Turning points in narratives of research design: Research innovation stimulating unique responses to existing challenges for beginning rural teachers

Chad Mathew Morrison¹, Jill Willis², Leanne Crosswell³ & Andrew Gibson⁴

Abstract

This paper explores methodological turning points in researching narratives of early career resilience mediated by the complexities of remote teaching. Innovative, flexible and discursive research design facilitated exploration of emerging narratives using digital technologies. Data were regularly interrogated with participant-researchers to reveal the undercurrents of imbued meaning. Dialogue with participant-researchers enhanced interpretations of data plots and text-based explanations of narrative turning points, providing valuable insights throughout analysis. Reflections on the affordances and tensions in this process illustrate the significance of innovation but also the complexities associated with online collaboration. Consequently, empowering the participant-researchers throughout the life of the research was critical in understanding their narratives of teaching.

Key words: teacher resilience, teacher identity, qualitative research, rural education

Introduction

There is a need to strengthen and sustain Australia's rural and remote communities and producing teaching graduates who can contribute productively to these communities is a priority (Department of Education Employment and Workforce Relations 2013). Paying attention to what helps retain quality teachers in these settings is important (Plunkett & Dyson 2011). This paper reports on the process of planning and implementing *Becoming Colleagues*, a project designed to capture the responses of career entrants as they made their transition into schools across rural and remote Queensland. This project was driven by understandings of the significant challenges that face graduate teachers as they leave their established support networks to pursue teaching opportunities far from home.

This project grew from a targeted pathway within an initial teacher education program designed to equip pre-service teachers with specific skills, knowledge and practice to navigate and successfully respond to the challenges of rural and remote professional contexts (Willis, Beutel, Welch & Willis 2012). This research agenda reflects broader research concentration and professional action across Australia into how to enhance rural education (Reid et al. 2010; White, Kline, Hastings & Lock 2011). This project draws on findings from several significant Australian studies exploring the interconnected focus areas of teacher resilience and rural and remote teaching (Johnson et al. 2012; Mansfield et al. 2012; White et al. 2011). This project differs from previous studies however, as it is the first to offer internet based solutions to empowering early career teachers during their transition into the profession. The research design pivoted around the needs of a group of early career teachers (participant-researchers) and how digital spaces and structures might enable them to critically

-

¹ University of South Australia, corresponding author chad.morrison@unisa.edu.au

² Queensland University of Technology

³ Oueensland University of Technology

⁴ Queensland University of Technology

reflect on the processes of transition while gaining access to professional dialogue and involvement in a research community. The research design created connections between newly qualified teacher-researchers and established researchers, which offered unique opportunities to access narratives of rural and remote early career teaching experience while enhancing analysis of the data collected about them.

Recruitment and retention of early career teachers in rural and remote schools

Australia's population is concentrated in the capital cities of its states and territories. The cities of Sydney, Melbourne, Brisbane, Perth, Adelaide, Hobart and Darwin are located on the coastline and keep the vast majority of the population pinned to its coastal fringe. With the exception of mining towns, over recent decades there has been a steady population decline in many rural and remote regions of the interior and a subsequent reduction in the provision of services for declining townships and districts. The changing nature of rural and remote communities compound often high levels of need within these communities as wealth and opportunity can be scarce and unevenly distributed. State and Territory governments have faced challenges in recruiting and retaining sufficient numbers of high-quality teachers to these rural and remote settings over recent decades and it is a challenge that continues to face education departments and employers across the nation (Hudson & Hudson 2008; Lyons et al. 2006; Preston 1997; Roberts 2005).

Rural and remote schools struggle to recruit adequate teachers but they also struggle to attract high quality teachers. As a result, employers often target early career teachers by offering employment incentives that would otherwise be unavailable to them in competitive metropolitan areas. Some specific areas of need exist within the rural teaching workforce, including curriculum (Mathematics and Science) specialisation within senior secondary years, but a limited supply of teachers dictates that employers look to graduates and early career teachers to fill vacancies. Workforce data reflects this flow of early career teachers to rural and remote schools with approximately 30% of primary teachers and 24% of secondary teachers working in remote schools having less than five years of service (McKenzie, Rowley, Weldon & Murphy 2011).

