility in the community. 162 These types of non-metropolitan teaching specific skills are not currently focused on in teacher education. 42,81,164

The majority of teacher education programs do not include a focus on non-metropolitan teaching preparation, or options for practicums in non-metropolitan locations. 42,147 In a recent study of teacher education courses, it was noted that no teacher education course has a compulsory unit dedicated to non-metropolitan practice. This is undoubtedly related to the need for teacher education course units to be related to the teacher education graduate standards and the lack of mention of non-metropolitan practice in these standards. Instead, in teacher education courses non-metropolitan teaching is often conflated with diversity and disadvantage, and remote teaching is often conflated with Indigenous teaching, reinforcing stereotypes of disadvantage in these communities.

Regardless of the lack of focus in teacher education, there are some models to support pre-service teachers (and practicing teachers) to understand rurality and teaching in

non-metropolitan locations. These include:

- The rural social space model that describes rurality as multifaceted and complex that are influenced by factors such as economy, demography, geography and how they come together to create the context of a community a particular time.<sup>122</sup>
- The RRRTEC conceptual framework focuses on preparing teachers to understand the school, classroom and community factors in non-metropolitan locations.
- Drawing on third or hybrid spaces to prevent thinking in terms of rural/urban binaries by bringing together the non-metropolitan social space model, funds of knowledge, and place consciousness.<sup>159</sup>
- A pedagogy of the rural which aims to draw attention to what the non-metropolitan can bring to education by considering the interrelated factors of place, space and identity to understand influences at a meso and macro level.<sup>152,153</sup>
- A teacher place assemblage that focuses on the influence of place and communities and how these will affect the students' education.<sup>111</sup>

These models all relate to understanding place, community, rurality and the unique features of non-metropolitan schools and teaching. They are also linked to ideas and models of socio-spatial awareness, place-consciousness, a place-based approach and situated practice. Models such as these highlight that teacher education needs to take an approach that acknowledges and responds to the impact of context.<sup>43</sup>

Resources have been developed by research teams and university educators to support the development of preservice teachers' understandings of non-metropolitan teaching. The RRRTEC<sup>162</sup> team developed resources and modules of work for universities to prepare pre-service teachers for teaching in non-metropolitan locations. These

resources are based on supporting pre-service teachers to come to know the school, classroom and community they serve. <sup>162</sup> These resources have been further developed by other universities that aim to produce quality graduates to teach in non-metropolitan schools. <sup>92,146,148</sup> These link to the professional standards for teachers and draw on a model used for the preparation of health professionals for non-metropolitan practice. <sup>146</sup> These resources aim to attract pre-service teachers from non-metropolitan areas into teaching, prepare teachers for teaching in non-metropolitan areas, and create collaborative relationships between universities, the community and industry partners through this program. <sup>146,162</sup> More resources such as these need to be developed to assist teachers working in non-metropolitan areas. <sup>92</sup>

#### **Contextually relevant leadership**

School leaders, both those in informal and formal positions, have a key role in attracting and retaining staff. 12,98 Of particular importance is their recognition of difference despite policy, place, community, the influence of spatiality and contextual

#### **Policy**

Centralised, standardised policy is an influential factor in the staffing of non-metropolitan schools because it is designed from a perspective that does not consider the needs of non-metropolitan communities.<sup>102</sup>

Adopting a 'rural lens' for staffing policy, by beginning with local communities' staffing needs, is one possible way to overcome this issue. 10,155 This may include considering targeted support for the different needs of potential staff, such as those moving to non-metropolitan communities later in life, and focusing on the individual community needs then matching this with current staff experience. 10

# A model for change

"To achieve long-term change a divergence from previous research approaches is needed. Future studies need to focus on using new methods, involve collaboration with all stakeholders, and longer-term research programs that value the distinct nature of the non-metropolitan profession."

## A model for change

Throughout this monograph we have highlighted the approaches to research and research findings over the past twenty years in Australia. With the short-term nature of these studies and the focus on qualitative research methods involving a small number of participants in individual institutions, many of these studies could be considered program evaluations rather than research studies. While these studies are important, there is a distinct absence of theoretical advances and studies that achieve long-term change in the staffing of non-metropolitan schools.

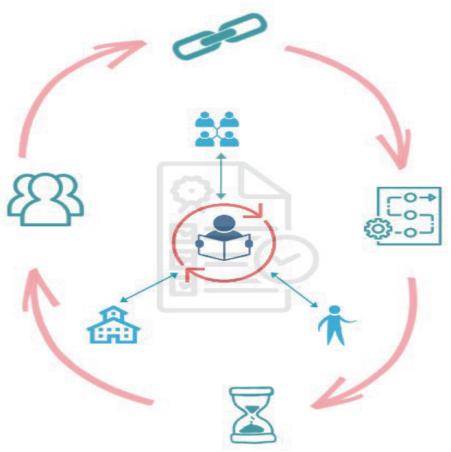


Figure 2. A student-centred approach to researching the staffing of non-metropolitan schools incorporating all stakeholders, new methods, and sustainable efforts.

