

HIGHER DEGREE RESEARCH AS PROFESSIONAL LEARNING FOR TEACHERS: A COHORT PERSPECTIVE

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Bachelor of Education, Secondary

Submitted in fulfilment of the requirements for the degree of
Master of Education (Research)

Faculty of Education
Queensland University of Technology
2017

Keywords

cohort; Higher Degree Research; liminality; Masters of Education; professional learning, part-time research; praxis; reflexivity; threshold concepts; time

Abstract

Recent education policy initiatives describe quality teachers as research informed practitioners. This thesis explored how a cohort of six full-time teachers negotiated and explained their teaching practice as a result of their formal HDR learning in a Masters of Education. Qualitative reflections from two surveys and the GoingOK web application were theorized using an ecologies of practices framework (Kemmis et al., 2014) and the 4R's of reflective thinking (Bain, 2002; Carrington & Selva, 2010; Ryan, 2013). Concepts of praxis, threshold concepts and the collisions of circular and linear time patterns were identified as significant factors that informed the ways that teacher-researchers negotiated their changing identities.

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List of Abbreviations

| | |
|-------|--|
| CPL | Continual Professional Learning |
| DETE | Department of Education, Training and Employment |
| DET | Department of Education and Training |
| HDR | Higher Degree Research |
| MEd | Master of Education |
| PD | Professional Development |
| QSRLS | Queensland School Reform Longitudinal Study |

Statement of Original Authorship

The work contained in this thesis has not been previously submitted to meet requirements for an award at this or any other higher education institution. To the best of my knowledge and belief, the thesis contains no material previously published or written by another person except where due reference is made.

Signature: QUT Verified Signature

Date: June 2017

Acknowledgements

Completing this thesis has been the ultimate in achieving delayed academic gratification and has only been possible through the contributions of many. My family, especially my wife Marta, thank you for supporting me through the academic struggle and taking up the slack when I needed to put the head down to study, and my children Ethan and Alba, thanks for not complaining too much when I needed to do some work, which was often, and usually during holidays. A huge vote of thanks to the teachers and students at school and throughout the cluster who supported my meandering into academia, in particular the other 5 members of the LG6 who provided the motivation and support for this research, the first year was epic! Lastly to both of my supervisors, Dr Jill Willis and Professor Mary Ryan, your wise guidance, patience and unwavering support was integral in dragging me across the line, finally.

Chapter 1: Introduction

The concept that when teachers obtain a research qualification it improves their classroom practice was not my own experience as a school student. The teacher at my high school with the highest level of tertiary qualifications (PhD) was the teacher from whom it was the least inspiring to learn. The idea that higher qualifications might assist teachers to understand and perform their work better was a concept that became interesting to me again when I was a teacher and deputy principal, and was a catalyst to inspire this study. At the time this study began, there was a directive encouraging Queensland teachers to consider enrolling in a Master of Education (MEd). This thesis investigates the relationship between the work of teachers and their tertiary learning in a Master of Education research program, through a case study approach. In this introductory chapter the context of the case study is outlined, the research question is identified and key terms to be used within the paper are introduced.

1.1 THE LG6 COHORT AS A HDR CASE STUDY

This study focuses on the learning of six educators from one inner Brisbane state primary school who enrolled in the Master of Education Research of a nearby university during 2013. This group of six are referred to in the writing as LG6, meaning ‘Leafy Green 6’, a symbolic colloquial term given to many of the well-established, high socio-economic schools in inner city Brisbane. The school hereafter will be referred to as Leafy Green State School (LGSS). Through an established partnership already in place with the University through a teacher mentor program, the teachers became aware of an MEd research pathway opportunity. The group of six teachers and administrators from the school were initially interested in enrolling in an MEd research program in order to access the latest research and literature to develop their school wide pedagogical framework that was a requirement of the system authority. The genesis of the LG6 cohort enrolment was therefore influenced by the policy environment of the time.

The most immediate influential policy was outlined by the Department of Education, Training and Employment (DETE) document *United in our Pursuit of*

Excellence - Agenda for Improvement 2012–2016 (Department of Education Training and Employment (DETE), 2012, p. 33), that schools “develop a local pedagogical model that guides high quality teaching practice, in line with the core systemic principles in the *Pedagogical Framework*”. LGSS school staff considered the opportunity this policy presented and decided to develop their own school based pedagogical framework, working in teacher teams to locate research that described the best practice in each pedagogic area. The staff agreed in a planning meeting that they wanted to make LGSS’s pedagogical framework research-based, dynamic and digital in material, developed within the school community and be aspirational in terms of the pedagogy expected. A federal government grant for school based teacher research provided support for resources and to gather input from the community. After initial attempts to identify quality peer reviewed research, the LGSS leadership team realised that access to in-depth and up to date educational research was most readily sourced from within the university sector. Six teachers and administrators from LGSS, who intended to contribute to the pedagogical framework project, then made individual decisions to enroll in the Master of Education degree by research at a local university.

Through further discussions with the university, LG6 participants enrolled in the Master of Education degree by research as a cohort. While a cohort is usually defined as a form of HDR supervision where a single supervisor mentors a group of students (Choy, Delahaye, & Saggars, 2015), in this case the students identified themselves as a peer cohort because they all worked at the same school and began their MEd research together. They mentored one another, and initially all had informal mentoring from one supervisor. After strengthening their understanding of research methodology and critiquing research papers within a research methodology course, each LG6 member decided on their own topics to begin the process of developing their own individual research projects, with separate supervision teams. The HDR course structure is outlined in *Figure 1.1* below.

| Year | Year 1 | | Year 2 | | Year 3 |
|-----------|--|--------------------------------------|---|---------------------|---------------------|
| Full Time | Conducting and Evaluating Educational Research | | Shaping an Educational Research Project | | |
| | 1. Preparation stage | 2. Confirmation of candidature stage | 3. Implementation stage | 4. Submission stage | |
| Part Time | Conducting and Evaluating Educational Research | | Shaping an Educational Research Project | | |
| | 1. Preparation stage | 2. Confirmation of candidature stage | 3. Implementation stage | | 4. Submission Stage |

Figure 1.1. HDR course structure and timeline.

The peer cohort approach was designed to provide a sense of accountability to the group and according to Lassig et al. (2009), peers in the cohort would also experience additional benefits of motivation, confidence, peer support, and to a lesser extent, the benefits of improved writing quality and shared writing experiences. As one of the 6 participants, I also began the journey of understanding the role of becoming a participant researcher where I assumed part of the responsibility for the groups' focus and narrating the experiences of change (Creswell, 2012). In contrast to spectator research, as a participant researcher I was an inescapable part of the situation being studied (Simons, 2009). As an insider-practitioner I viewed practice from within and had the opportunity to recognise, respect, reflect and engage with the groups' "*interpretive categories, their lived realities, and their experience*" (Kemmis, 2012, p. 893). Through my initial research I became curious about the variety and dissonance of research dedicated to identifying and measuring the qualities of effective teachers, and the intersections between the policy discourses about research and daily teacher practices.