Workforce data reveals a pattern of recruited graduate and early career teachers leaving the profession in high numbers (Joiner & Edwards 2008) and rural and remote schools in particular (Sharplin 2002). The reported high number of early career teachers leaving rural and remote schools incorporates the premature separation from the profession of many inexperienced teachers but also includes early career teachers using the experience gained in rural and remote locations to win competitive, city-based positions closer to family and support networks. Movement between schools and systems is not uncommon and recent data shows that '...the most common destination for teachers leaving [their current school and teaching position] was relocation in another school in the same sector in the same state/territory...' (McKenzie et al. 2011, p.137). The pattern of staying only long enough to gain employment elsewhere is acknowledged as a significant challenge to the vibrancy of rural and remote students, the schools and the teacher workforce that services them (Department of Education Science and Training 2002; McKenzie, Kos, Walker & Hong 2008; Preston 2001). Furthermore, it is exacerbated by challenges associated with the employment conditions that are offered to early career teachers (Plunkett & Dyson 2011). Other early career teachers abandon their aspirations of being a teacher due to the enormity of the challenges faced in these rural and remote contexts (Abbott-Chapman 2005; Baills, Bell, Greensill & Wilcox 2002; Johnson et al. 2015 - forthcoming). This separation is compounded by the documented challenges of transition into teaching, which remain priorities in the

Australian context (Crosswell & Beutel 2013). This loss of enthusiasm and youth from the profession has been described as wastage, due to these newcomers exiting the profession before developing expertise and before contributing to the strength and capacity of the profession (Johnson & Kardos 2008).

Owen, Kos and McKenzie (2008) highlight that more data is needed about early career teachers and their early career experiences as there is a connection between current challenges in recruiting sufficient teachers with specific areas of expertise to these locations and retaining them once there. These combined recruitment and retention issues therefore contribute to rural and remote schools struggling to recruit and retain sufficient effective and skilled teachers.

The struggle to recruit and retain a vibrant rural teaching workforce has been associated with student performance data revealing that rural and remote students are lagging behind their metropolitan peers by as much as 2.5 years by the age of 15 (Australian Council for Educational Research 2009; Thomson & De Bortoli 2009). What this means is that rural and remote schools regularly employ inexperienced teachers and they lose them at the point that they are becoming more effective. The Sydney Myer Chair of Rural Education, Professor John Halsey, has highlighted the need for these challenges to be met with new solutions, including sophisticated networks and partnerships between rural and metropolitan schools that may provide solutions to the challenges faced in rural settings (Halsey 2013). This project seeks to contribute to that agenda.

Methods

This research design sought to capture the professional identity work and resilience of early career teachers through personal narratives of experience and response. The intention was to illuminate through longitudinal narrative plot lines the complex array of resources and responses that made this transition profitable or inhibiting for the participants. How we responded to this task is presented as a series of turning points where the process generated data and the participants all directed our research attention and shaped our responses through turning points.

A qualitative approach was adopted within this project to capture the narratives of becoming (of graduates *Becoming Colleagues* of teachers). The challenges of entering teaching are well documented and have given rise to countless studies aimed at understanding the contextual factors (Johnson et al. 2015 - forthcoming). Themes of professional identity and of resilience are central in these studies as explorations of them provide insights into lived experiences and the personal and contextual resources present. Consequently, narrative inquiry has made considerable contributions to understandings of teachers and teaching over several decades, as teachers have made their forays into new teaching roles and spaces. The process of teachers retelling their stories of becoming has allowed researchers to map some important terrain in relation to teachers' work, their identities and their resilience in the face of changing contexts. Clandinin and Connelly (Clandinin 1993, 2007; Clandinin & Connelly 1996, 1998; Clandinin, Davies, Hogan & Kennard 1993; Clandinin, Downey & Huber 2009; Connelly & Clandinin 1999) have provided a wealth of understanding in this area that has allowed so many of us to pick up the baton and seek understandings of what it means to teach. Their considerable exploration of the narratives of teachers, of teaching spaces and of teachers' struggles over curriculum and contexts have advanced our insights into the professional world of teaching. The experiences leading to teaching, the experienced realities of teaching, and the imagined and anticipated experiences of teaching often blend together in complex narrations of teachers (Holland, Skinner, Lachicotte Jr & Cain 1998).

These weavings of history, experience and anticipated futures are shaped by what Gaudelli and Ousley (2009, p.932) describe as '...critical junctures of experience.' These junctures highlight the meaning the beginning teachers made of their process of career entry. The narratives constructed to make sense of this transition were intended to be beneficial for the participant researchers as well as profitable in terms of how the experienced teacher education researchers can understand the experiences of early career teachers and how we can enhance their preparation for it. Consequently, our exploration of the narratives of early career teaching in rural and remote schools has been equally informed by critical junctures prompted by the experiences recorded in the narrative plotlines and the interpretive conversations that gave further insight into the significance of narrative events. These junctures are what we call our 'turning points' within the research and capture the crucial insights that direct our attention and energy.

Ethics approval to include a cohort of five participants as co-researchers in this project was gained from Queensland University of Technology (QUT) and University of South Australia (UniSA). There were also on-going micro-ethical considerations beyond the procedural ethical considerations. The experienced researchers needed to pay attention to dilemmas of social and cultural power relations in inviting and valuing the contributions of our newly qualified participant researcher colleagues. The research team made a commitment to ongoing 'critical reflexivity...[that] foregrounds the intersubjective (i.e. relational) and dynamic (i.e. always in process) nature of ethics at the level of everyday practice' (Renold, Holland, Ross & Hillman 2008, p.429). The emergent design was grounded and guided by a shared set of theoretical principles.