To achieve long-term change a divergence from previous approaches is needed. A model of research that ensures the involvement of *all* stakeholders, using new methods, collaboration, and sustained efforts which value the distinct nature of the non-metropolitan profession needs to be considered. Broader education and social theory need to be a key part of this new direction.

Future studies need to have the interests of the students and their communities at the centre, with policy contexts adaptive to these needs. Developing these approaches is part of the ongoing work of the Rural Education and Communities research group in the Centre for Sustainable Communities.

## References

- 1. Adie L, Barton G. Urban pre-service teachers' conceptions of teaching in rural communities. Australian Journal of Teacher Education. 2012;37(6):111-23.
- 2. Anderson M, White S. Resourcing change in small schools. Australian Journal of Education. 2011;55(1):50-61.
- 3. Auld G, Dyer J, Charles C. Dangerous Practices: The Practicum Experiences of Non-Indigenous Pre-Service Teachers in Remote Communities. Australian Journal of Teacher Education. 2016;41(6):165-79.
- 4. Australian Bureau of Statistics [ABS]. Australian Statistical Geography Standard (ASGS): Volume 1. [internet]. 2011. [cited 2021 February 10]. Available from: https://www.abs.gov.au/AUSSTATS/abs@.nsf/DetailsPage/1270.0.55.001July%202011
- 5. Australian Curriculum Assessment and Reporting Authority (ACARA). My School. 2021.[cited 2021 February 10]. Available from: https://acara.edu.au/reporting/my-school-website
- 6. Baills L, Bell S, Greensill B, Wilcox L. Bridging the gap between beginning teachers and isolated/rural communities. Education in Rural Australia. 2002;12(1):55-62.
- 7. Barnes N, Van Gelderen B, Rampmeyer K. It's just a matter of time: The perceptions of growing our own students of the Growing Our Own program. Learning Communities. 2019:20-35.
- 8. Beutel D, Adie L, Hudson S. Promoting rural and remote teacher education in Australia through the Over the Hill project. International Journal of Learning. 2011;18(2):377-88.
- Boylan C. Rural teacher education: A literature review. In: Green, B, editor. Spaces & Places: The NSW Rural [Teacher] Education Project. Wagga Wagga: Centre for Information Studies, Charles Sturt University; 2008. p. 27-60.
- 10. Boylan C. Staffing rural schools: A new perspective. In: Luck GW, Black R, Race D, editors. Demographic change in Australia's rural landscapes. Dordrecht: Springer; 2010. p. 329-351.
- 11. Brasche I, Harrington I. Promoting teacher quality and continuity: Tackling the disadvantages of remote Indigenous schools in the Northern Territory. Australian Journal of Education. 2012;56(2):110-25.
- 12. Broadley T. Digital revolution or digital divide: Will rural teachers get a piece of the professional development pie?. Education in Rural Australia. 2010;20(2):63-76.
- 13. Campbell AM, Yates GC. Want to be a country teacher? No, I am too metrocentric. Journal of Research in Rural Education. 2011;26(4):1.
- 14. Carter B. Facilitating preservice teacher induction through learning in partnership. Australian Journal of Teacher Education. 2012;37(2):7.
- 15. Clarke S. The teaching principal: From the shadowlands to a place in the sun. Queensland Journal of Educational Research. 2002;18(1):23-37.
- 16. Clarke S, Stevens E. Sustainable leadership in small rural schools: Selected Australian vignettes. Journal of Educational Change. 2009;10(4):277-93.
- 17. Clarke S, Stevens E. Spatial engagement: The navigation of a novice teaching principal in a small rural community. Studies in Learning, Evaluation, Innovation and Development. 2006;3(1):12-26.