The LG6 cohort experience was situated within a broader school based culture of teacher team-based learning and teacher led change. In this study, both the principal and deputy principal of the school were part of the LG6 cohort, and were aware of the significant challenges teachers faced with balancing part-time study whilst undertaking full-time work in a school situation. All staff members were considered valuable contributors to the development of the school's pedagogical framework with a culture of distributed and shared leadership within the whole school teaching team. Smaller teams took responsibility for a branch of research to explore the current findings and best practice scenarios. Leaders of these smaller groups developing the school's pedagogical framework consisted of 12 teachers in total and included members of the LG6.

The LG6 cohort provided an ideal opportunity to explore the possible impacts further study would have on the pedagogical practices of the LG6 members at the school level. The research inquiry was a qualitative case study of the higher degree professional learning experiences of a cohort that explored the “shared patterns that develop as a group over time” (Creswell, 2012, p. 465). The experiences of the group as a whole provide the boundaries of the case, rather than individual experiences. A case study has been broadly defined as “that process of conducting systematic, critical inquiry into a phenomenon of choice and generating understanding to contribute to cumulative public knowledge of the topic” (Simons, 2009, p. 8). Simons (2009) acknowledges that definitions of case studies can vary and depend on the philosophical, epistemological and methodological preferences. Whilst providing multiple elements of difference, it was important to establish and identify the case study traditions the research called upon (Stake, 1995). For the purposes of this research, the case study research approach will be understood as:

an in-depth exploration from multiple perspectives of the complexity and uniqueness of a particular project, policy, institution, programme or system in a ‘real life’ context. It is research-based, inclusive of different methods and is evidence-led. The primary purpose is to generate in-depth understanding of a specific topic (as in a thesis), programme, policy, institution or system to generate knowledge and/or inform policy development, professional practice and civil or community action (Simons, 2009, p. 11).

The research investigates potential benefits and tensions that emerged when full-time teachers reflect on their own pedagogic practices as educators from their perspectives as part-time HDR students. The study focuses on answering the following research question:

How do full-time teachers studying a part-time Master of Education degree negotiate and explain the implications of their research within their teaching practice?

1.2 THE POLICY CONTEXT

In this section, the experiences of the LG6 cohort and their professional learning needs are positioned within the historical context that led up to the group’s focus on pedagogic frameworks. This policy history emphasises the importance of

teacher professional learning as curriculum, assessment and pedagogic priorities have shifted regularly over time. The policy impetus for schools to develop consistent pedagogical frameworks was introduced as a result of teaching and learning audits in all schools across Queensland in 2010. However this phase was built on a ten-year history of pedagogic and curriculum policy innovations designed to create a consistency of teacher practice. In this section, the major phases of curriculum and pedagogic changes that were designed to improve teacher practice are outlined. In each phase, the lack of support for teacher professional learning is recognised as a significant factor for why the introductions were not deemed successful.

1.2.1 New Basics and outcomes based education

From 2002, Queensland schools trialled either of two curriculum frameworks, New Basics or outcomes based education, throughout all education sectors (Cooper, 2007, p. 15). These trials had variable effects, as strategies to support teacher learning were not considered in sufficient detail to support the implementation. Cooper (2007, p. 15) argues that the outcomes based education model had significant educational merit that was never met due to a “lack of understanding of the curriculum’s intended constructivist theory and pedagogy”. Cooper also contends that the Queensland Studies Authority (QSA), the body responsible for implementation, had “failed to sufficiently support schools understand how to engage students with outcomes” (2007, p. 17). Cooper claims his study demonstrated the resistance to outcomes based education from teachers was due to the failings of the professional development plan being “unable to apply the learning theory it wished teachers to take into the classroom” (2007, p. 33). In essence, the introduction of outcomes was more than a shift in syllabus content and school administrators and teachers were required to “understand and engage with an unfamiliar ideology to effectively take outcomes based education into the classroom” (Cooper, 2007, p. 16). As a result, this curriculum policy introduction looked different throughout every school as teachers negotiated different meanings in practice. Ball, Maguire, Braun, and Hoskins (2011, p. 637) argue “teachers are positioned differently in relation to policy in a variety of senses”, with policy change “contributing to ‘precariousness’ as the school is continually disrupted or faced with contradictory expectations” (p. 637). As further curriculum changes are described it will become more evident how

teachers have been expected to unquestioningly change practice and adopt new ways of working. These documented shifts in educational policy assist in highlighting how changes in policy are not straightforward translations of changes to the way in which teachers work in classrooms.

The New Basics curriculum framework stemmed from the findings of the *Queensland School Reform Longitudinal Study* (QSRLS) with consideration given to Bernstein's (1971), (as cited in Ailwood & Follers, 2002, p. 3), three-message system of "curriculum (New Basics), pedagogy (Productive Pedagogies) and assessment (Rich Tasks)". These three elements which were indelibly linked as the curriculum of New Basics, "were not deliverable without significant shifts in pedagogy, and furthermore the New Basics and Productive Pedagogies necessitated rich and authentic assessment" (Ailwood & Follers, 2002, p. 3). It has been long been acknowledged that effective teachers are essential to providing "a curriculum intent on providing socially equitable, quality learning" (Gore et al., in Cooper, 2007, p. 21). The Productive Pedagogies gave teachers a meta-language to critically reflect on interactions between the teacher and the learner(s), were a refreshing paradigm shift for teachers, and seen as a significant driver of quality professional learning (Zyngier, 2005). The Productive Pedagogies framework persisted longer than the other elements in the New Basics initiative, and as this study focuses on teacher pedagogic practice, it is important to explore the Productive Pedagogies approach in more detail, in particular the implementation of the new curriculum, the support given to teachers and supporting education policy informing the roll out of the new curriculum.

1.2.2 The Productive Pedagogies

Resulting from a large Australian research project – the Queensland School Reform Longitudinal Study (Lingard, 2007) the Productive Pedagogies became the heart of teacher pedagogy during the first decade of the new millennium. Teachers throughout Queensland became familiar with the intent of the program and associated terminology underpinning the framework. The four overarching dimensions were broken down to the twenty sub categories coined the "productive pedagogies" and also listed a further seventeen "productive assessments" as detailed in Table 1.1.