Early in the conceptualisation and design phase of the project, the university-based research team articulated a theoretical orientation to the project based on Wenger's (1998) communities of practice conceptualisation that learning occurs through participation where meaning and identity are negotiated through practice with more experienced others. The research design was underpinned by a deliberate commitment towards valuing the coproduction of knowledge with the participant early career colleagues by fostering a sense of belonging within both the teaching and educational research communities of practice. This focused our initial research attention on the ways that the participant-researchers were engaging their school-based colleagues and the research team to make sense of their transitional experiences within communities of practice (Wenger 1998) while also collectively exploring how this engagement impacted on the dynamic formation of their teacher identities (Akkerman & Meijer 2011).

The academic research team drew from their experience as teachers who had taught in rural contexts in their early careers, and also their experience as researchers and designers, to support the early career colleagues as they went through this transition. Wiener's (2007) priorities for productive research teams provided principles to guide the participation and design process in order for us to do this effectively. These principles included flexible research design unbounded by grounded theory orthodoxy but informed by a good balance of background, knowledge and experiential history and flexible arrangements in relation to roles and responsibilities across the research team. Moreover, the strength of this team was enhanced by a commitment to regular team meetings where underpinnings of trust and democratic decision-making dominated. These priorities were apparent in the ways that existing understandings of rural and remote teaching were set against current experiences by a new generation of early career teachers. The co-construction of meaning and the shaping of the project reflected constant negotiation of assumptions, priorities and understandings.

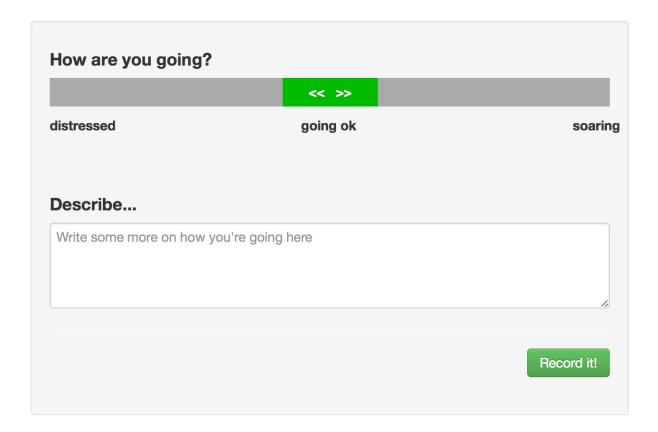
In a mentored role as early career researchers, this cohort of participant-researchers were given access to de-identified narrative data to co-analyse, while they also provided interpretations of their own data for the extended research team to draw on. Data shared with these participant-researchers were de-identified by the university-based research team and the processes for doing this were carefully considered in advance of sharing information, both in the interests of other participants and the participant researchers.

Drawing on a long and rich tradition of narrative inquiry, we sought to explore these narratives of rural and remote teachers in ways that allowed them to contribute their stories while also navigating their identities and building their resilience in rural and remote locations. This research focus presented us with some obvious challenges in using traditional research tools of audio recording interviews and analysing transcripts. We needed tools to work across time and distance and digital technologies emerged as logical options so we embarked on an innovative research agenda. For this task we drew on our combined expertise of collaborating over distances and for various purposes to focus on how to gather these narratives. Our interpretivist orientations highlighted the need to provide participants with ways of sharing personally relevant perspectives and responses to experience in order for us to gain insights into the "...translucent windows into cultural and social meanings" (Patton 2002, p.116) associated with early career teaching in rural and remote settings. Our intention was to not only appreciate the individual responses to teaching but to also understand how they perceived the contexts of their early career teaching and the social and professional environments that characterised it. From this perspective, it was important to capture a longitudinal account of what these experiences contributed to identity development and resilience over time as readings of these social and professional environments inevitably grow and change rapidly throughout this early career phase.

Our response to these priorities was to develop a web-based instrument for participants to access that would not be impinged by the inhibitors of time and distance. This resulted in the development of customised software called 'GoingOK', by *Bizlytix*. This is a purpose-built and exclusive web-based resource that this project utilizes for our research participants to access.

Features of the GoingOK resource include a sliding scale of 0-100 ('distressed' = 0, 'going ok' = 50 and 'soaring' = 100). Participants' use of the sliding scale produces a plotline of experience anywhere from 0 to 100. These plot points are then expanded by the participants' text-based responses underneath, and provide opportunities for participants to elaborate on events, experiences and responses. Participants had autonomy over how much or how little they accessed GoingOK but they received weekly email alerts asking them to provide a new entry.

