Student teacher learning in rural contexts: Challenges and opportunities

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Abstract

In this article, I explore particular aspects of the learning of Postgraduate Certificate in Education (PGCE) student teachers in the context of a collaborative partnership between a university and rural schools in the Wild Coast Rural Schools' Partnership Project (WCRSPP). This focus is especially important given the neglect of rural education in South Africa, and of student teacher preparation for placement in rural schools in particular. In considering how student teachers might be prepared to teach effectively in deeply rural circumstances, with its challenges and opportunities, my objectives are to understand the complexity of the process of *what* student teachers learned and *how* they learned in this context. Using case study methodology within an interpretive paradigm, I draw on the lived experiences of selected student teachers and their university tutors, as revealed in interviews and reflective journals.
I frame the learning of the student teachers in the potentially generative nature of rural contexts and seek to illuminate the transformative potential of these in challenging their understanding of teaching and their motivation and performance as teachers. Therefore, I highlight the situated nature of the student teacher learning as well as the multidimensional and expansive nature of the learning that emerges through significant moments of mediation. By highlighting the potential for deep learning that can emerge in unexpected ways, I challenge the notion of student teacher learning as being clearly defined and stable.

Keywords: student teachers, expansive learning, rural context

Introduction

> We have learned that the steep hill we take to school is more than just a good physical work-out! But also, a steep hill to learning—where we leave most of our illusions about teaching and theories that don't work at the foot of the hill.

This statement made by a student teacher supports the purpose of this article in which I argue that although learning to teach is complex, particularly under challenging circumstances, there is the potential for expansive learning in these contexts. It is the tensions, disturbances,

or contradictions here that can be the impetus or the energizing force for change, development, and deep learning that I refer to as expansive learning.

Building on initial partnership work in the PGCE programme, the WCRSPP was designed to provide PGCE students, supported by university tutors, with the opportunity to complete six weeks of their second School Placement period living and teaching in deeply rural school environments on the Eastern Cape Wild Coast, an opportunity afforded by my history as a member of that rural community. This was a three-year partnership project involving 25 student teachers per year who were each placed in one of seven deeply rural schools and supported by four university tutors. By situating student teacher learning in a deeply rural area, supported by significant others, their often-narrow conceptions of teaching and context can be challenged, and their professional knowledge can develop as they become increasingly cognisant of what it means to organise learning systematically in a contextually responsive way. It is these reconceptualised views about context, teaching, and learning that can shape their professional identity which has at its core a belief in teacher agency. In this article, I consider the extent to which student teachers' conceptions of teaching and context are challenged in the WCRSPP and how opportunities for the construction of alternative conceptions emerge. I focus particularly on *what* they learned regarding context and the organisation of teaching and learning, and *how* they learned, and I refer to this aspect in terms of key moments of mediation in the learning.

Review of literature

By considering the complex nature of learning how to teach and the frequent disjuncture between Teacher Education programmes and the realities of school contexts, in this section I draw on relevant literature and give a rationale for the development of the multifocal theoretical framework needed to understand the student teacher learning in the WCRSPP. The complexity of teaching, which suggests the difficulty of learning how to teach, is captured by Winch et al. (2015) who noted,

> Teaching as professional endeavour demands of teachers practical knowhow, conceptual understandings of education, teaching and learning and the ability to interpret and form critical judgements on existing knowledge and its relevance to their particular situation. (p. 202)

Student teachers enter Teacher Education programmes with preconceptions of what teaching is from a lifetime of immersion as learners in the schools they attended. This calls for a "reframing of memory" (Amin, 2009, p. 73) because of the influence of this memory on their conceptions of teaching. Given how many learners attend schools with poor examples of effective teaching, it becomes very important that Teacher Education courses confront this "pedagogical immunity" (Rusznyak, 2009, p. 263) by explicitly examining the notions of teaching held by the student teachers. Rusznyak (2009) elaborated that, although student teachers may also have been exposed to the teaching of excellent teachers, they may have developed narrow conceptions of the nature of teaching which may then hinder the

development of their teaching practice as they are confronted by diverse schooling contexts. Similarly, Darling-Hammond (2006) suggested that opportunities to engage with previously held conceptions of teaching need to be created in Teacher Education. Clandinin and Connelly (2000) argued that Teacher Education should be a process of reconstruction during which the teacher knowledge grows as their existing or personal knowledge is challenged and engaged with, resulting in a shifting or disrupting of existing knowledge. The process of deconstruction of prior beliefs and subsequent reconstruction emerges from opportunities for the creation of cognitive dissonance in student teachers' thinking (Opfer & Pedder, 2011). This suggests that Teacher Education should provide opportunities for the disruption of existing knowledge, for challenging existing narrow preconceptions of what it might mean to be a teacher, and for generating opportunities for the construction of alternatives.