Table 1.1

Relationships between productive pedagogies and productive assessment

| Dimensions | Productive Pedagogies | Productive Assessments |
|--|---|--|
| Intellectual quality | Problematic knowledge | Problematic knowledge: construction of knowledge Problematic knowledge: consideration of alternatives |
| | Higher-order thinking | Higher-order thinking |
| | Depth of knowledge Depth of students' understanding | Depth of knowledge: disciplinary content Depth of knowledge: disciplinary processes |
| | Substantive conversation | Elaborated written communication |
| | Meta-language | Meta-language |
| Connectedness | Connectedness to the world beyond the classroom | Connectedness: problem connected to the world beyond the classroom |
| | Knowledge integration | Knowledge integration |
| | Background knowledge | Link to background knowledge |
| | Problem-based curriculum | Problem-based curriculum Connectedness: audience beyond the school |
| Supportiveness | Students' direction Explicit quality performance criteria Social support Academic engagement Student self-regulation | Students' direction Explicit quality performance criteria |
| Working with and valuing of difference | Cultural knowledge Active citizenship Narrative Group identities in learning communities Representation | Cultural knowledge Active citizenship Group identities in learning communities |

Adapted from (Lingard, 2007, p. 257)

The Productive Pedagogies were an important policy innovation as they gave teachers a meta-language to relate effective teacher pedagogy to effective teacher practice and went a long way in describing and detailing the research behind these

theories (Cooper, 2007, p. 22). Professional learning to transform the meta-language to teacher practice was however insufficient and not adequately developed. Lingard and others (2007) found that the focus on testing and an accountability agenda at the time had resulted in a narrowing of the curriculum. This outcome reflects other findings with an increasing focus on measuring outcomes leading to a reduction in higher order and critical thinking and a dilution of intellectual rigor and cognitive demand (Luke, 2004).

Lingard (2007) in his seminal review of the Productive Pedagogies, titled ‘Pedagogies of indifference’, suggested that only one dimension (*supportiveness*) of the four overarching dimensions, (*intellectual quality, connectedness, supportiveness and working with and valuing of difference*), was clearly evident in teacher practices. The researchers recorded very supportive and caring teachers throughout their observations in Queensland schools practicing “an almost social worker version of teachers’ work” (Lingard, 2007, p. 257). The actual pedagogies mapped did not demonstrate strong elements throughout the other three dimensions of the Productive Pedagogies, in their “lack of intellectual demand, their non-connectedness, and their absence of working with and valuing difference dimensions of productive pedagogies” (Lingard, 2007, p. 257). Mills et al. (2009) support the four dimensions of the productive pedagogies framework, however they make a number of suggestions to refine and slightly rework some of the items. Although the original QSRLS study gathered data through classroom observations, Mills et al. (2009) critiqued the evidence gathering process in their study and identify a number of limitations for consideration, including; an insufficient focus on teachers’ pedagogical content knowledge, a lack of student voice, and questions about whether researchers were equipped to make observations in content specific subject areas. Teachers were just becoming familiar with the language and terminology of the Productive Pedagogies, however the landscape was about to change once more, shifting the focus from the common and shared elements they had developed over time to an approach to teacher learning where teachers were expected to discuss, develop and critique teacher work.

1.2.3 Queensland Curriculum Assessment and Reporting Framework

By 2005, development of the Queensland Curriculum, Assessment and Reporting (QCAR) framework had started, with implementation occurring in 2009.

With a focus on assessment and moderation, significant effort was provided to bring teachers together for professional conversations about making judgments about assessment standards as “written descriptors plus annotated work samples were insufficient for teachers to understand and apply the use of achievement standards” (Klenowski, 2011, p. 81). The introduction of Queensland Comparable Assessment Tasks (QCATs) was intended to “improve teacher capacity and assessment literacy by demonstrating the nature of quality assured assessment tasks that were designed to be authentic and performance based” (Klenowski, 2011, p. 81). This shift was important for teachers to determine a sense of collective power in their judgments on student assessment and made the reporting more meaningful as they engaged with the “assessment as a learning process” (Klenowski, 2011, p. 82). The social moderation practices broke new ground in gathering teacher teams together in Queensland schools to discuss student work. This was an important step in developing trust relationships within teacher groups as these communities of teachers grew more comfortable sharing and discussing student work.

The social moderation processes were based on Queensland Comparative Assessment Tasks (QCATs), which were authentic, performance-based assessment tasks, designed to assess a selection of Essential Learnings (ELs) (what students should know, understand and be able to do) in English, Mathematics and Science in Years 4, 6 and 9. The information collected from the QCATs was considered low-stakes data and it was not intended that it be used for measuring school or teacher effectiveness. Queensland conceptualised the QCAR framework from the view that assessment should be an integral part of teaching and learning (Klenowski, 2011, p. 81). Standards articulating the quality of student achievement described on a five point scale from A to E were accompanied by student work samples, and guides to assist teachers making judgments. These were uploaded to an online assessment bank with the intent of supporting “the development of shared understanding about the interpretation and application of standards” (QSA in Klenowski, 2011, p. 81). Many of the resources associated with implementing the QCAR curriculum were sourced through digital, online channels. Due to the increasing use of technology, the skillset informing teacher practice changed and also disrupted the boundaries of their work as the physical walls of the classroom no longer dictated how teacher work was undertaken and communicated (Thompson & Cook, 2017). For teachers

uncomfortable with using this technology, their capacity to access resources integral to their work became difficult and challenged their sense of identity, as the ability to use technology became the new knowledge pathway.

This growing archive of online resources available to teachers signified a shift in learning expectations whereby teachers were required to take a higher level of responsibility in developing their own practice. The emphasis on social moderation of student work samples was introduced to ensure “coherence between classroom assessment and system-level accountability that includes system interests in transparency of schooling outcomes” (Klenowski, 2011, p. 81). Standards based moderation and assessment were considered “new practices for middle school teachers in Queensland, despite the state’s long history of such practices in the senior years of schooling” (Adie, 2012, p. 92). Social moderation of student work samples provided a learning opportunity for teachers through participation in increasingly complex activities, where they were able to develop shared meaning and understanding of thoughts, ideas and practices (Adie, 2012). There was progress being made throughout the moderation and assessment practices to improve opportunities for developing shared language around a socialised model of assessment and moderation, however the focus was task oriented and not aligned with improving teacher performance or pedagogic practices. As schools and teachers finally became familiar with the QCAR format and language of curriculum interpretation, another shift occurred to a national agenda of curriculum implementation in schools throughout Australia. With each of these shifts teachers were again required to learn new ways of working and new professional language as the pendulum of professional learning moved quickly between policy driven agendas and a systems-based model for delivering education in schools.