- 18. Clarke S, Stevens E, Wildy H. Rural rides in Queensland: Travels with novice teaching principals. International Journal of Leadership in Education. 2006;9(1):75-88.
- 19. Clarke S, Wildy H. Context counts: Viewing small school leadership from the inside out. Journal of Educational Administration. 2004;42(5):555-572.
- 20. Cooper MG, Williams J, Awidi I. Professional distance-mentoring of beginning design and technology home economics teachers. Australian and International Journal of Rural Education. 2014;24(2):45-58.
- 21. Cornish L, Jenkins K. Teaching Principals: The 'I's Have It!. In: Graham L, Miller J, editors. Bush Tracks: The Opportunities and Challenges of Rural Teaching and Leadership. The Netherlands, Sense Publishers; 2015. p. 135-156.
- 22. Crosswell L, Willis J, Morrison C, Gibson A, Ryan M. Early career teachers in rural schools: Plotlines of resilience. In: Wosnitza M, Peixoto F, Beltman S, Mansfield C, editors. Resilience in Education. Cham, Springer; 2018. p. 131-146.
- 23. Cuervo H. Enlarging the social justice agenda in education: an analysis of rural teachers' narratives beyond the distributive dimension. Asia-Pacific Journal of Teacher Education. 2012;40(2):83-95.
- 24. Cuervo H, Acquaro D. Exploring metropolitan university pre-service teacher motivations and barriers to teaching in rural schools. Asia-Pacific Journal of Teacher Education. 2018;46(4):384-98.
- 25. Davie S, Berlach RG. Using wikis to facilitate communication for rural, remote, and at-risk practicum students. MRLOT Journal of Online Learning and Teaching. 2010; 6(1): 78-88.
- 26. Dorman J, Kennedy J, Young J. The development, validation and use of the Rural and Remote Teaching, Working, Living and Learning Environment Survey (RRTWLLES). Learning Environments Research. 2015;18(1):15-32.
- 27. Down, B, Wooltorton S. Beginning teaching in rural-remote schools: implications for critical teacher development. Transformations in Education. 2004;7(1):31-46.
- 28. Downes N, Roberts P. Revisiting the schoolhouse: A literature review on staffing rural, remote and isolated schools in Australia 2004-2016. Australian and International Journal of Rural Education. 2018;28(1):31-54.
- 29. Drummond A, Halsey R. Rural leadership preparation associated with higher job satisfaction. Australian and International Journal of Rural Education. 2014;24(3):43-8.
- 30. Drummond A, Halsey RJ. How hard can it be? The relative job demands of rural, regional and remote Australian educational leaders. Australian Journal of Education. 2013;57(1):19-31.
- 31. Durksen TL, Klassen RM. The development of a situational judgement test of personal attributes for quality teaching in rural and remote Australia. The Australian Educational Researcher. 2018;45(2):255-76.
- 32. Eacott S. High-Impact School Leadership in Context. Leading & Managing. 2019;25(2):66-79.
- 33. Ewington J, Mulford B, Kendall D, Edmunds B, Kendall L, Silins H. Successful school principalship in small schools. Journal of Educational Administration. 2008;46(5):545-561.
- 34. Falconer KB, Lignugaris/Kraft B. A qualitative analysis of the benefits and limitations of using two-way conferencing technology to supervise preservice teachers in remote locations. Teacher Education and Special Education. 2002;25(4):368-84.

- 35. Frid S, Smith M, Sparrow L, Trinidad S. An exploration of issues in the attraction and retention of teachers to non-metropolitan schools in Western Australia. Education in Rural Australia. 2008;18(1):43-56.
- 36. Gilbert CC, Skinner J, Dempster N. Expectations of successful female small school principals. Leading and Managing. 2008;14(1):72-91.
- 37. Graham, L., & Miller, J. (2015). A model for collaborative research. In: Graham L, Miller J, editors. Bush Tracks: The Opportunities and Challenges of Rural Teaching and Leadership. The Netherlands, Sense Publishers; 2015. p. 1-10.
- 38. Graham, L., Miller, J., & Paterson, D. (2015). Accelerated leadership in rural schools In: Graham L, Miller J, editors. Bush Tracks: The Opportunities and Challenges of Rural Teaching and Leadership. The Netherlands, Sense Publishers; 2015. p. 91-104.
- 39. Graham L, Miller J, Paterson D. Early Career Leadership Opportunities in Australian Rural Schools. Education in Rural Australia. 2009;19(3):25-34.
- 40. Green B. The NSW Rural (Teacher) Education Project: Introduction and overview. In: Green B, editor. Spaces & Places: The NSW Rural [Teacher] Education Project. Wagga Wagga: Centre for Information Studies, Charles Sturt University; 2008. p. 1-26.
- 41. Green B, Novak M. Staffing and the Provision of Quality Teaching in Inland Rural NSW. In: Green B, editor. Spaces & Places: The NSW Rural [Teacher] Education Project. Wagga Wagga: Centre for Information Studies, Charles Sturt University; 2008. p. 61-120.
- 42. Green B, Reid JA. Teacher education for rural–regional sustainability: changing agendas, challenging futures, chasing chimeras?. Asia Pacific Journal of Teacher Education. 2004;32(3):255-73.
- 43. Green MM. Preparing Pre-Service Teachers for Professional Engagement through Place/Community Pedagogies and Partnerships. Australian Journal of Teacher Education. 2016;41(11):44-60.
- 44. Green NC, Nolan A. Preparing the Australian early childhood workforce for rural and remote settings: A review of the literature. Australian Journal of Teacher Education. 2011;36(12):83-96.
- 45. Green NC, Noone G, Nolan A. Contemporary paradigms of rural teaching: The significance of place. Australian and International Journal of Rural Education. 2013;23(1):91-115.
- 46. Gregory S. Authentic and engaging virtual practice teaching for rural and remote pre-service teachers. Australian & International Journal of Rural Education. 2014;24(3):15-27.
- 47. Hall L. The 'come and go'syndrome of teachers in remote Indigenous schools: Listening to the perspective of Indigenous teachers about what helps teachers to stay and what makes them go. The Australian Journal of Indigenous Education. 2012;41(2):187-95.
- 48. Halsey J. Independent Review into Regional Rural and Remote Education—Final Report; 2018. Available from: https://www.dese.gov.au/uncategorised/resources/independent-review-regional-rural-and-remote-education-final-report
- 49. Halsey J. Re-framing the formation of rural educational leaders. In: Askell-Williams H, editor. Transforming the future of learning with educational research. Hershey PA, USA: IGI Global; 2015. p. 182-200.
- 50. Halsey R. Space, spatiality and educational leadership formation for rural contexts. Leading and Managing. 2013;19(2):78-87.