Figure 1: Data collection tool: Sliding scale and text box (GoingOK.com)



This served as the primary data collection method for the project. This resource was built using early feedback and advice from the researcher participants, to provide all participants with access to the data collection tools while also giving the research team access to the generated data.

Our project relied on online communication and collaboration and so this became central in how this project developed. In order to articulate the purpose and aims of our research and to develop data collection methods to support this, we drew on the digital technologies that we were using to collaborate. We advanced our conceptualisation of the methods and data by amassing records of our collaboration along the way. Much in the same way that the fabled Hansel and Gretel left crumbs for themselves to retrace their steps, we left a trail of digital breadcrumbs through our research so that we could identify the contexts, experiences, resources and responses that led our participants into or out of the woods.

In the initial phase of the project our collaboration was in the form of email trails. We had used this forum to communicate while generating a cumulative understanding of our research intentions, captured as text. As the project grew, we incorporated several other mediums for collaboration that relegated email to administrative correspondence. These messages acted as data points for us in relation to how we conceptualised the research and how we progressed towards implementation of the project but our focus shifted to more elaborate methods of collaboration.

The extended research team utilised Basecamp[©] (37signals, LLC) as a digital repository for project management. With remote access, the team, spread across Australia, had access to shared planning and ethics documents, timelines for project implementation and initial examples of coding of data. This space was used to share information, check on expectations and timelines and to highlight literature, emerging data and more. In addition to this, the team

used *Collaborate* (Blackboard[©]) as a web based monthly meeting platform. Collaborate allowed the extended research team to meet in real time across great distances. This included audio and video linking of researchers while they simultaneously collaborated on digital documents. These meetings were audio recorded in real time and the products of our combined activity were saved as documents produced from within this platform. *Skype*TM (Microsoft), email and telephone calls were used as alternatives to Collaborate when and where technical difficulties prohibited its use. For example, Internet access was not always reliable or available within the participants' communities. This determination to maintain contact in real time over distance remained central to the development of the project and reinforced the themes that we were investigating about the challenges of context and experience in relation to identity and resilience.

The research team came together in person for the first time in April 2013 to conduct focus group interviews and for further planning and data analysis. Such was the level of online interaction that this was the first time in the six months of intense collaboration that the team members had all met each other face to face. This was also a chance for some of the participants to return home to Brisbane to spend time with their families and loved ones. This had been the first opportunity to do so since commencing their teaching careers at the start of the year and so it was an emotional time of reconnecting and of sharing experiences.

Findings and Discussion

Turning point 1: Designing the digital page

The evolution of this research project was fuelled by a determination to successfully prepare pre-service teachers for the challenges and rigours of teaching in rural and remote Queensland schools. The digitally mediated narrative research design emerged over time, pivoting on this determination. The research team came together following the sharing of research projects with strong overlaps of teacher identity, wellbeing and resilience in unison with rural and remote teaching and education. The initial conceptualising of the project was framed by understandings of rural teaching, early career teaching, professional identity formation, professional learning and pre-service teacher preparation. Consequently, the scope of the collaborative research developed along the familiar lines of our research priorities but was not constrained by pre-conceived ideas about what it would look like.

The need to maintain contact with research participants throughout the project directed our attention towards web-based tools and resources. The research aims of the project then sharpened this focus to look for ways of incorporating the participants' developing understandings into the research design. All of these imperatives led to the development of an evolving and dynamic research design. We were drawn to narrative inquiry as a research methodology most suited to capturing the stories of becoming teachers but grappled with how to collect narratives of experience across distance and across time. Our evolving design process allowed for extensive dialogue about how to best capture narratives and considerable time was spent discussing web-based tool development.

The development of a web-based tool for collecting regular posts from participants prompted discussions about our research priorities. As a research team we were most interested in the 'turning points' (Tripp 1998) of the participants, where their experiences generated responses of significance. These turning points highlighted the participants' issues of resilience and professional identity formation that were affected by experiences and responses in ways that had enduring effects.

We included our participant researchers in discussions over the language to be used within the project, as language can position and inform identities and practices. The research team initially used a medical metaphor to conceptualise the longitudinal narrative entries, using language such as 'monitoring the health of a professional pulse' and participant interviews as 'check ups'. We soon moved away from this metaphor that implied a medical diagnosis of wellness and illness, and a power relationship that did not foreground the agency of the 'patient'. The preferred metaphor became a narrative metaphor of authoring plot lines. The discourse of plotlines and turning points positioned participants as authors with agency, and acknowledged the important contributions that the alternating high and low points make to resilience and identity formation.