1.2.4 The Australian Curriculum and state audits

Schools and teachers moved into yet another change of expectations for quality teaching practice between 2009 with the introduction of teaching and learning audits and 2013 with the implementation of the Australian Curriculum in Queensland. The phased implementation of the Australian curriculum included English, Mathematics and Science introduced in 2012, History in 2013 and Geography in 2014 from Prep to Year 10 (Department of Education Training and Employment (DETE), 2013c). One argument for this next change was for the

Queensland curriculum to align with the majority of other states and territories within Australia. Additionally, the Education Queensland website states “Queensland's implementation of the Australian Curriculum retains proven teaching and assessment practices and focuses on improving student achievement” (DETE, 2013c). The Queensland Department of Education and Training developed a suite of resources, *Curriculum into the Classroom* (C2C), to support teachers and provide a blueprint for implementing the curriculum in Queensland schools. The systemic view of this C2C resource concluded that it was essentially the same as implementing the new national curriculum (Lowe & Appleton, 2015). The transition to the national curriculum was a staged approach with schools given some flexibility towards their individual implementation schedules, with individual schools responsible for teacher professional learning as well as the actual rate and model of implementation. Top down approaches of prescribing curriculum have not been effective in other contexts (van Driel, Beijaard, & Verloop, 2001). Similar criticisms were made of the implementation of the Productive Pedagogies curriculum (Mills et al., 2009), where Lingard and Keddie (2013) reported a significant disconnect between Government priorities of the time and an alignment of professional support for teachers to engage with and understand respect of difference. Mitchell and Sackney (2015) refer to this disconnect as a failure of governing systems to properly implement educational reform, where the focus has been on teachers and leaders to do something different, without the understanding that to do something different you have to be something different. Stronger support for teachers to understand educational reform and shift their ontology responsively would then allow epistemology to flow from an understanding and redefinition of their place within the reform agenda.

A letter to the Queensland Premier, from Masters (2009a) forecast a renewed focus on pedagogy and outlined recommendations for the Department of Education and Training resulting from a review of literacy, numeracy and science performances of Queensland primary students. These included “creating a state-wide culture of continuous improvement that includes targets and systems for monitoring school performance and improvement” (Masters, 2009a). The focus of the following report (Masters, 2009b) identified a need to improve the number of highly effective teachers with a summary of the intent of the report outlined below:

In brief, improved levels of achievement in primary schools depend on the development of a culture of continuous improvement across all parts of a system: from classroom teachers to school leaders to system managers and governments. Central to a continuous improvement culture is an understanding that the key to improving student performance is to improve classroom teaching. All parts of the system are then focused on the pursuit of this central objective (Masters, 2009b, p. 3).

As a result of the Masters (2009b) report, a subtle systemic shift occurred from focusing on the curriculum content that teachers were teaching and developing quality assessment tools in order to understand how the learning was measured, towards a focus on teacher pedagogy and performance to understand how well teachers were doing their job. In 2010, state-wide teaching and learning audits were introduced to Queensland state schools as a response to Masters (2009b) recommendations outlining “critical aspects of curriculum, teaching, learning and assessment...directly related to achieving school-wide improvements in teaching and learning” (Masters as cited in Campling, Sedgman, & Savvakis, 2012, p. 3). The audit process was undertaken by highly trained, experienced and independent Queensland state school principals who made judgements about “school practices against defined criteria” (Campling et al., 2012).

These criteria were eight dimensions:

1. An Explicit Improvement Agenda
2. Analysis and Discussion of Data
3. A Culture that Promotes Learning
4. Targeted Use of School Resources
5. An Expert Teaching Team
6. Systematic Curriculum Delivery
7. Tailored Classroom Learning
8. Evidence-based Teaching

(Adapted from Campling et al., 2012, p. 3)

As a result of the audit process, schools were given a detailed report clearly outlining commendations, recommendations and affirmations, which was used to inform their planning processes (Campling et al., 2012). Within 2 years of implementing the teaching and learning audits throughout Queensland, schools had “shown significant improvement in teaching and learning processes with the vast majority showing positive change from one year to the next” (Campling et al., 2012, p. 2). Whilst this statement outlined some success in a wider discourse of a positive improvement agenda, it also suggested that there was an existing inconsistency in the interpretation of the curriculum into classrooms across Queensland prior to the audits being conducted. In their analysis of this policy agenda, employing authorities drew on research that had identified teachers as the biggest ‘in school’ influence on student learning (Hattie, 2009). As a result, there was an increased focus on teachers’ professional learning by the school system leaders. However, little attention was paid to discursive shifts in ‘policyscapes’ with teachers uninformed about the research informing their practice and uncertain of the politics impacting on the working conditions of teachers (Blackmore, 2002). Emerging public discourse saw teachers being blamed when students failed to reach individual or collective standard of learning (Dinham, 2013). Response to this criticism and concerns about consistency of teacher practice led to an increase in policies framed around improvement agendas for school with an emphasis on teacher capability as a focus for system improvement.

Dinham (2013) claims that there needs to be realistic discourse regarding the improvement of student achievement as “not every teacher is going to be able to bring every student to an average or above-average level of performance – a statistical and practical impossibility” (p. 101). Australia has been described as being at a crossroads in our development as a country and the national initiatives around enhancing the quality of teaching introduced since 2007 as being significant and substantial (Dinham, 2013). There has also recently been a growing chorus of criticism of teacher education, teachers and school performance in Australia, with the assumption that “all teachers, teacher candidates and teacher education courses are equally ineffective” (Dinham, 2013, p. 93). With increasing accountability measures introduced with recent changes of state and federal government, along with additional funding allowances, greater pressure is being placed on teachers and

school leaders to improve student academic achievement. Teachers in Queensland state schools have become accustomed to feeling the effects of politically driven educational change agendas. The LG6 teachers began their HDR studies in the context of teachers being encouraged to be ‘evidence informed’ practitioners. However Blackmore (2002, p. 262) contends “evidence alone, without a wider analytical framework of how policy works and an understanding of social relationships, lacks epistemological depth” and an ethical and professional foundation to improve teacher practice upon.

Looking back, these policy principles, in particular the policy principles of *A Culture that Promotes Learning, Evidence-based Teaching* and *An Expert Teaching Team* (DETE, 2013b) can be seen to have informed the reason why the LG6 saw HDR as an attractive possibility. Pre-packaged programs and initiatives became a response for schools to attempt to comply with multiple and sometimes contradictory policies and reforms (Luke as cited in Mitchell & Sackney, 2015). The LGSS teachers felt they had an opportunity to identify areas of improvement and inform their pedagogy through research and evidence-based practice rather than a system-delivered training regime. There was scope within the pedagogic framework policy for schools to establish their own ways of working within a broader improvement and accountability agenda.

1.3 A FOCUS ON PEDAGOGY, PRACTICE AND PROFESSIONAL LEARNING

With all of these changes in policy and curriculum landscapes in Queensland, it was clear that teachers faced an ongoing professional learning challenge in a system delivering changing and at times conflicting messages about education priorities. Teachers were expected to cater to diverse student groups and implement new curricula whilst adjusting to the complexities of these political agendas, which has been recognised as “an overwhelming space for teachers to inhabit” (Ryan, 2013, p. 411). Changes in government had a flow-on effect, beginning with changes in policy and eventuating in changes to what happened in the classroom. While scope had been provided in Queensland schools to develop individual pedagogical frameworks in consultation with school staff and the community (DETE, 2013b), the everyday work of teachers was governed by these decisions and as a result, teachers may have been disempowered by decisions they had little or no influence over. For example, a

teacher where a school has decided their pedagogical framework would be based on a particular, specific theory, may only have been able to access further professional learning in this identified area of influence, restricting the teacher from challenging and nurturing his/her own practice.