- 51. Halsey J. Towards a spatial self-help map for teaching and living in a rural context. International Education Journal. 2006;7(4): 490-498.
- 52. Halsey J. Pre-service country teaching in Australia what's happening what needs to happen? A report on the size, scope and issues of pre-service country teaching placement programs in teacher education in Australia. Rural Education Forum of Australia; 2005.
- 53. Halsey R, Drummond A. Reasons and motivations of school leaders who apply for rural, regional and remote locations in Australia. Australian and International Journal of Rural Education. 2014;24(1):69-77.
- 54. Handal B, Watson K, Petocz P, Maher M. Choosing to teach in rural and remote schools: The zone of free movement. Education Research and Perspectives. 2018;45:1-32.
- 55. Handal B, Watson K, Petocz P, Maher M. Retaining mathematics and science teachers in rural and remote schools. Australian and international journal of rural education. 2013;23(3):13-27.
- 56. Hardwick-Franco KG. Educational leadership is different in the country; What support does the rural school principal need?. International Journal of Leadership in Education. 2019;22(3):301-14.
- 57. Hardwick-Franco K. Preferencing Principals' Views to Inform Educational Reform in Rural Contexts: A Study in Discourse Analysis. Leading & Managing. 2019;25(2).14-32.
- 58. Hardy J. Affectual Language in Teachers' Talk. In: Graham L, Miller J, editors. Bush Tracks: The Opportunities and Challenges of Rural Teaching and Leadership. The Netherlands, Sense Publishers; 2015. p. 79-90.
- 59. Harrington I. "When the Wattle Comes Out, the Turtles are Ready": Success of the Enhanced Teacher Training Program. Australian Journal of Teacher Education. 2013;38(5):80-88.
- 60. Harrington I, Brasche I. Success stories from an Indigenous immersion primary teaching experience in New South Wales schools. The Australian Journal of Indigenous Education. 2011;40:23-9.
- 61. Haynes J, Miller J. Transitioning from university to teaching in schools located in rural and remote settings. Australian and International Journal of Rural Education. 2016;26(2):34-48.
- 62. Hazel S, McCallum F. The experience is in the journey: An appreciative case study investigating early career teachers' employment in rural schools. Australian and International Journal of Rural Education. 2016;26(2):19-33.
- 63. Heffernan A, Fogarty R, Sharplin E. G'aim'ing to be a rural teacher?: Improving pre-service teachers' learning experiences in an online rural and remote teacher preparation course. Australian and International Journal of Rural Education. 2016;26(2):49-62.
- 64. Heffernan A, Longmuir F. 'A School Full of Instructional Experts': Shared Instructional Leadership in Rural Schools. Leading & Managing. 2019;25(2):1-13.
- 65. Hemmings B, Kay R, Kerr R. The influence of social contingencies on teacher education students undertaking a rural internship. Education in Rural Australia. 2011;21(1):95-109.
- 66. Hope-Rowe G. Getting Better Teachers in the Bush. In: Schulte A, Walker-Gibbs B, editors. Self-studies in rural teacher education. Cham: Springer; 2016. p. 73-98.
- 67. Hudson S, Hudson P. 'Please help me find teachers for my rural and remote school': A model for teaching readiness. Australian and International Journal of Rural Education. 2019;29(3):24-38.