Similarly the language used when deciding on points along the scale had to be designed to reflect the positive sense of resilience and agency underpinning the theoretical paradigm. The end result was the development of a continuum that would enable participants to slide a scale between three qualifiers that had resonance for the researcher participants; *soaring*, *going ok* and *distressed*. The choice of language for "distressed" came from recent research with South Australian beginning teachers (Morrison 2012; 2013). The discourse was further shaped by our participant researchers' desire to challenge negative stereotypes about early career teachers, and position teachers as agents authoring their own story, with issues of identity and resilience nested within the settings and cast of characters in a community. The look and feel of the site was designed to be deliberately discreet as early career participants indicated sometimes they only had access to the internet at school. The headings on the page itself needed to be discreet so others in the staffroom could not see the screen if the participants were authoring their online reflections in their workplace.

Our project prioritised the inclusion of some of our participants as co-researchers. This role was to be performed in addition to their primary role as first-year teachers and research participants. In order to stay connected to these participant-researchers, as well as gaining access to a longitudinal data set of all of the participants across great distance, the research team looked to utilise a range of digital platforms to gather data and to connect throughout the data collection phase.

Turning point 2: Separating data from design

The second turning point in our research design came in the form of understanding the data that we were producing. The online tool for gaining plot points and text-based explanations allowed participants to contribute to the project regularly, irregularly or intermittently. The participants were also able to choose to record a plot point on the GoingOK sliding scale with or without providing text to explain these choices.

As we undertook initial readings of the data in order to commence open coding, we were presented with some challenges of knowing how to read the data and what was significant about it. This was a turning point for us in being able to separate data from the design process.

One such example of this was how to interpret the differences in the values of the plot points on the GoingOK sliding scale. The sliding scale between three qualifying words was translated by the software into a numerical scale with 100 the most extreme positive location, 50 indicating "going ok" in the middle, and a 0 score the lowest indication for a "distressed" record. Participants recorded significant shifts in their responses on the numerical scale. For example, one week a participant recorded an entry of 38 and the following week they recorded an entry of 20, yet this decline did not necessarily translate into text-based

narratives of change. The text accompanying the lower entry did not reveal a significant change in experiences, responses or beliefs from the previous week. As a result, our research team grappled with questions of the data when we were not able to adequately explain it in this raw form. Knowing whether or not the participants were attempting to convey rapid and significant change through their postings had implications for how we read and analysed their data

The input from our participant-researchers proved pivotal in advancing our understandings of the data and how to read it. During our focus group meeting at the end of the first school term we interviewed six participants and participant researchers about their intentions to record a numerical score on the GoingOK scale. Their response indicated that this was a general scale that did not allow them to pinpoint an exact value to their response but rather plot a point in relation to the headings of 'distressed', 'going ok' and 'soaring'. This understanding held significant implications for the reading of data because it meant that the text-based explanations of each point were perhaps more important than the relationship between neighbouring numerical plot points. As Lemke (2001, p.23) indicates, 'time is not Galilean ...the longer term, the nonproximate event, may be more relevant to the next move than the immediately preceding event.' While patterns of plot points were clearly reflecting issues or concerns that seemed to endure beyond individual posts, we had to be cautious when interpreting short-term trends in the numeric translation of the plotlines.

There were also interesting explorations about resilience and the role of adversity that was made visible by the differences between the numerical value and the text that accompanied it. Harriet⁵ indicated in a post part-way through the year:

Last week I had a really low moment where I had some non-constructive feedback from my Principal. Rather than let it slide I was able to reframe the situation so that I could reassure him that I am doing everything to my best ability to be a good teacher and that I am committed to learning and improving my teaching... (6 March 2013)

The accompanying numerical entry was an 83, indicating that adversity and her response were critical in promoting her resilient identity. In her participant-researcher commentary on her data, Harriet indicated that it was only through reflection she realised she was "SUB-consciously authoring her identity" and that "little glimpses of my philosophy [are] shining through in my teaching but usually they are brief and momentary and, when I allow myself to ponder this fact, can be meltdown inducing." Resilience was not a stable state but something that was emerging and negotiated and this emergence was highlighted by this turning point of negotiating meaning making from the data.

Turning point 3: New and unanticipated limitations of data collection tools

The third turning point in gathering, analysing and understanding the data of our participants came via face-to-face focus group interviews in Brisbane in April of 2013. An initial focus group interview was conducted with six participants and participant researchers and three researchers. Data gained during this initial focus group interview were then used to structure follow-up interviews immediately afterwards, where researchers interviewed all of the participants in smaller focus groups. Each follow-up interview involved two participants and a researcher and the participants were cycled through to work with each researcher. Each researcher interviewed all of the participants on issues that were highlighted during the initial

⁵ pseudonym

focus group interview. The day concluded with researchers debriefing firstly with the participants and then as a research team. The next day the research team undertook initial analysis of the focus group data together.

Up until this point we had been gathering data electronically and drawing on our participant researchers' text and audio insights to interpret what these data meant. We felt that we had a developing but sound understanding of how our participants were progressing. Despite this, the limits of our data collection tool were exposed when the focus group interviews exposed a level of data that the participants had not been sharing online.