The notion of pedagogy as a dynamic and relational interaction was at risk in Queensland schools as there is an increasingly significant focus on regulating teacher work through off-the-shelf pedagogic frameworks, with the recent 2016 school review annual report detailing four of the most commonly used pedagogical frameworks in Queensland state schools as: Art and Science of Teaching, Dimensions of Teaching and Learning, Explicit Instruction, and the Gradual Release of Responsibility (School Improvement Unit (SIU), 2016). The word pedagogy is understood in a variety of ways depending on the “historical and cultural traditions and contexts in which it is used” (T. Smith, Edwards - Groves, & Brennan Kemmis, 2010, p. 3). Pedagogy can be deconstructed from a continental European perspective with a strong focus on upbringing, highlighting the importance of the relationships and interactions between student and teacher. From an Anglo-American frame of reference, pedagogy leans more towards the method of teaching, characterised as classroom practice or even the ‘art and science of teaching’ (T. Smith et al., 2010). Whilst the Anglo-American method can be understood to be more technically oriented in its approach, there is also strong evidence indicating an importance of establishing “a quality learning environment that has clear goals related to social justice and accessibility for all students” (T. Smith et al., 2010, p. 3). One attempt to define pedagogy acknowledging the importance of both approaches is captured by Van Manen (1999) who suggests “the practice of pedagogy may be defined as constantly distinguishing more appropriate from less appropriate ways of being and interacting with young people” (p. 19). This definition focuses on the dynamic context of teaching; capturing the idea of education being an evolving journey and reflects the importance of relationships inherent within this.

Pedagogy is not an exact science, it is complex and ambiguous, more comfortably it can be described as “the enacted philosophy or principles that describe how people participate in learning and the practices that emerge through that participation” (Willis, Bland, Hughes, & Elliott Burns, 2013, p. 2). This view of pedagogy recognises the interactive and emergent environment whereby student

actions and teacher intentions shape learning interaction. Although this definition of pedagogy informs this research, it is arguably different to a definition of pedagogy being constructed within current Queensland education systems, potentially as a result of schools predetermining pedagogical approaches which subsumes teachers and students within a particular paradigm or approach to which they may be unfamiliar and/or uncomfortable. An excerpt from the School Improvement Unit's 2016 annual report emphasises the challenges of implementing a narrow pedagogical approach across a whole school:

at a very small, rural primary school in Darling Downs South West region there was a whole-school pedagogical framework (enshrining the regional priority of explicit instruction) that was documented to inform school-wide teaching and learning strategies, and artefacts were displayed in classrooms. The principal recognised that a cohesive pedagogical framework was needed to underpin effective teaching. However, only some teachers had adopted the framework. Teachers could describe the framework, but showed varying degrees of understanding. (School Improvement Unit (SIU), 2016, p. 142)

This thesis began with the assumption that teachers need the ability to first define and understand where their own pedagogy sits prior to adopting and assuming an alternative approach.

It can then be argued that these definitions of pedagogy that guide education policy, may only be as “technically grounded as the educators who interpret them allow.” (T. Smith et al., 2010, p. 3). Mitchell and Sackney (2015, p. 866) propose that teachers need to “begin with ontology and allow epistemology to evolve from that ontological definition”. Teachers are not naïve policy actors. They are creative and sophisticated, naturally assuming different positions when relating to policy “including positions of indifference or avoidance or irrelevance” (Ball et al., 2011, p. 625). There are also different perspectives and responsibilities to be understood as system, principal and teacher perspectives differ in whom they are accountable to and responsible for. This study was conducted at a time of educational reform and sought to explore how teachers experience pedagogic change and understand how HDR as a form of continual professional learning influenced their classroom pedagogic practice. The research question for this study was defined as:

How do full-time teachers studying a part-time Master of Education degree negotiate and explain the implications of their research within their teaching practice?

Context has significant influence on teacher pedagogy and has been identified as one of the areas of complexity within schools. Blackmore (2011, p. 214) presents an argument supporting contextual complexity alluding to three domains:

- conditions within the classroom
- conditions within the wider social and government sphere
- conditions within the school

This study extends these conditions to also consider the context of conditions of the teachers' personal professional learning through HDR studies. These contexts are theorised in this research as living ecologies of practices (Kemmis, Edwards-Groves, Wilkinson, & Hardy, 2012) where teacher pedagogic practices are theorised not as stand alone quality indicators, but embedded practices in systems that have histories. This research is therefore significant as it explores how the significant policy expectations placed on teachers were lived out in practice. It is anticipated that it can contribute to inform future policy directives and encourage teachers to regain a sense of agency and autonomy over their teacher practice, in particular their professional learning needs. Some of the underpinning concepts that inform this study are defined in the following section.

1.4 DEFINITIONS

The following terms are used throughout the study. Whilst these definitions draw heavily on referenced material, my own interpretations have been used.

Teacher effectiveness

To gain a clearer understanding of teacher effectiveness it was important to understand what this term described. Effectiveness is most often measure teacher effectiveness through the assessment outcomes of their students or their replication of approved or scripted pedagogic practices. This research problematises this linear

cause-effect conception. Teacher effectiveness is conceptualised as related to a teacher's ability to consider his or her own personal growth.

Teacher professional learning

Teacher professional learning, is distinguished from professional development (PD) or continual professional development (CPD) as these latter terms are part of a discourse that identifies the professional as deficient and in need of development (Webster-Wright, 2009) and has taken on connotations of delivery of information to teachers in order to influence practice (Timperley, 2015). This thesis supports the notion of challenging the perspective of PD and considers any instance or activity where a professional feels they have learned as part of their Continuing Professional Learning (CPL). More specifically, this internal process of creating professional knowledge is a result of interaction with this information “in a way that challenges previous assumptions and creates new meanings” (Timperley, 2015, p. 797). For the purposes of this research, the terms Professional Learning (PL) or Continuing Professional Learning (CPL) have been used to identify these specific instances and are subsumed under the broader category of Teacher Learning.

Praxis

Praxis is the teacher making decisions about their day to day teaching practice that is both informed by theory and their moral and social values. Building on Aristotle's original definition of being “morally committed”, more contemporary philosophers describe praxis as “right conduct in particular concrete situations” (Kemmis and Smith in T. Smith et al., 2010, p. 5). This study has identified the importance of teachers understanding their own paradigm of learning to become more aware of who they are as a practitioner (Mitchell & Sackney, 2015). Once they have an understanding of the interactions between their learning and their lived experiences, these insights can inform how they promote and engage in robust teaching and learning. More recently, this has been described as ‘history-making action’ (Kemmis and Smith in T. Smith et al., 2010, p. 5).