Furthermore, for many student teachers there is inadequate preparation for the real world of schooling (Korthagen et al., 2001; Petersen, 2017; Sharplin et al., 2010), leading to a reality or culture shock. Botha and Rens (2018) offered insights into particular challenges beginner teachers face in South Africa and questioned the role of tertiary institutions in equipping them both emotionally and academically for the realities of this. They argue that this would include empowering beginner teachers to cope with unpredictable situations. Similarly, Samuel (2003) suggested that student teachers are taught theoretical concepts in their university courses and are then expected to apply such "theoretical conceptions into the world of practice" (Samuel, 2003, p. 270), without taking into account the diversity in authentic schooling contexts. This points to the narrowness of many Teacher Education programmes with their linear mechanistic ways of thinking that contribute to a theory-practice gap. Korthagen & Wubbels (2001) suggested the need to reduce this reality shock or theory-practice gap, by confronting student teachers during the Teacher Education programme with realistic problems that they may face as novice teachers in an effort for better integration of theory and practice. Part of this process requires engagement with student teachers' preconceptions about education, making their tacit knowledge explicit to enable critical engagement and possible development. They explained that the process requires opportunities for practical experiences during which perceptions can be tested and where scaffolding provides the kind of support and mediation for learning to occur. They stressed the impossibility of preparing student teachers for all sorts of contexts but focused, rather, on the development of a "problem-solving attitude" or a "growth competence" that can help develop what they referred to as an innovative capacity (Korthagen & Wubbels, 2001, p. 47).

Theoretical framework

By considering the complex nature of learning how to teach and, in particular, learning how to teach in a challenging context, in this article I draw on a number of perspectives to understand student teacher learning. These range from *Teacher Knowledge* to *Rurality* and from *Communities of Practice* to *Cultural Historical Activity Theory* (*CHAT*).

The need for many different perspectives is supported by Putnam and Borko (1997) who suggested an eclectic approach to understanding teacher learning. Rather than a cognitivist

approach in which the focus is on the individual and a process of transfer of knowledge, skills, and understandings from one setting to another, a broad socio-cultural approach to understanding student teacher learning is useful because it takes into account an understanding of the collaborative nature of the development of their knowledge-in-practice (Schon 1983, 1987) and their process of knowing that is distributed (Pea, 1997) or stretched (Lave, 1991) across people and settings (Kelly, 2006). The concept of boundary zones or transaction spaces (McMillan, 2011) is useful to understanding the dynamics of social and contested practices that take place between the university and the community. Exploring how the student teachers develop a process of reflection-in-practice through which they can engage in a continuing dialogue with the permanently changing situation of their practice (Schon, 1983, 1987, cited in Kelly, 2006) and what the impact is of group collaboration and feedback in emerging communities of practice, is supported by a socio-cultural approach to understanding learning. If part of the teacher learning in the WCRSPP is a process by which the student teachers were moving towards expertise in these particular social settings, or what Lave and Wenger (1991) explained as full participation in social settings, then what needs to be understood is the processes, both formal and informal, that facilitated, in a challenging context, both their increasingly capable participation in classroom practices and their participation in and understanding of the rural communities in which they lived, and what impact this had on their identity.

Using only the perspectives of *Teacher Knowledge* or *Communities of Practice* would be focusing on aspects of their learning but would neglect to address the complexity of the rural context in which the student teachers were living and working, and the potential for learning in contexts characterised by instability and contradiction. This is where the perspectives of *CHAT* and *Rurality* enabled a deeper understanding of the learning. Activity Theory as part of Situated Learning Theory, with its emphasis on the potentially generative nature of contradictions, disturbances, or tensions, offers a further perspective. Given the significance of the rural context in the study, using a generative theory of rurality assists in further understanding the situated nature of the student teachers' learning. The inherently contradictory and conflictual nature of activity systems is seen by Engestrom (2009) as potentially generative for learning since it is in the resolution of tensions, through the construction of a wider alternative context, that change and expansive learning can emerge. He saw this learning as a collective endeavour. The concept of interconnectedness between contradictions, expansive learning, and collective endeavour has relevance in the WCRSPP where I needed to understand the possibility for student teacher learning in the complex social fabric of a deeply rural context in which there were frequent deviations from predictable norms and practices.

In any understanding of student teacher learning, we need to engage with the situatedness of the learning in a particular context. The rural contextual framework of the study was premised on an asset-based approach (Preece, 2017) or a generative theory of rurality (Balfour et al., 2008) that postulates that, despite the challenges in rural contexts, there are strengths that also need to be understood. This approach, therefore, frames the student teacher learning in the potentially generative nature of rural contexts and seeks to illuminate the

transformative potential of the rural context in changing their understanding of context, teaching, and their motivation and performance as teachers. Of interest are the "cultural immersion experiences" that Boyle-Baise and McIntyre (2008, p. 310) suggested could help educators venture outside their cultural comfort zone and transform their understanding of others. Part of understanding the student teacher learning is to understand whether, in these new "transaction spaces" or "boundary zones" with their "new social contract" (Gibbons, 2005, pp. 11–12) where the relationship between higher education and this rural context is re-imagined, there is any transcending of an urban middle class hegemony, reflected in an identity and attitude change in the student teachers when viewed through the lens of rurality. Giroux (1992, p. 33) refers to the concept of "border pedagogy," a form of critical pedagogy that provides "the conditions for students to engage in cultural remapping as a form of resistance." He defined these "borderlands" as more than simply exposure to diverse space, but, rather, as "sites for both critical analysis and as a potential source of experimentation, creativity and possibility" (p. 34.) The extent to which the student teachers in the WCRSPP questioned their assumptions and engaged with this knowledge and brought it into their teaching space suggests increasing place sensitivity and enhanced learning.