This was revealed in the first focus group interview where noticeably disparate data emerged. In the initial focus group interview the participants presented understandings of themselves and of their experiences that reflected their online posts. The participants talked about the challenges that they were facing but quickly followed this with a re-orientating statement to demonstrate that they were coping and competent, as much of the online data showed. As the session progressed, and as the participants felt more comfortable with the researchers, there was a palpable sense of the participants dropping their guard to reveal a different side to their experiences and responses. This reflected the emotional toll of teaching a long way from their homes in complex contexts and in challenging circumstances. One of the participants reached for the tissue box in front of her as an outward sign that she was about to discuss some confronting experiences. She then shared the heavy toll that teaching in an isolated rural town had taken on her. The heightened emotional state was nowhere to be found in her online data, yet the face-to-face experience of reflecting on experiences with known peers and known researchers was enough to give us access to a new layer of data that she had previously concealed. This was true of others in the cohort as well.

Our initial observations of the participants' body language during the focus group interviews and then their revelations later in these sessions revealed a subsequent level of response to the experiences of early career teaching that was not present in the online posts. Two of the participants revealed significant struggles that were not conveyed through the online data, to which the remaining participants acknowledged as experiences that they had also had, to lesser degrees. These significant struggles were the periods of intense uncertainty and emotional vulnerability that came out of teaching in remote and complex contexts while separated from established networks of support. These struggles were the internal struggles that they privately worked through as they simultaneously tried to demonstrate to others that they were competent and effective teachers.

This turning point in our narrative as researchers involved the realisation that technologies utilised to enhance qualitative data collection have known and unknown limitations. The limitations that we were aware of prior to implementation were predominantly related to pragmatic concerns. We were consumed with issues of the amount of text that we could reasonably seek from participants and the frequency with which we could expect posts of new data. Our attention was on how we could produce a robust data set. Consequently, our attention remained on such issues as how often we could send email alerts to participants requesting them to log-in and post an entry. We were conscious of not overwhelming or bombarding our research participants while they were engaged in the important work of transition into their profession and into new rural communities. We were also conscious of the need to make the data collection tool accessible, logical and easy to navigate so that the participants would remain motivated to post. We needed a tool that the participants could use efficiently and effectively. We wanted user-friendly data collection tools that gave us access to participants regardless of distance and circumstance. However, what our interview data

revealed to us was the need to look beyond the collection tool to what was and what was not being shared through it.

Only through complementing online data collection with face-to-face interviews did we gain access to a more comprehensive data set. The nature of the 'guarded' online data shared by participants should not be completely unanticipated, given what is known about the challenges and experiences of entering the teaching profession. This is often a time of sink or swim (Howe 2006; McCormack & Thomas 2003) and so much future opportunity within the profession rests on the early career teachers' capacity to demonstrate competence. The participants' need to guard themselves in relation to what they would share therefore reflects this understanding and highlights the perspectives that research participants bring to their participation.

The focus group meeting also enabled an opportunity for shared meaning making. The digital plot lines were individual negotiations of meaning, and it wasn't until participants heard that others were experiencing similar or dissimilar challenges, that they could interpret their own narratives within a broader constellation of practice. This ability to recognise the mutuality of participation is an important element in developing identities of competence in a community of practice (Wenger, 1998). Sharing stories that represented trajectories of identity provided a context for participants to negotiate meaning of their own stories. This has inspired a further iteration of the data-gathering tool to investigate digital affordances that can give participants ways to author their developing individual stories within a community of similar peer experiences.

Conclusion

The *Becoming Colleagues* project continues to provide us with important data about the first year of teaching in rural and remote schools. The complexities of experience are paralleled by the complexities of individual responses to them. Our analysis of the data therefore continues to be an area of focus as we grapple with the turning points of these teachers' narratives. Consequently, there is much to do in order to understand this process and to make this transition to becoming colleagues manageable and beneficial for early career teachers and their students and school communities.

The understandings gained from the research approach and the data gained to date are focusing our attention and resources on how pre-service preparation and early career transitions can be better managed. The use of established and emerging web-based technologies will continue to shape how this work can be done productively, but the lived experience and participation in communities of practice remain fundamental, supported by the technologies that make this possible.

The participant-researchers' involvement in this project through web-based technologies has highlighted to us that collaboration in safe spaces is central to productive self-reflection and authentic data. As this project continues to evolve we remain mindful of the ways in which data is gathered and how this shapes what is shared by the participants. Our focus continues to be on how we manage collaboration with the participant-researchers and the research roles that they perform to enhance our understandings of early career experiences, resilience and identity work. Innovation in research design is therefore a connected outcome that we are also pursuing. The implications of this work may therefore extend beyond teaching and teacher education to include how new members of rural and remote communities navigate transitions through engagement in professional learning communities of support, located within these rural contexts and located across distance through digital technologies.