My understanding of praxis envisions the ultimate goal of being a morally good citizen and attempting to do things well (Nicolini, 2012). This is undertaken both individually and collectively within a community of like-minded practitioners and learners.

Practice architectures

Practice architectures are broken down into 3 categories, *sayings*, *doings* and *relatings*. Together these represent the conditions and arrangements which enable and shape the conduct of practice (Kemmis, 2012; Kemmis & Grootenboer, 2008; Kemmis & Smith, 2008). Within education, practice architectures are the conditions and circumstances happening around teachers within schools. Practice architectures help explain the patterns around what people do and say; the purposes behind what they are trying to do when they speak; relations between what is said and done; how patterns of doing and saying flow in time and how the temporal sequences that the patterns conjure may be interpreted (Nicolini, 2012).

Within this research study, practice architectures provided a lens to explore the participant data and enabled an analysis of the complex happenings, occurring between HDR study and teacher practice. Through this lens, a better understanding of the moves, strategies, methods, and discursive practical devices (Nicolini, 2012) undertaken by practitioners to accomplish their work was established.

Practice architectures provide meaning through the cultural-discursive (*sayings*) dimension, enable productiveness through the material-economic (*doings*) dimension and promote peoples' value by establishing solidarity through the social-political (*relatings*) (Kemmis et al., 2012).

Ecologies of practices

Ecologies of practice are formed by practices that develop relationships that are interconnected and interdependent on each other within a particular site. The ecological relationships are represented as living things due to the way they form and reform, become dependent on each other or develop independence (Kemmis et al., 2014). Originally presented in the singular (ecologies of practice) it was changed to the plural form to represent the five practices of (1) student learning, (2) teaching, (3) professional learning, (4) reading and, (5) researching, as identified in *Figure 2.5* (Kemmis et al., 2014). The practice architectures (defined above) provide a unifying structure and are used to deeply analyse and critique the conditions of practice (T. Smith et al., 2010) hanging together within ecologies of practices.

Master of Education

This research sits contextually within the state of Queensland, Australia. Teacher registration requires a minimum qualification of completing a pre-service teacher education degree such as a Bachelor of Education, or Master of Teaching or equivalent (Queensland College of Teachers (QCoT), 2016). The Master of Education degree is a postgraduate program, which can be completed through a coursework approach or by research. For the purposes of this study, the Master of Education degree by Research is described. This requires completion of a formal research study and has been undertaken through a cohort approach. This indicates members of the cohort come from a similar context to undertake the study and identify as a supportive group.

1.5 THESIS OUTLINE

This thesis is organised in six chapters. In this introductory chapter, the personal and policy context for this study has been outlined. The LG6 case and research question have been introduced. In chapter 2 the literature informing this study is presented, discussed and critiqued. In chapter 3 the research design is explained and justified with reference to appropriate research informing the style of research and ethical considerations undertaken. Chapter 4 outlines the data analysis process and provides insight into the analytical frame used for the study presenting a specific view of this analysis. Chapter 5 explores the data in a different way and displays the findings with reference to the common themes that arose from the analytical frame and the data analysis process. Chapter 6 is the final chapter where a summary of the findings is presented, and potential limitations and contributions are declared.

Chapter 2: Literature Review

This literature review explores the relationship between teacher learning, teacher quality and student learning. Recent policy changes in Education Queensland linked the completion of a Master of Education (MEd) qualification to promotional pathways for teachers and school leaders (DETE, 2013a). This implied that further study has an improving effect on the work of educators, whereas Rivkin, Hanushek, and Kain (2005, p. 445) state, “there is little or no evidence that a master’s degree raises the quality of teaching”. Whilst it may seem logical to assume that the more a person studies the more proficient they become within their area of influence, the literature is more ambiguous.

Two alternative conceptions of the relationship between teacher pedagogy and quality student learning are reviewed. These include the linear model of teacher effectiveness, which is unpacked through the exploration of efficacy and accountability in a performance and standards driven system, and a more ecological model of understanding teaching and learning as growth in a living system. The experience of HDR as professional learning is then investigated especially in relation to the LG6 cohort. Gaps in the research about the impact on teacher practice of MEd research are then identified, supporting the importance of this research study.

This literature review will confirm an ecological approach to professional learning was chosen because it considers the needs of the individual practitioner and is able to adapt and change in response to the complexities of schooling systems. This study will explore how the relationships between teacher professional learning and pedagogic practice can be understood. The theory of practice ecologies outlined by Kemmis (2012) and a living systems conceptual framework including the concepts from this theory that inform the data analysis, including praxis, threshold concepts, liminality, dissonance, and reflection are introduced. The chapter concludes with the resulting conceptual framework (*Figure 2.6*) that informed the research investigation.

2.1 TEACHER LEARNING IN A MANAGED STANDARDS DRIVEN SYSTEM

The LG6 case study took place at a time when the state government education policy was introduced, titled ‘Great teachers = great results’ (DETE, 2013a). It placed significant emphasis on developing effective teachers with the intention that these teachers will produce great results. Assumptions that teacher learning may improve pedagogic practice has led to questions of how improvement might be measured. Rivkin et al. (2005, p. 422) acknowledge, “academic achievement at any point is a cumulative function of current and prior family, community and school experiences” and debate, “the precise specification of what to measure is poorly understood”. Stronge, Ward, and Grant (2011, p. 340) agree “*effectiveness* (italics in original) is an elusive concept to define when we consider the complex task of teaching and the multitude of contexts in which teachers work”. Lewis (1999, p. 1) confirms, “teacher quality is a complex phenomenon, and there is little consensus on what it is or how to measure it”. More recently, Campbell, Kyriakides, Muijs, and Robinson (2012), introduced the concept of ‘differentiated teacher effectiveness’ in an effort to account for the range of variables impacting on teachers and schools. They acknowledge, “most research to date has not sufficiently conceptualised or studied these issues” (p. 84). A consistent message underlying the literature is that teacher effectiveness is contentious and problematic to define (Campbell et al., 2012; Lewis, 1999; Rivkin et al., 2005; Stronge et al., 2011). In the following section, various ways of measuring teacher effectiveness are explored.