Methodology

The data that I collected and on which this article is based, included semi-structured interviews and reflective journals from 14 purposively selected student teachers and four university tutors. Student teachers and university tutors were required to keep a reflective journal on their daily experiences, including both teaching and living, in which they reflected on their teaching and learning. Student teachers from each year of the WCRSPP were selected as samples of the total population of 75 student teachers, based on the university tutors' observations of potentially rich data sources and representations of teaching subjects, race, gender, and site. What facilitated the process of purposive sampling was the residential nature of the WCRSPP and the very close living and working conditions of the participants, including the university tutors. This meant that the latter were able to have insiders' views of informants and an authentic sense of which informants would be most likely to yield the richest data for the study. It also meant that accessing data became part of the natural process of living and working together since relationships and trust were constantly developing.

Although five focal areas of learning emerged from the study, in this article, I explore two areas of the student teacher learning and the mediation of this learning. I discuss these in the next section.

What did the student teachers learn?

Focal area 1: Living as learning

Here, I focus on the situated nature of the student teacher learning where an increasing place sensitivity shaped the way they viewed the context, their teaching, their relationships, and themselves.

Ian,[1] a university tutor, captured the situated nature of their learning when he said,

> The nature of the WCRSPP which placed students into the communities in which they were teaching, helped them to use local knowledge which afforded access to the potential of the school context. For example, they lived among the parents and learners, travelled the same routes to school, used the same transport to get to local towns and drew many resources from the local environment. They met parents and community leaders and learned first-hand what keeps communities intact.

Drawing on Boyle-Baise and Mcintyre (2008), I see these as examples of the cultural immersion experiences of the students: they ventured outside their cultural comfort zones and their preconceptions were dislodged, as reflected in their voices, and this led to new shared understandings that transformed their perceptions of place, teaching, and of themselves. This journey of learning is a form of *boundary crossing* with its often contradictory and tension-filled practice that can lead to new and different knowledge, values, and skills; this is more than just learning about the formal practices of teaching, in that it can inform the practice of teaching. These are the new transaction spaces (Gibbons, 2005) in which the students are immersed and where new relationships are developed, and new learning occurs. This is about a growing knowledge of context that helps to frame and inform their relationships, their identities, and their organisation of teaching and learning.

Insiders, outsiders and brokering

The insider-outsider binary was a recurring concept discussed in the student teacher reflections. In attempting to understand what their experiences of inclusion and exclusion meant for their learning, I draw on Melissa's journal reflections to illustrate the experience of increasing inclusion as well as the concept of brokering. She highlighted the impact of my history in the community as a key factor in the students' inclusion when she wrote,

> People knew you. There are all the preconceptions with newcomers. Not easy for them just to accept us. It is a very deeply rural close-knit community. It is amazing just to accept these outsiders and then you become insiders in a way and then you can start working. As a teacher, you can't accomplish much as an outsider. You have to be an insider and be accepted. That is key. Your history and your relationship with the community made them accept us more easily.

This is an example of brokering (Wenger, 1998) or boundary work (McMillan, 2011) that helps facilitate the journey of the student teachers from the outside or the periphery into the inside. Quoting Wenger (1998), McMillan (2011, p. 558) explains brokers as "agents who assist participants make new connections across communities of practice, enable co-ordination and, if experienced, open new possibilities for meaning and therefore learning." However, in order for the connections to be made, legitimation is needed on both sides of the boundary, namely within the university and the community. My role as university lecturer and project leader as well as community member with deep historical roots afforded the

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1   Pseudonyms are used throughout.

legitimacy described by McMillan (2011), that contributed to the forging of the connections across the various communities of practice.

When Melissa was probed regarding what else may have facilitated their journey from the outside to the inside, she responded,

> People like Thabo who took us to the sacred initiation pool; the grandmothers who brought the oysters and whose children were at the school. They would come and visit us and tell us how much their children now loved school.

These were the members of the community, emerging as brokers, with whom there were deepening moments of contact and communication. As the relationship with Thabo deepened, he also took them to the sacred circumcision pool deep in the forest where young men are inducted into manhood and adulthood. As Thabo himself had relatively recently gone through the circumcision ritual, he was able, as an insider, to facilitate or broker a boundary crossing for the student teachers. Given the sacred nature of a cultural activity like this, this is a particularly intimate example of boundary crossing characterised by deep trust and a sense of mutual responsibility. Through this experience they learnt that when boys go into the forest, they leave home and school as boys and emerge as men with very different demeanours. They learnt that as teachers you need to understand this change and differentiate your teaching in order to ensure that you are being inclusive of young men now at a different stage of their lives. As an outsider, without understanding the deep cultural significance of the ritual, any change in behaviour could be interpreted as boys misbehaving and being unco-operative. The student teachers also began to understand that for the boys themselves, there are challenges in managing this new identity.

Melissa highlighted the authentic nature of this experience of immersion when she explained that "it was a way of integration but learning to look at things as they do." She concluded by reflecting that if the experience were not authentic then you would always be distant from the place. She said, "You have to be members of the place otherwise you are not going to see the realities of how difficult it is to teach there." Her deepening knowledge of context and its link to her teaching suggests her growing understanding of how important context is in organising teaching and learning.

With acceptance comes mutual responsibility, so she reflects on this and on the respect that enables the journey from the outside to the inside. For her, "Becoming an insider is about becoming part of them and doing things that are constructive to them, to their own benefit so that when you leave you have left something."