- 68. Hudson P, Hudson S. Changing preservice teachers' attitudes for teaching in rural schools. Australian Journal of Teacher Education. 2008;33(4):67-77.
- 69. Jarzabkowski L. Teacher collegiality in a remote Australian school. Journal of Research in Rural Education. 2003;18(3):139-44.
- 70. Jarzabkowski L. Teacher collegiality in a remote Australian school. Journal of Research in Rural Education. 2003;18(3):139-44.
- 71. Jenkins K, Reitano P. Teaching Principals' Stories. In: Graham L, Miller J, editors. Bush Tracks: The Opportunities and Challenges of Rural Teaching and Leadership. The Netherlands, Sense Publishers; 2015. p. 119-134.
- 72. Jenkins K, Reitano P, Taylor N. Teachers in the bush: Supports, challenges and professional learning. Education in Rural Australia. 2011;21(2):71-85.
- 73. Jenkins K, Taylor N, Reitano P. Listening to teachers in the 'bush' In: Graham L, Miller J, editors. Bush Tracks: The Opportunities and Challenges of Rural Teaching and Leadership. The Netherlands, Sense Publishers; 2015. p. 41-55.
- 74. Jones M, Ryan J. Learning in the practicum: Engaging pre-service teachers in reflective practice in the online space. Asia-Pacific Journal of Teacher Education. 2014;42(2):132-46.
- 75. Jorgensen R, Grootenboer P, Niesche R, Lerman S. Challenges for teacher education: The mismatch between beliefs and practice in remote Indigenous contexts. Asia-Pacific Journal of Teacher Education. 2010;38(2):161-75.
- 76. Kelly M, Clarke S, Wildy H. School Principals' Interactions with Remote, Indigenous Communities: A Trajectory of Encounters. Leading & Managing. 2019;25(2):33-50.
- 77. Kelly N, Fogarty R. An integrated approach to attracting and retaining teachers in rural and remote parts of Australia. Journal of Economic & Social Policy. 2015;17(2):1-9.
- 78. Kelly N, Reushle S, Chakrabarty S, Kinnane A. Beginning teacher support in Australia: Towards an online community to augment current support. Australian Journal of Teacher Education. 2014;39(4):68-82.
- 79. Kenny M, Harreveld RB, Danaher PA. Dry stone walls, black stumps and the mobilisation of professional Learning: Rural places and spaces and teachers' self-study strategies in Ireland and Australia. In: In: Schulte A, Walker-Gibbs B, editors. Self-studies in rural teacher education. Cham: Springer; 2016. p. 179-202.
- 80. Kline J, Soejatminah S. "Becoming" Teacher Education Researchers in Diverse Rural Communities In: In: Schulte A, Walker-Gibbs B, editors. Self-studies in rural teacher education. Cham: Springer; 2016. p. 157-178.
- 81. Kline J, Walker-Gibbs B. Graduate teacher preparation for rural schools in Victoria and Queensland. Australian Journal of Teacher Education. 2015;40(3):5.
- 82. Kline J, White S, Lock G. The rural practicum: Preparing a quality teacher workforce for rural and regional Australia. Journal of Research in Rural Education. 2013;28(3):1-3.
- 83. Lassig C, Doherty CA, Moore K. The private problem with public service: rural teachers in educational markets. Journal of Educational Administration and History. 2015;47(2):117-39.
- 84. Lavery S, Cain G, Hampton P. A Service-Learning Immersion in a Remote Aboriginal Community: Enhancing Pre-Service Teacher Education. International Journal of Whole Schooling. 2014;10(2):1-6.

- 85. Lester NC. Relationship building: Understanding the extent and value. Education in Rural Australia. 2011;21(1):79-93.
- 86. Lester NC. Primary leadership in small rural school communities. Leading and Managing. 2003;9(1):85-99.
- 87. Lierich D, O'Connor C. The effect of fixed-term contracts on rural secondary teachers. International Employment Relations Review. 2009;15(2):58-82.
- 88. Lock G. Preparing Teachers for Rural Appointments. The Rural Educator. 2008;29(2).
- 89. Lock G, Budgen F, Lunay R, Oakley G. The loneliness of the long-distance principal: Tales from remote Western Australia. Australian and International Journal of Rural Education. 2012;22(2):65-77.
- 90. Lock G, Budgen F, Lunay R, Oakley G. Welcome to the outback: The paradoxes of living and teaching in remote Western Australian schools. 2012;22(3):117-134.
- 91. Lock G, Reid JA, Green B, Hastings W, Cooper M, White S. Researching rural-regional (teacher) education in Australia. Education in Rural Australia. 2009;19(2):31-44.
- 92. Lynch TJ. A resource package training framework for producing quality graduates to work in rural, regional and remote Australia: a global perspective. 2014;2(2):1-14.
- 93. Maher M. Making inclusive education happen: The impact of initial teacher education in remote Aboriginal communities. International Journal of Inclusive Education. 2013;17(8):839-53.
- 94. Maher M. Culturally responsive learning assessment and evaluation strategies for Indigenous teacher education students in remote communities of the Northern Territory of Australia. Studies in Learning Evaluation Innovation and Development. 2010;2(7):42-54.
- 95. Maxwell TW, Reid JA, McLoughlin C, Clarhe C, Nicholls R. Online support for action research in a teacher education internship in rural Australia. Education in Rural Australia. 2002;12(1):23-33.
- 96. McConaghy C. Schooling out of place. Discourse: studies in the cultural politics of education. 2006;27(3):325-39
- 97. McConaghy C. Transience and teaching: Place and the new psychoanalytic sociologies of teaching. Education in Rural Australia. 2006;16(2):47-57.
- 98. McConaghy C. Situating Pedagogies: Rural Pedagogy as Social Action. In: Green, B, editor. Spaces & Places: The NSW Rural [Teacher] Education Project. Wagga Wagga: Centre for Information Studies, Charles Sturt University; 2008. p. 299-338.
- 99. McConaghy C, Bloomfield D. Beyond the line/beyond the self: Flirting with rural teaching. JCT. 2004;20(3):93-112.
- 100.McConaghy C, Graham L, Bloomfield D, Miller J, Paterson D, Lloyd L, Noone G. Bush tracks: Exploring rural teaching transitions. Education in Rural Australia. 2006;16(2):3-11.
- 101.McKenna T, Cacciattolo M, Mahon L. Indigenous Literacies: White Fella Engagements'. The International Journal of Learning. 2011;18(1):631-44.
- 102.Miller J, Graham G. Taking the Bush Track Home. In: Graham L, Miller J, editors. Bush Tracks: The Opportunities and Challenges of Rural Teaching and Leadership. The Netherlands, Sense Publishers; 2015. p. 157-163.