Acknowledgements

We would like to thank our participant-researchers for their contributions to the project to date. Their generous offerings of time and authentic input throughout their transitional phase into teaching have greatly enhanced our collective insights.

References

- Abbott-Chapman, J 2005, 'Let's keep our beginning teachers!', *Principal matters: the official journal of the Secondary Principals' Associations of Australia*, vol. Summer 2005, pp. 2-4.
- Akkerman, SF & Meijer, PC 2011, 'A dialogical approach to conceptualizing teacher identity', *Teaching and Teacher Education*, vol. 27, no. 2, pp. 308-319.
- Australian Council for Educational Research 2009, *PISA National: Programme for International Student Assessment*, Australian Council for Educational Research, Melbourne, Vic, viewed 20/6/2009, http://www.acer.edu.au/ozpisa/reports.html>.
- Baills, L, Bell, S, Greensill, B & Wilcox, L 2002, 'Bridging the gap between beginning teachers and isolated/rural communities', *Education in Rural Australia*, vol. 12, no. 1, pp. 55-62.
- Clandinin, DJ 1993, 'Teacher education as narrative inquiry', in Clandinin, DJ, Davies, A, Hogan, P & Kennard, B (eds), *Learning to teach, teaching to learn: Stories of collaboration in teacher education*, Teachers College Press, New York, NY.
- Clandinin, DJ, Davies, A, Hogan, P & Kennard, B (eds) 1993, Learning to teach, teaching to learn: Stories of collaboration in teacher education, Teachers College Press, New York, NY.
- Clandinin, DJ & Connelly, FM 1996, 'Teachers' professional knowledge landscapes: Teacher stories, stories of teachers, school stories, stories of schools', *Educational Researcher*, vol. 25, no. 3, April 1, 1996, pp. 24-30.
- Clandinin, DJ & Connelly, FM 1998, 'Stories to live by: Narrative understandings of school reform', *Curriculum Inquiry*, vol. 28, no. 2, pp. 149-164.
- Clandinin, DJ 2007, Handbook of narrative inquiry, Sage Publications, Thousand Oaks, CA.
- Clandinin, DJ, Downey, CA & Huber, J 2009, 'Attending to changing landscapes: Shaping the interwoven identities of teachers and teacher educators', *Asia-Pacific Journal of Teacher Education*, vol. 37, no. 2, pp. 141-154.
- Connelly, FM & Clandinin, DJ 1999, *Shaping a professional identity: Stories of educational practice*, Teachers College Press, New York, NY.
- Crosswell, L & Beutel, D 2013, 'A bridge over troubling waters: a snapshot of teacher graduates' perceptions of their ongoing professional learning needs', *Asia-Pacific Journal of Teacher Education*, vol. 41, no. 2, pp. 144-158.
- Department of Education Employment and Workforce Relations 2013, *Better Schools Plan*, Commonwealth of Australia, Canberra, ACT, http://www.betterschools.gov.au/>.

- Department of Education Science and Training 2002, *An ethic of care: Effective programmes for beginning teachers*, Commonwealth of Australia, Canberra, ACT.
- Gaudelli, W & Ousley, D 2009, 'From clothing to skin: Identity work of student teachers in culminating field experiences', *Teaching and Teacher Education*, vol. 25, no. 6, pp. 931-939.
- Halsey, J 2013, 'Towards brighter futures for all children, families and communities', *Sidney Myer Chair of Rural Education and Communities: Vibrant, productive rural communities are integral to the long-term sustainability of Australia*, vol. 4, no. 3, pp. 1-2.
- Holland, DC, Skinner, D, Lachicotte Jr, W & Cain, C 1998, *Identity and agency in cultural worlds*, Harvard University Press, Cambridge, MA.
- Howe, ER 2006, 'Exemplary teacher induction: An international review', *Educational Philosophy & Theory*, vol. 38, no. 3, pp. 287-297.
- Hudson, P & Hudson, S 2008, 'Changing preservice teachers' attitudes for teaching in rural schools.', *Australian Journal of Teacher Education*, vol. 33, no. 4, pp. 67-77.
- Johnson, B, Down, B, Le Cornu, R, Peters, J, Sullivan, AM, Pearce, J & Hunter, J 2012, *Early career teachers: Stories of resilience*, University of South Australia, Adelaide, SA.
- Johnson, B, Down, B, Le Cornu, R, Peters, J, Sullivan, AM, Pearce, J & Hunter, J 2015 forthcoming, 'Promoting early career teacher Resilience: a framework for understanding and acting', *Teachers and Teaching: Theory and Practice*, vol. Special Edition.
- Johnson, SM & Kardos, SM 2008, 'The next generation of teachers: Who enters, who stays, and why', in Cochran-Smith, M, Feiman-Nemser, S, McIntyre, JD & Demers, K (eds), *Handbook of research in teacher education: Enduring questions and changing contexts*, Routledge, Hoboken, NJ.
- Joiner, S & Edwards, J 2008, 'Novice teachers: Where are they going and why don't they stay?', *Journal of Cross-Disciplinary Perspectives in Education*, vol. 1, no. 1, pp. 36-43.
- Lemke, JL 2001, 'The long and the short of it: Comments on multiple timescale studies of human activity', *The Journal of the Learning Sciences*, vol. 10, no. 1/2, pp. 17-26.
- Lyons, T, Cooksey, R, Panizzon, D, Parnell, A & Pegg, J 2006, Science, ICT and Mathematics Education in Rural and Regional Australia. The SiMERR National Survey prepared for the Department of Education, Science and Training. National Centre of Science, ICT and Mathematics Education for Rural and Regional Australia., University of New England, Armidale, NSW.
- Mansfield, C, Price, A, McConney, A, Beltman, S, Pelliccione, L & Wosnitza, M 2012, Keeping cool: Embedding resilience in the initial teacher education curriculum (Final Report), Murdoch University, WA.