There is a sense of Melissa's discomfort with being an outsider, and an understanding and questioning of what keeps people outsiders. This is learning that is moving towards what Engeström (2009) describes as expansive learning, since, through the contradictions and tensions she experiences, Melissa begins to construct a wider alternative context for herself, leading to the possibility of culturally new patterns of activity.

Focal area 2: Organisation of teaching and learning

In this section, I discuss the student teachers' learning as they attempt to work with the challenges they encounter as they organise teaching and learning. The data revealed a number of key processes in the organisation of learning, including lesson planning and resources, teaching strategies, in particular, developing learner centred pedagogy, and the development of professional judgement.

Lesson planning

Planning for lessons is a process that is part of the training in the PGCE programme, and that is then implemented in the teaching practice periods. This process involves outlining a lesson plan, with its outcomes and procedures, taking into account the learners, the time, and the resources as part of a series of lessons. In this rural school's teaching practice so much more was required because there were many more and varied challenges, including erratic timetabling, transport challenges, unpredictable interruptions including the timing of the school feeding scheme meal, and a lack of conventional resources. In discussing specific challenges that she experienced, Cathy focused on lesson preparation and how she came to recognise the importance of planning carefully, given the rural context with its lack of resources. She reflected on what she was able to do given these constraints, and pondered, "What can I do with the materials I have? Sometimes they only have two or three [copies] of the same text for 60 kids. So, I have to choose carefully what I teach based on the available materials."

Implied in this statement is a view of herself as being able to work within the constraints of the context; there is a clear sense of her own agency. There is a recognition that when contexts are challenging, there is even greater need for strategic planning in order to meet these challenges. Here she is engaging with the process of teaching in this context and, by being responsive to it, is developing her procedural knowledge that will enable her to organise teaching and learning based on taking into account the shortage of textbooks.

Colin's recognition of the need for teachers to plan and prepare effectively is captured in his reflection on the consequences for learners of poor preparation by teachers, particularly in this context where teachers are seldom challenged. He explained,

> That made me realize that what you say to learners they take seriously so you have to be quite sure that you understand what you say and what you teach and how you think about it; otherwise you may have to unteach what you taught because you are teaching the wrong thing. If you are doing English or Maths and you teach them the incorrect thing, they will carry on doing this; especially being in this environment you have to be really prepared; that what you say you think about. . . . In this situation they really do take up everything you say.

By observing examples of inadequate planning and preparation, questioning them and reflecting upon them, rather than succumbing to an emulation of these practices or what

Lortie (1975, p. 61) referred to as an "apprenticeship of observation," Colin demonstrates expansive learning. He shows an increasing understanding of the complexity of teachers' work in the construction of an alternative approach. His developing knowledge-in-practice therefore emerges from an experience of disturbance that widens his perspective on teaching.

Although the student teachers understood the vital role of the school feeding scheme, they also reflected on the disruption caused by the often-haphazard timing of the break for the meal and the need to plan in taking into account disruptions like these. In dealing with these disruptions, Colin affirms the importance of adaptation and flexibility in planning for learning. For him,

> . . . and it was the whole structure of the school; the reality. Those kids are hungry – they have to eat after break; not much you can do, so you have to be flexible. The thing I saw was that the school had a period after school. School closed at 1.45 then had a recreational period after that. The students were always willing to go the extra mile. For me I saw when the bell rang the learners wanted to stay in class. They did not run there. This could be an opportunity to use extra time to make up for lost time. Enough time to make up for lost time in lessons.

His understanding of the need to acknowledge the context and plan flexibly is captured in his conclusion, "You had to work with time differently."

Similarly, Cathy, upon reflecting on what she learned about her teaching said,

> I learnt that spontaneity and improvisation is a very important tool especially working in those kinds of circumstances; that you can plan and planning is very important; you can plan your lessons but something will happen or the children won't respond and then you have to think on your feet and I came up with things just on the spur of the moment which worked beautifully.

Drawing on Activity theory, I see these as the contradictions, tensions, or disturbances that emerge, and, in many cases, generate opportunities for learning. The potential for contradictions in the context to act as catalysts of learning is exemplified in the student teachers' struggles since, through these struggles, they began to ask searching questions about teaching and it is this that is at the heart of deepening learning and widening perspective.

Resources

The student teachers' learning is demonstrated further in their attempts to find ways of overcoming limited resources through having to think creatively about the resources they could use and understanding the importance of drawing on learners' prior knowledge and interests. This is reflected in Sipho's response to a question about how he overcame the challenge of few resources. He wrote,

> As you know our schools, they didn't have books. So, I had to research for my teaching using my cell phone … We try to be resilient, so we use the resources we

had and also, we try to incorporate different kinds of things in our teaching, especially environment and stuff … to make learners have interest in the subject. When you bring what they know around their communities they get to be interested. So that's how we rose above those adversities.

His reflection on growing learner involvement in lessons as a consequence of a particular action on his part, is also indicative of the pedagogic interpretations that Grossman (1990) saw as central to teachers' work and that reveal Sipho's deepening teacher knowledge. The increasing ability to face a challenge and weigh up options is evidence of his developing knowledge-in-practice in that he is exercising his professional judgement in order to ensure effective teaching. In terms of Activity Theory, this is evidence of expansive learning whereby, through activity in this context and drawing on both his growing knowledge of the context and his subject knowledge, he is able to reconceptualise his approaches to teaching his subject in taking the context into account.