- 103.Miller J, Graham L, Al-Awiwe A. A. Late-career women leaders in rural schools. In: Graham L, Miller J, editors. Bush Tracks: The Opportunities and Challenges of Rural Teaching and Leadership. The Netherlands, Sense Publishers; 2015. p.105-118.
- 104.Miller J, Graham L, Al-Awiwe A. Fast track, bush track: Late career female rural school leaders taking the slow road. Australian and International Journal of Rural Education. 2014;24(1):91-102.
- 105.Miller J, Graham L, Paterson D. Bush tracks: Viewing teachers' experiences of leadership in rural schools through a contextual lens. Education in Rural Australia. 2006;16(2):31-45.
- 106.Mills C, Gale T. Transient teachers: Mixed messages of schooling in regional Australia. Journal of Research in Rural Education. 2003;18(3):145-51.
- 107.Mitchell R, Wynhoff Olsen A, Hampton P, Hicks J, Long D, Olsen K. Rural Exposures: An Examination of Three Initiatives to Introduce and Immerse Preservice Teachers into Rural Communities and Rural Schools in the US and Australia. Rural Educator. 2019;40(2):12-22.
- 108.Mockler N. Beyond 'what works': Understanding teacher identity as a practical and political tool. Teachers and Teaching. 2011;17(5):517-28.
- 109.Morrison CM. Slipping through the Cracks: One Early Career Teacher's Experiences of Rural Teaching and the Subsequent Impact on her Personal and Professional Identities. Australian Journal of Teacher Education. 2013;38(6):116-135.
- 110. Motley E, Rossi T, King S. An investigation of early career teachers' perceptions of professional development opportunities and career advancement for teachers in rural and remote Queensland. Education in Rural Australia. 2005;15(1):54-64.
- 111. Noone G. Imagining a teacher-place assemblage. In: Graham L, Miller J, editors. Bush Tracks: The Opportunities and Challenges of Rural Teaching and Leadership. The Netherlands, Sense Publishers; 2015. p. 57-77.
- 112. Novak M, Green B, Gottschall K. Situated Leadership and Rural Schooling: Leading Learning Locally? In: Green, B, editor. Spaces & Places: The NSW Rural [Teacher] Education Project. Wagga Wagga: Centre for Information Studies, Charles Sturt University; 2008. p. 339-364.
- 113. Nye A. Connections of place and generation: Women teachers in rural schools in NSW. Australian and International Journal of Rural Education. 2014;24(3):69-81.
- 114. Ovenden-Hope Tanya, Passy R. Education Isolation: A challenge for schools in England; 2019. Available from: https://www.plymouth.ac.uk/uploads/production/document/path/13/13574/Education\_Isolation\_Report.pdf
- 115. Page J. Teaching in Rural and Remote Schools: Pedagogies of Place and Their Implications for Pre-Service Teacher Preparation. Education in Rural Australia. 2006;16(1).
- 116. Panizzon D. Teaching secondary science in rural and remote schools: Exploring the critical role of a professional learning community. In: Corrigan D, Dillon J, Gunstone R, editors. The professional knowledge base of science teaching. Dordrecht, Springer; 2011. p. 173-187.
- 117. Pegg J, Lyons, T, Panizzon, D, Parnell, A, Brown, T, Reading C, Graham, L. Issues in Teaching and Learning Science, ICT, and Mathematics in Rural and Regional Australia: A National Survey [internet]. SiMERR National Research Centre; 2005 [cited 2021 February 12]. Available from: https://simerr.une.edu.au/National-Survey/