2.1.1 Issues in identifying effective teacher pedagogic practice

Stronge et al. (2011, p. 340) argue that there is “considerable debate as to whether we should judge teacher effectiveness based on teacher inputs (for example, qualifications), the teaching process (for example, instructional practices), the product of teaching (for example, effects on student learning), or a composite of these elements”. In their study, Stronge et al. (2011) identified teachers successful in the product of teaching, through measuring student achievement gain scores. Then focusing on the process of teaching, they examined the instructional practices of effective and less-effective teachers and analysed the relationship between the two. Again, these teachers were identified as either effective or less effective teachers through the product of student achievement gain scores in reading and maths from

year 4 to year 5 (Stronge et al., 2011). Effective teaching was explained within each of the four dimensions: Instructional Delivery, Student Assessment, Learning Environment and Personal Qualities, characterising teacher effectiveness within the study (Stronge et al., 2011). A quantitative approach was then used to analyse the evidence to support their findings in which they agreed that there were no “silver bullet practices that would lead to higher levels of teacher effectiveness for all teachers” (Stronge, 2011, p. 349). Like similar studies using student achievement gain scores to assess teacher effectiveness (Rivkin et al., 2005; Rothstein, 2010), this study provided little information about individual teacher strengths, contextual situations and programs supporting teacher learning, further diluting the impact of these studies utilising similar research approaches.

Through his research, Rivkin et al. (2005) analyses the “determinants of the *rate* of learning over specific time periods” rather than the “contemporaneous relationship between the level of achievement and school inputs for a single grade” (p. 422). This value added method may not eliminate the potential for specification bias, however, by including initial achievement, “past input may be accounted for in the hope of reducing the likelihood that omitted historical factors introduce significant bias” (Rivkin et al., 2005, p. 422). Whist Rivkin et al. (2005) research analysed a significant number of test results, ($n = 1,336,903$ for mathematics and $n = 1,330,791$ for reading) (p. 444), there is still uncertainty that complexities impacting on a teacher’s effectiveness can be adequately accounted for in a results focused, quantitative research paper. These methods of measuring teacher effectiveness may not take into account the range of contextual factors, or acknowledge that effectiveness is apparent in different ways.

Goldhaber, Brewer, and Anderson (1999), demonstrate the complexities of measuring teacher effectiveness through investigating the relative importance of observable and unobservable school, teacher and class effects on student 10th-grade mathematics achievement. Their research also concludes the “majority of the variation in student test scores which is explained by schooling variables is explained by unobservable school, teacher and class effects” (Goldhaber et al., 1999, p. 207). The unobservable characteristics are comprised of teacher qualities or behaviours that were unable to be separately isolated and identified. Goldhaber and Anthony (2007) confirm, there is “little consensus about the relationship between specific

teacher credentials (for example experience and degree level) and characteristics (for example, age, race and ethnicity), and teacher effectiveness” (p. 135). Only 3% of the contribution teachers make towards explaining student achievement is associated with “teacher experience, degree level and other readily observable characteristics” (Goldhaber & Anthony, 2007, p. 135). Their research indicates quality teachers clearly matter but “teacher quality is not strongly related to observed teacher characteristics” (Goldhaber & Anthony, 2007, p. 135). They believe specific attributes such as enthusiasm, ability to convey knowledge in the classroom and other teacher qualities and behaviours are teacher attributes that are not typically measured through studies of education productivity. It is these attributes that are not readily observable however, that make up the other 97% of the contribution that teachers make towards explaining student achievement. This study highlights how teachers can influence students in a variety of immeasurable and unobservable ways, and reflects the ambiguous notion of results focussed, teacher effectiveness research. Schalock, Schalock, Cowart, and Myton’s (1993) description of teacher effectiveness acknowledges an understanding of “the dynamic interplay among content, teacher, learner and context that must always be accommodated if teaching is to be effective” (p. 110). Blackmore (2002, p. 264) explains, “to focus on what works in the classroom ignores the wider sociological issues, e.g. class and race, and how schools simultaneously reproduce relations of inequality, and indeed how system-wide policies can inform or impede the improvement of practice”. There are so many different elements which impact on teachers work every day, it is extremely difficult to identify how these complex interrelations can be accounted for in attempts to confidently and definitively measure teacher effectiveness.

Another approach to measuring teacher effectiveness is research focused on teachers as individuals and recognises differences in many areas of influence on teachers’ lives. Campbell et al. (2012) explored the historical measures of teacher effectiveness from the turn of the twentieth century as they developed a theory of measuring teacher effectiveness that was differentiated rather than generic. In so doing Campbell et al. (2012) claim, “as societies become more secular, schools become the main site of moral and social value formation” (p. 62). Teachers have been required to undertake a variety of roles additional to that of the classroom teacher and as such, the traditional conception of teacher effectiveness “which is

focused exclusively on the teaching performance of individual teachers in the classrooms has become rendered anachronistic” (Campbell et al., 2012, p. 62). Campbell et al. (2012, p. 4) describe teacher effectiveness as “the power to realize socially valued objectives agreed for teachers’ work, especially, but not exclusively, the work concerned with enabling students to learn”. Additionally, Campbell et al. (2012), recognise the complex nature of teaching by intimating, “teachers can be effective with some students more than others, with some subjects more than others, in some contexts more than others, with some aspects of their professional work more than others” (p. 4). This approach recognises the importance of relationships in teacher work and confirms that these can be complex and change over time.

Initially, the dominant framework under which the case study school in which the LG6 operated was a managed systems environment. The national and state education policies created a system where effective teacher pedagogy was meant to be captured, developed and measured as it emphasised standards, consistency, measurement, reporting to targets and taking responsibility for improved system outputs. A managed system is “underpinned by a belief in an objective, stable, regular, and predictable universe that can be discovered and known through empirical observations, causal laws, and universal principles that explain outcomes and predict activity” (adapted from Wheatley, 2007 in Mitchell & Sackney, 2015, p. 854). The characteristics inherent in managed systems risk promulgating institutional arrangements without consultation, directing teaching and learning to become more normalised, controlled and standardised (Mitchell & Sackney, 2015; Starratt, 1996). This has traditionally occurred in response to accountability regimes constrained by cultural, political and educational contexts (Thomas, 2008), creating a formal and somewhat artificial social order, limiting the ability for teachers to work within collaborative, supported, risk-taking environments.

2.1.2 Managed learning within quality teacher standards

A reflection of the managed system that informs teacher pedagogy and learning are the Australian Professional Standards for Teachers (APST), formerly the National Professional Standards for Teachers that were endorsed by all Ministers for Education on 14 October 2011 (DETE, 2015). These national standards were adopted and approved by the Board of Queensland College of Teachers (QCoT) on 17 August 2012 with amended legislation and regulation for nationally consistent registration

elements (QCoT, 2016). The QCoT are the state registering authority for teachers in Queensland and are responsible for administering and regulating the Australian Professional Standards for Teachers (APST). Increasingly, these standards are being upheld by policy makers and schooling systems as existing in order to manage teacher quality through standardising knowledges and practices necessary in the production of quality teachers (Santoro, Reid, Mayer, & Singh, 2012). Teacher educators and researchers treat the implementation of professional standards with some caution as they have been conceptualised as repositioning teachers as non-experts within a management hierarchy where teachers serve as reliable purveyors of educational decisions made elsewhere (Ryan & Bourke, 2012).