Learner-centred pedagogy

As the student teachers struggled with the lack of resources, with large, passive classes of unreceptive learners, with unease over the liberal use of corporal punishment, and with examples of poor teaching, they began to ask searching questions in their attempts to organise teaching and learning. In particular, their concern with learner passivity encouraged them to attempt more learner-centred pedagogies.

Student teacher learning is revealed in their explanations of their use of new approaches and their reflections on the consequent impact of these on learner behaviour. This is evident in Colin's ability to reflect on his movement from teacher-centred to learner-centred instruction. When he was asked about what he had learnt most about teaching from this experience, he focused on the concept of inclusion and the role his university tutor, Pat, played in guiding him. He explained,

> When Pat sat in my class and she helped me to realize that I was excluding pupils because you would just carry on teaching and people would be so passive in the back. So, you would not pay attention to them. So you learn how to include people in the class – one of the main things I learnt – how to include everyone; also prior learning; you really have to really know what you are talking about; how to explain more; how to clarify more; how to include all sorts of people in your classrooms.

This is an example of the development of his procedural knowledge as he shows an increasing cognisance of the need to make disciplinary knowledge accessible to learners. Similarly, this was also captured in Khanyi's reflection when she explained the need to adapt her teaching to the context of the learners because "they take long to understand what you are saying; participate little in your lessons and . . . are not exposed to a variety of things like TV, radio." She continued by explaining that "you always had to adjust your everyday learning and use examples that they might know." Here she is drawing on analogies that may be

familiar to the learners in order to enhance their comprehension rather than focussing on her own comprehension.

These examples of student teacher responsiveness to learner needs and the organisation of their teaching and learning around these needs, is at the heart of teacher learning as emphasised by Shulman (1987, p. 136) when he said, "These forms of transformation . . . wherein one moves from personal comprehension to preparing for the comprehension of others, are the essence of the act of pedagogical reasoning."

Developing professional judgement

The development of professional judgement is a key construct in understanding student teacher learning. The process of emerging critical reflection and the development of inner questioning is highlighted by Shulman (1987) in the development of teacher knowledge. This professional judgement is demonstrated in the many instructional considerations reflected in Sarah's description of her lesson. An increasing understanding of her learners, their barriers to learning, and how to organise learning so that it is comprehensible to her learners and her questioning of assessment practices all formed part of her developing professional judgement. In her discourse below, I have inserted my analysis in parentheses.

> In Grade 9 there are a lot of boys who are much older than the other students. They seem angry with life and not interested in school. I had noticed a few of these boys on the soccer field so I decided to select a soccer poem for our lesson. This turned out to be such a great lesson because they were all interested and involved in the lesson. (Here she is drawing on learner interests and prior knowledge.)

She then reflects on why she believes the lesson was successful.

> I believe that there were a few factors that really contributed to this lesson being such a success. Firstly, many teachers were not at school, so the learners seemed more at ease. (Here she is recognizing the importance of classroom environment as part of the affective domain of effective teaching.) Secondly, I had about three periods in a row which meant that I really could take my time and I could really explain the poem and different figures of speech. (This is about her recognition of the substance of learning rather than simply adherence to the forms of teaching). Thirdly, the material that I had selected was fun and enjoyable. (This is about her recognition of the importance of creativity and relevance in the selection of resources). Even though the three periods were long I never felt like the learners were getting tired of doing work. In the last period I got the learners to answer the questions I had set for these poems. I explained that they should answer in full sentences. I gave them a few examples of full sentences and I explained how to quote from the text… (Here she is scaffolding learning). When I marked them this afternoon, I was so happy with how well the learners had done . . . when I paged back in their assessment books the marks were shocking. Many books had big red rings with 6/20 or 2/20 written in them. No book had a single comment or word of encouragement. (Here she is questioning the

purpose of assessment and the importance of formative assessment). This really upset me because I knew that these learners were smart and that they want to learn. It really showed that they weren't being taught properly. Even though they were Grade 9 learners I got my stickers out and I wrote encouraging comments in each learner's book. (Here she shows that she understands the importance of positive reinforcement).

Sarah is engaged in what McEwan (1987) as quoted in Grossman (1990) described as "pedagogic interpretations" (p. 8) that he sees to be the central activity of teachers when they interpret specific content in terms of learner prior knowledge and interests.

This act of pedagogical reasoning that requires flexibility and adaptation to "the moment of teaching" (Shulman, 1987, p. 136) is also seen in Zinhle's reflection on the lack of comprehension of her learners because of their lack of prior knowledge and her response to this. She said, "You'd come up with an idea and the children would just look blank but as soon as you take that quick moment to think about it, then everything else just fell into place. I just learnt that I can stretch myself far." She is demonstrating her understanding that teachers need to be responsive to "the moment of teaching" when she sees learners' blank looks and she reflects on the reasons for this and alters her course of action. This is evidence of her developing professional judgement.

Understanding the need for a differentiated approach in order to include all learners is at the heart of the pedagogic knowledge needed for effective teaching. How to implement this approach is frequently challenging even for experienced teachers, but in Melissa's reflections in her journal there is evidence of a growing professional competence in this regard. She emphasised these insights by bracketing and italicising her emotions.

> So, you end up having a class where half the learners are finished with the task whilst the other half is still busy writing down the questions. (*What do you do?*) You end up preparing extra for those 'bright/fast' learners whilst you gradually work with, encourage, and help the others. (*It is exhausting and sometimes very difficult.*) You also just have difficult learners – but the trick is to build a good rapport with your learners. Professional and approachable – kids want structure and they want to learn. They want to engage, and I don't think ANY kids should be taught at. This kills creative and innovative thinking – it closes their minds – this is a great injustice.