- McCormack, A & Thomas, K 2003, 'Is survival enough? Induction experiences of beginning teachers within a New South Wales context', *Asia-Pacific Journal of Teacher Education*, vol. 31, no. 2, pp. 125-138.
- McKenzie, P, Kos, J, Walker, M & Hong, J 2008, *Staff in Australia's Schools* 2007, Commonwealth of Australia, Canberra, ACT.
- McKenzie, P, Rowley, G, Weldon, P & Murphy, M 2011, Staff in Australia's schools 2010: Main report on the survey, Australian Council for Educational Research, Canberra, ACT.
- Morrison, C 2012, 'I've got my degree and teacher registration but where do I get my professional identity?', unpublished doctoral thesis, University of South Australia.
- Morrison, CM 2013, 'Teacher identity in the early career phase: Trajectories that explain and influence development', *Australian Journal of Teacher Education*, vol. 38, no. 4, pp. 91-107.
- Owen, S, Kos, J & McKenzie, P 2008, *Teacher workforce data and planning processes in Australia*, Commonwealth of Australia, Canberra, ACT.
- Patton, MQ 2002, *Qualitative research and evaluation methods*, 3rd edn, Sage Publications, Thousand Oaks, CA.
- Plunkett, M & Dyson, M 2011, '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*, vol. 61, no. 1, pp. 32-47.
- Preston, B 1997, *Teacher supply and demand to 2003 : Projections, implications and issues*, Australian Council of Deans of Education, Canberra, ACT.
- Preston, B 2001, 'Policy and politics in teacher and nurse supply and demand projects', *Australian Association for Research in Education*, Fremantle, WA, 2-6 December 2001.
- Reid, J-A, Green, B, Cooper, M, Hastings, W, Lock, G & White, S 2010, 'Regenerating Rural Social Space? Teacher Education for Rural—Regional Sustainability', *Australian Journal of Education*, vol. 54, no. 3, November 1, 2010, pp. 262-276.
- Renold, E, Holland, S, Ross, NJ & Hillman, A 2008, "Becoming Participant': Problematizing 'Informed Consent' in Participatory Research with Young People in Care', *Qualitative Social Work*, vol. 7, pp. 427–447.
- Roberts, P 2005, Staffing an empty schoolhouse: Attracting and retaining teachers in rural, remote and isolated communities, New South Wales Teachers Federation, Surrey Hills, NSW.
- Sharplin, E 2002, 'Rural retreat or outback hell: Expectations of rural and remote teaching', *Issues in Educational Research*, vol. 12, no. 1, October 2002, pp. 49-63.
- Thomson, S & De Bortoli, L 2009, *PISA in brief from Australia's perspective*, Australian Council for Educational Research, Camberwell, Vic.

- Tripp, D 1998, 'Critical incidents in action inquiry', in Shacklock, G & Smyth, WJ (eds), Being reflexive in critical educational and social research, Falmer Press, London, UK.
- Wenger, E 1998, Communities of practice: Learning, meaning, and identity, Cambridge University Press, Cambridge, UK.
- White, S, Kline, J, Hastings, W & Lock, G 2011, *Renewing rural and regional teacher education curriculum*, Australian Teaching and Learning Council, Melbourne, http://www.rrrtec.net.au/PDFs/PP9-1320%20Deakin%20White%20Final%20Report%202012%5B1%5D.pdf>.
- Wiener, C 2007, 'Making teams work in conducting grounded theory', in Bryant, A & Charmaz, K (eds), *The SAGE handbook of grounded theory*, SAGE Publications, London.
- Willis, J, Beutel, DA, Welch, A & Willis, P 2012, 'Becoming professionals: partnerships reshaping preservice teachers' transition to full-time teaching', *Australian Teacher Education Association*, Adelaide, SA, 1-4 July 2012.