- 118. Price A, Jackson-Barrett E. Developing an Early Childhood Teacher Workforce Development Strategy for Rural and Remote Communities. Australian Journal of Teacher Education. 2009;34(6):41-51.
- 119. Plunkett M, Dyson M. Becoming a teacher and staying one: Examining the complex ecologies associated with educating and retaining new teachers in rural Australia?. Australian Journal of Teacher Education. 2011;36(1):32-47.
- 120.Redmond P. Discipline specific online mentoring for secondary pre-service teachers. Computers & Education. 2015;90:95-104.
- 121.Redmond P. Online mentoring for secondary pre-service teachers in regional, rural or remote locations. In: Liu L, Gibson DC, editors. Research highlights in technology and teacher education. Waynesville, NC, United States. Association for the Advancement of Computing in Education (AACE); 2015. p. 145-151.
- 122.Redmond P. Discipline specific online mentoring for secondary pre-service teachers. Computers & Education. 2015;90:95-104.
- 123.Reid J, White S, Green B, Lock G, Cooper M, Hastings, W. TERRAnova: renewing Teacher Education for Rural and Regional Australia Volume 1: Project Report; 2012. Available from: https://researchoutput.csu.edu.au/en/publications/terranova-renewing-teacher-education-for-rural-and-regional-austr-2
- 124.Richards S. Coast to Country: An initiative aimed at changing pre-service teachers? perceptions of teaching in rural and remote locations. Australian and International Journal of Rural Education. 2012;22(2):53-63.
- 125. Roberts P. The role of an authentic curriculum and pedagogy for rural schools and the professional satisfaction of rural teachers. Australian and International Journal of Rural Education. 2013;23(2):89-99.
- 126.Roberts P. Staffing an Empty Schoolhouse: Attracting and Retaining Teachers in Rural, Remote and Isolated Communities. Eric Pearson Study Grant Report. NSW Teachers Federation; 2004. Available from: https://www.nswtf.org.au/files/staffing\_an\_empty\_schoolhouse\_roberts\_2004\_1.pdf
- 127.Roberts P, Downes N. The rural difference trope: Leader perceptions on rural, regional and remote schooling difference. Leading & Managing. 2019;25(2):51-65.
- 128.Roberts P, Downes, N. Incentivising the Profession: A national mapping of incentives to attract and retain staff in Australian non-metropolitan communities. Australia: Rural Education and Communities research group, University of Canberra. Centre for Sustainable Communities Monograph Series No.2; 2020 https://researchprofiles.canberra.edu.au/en/publications/incentivising-the-profession-a-national-mapping-of-incentives-to-
- 129.Romeo G, Gronn D, McNamara S, Teo YH. Windows into Classrooms: Using ICT to Facilitate Regional, Rural and Remote Practicum and Teacher Professional Learning. Australian Educational Computing. 2012;27(2):46-50.
- 130.Ryan J, Jones M, Walta C. Creating a sustainable and supportive teaching practicum in rural and regional locations. Australian and International Journal of Rural Education. 2012;22(1):57-72.
- 131.Sharplin ED. Reconceptualising out-of-field teaching: Experiences of rural teachers in Western Australia. Educational Research. 2014;56(1):97-110.

- 132. Sharplin E. A taste of country: A pre-service teacher rural field trip. Education in Rural Australia. 2010;20(1):17-27.
- 133. Sharplin E. Bringing them in: The experiences of imported and overseas-qualified teachers. Australian Journal of Education. 2009;53(2):192-206.
- 134. Sharplin E. Rural retreat or outback hell: expectations of rural and remote teaching. Issues in Educational Research. 2002;12(1):49-63.
- 135. Sharplin E, O'Neill M, Chapman A. Coping strategies for adaptation to new teacher appointments: Intervention for retention. Teaching and Teacher Education. 2011;27(1):136-46.
- 136. Sheridan LD. " A Passion and Enthusiasm to Bring out the Best in All": Regional Candidate Teacher Motivations.2019;44(12):81-101.
- 137. Simpson T, Hastings W, Hill B. 'I knew that she was watching me': the professional benefits of mentoring. Teachers and Teaching: theory and practice. 2007;13(5):481-98.
- 138. Somerville M, Plunkett M, Dyson M. New teachers learning in rural and regional Australia. Asia-Pacific Journal of Teacher Education. 2010;38(1):39-55.
- 139. Somerville M, Rennie J. Mobilising community? Place, identity formation and new teachers' learning. Discourse: studies in the cultural politics of education. 2012;33(2):193-206.
- 140. Stack S, Beswick K, Brown N, Bound H, Kenny J, Abbott-Chapman J. Putting partnership at the centre of teachers' professional learning in rural and regional contexts: evidence from case study projects in Tasmania. Australian Journal of Teacher Education. 2011;36(12):1-20.
- 141.Starr K. Small rural school leadership: Creating opportunity through collaboration. In: Clarke S, O'Donoghue T, editors. School leadership in diverse contexts. Abingdon, Routledge; 2016:p.43-56.
- 142.Starr K, White S. The small rural school principalship: Key challenges and cross-school responses. Journal of Research in Rural Education. 2008;23(5):1-12.
- 143. Sullivan A, Johnson B. Questionable practices?: Relying on individual teacher resilience in remote schools. Australian and International Journal of Rural Education. 2012;22(3):101-16.
- 144. Trimingham JC, Hitchon H. Giving all/reaping rewards: an account of a new graduate teaching in remote Indigenous community schools. Education in Rural Australia. 2004;14(1):32-50.
- 145. Trinidad S, Broadley T, Terry E, Boyd D, Lock G, Byrne M, Sharplin E, Ledger S. Going bush: Preparing preservice teachers to teach in regional Western Australia. Australian and International Journal of Rural Education. 2012;22(1):39-55.
- 146. Trinidad S, Broadley T, Terry E, Boyd D, Lock G, Sharplin E, Ledger S. Regional resilience: Pre-service teacher preparation to teach in the bush. Australian and International Journal of Rural Education. 2013;23(2):43-52.
- 147.Trinidad S, Sharplin E, Ledger S, Broadley T. Connecting for innovation: Four universities collaboratively preparing pre-service teachers to teach in rural and remote Western Australia. Journal of Research in Rural Education. 2014;29(2):1-3.
- 148.Trinidad S, Sharplin E, Lock G, Ledger S, Boyd D, Terry E. Developing strategies at the pre-service level to address critical teacher attraction and retention issues in Australian rural, regional and remote schools. Education in Rural Australia. 2011;21(1):111-20.