What Melissa is describing is at the heart of professional judgement in that her increasing capacity to focus on her actions and their consequences is indicative of her growing expertise. As Melissa and the other student teachers have demonstrated, it includes the exercising of professional judgement in so many aspects of their work, including: the selection of the content to be taught; the pacing and sequencing of the content; the selection of examples to demonstrate a concept; assessment challenges; classroom management decisions; and issues relating to cultural diversity. Their reflections reveal that many of their assumptions regarding context, teaching strategies, resources, and classroom management were challenged, resulting in the need for them to ask deep searching questions about what they are

doing in order to ensure that learning is happening for these learners in this context. This point is reinforced by Ian, one of the university tutors, when, reflecting on the student teacher learning, he said,

> I think the student teachers learned that teaching is not the same in every context. Many students probably reflected on their own experience as learners and expected their teaching to reflect these experiences. For some it was likely to have been quite similar but for others it was undoubtedly worlds apart. Essentially, I think that students generally learned the importance of questioning their own models of what good teaching might mean to them. Those with excellent subject knowledge soon came to realize that this alone was largely worthless and without a knowledge of context, they were left with very little, so making decisions about what to do with their knowledge and how to engage with different contexts became the focus of making professional judgements.

Using evidence from the data and insights from the theory, each of these focal areas demonstrates significant development in the student teachers' learning, as well as highlighting the complex nature of this learning. The student teachers begin to gain what Clarke and Winch (2004, p. 519) called "a perceptual, judgemental and manipulative confidence," in their understanding of context and the organisation of teaching and learning. Although in discussing what the student teachers learnt, I touched on aspects of how this happened, in the next section, I explore in more depth the question of *how* the student teachers learned in the activity system of the WCRSPP.

Moments of mediation: How did the student teachers learn?

Although Shulman (1987, p. 140) suggested that Teacher Education should "provide students with the understandings and performance abilities they will need to reason their ways through and to enact a complete act of pedagogy", he does not clarify how this should be done. I consider two of the mediational processes, referred to as moments of mediation, that enabled this process of learning for the student teachers. Drawing on Activity Theory and on Engestrom's (2009) work in particular, I show how these mediating tools have the potential to change the contradictions, tensions, and disturbances into forces for new learning.

Moment of community integration

As Melissa said, "You have to be members of the place otherwise you are not going to see the realities of how difficult it is to teach there."

Living in the community

This is about the transformative nature of this rural context captured by Balfour et al. (2008, p.102) when they said that "rurality is an actively constituted constellation of forces, agencies and resources that are evident in lived experience and social processes in which teachers and community workers are changed."

The transformative nature of the context is also captured in Ian's reference to the facilitating role rurality played in affording student teachers access to the potential of the school's broader context. By living and interacting in the rural communities, both formally and informally, they came to understand who their learners were, and this enhanced their ability to plan for their teaching. This increasing understanding of their learners' context contributed to the development of one of the key domains of their developing teacher knowledge, i.e. their procedural or practical knowledge (knowledge-in-practice). This developing knowledge-in-practice is illustrated in many of the student teacher reflections including Melissa's on how she had to adjust her strategies in response to the level and interests of the learners. As she put it,

> I had so many ideas and ideals – which were modified in my first week at the school. I realized quickly that the kids/learners weren't at their respective levels in terms of the requirements of the NCS. So, I worked with their existing knowledge to try and build on it. These learners are amazing. I learned the importance of scaffolding, sticking to themes, code-switching, and repetition.

Sometimes referred to as context specific knowledge, this knowledge is learned mainly informally through participation in social activities (Knight, 2002; Stuart et al., 2009; Wilson & Demetriou, 2007), and this supports the contention that the experience of living in the community was a key moment of mediation in their learning.

In terms of the student teacher learning, the integration in the community can be seen as part of an extended "web of mentoring" (Shank, 2005, p. 78) that enabled opportunities for additional avenues of mentoring, both formal and informal in terms of community, culture, and context, all essential aspects of understanding the learners whom they taught. Student teacher reflections revealed that they could move around unafraid and cared for where they were supported materially, physically, and emotionally as they were welcomed into homes, and traditional ways of living, including being offered local traditional food. These, as well as the opportunities offered by the natural environment for teaching opportunities, were the assets of the rural community that contributed to the mediation of the student teacher learning as they developed a new understanding of what it means to be a teacher in these rural contexts with their deeply held beliefs and practices.

The development of professional judgement in this context required knowledge of learners and their context. Student teachers were beginning to understand that teaching involves learning including learning about how to teach a subject in different contexts that require learning about the learners' worlds. For example, the student teachers were able to respond appropriately to those boy learners who had emerged from the winter circumcision rituals as men in adapting their approaches to meet the needs of these learners' changed identity. Instead of interpreting these learners' changed demeanour as insolence, their integration into the community enabled the student teachers to understand cultural nuances and their consequent impact on learner identity. This growing knowledge of context affected their organisation of teaching and learning. Without integration into the community through the opportunities afforded to them by various brokers, they could have remained oblivious to

these kinds of contextual factors. This is a challenge faced by many teachers in rural schools when they deliberately exclude themselves from the context of their schools by invoking their status as teachers and by living outside these communities.

Community and identity

The potential for expansive learning emerged from the contradictory demands between many of the student teachers' previously lived experiences and this new largely unfamiliar context. There are many examples of the impact, frequently transformative, of their cultural immersion experiences, epitomised by Melissa's description of what it meant when she said, "We basically did everything as though we were in the community. We weren't there as visitors, as tourists . . . It was a way of integration [and] learning to look at things as they do."

Melissa reflected on the concept of integration as involvement in a range of local activities but also there was a sense of deeper belonging and transformation in her reflection about "learning to look at things as they do." This supports Wenger's contention that "building an identity consists of negotiating the meanings of our experience of membership in social communities" (1998, p. 145). In the WCRSPP, the moment of integration into the rural community became an experience of changing identity for the student teachers in that the learning transformed who they were and what they could do. They confirmed a new understanding of rural contexts with their challenges and strengths, as well as what it means to be a teacher in these rural contexts, demonstrating an increasing sense of what they were able to do (i.e. their agency) and why they chose to become teachers. This growing sense of agency and self-efficacy is captured in the student teacher reflections, epitomised by Bongeka when she said "It just built me and made me as a person you know…"

Korthagen & Wubbels (2001, p. 142), defined reflection as a form of meta-cognition that can be threatening to the self-image. Therefore, for reflection to occur, they suggested that a high degree of self-efficacy is needed. There is evidence in these student teachers' voices of an increasing reflectiveness as they become more adept at living and teaching in this context.

The moment of community integration as a transformative moment in the student teacher learning, when many of their preconceptions were challenged, is captured by Anne, one of the university tutors, when she said,

> I think they had to rethink their whole attitude – how do I handle a context like this? I think putting them in that project made them think about themselves, how to react to that, but I think a lot of them came away enriched by it – they had been transformed by what they saw there, the way that school functioned, the community functioned and they had to rethink their whole idea what it can be like; what it can entail being a teacher, what being a teacher is … and they had to rethink a lot of what they presumed teaching would be about.

Anne used the term "rethink" here several times in relation to "being a teacher," in pointing to their learning through reflection in this context that was indicative of expansive learning.

Moment of conferring with university tutors

She feeds us both nutritionally and mentally.

The metaphor used by Nonhlanhla above, captures the dynamic of the moment of conferring with the university tutors and the multi-faceted aspects of the mediation. It suggests that the tutor support was both formal and informal, that the tools of mediation were both psychological and pedagogical, and the concept of feeding suggests how vital this support was to their personal and professional growth and development. There is a sense of the university tutors' mediational role as being life supporting in an unpredictable and challenging context. These processes of analysing contradictions and resolving conflictual tensions, modelling new approaches; and examining new models are seen as key by Engeström (2009) in the development of expansive learning, so evident in the student teachers' moment of conferring with their university tutors.

University tutors in their roles as guides, brokers, co-learners, and friends were never perceived by the student teachers as the central authority in a hierarchical sense, so the concept of "negotiated knotworking" (Engeström, 2008, p. 19), with its emphasis on collaboration between participants without rigidly defined rules, emerging through the facing of "constant disturbances, ruptures, and unanticipated learning imperatives" (p. 20), has relevance to an understanding of the nature of the student teacher-university tutor collaboration. The concept of knot refers to "rapidly pulsating distributed, and partially improvised orchestration of collaborative performance . . [where] the locus of initiative changes from moment to moment in a knotworking sequence" (p. 194). Similarly, the complex interdependent nature of the student teacher-university tutor relationship, with its shifting "locus of initiative," as they draw on different strengths in teasing out the solutions to difficult situations or dilemmas together, is a form of knotworking.

Emerging community of practice

Drawing on Wenger's (1998) elaboration of the concept of practice as the source of coherence of a community of practice, the student teachers and the university tutors were mutually engaged in the joint enterprise of organising learning in a deeply rural context in drawing on and together developing a shared repertoire of resources. Given the unpredictability in terms of context and demands, university tutors needed to support the student teachers in the development of the flexible problem solving and professional judgement needed to respond to the unexpected demands of this context. In a sense, the moment of conferring was about the student teachers and the university tutors together learning new forms of activity that could not be planned for, with the university tutors, through their experience and expertise (as old-timers) able to guide and support the student teachers (as newcomers) in the development of their procedural knowledge.

Relationships

Drawing both from the student teacher and university tutor voices, in the WCRSPP the unique situation of shared living and working space influenced the development of the

student teacher-university tutor relationships and practices. This particular relationship embodied what Shank (2005, p. 73) called "a collaborative enquiry group" in a mentoring space that is "dynamic and reciprocal." This is captured in the student teacher voices as they reflected on the diverse and dynamic nature of the support and the many moments in which, together with their university tutors, they conferred on challenges, strategies, and successes. Reflections like Kelly's in which she describes her university tutor as a "sounding board" and someone who "helps put your issue into perspective", suggest the many opportunities for conferring between student teachers and their university tutors. The importance of a conferring space or moment is also highlighted by the university tutors themselves, as Ian pointed out when he said,

> The more unusual provision of time and space to engage with student teachers more fully was, in my opinion a significant feature of the project . . . [and] provided a grounded, safe space to face unexpected and unusual challenges.