- 149. Van Gelderen B. Growing our own: A'two way', place-based approach to Indigenous initial teacher education in remote Northern Territory. Australian and International Journal of Rural Education. 2017;27(1):14-28.
- 150. Van Rensburg H, Noble K, McIlveen P. Influencing pre-service teachers' intentions to teach in rural locations. Australian and International Journal of Rural Education. 2015;25(1):15-24.
- 151. Walker-Gibbs B. Notions of place, space and identity in rural teacher education. In: Schulte A, Walker-Gibbs B, editors. Self-studies in rural teacher education. Cham: Springer; 2016. p. 55-71.
- 152. Walker-Gibbs B, Ludecke M, Kline J. Pedagogy of the rural as a lens for understanding beginning teachers' identity and positionings in rural schools. Pedagogy, Culture & Society. 2018;26(2):301-14.
- 153. Walker-Gibbs B, Ludecke M, Kline J. Pedagogy of the rural: Implications of size on conceptualisations of rural. International Journal of Pedagogies and Learning. 2015;10(1):81-9.
- 154. Walker-Gibbs B, Schulte A. Introduction. In: Schulte A, Walker-Gibbs B, editors. Self-studies in rural teacher education. Cham: Springer; 2016. p. 1-16.
- 155. Wallace A, Boylan C. Reviewing the 'rural lens' in education policy and practice. Education in Rural Australia. 2009;19(2):23-30.
- 156.Wallace A, Boylan C, Mitchell R, Streckfus A. Conceptualising School-Community Relationships in Inland Rural NSW. In: Green, B, editor. Spaces & Places: The NSW Rural [Teacher] Education Project. Wagga Wagga: Centre for Information Studies, Charles Sturt University; 2008. p. 263-298.
- 157. White S, Recruiting, retaining and supporting early career teachers for rural schools. In: Sullivan A, Johnson B, Simons M, editors. Attracting and Keeping the Best Teachers. Professional Learning and Development in Schools and Higher Education, vol 16. Singapore, Springer; 2019. p. 143-159
- 158. White S. A road less travelled: Becoming a rural teacher educator, In: Schulte A, Walker-Gibbs B, editors. Self-studies in rural teacher education. Cham: Springer; 2016. p. 37-54.
- 159. White S. Extending the knowledge base for (rural) teacher educators. Australian and International Journal of Rural Education. 2015;25(3):50-61.
- 160. White S, Corbett M, editors. Doing educational research in rural settings: Methodological issues, international perspectives and practical solutions. New York: Routledge; 2014.
- 161. White S, Lock G, Hastings W, Cooper M, Reid JA, Green B. Investing in sustainable and resilient rural social space: Lessons for teacher education. Education in Rural Australia. 2011;21(1):67-78.
- 162. White S, Kline J. Developing a rural teacher education curriculum package. The Rural Educator. 2012;33(2):36-42.
- 163.White S, Kline J, Renewing rural and regional teacher education curriculum: final report; 2012. Available from: http://www.rrrtec.net.au/PDFs/PP9-1320%20Deakin%20White%20Final%20Report%202012%5b1%5d.pdf
- 164. White S. Placing teachers? Sustaining rural schooling through place-consciousness in teacher education. Journal of Research in Rural Education. 2008;23(7):1-11.
- 165. Wildy H, Clarke S. Leading a small remote school: In the face of a culture of acceptance. Education 3-13. 2012;40(1):63-74.

- 166. Wildy H, Clarke S. Tales from the outback: Leading in isolated circumstances. International Studies in Educational Administration. 2009;37(1):29-42.
- 167.Wildy H, Clarke S. Principals on L plates: rear view mirror reflections. Journal of Educational Administration. 2008;46(6):727-738
- 168.Wildy H, Clarke S. Leading the small rural school: the case of the novice principal. Leading and Managing. 2005;11(1):43-56.
- 169. Wildy H, Clarke S, Styles I, Beycioglu K. Preparing novice principals in Australia and Turkey: How similar are their needs?. Educational Assessment, Evaluation and Accountability. 2010;22(4):307-26.
- 170. Wildy H, Siguräardóttir SM, Faulkner R. Leading the small rural school in Iceland and Australia: Building leadership capacity. Educational Management Administration & Leadership. 2014;42(4supp):104-18.
- 171. Willis J, Crosswell L, Morrison C, Gibson A, Ryan M. Looking for leadership: The potential of dialogic reflexivity with rural early-career teachers. Teachers and Teaching. 2017;23(7):794-809.
- 172. York FA, Henderson L. Making it possible: The evolution of RATEP—a community-based teacher education program for Indigenous peoples. The Australian Journal of Indigenous Education. 2003;32:77-84.
- 173. Young KD, Grainger P, James D. Attracting preservice teachers to remote locations. Australian Journal of Teacher Education. 2018;43(2):9.