Drawing from Engeström (2009), I suggest that it is in the affordances of this extended space of mentoring and support that processes of analysing contradictions and resolving conflictual tensions, modelling new approaches, and examining new models become part of the mediational tools necessary for the development of expansive learning. The extended opportunities for learning are what Colin alluded to when he compared the nature of the mentoring experience in the WCRSPP to traditional mentoring experiences. He said,

> Also, I feel that the (usual) university approach of watching one lesson, writing out stuff and short feedback is not great. Here we could talk about stuff – extended time. We had more time to be more reflective.

Anne, one of the university tutors, similarly reiterated the significance of these extended periods of interaction when she said,

> I think it was because I was with them all the time . . . so I think this was a much more personal relationship and it extended beyond just a crit, and quite often it was – let's do it again and let's see if it will work better.

This is about a deep moment of conferring emerging from a significant relationship of trust; in both reflections there is an emphasis on the extended moment of conferring, as well as on the expanded nature of the process. Here, the traditional approach of the isolated visits or so-called crits in conventional teaching practice, with their emphasis on the acquisition of well-defined knowledge and skills, is replaced by what Engeström (2009, p. 64) called "care relationships" that become the key conceptual tool in the student teacher learning process. Similarly, Manning and Hobson (2017), drawing on recent studies, reflected on the increasingly judgemental approaches to mentoring that emerge from an over emphasis on assessment instead of developmental approaches that incorporate the roles of counsellor, guide, and coach, with their transformative potential.

An important aspect of the university tutor mediation included the modelling of different aspects of teachers' work. Engeström (2009, p. 69) saw modelling as a strategic action in expansive learning when he explained its emergence and significance in saying,

> Modelling is already involved in the formulation of the framework and the results of the analysis of contradictions, and it reaches its fruition in the modelling of the new solution, the new instrumentality, the new pattern of activity.

An example of how modelling was used by a tutor, is illustrated in Anne's reflections on the development of student teachers' increasing reflexivity in reconceptualising their actions in a challenging school space. She noted that

> the staff, particularly the leadership were quite dysfunctional, but all this time they (the student teachers) were having to say what do I do in this situation, where do we go from here.

Her reflection on her role in this reconceptualisation suggests the modelling of an alternative that is able to generate "a new pattern of activity" (Engeström, 2009 p. 69) by the student teachers that is indicative of deepened learning. For her,

> I think there were a lot of aspects that I was able to share, like practical classroom management, just how do you get on in your classroom and organise your day.

Emerging identity

The data revealed increasing evidence of the development of student teachers' reflections in and on practice that Frick et al. (2010) suggested can facilitate the development of professional identity. They explained this professional identity in terms of the development of core beliefs about teaching and being a teacher, including the concept of mission, in relation to others. The many examples of student teacher reflections on teaching, their roles as teachers, and their increasing agency, "transforming who they were and what they could do" (Wenger, 1998, p. 215), suggested that their developing professional identity was emerging through the moments of conferring with their tutors. As I suggested earlier, the moment of conferring enabled a reflective, safe space for both student teachers and their university tutors, and created an opportunity for reconceptualisations of practices, concepts, and values contributing to developing teacher agency. This was captured in Pat's reflection when she said,

> It wasn't about saying you're doing this or that wrong, but rather let's sit down and talk about it and work it out. It helped them try things that are different, without fear of failure … and that contributed to their development.

What is important about the space is that it is supportive in encouraging the development of self-efficacy rather than dependency.

Conclusion

In this study, I set out to understand particular aspects of the student teacher learning in the WCRSPP, with a focus on understanding *what* they learned and *how* they learned. Reflecting on the voices of both student teachers and university tutors affords us an insight into the complexity of learning how to teach in a rural South African context, thus countering the suggestion of something defined and predictable about what teachers need to know. This approach to the acquisition of well-defined knowledge and skills, also conceptualises the "competent teacher" as one who knows what knowledge and skills need to be learned. In supporting his criticism of this approach, Engeström (2009, p. 58) explained, "In important transformations of our personal lives and organisational practices, we must learn new forms of activity which are not yet there. They are literally learned as they are being created. There is no competent teacher." Here, by highlighting the instability of contexts and the potential for deep learning that can emerge in unexpected ways, he is challenging the notion of learning being clearly defined and stable and the belief that competent teachers can predict what skills and knowledge are needed. This point is echoed in the voices of the student teachers and their university tutors in the WCRSPP as they wrestle with both the challenges and the opportunities of the context, frequently struggling to make sense of a teaching context that defies any notion of learning being clearly defined, stable, and easily transferable from their university context. Competence and learning in this context take on very different meanings since the student teachers have to learn new transformative forms of activity in the moment of engagement through drawing on the resources offered by the context. I suggest that it is supported experiences like these in challenging contexts where deep, searching questions need to be asked about the relationship between and among context, teaching, and identity, that can offer opportunities for the development of expansive learning in student teachers, enabling them not only to contain the challenges in the context but to use them in ways that result in approaches that are flexible, creative, and responsive to context.

Given the diversity and complexity of the South African context, this raises questions about what knowledge for teachers means in South Africa and what the implications are for Teacher Education. Emerging from the study is a suggestion that Teacher Education should engage more purposively with the complexity of learning to teach, and provide opportunities for the disruption of existing knowledge, challenge existing narrow preconceptions of context and what it might mean to be a teacher and, in this way, generate opportunities for the construction of alternatives.

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