Teacher registration bodies responsible for maintaining teacher registration have attempted to quantify teacher professional learning by determining a fixed number of hours of Professional Learning (PL) that teachers are required to complete every year, reinforcing the assumption that learning consists of discrete, finite episodes with a beginning and end (Wenger, 1998). Current Queensland teacher registration stipulations dictate that from 2013, fully registered teachers are required to meet the Continuous Professional Development (CPD) required under the CPD framework. For full-time teachers this is 20 hours and for teachers who do not have recency of practice, registration will be renewed subject to a *returning to teaching in schools condition*. CPD is widely identified as an implicit responsibility of professionals today (Webster-Wright, 2009) and the APST identify the importance of professional learning within the domain of Professional Engagement (domain number 6) and the impetus for engagement is shared across the four focus areas:

- 6.1 – Identify and plan professional learning needs
- 6.2 - Engage in professional learning and improve practice
- 6.3 - Engage with colleagues and improve practice
- 6.4 - Apply professional learning and improve student learning

(Australian Institute for Teaching and School Leadership, 2011, p. 18)

Whilst there is capacity for standards-based models of professional learning to provide a meta-language and a useful scaffold for teachers to progress along a professional learning pathway, it also promotes uniformity and discourages teachers to think outside the constraints set by the standards themselves. There is also

evidence that teachers do not learn in a way consistent with centrally administered standards and evaluations (Su, Feng, & Hsu, 2016). Professional learning using the *standards-based models* imposes an external accountability onto teachers and indicates a need for teachers to respond to a central authority to assess their capacity to teach, questioning teachers' own capacity for critical and reflective inquiry (Kennedy, 2005). Su et al. (2016) also suggest that the nature of professional learning and growth always involves virtual aspects that cannot be accounted for and therefore exceed the logic of a standards-based model of system integration.

It appears evident through the APST discourse that the focus of teacher development is shifting to professional *learning* with the only reference to professional *development* in the APST policy mentioned in relation to developing teacher professional development goals. The term Professional Development (PD) can imply underlying limitations, assuming the discourse focuses on the professional as deficient in need of development rather than a professional steeped in self-directed learning (Webster-Wright, 2009). As evidenced through this research, this shift in focus may be an improvement on the Queensland College of Teacher's standards and provides a powerful framework for schools to conceptualise teachers' CPL. Ryan and Bourke (2012, p. 421) however, recommend a radical rethink to replace a list of standards to evaluate teacher effectiveness and focus on "the processes and forms of evidence that denote professionalism and indicate quality teaching". This is something the portfolio project (ACER, 2016) may be attempting to rectify through developing a process whereby teachers are able to submit evidence of practice which can be assessed for purposes of professional recognition and certification.

In an attempt to keep quality teachers in the classroom, there are now policies being negotiated between the Queensland Department of Education and Training (DET) and the Queensland Teachers' Union (QTU) to align teacher salaries with nationally recognised professional standards for teachers (Mertens, 2015). This highly accomplished teacher classification level is "planned for potential roll out in 2018" (Mertens, 2015, p. 14) and the process for demonstrating competence is being developed through the ACER portfolio project (ACER, 2016) outlining tasks to be used in future certification processes across Australia. When teacher learning is only defined through an accountability driven and standards based assessment approach a potential negative outcome is that it "belittles the notion of teaching as a complex,

context-specific political and moral endeavour” (Kennedy, 2005, p. 241). Pinar (2012) contends that this type of accountability within the schooling system is not about learning for students or teachers, but about controlling what we teach our children.

Teacher standards represent a “desire to create a system of teaching, and teacher education, that can generate and empirically validate connections between teacher effectiveness and student learning” (Beyer, 2002, p. 243). Once these connections are established, teachers can engage in professional development to become more effective. The standards approach uses evaluation standards that incorporate a linear trajectory to facilitate the generation of objective measures of performance, instead Su et al. (2016) argue teacher professional learning should “evolve from particular situations of and inquiries from the teacher, meaning ‘real’ things and practices that always have the teacher’s focal attention” (p. 7). A standards based approach to teacher professional learning often reflects a training model, which in turn reflects a skills-based technocratic view of teaching (Kennedy, 2005). The focus here is on updating teachers’ skills in order to demonstrate their confidence in particular areas. The participant is usually placed in a passive role, with the training delivered by an ‘expert’ with the training often delivered off-site. This style of training supports a high degree of central control and can attract criticism from the participants undertaking the training for its lack of connection to their classroom contexts (Kennedy, 2005, 2014). Trumper and Eldar (2015) believe PD should be “more than a series of isolated workshops” (p. 828,). G. Smith (2014, p. 469) emphasises engagement, relevance and collaboration and identify quality and successful PD as requiring a number of characteristics, defining it as “a process of putting knowledge into practice within a community of actively engaged practitioners”. Whilst this may be easily facilitated in a large school environment, Mansfield and Thompson (2016) believe that with adequate resourcing and support, small even schools can refocus and promote instructional rounds between schools targeting “collaborative inquiry, non-judgement and shared responsibility for improvement” (p. 16).

Deficit models of CPD are designed specifically to “address perceived deficit in teacher performance” (Kennedy, 2005, p. 239). Aligning strongly with the notion of performance management, it demands someone takes charge of managing and

assessing any change in teacher performance however, it remains unclear what the expectations are to attain competent performance and also whose levels of competence they reflect. The cascade model (Kennedy, 2005, 2014) may be more recognisable when referred to as the ‘train the trainer’ approach where teachers attend training events then return to their sites of practice to share the newly acquired skills or knowledge with their colleagues. The cascade model (Kennedy, 2005, 2014) is commonly employed where resources are limited, and has a focus on skill development or knowledge acquisition without necessarily considering the importance of the context where it was learned or is to be used. Characteristics of collaboration, participation, and autonomy are not easily realised through the deficit model of CPD (Kennedy, 2005, 2014) and this study will reveal instances where these attributes were experienced through the conditions of studying HDR within the LG6 cohort.

The coaching/mentoring models (Rhodes & Beneicke, 2002) that are being recommended by Australian Institute for Teaching and School Leadership (AITSL) for professional learning using the APSTs (AITSL, 2014) often rely on one-to-one relationships between teaching colleagues to support their professional learning needs. Kennedy (2005) and Rhodes and Beneicke (2002) suggest an imbalance between this relationship as typically a novice and more experienced teacher work together through an apprenticeship where the novice teacher is supported and initiated into the profession. The intent of this support structure is to provide appropriate skill and knowledge advice, whereby, depending on the relationship, the novice can be brought into a status quo of social norms and institutionalised expectations or a more transformative method where they are supported and challenged intellectually and encouraged to interrogate and improve their practice (Kennedy, 2005). There are many differing conditions within this model, considering the expertise of the mentor/coach, their willingness to participate, the motivation for the relationship, the quality of interpersonal communication skills, confidentiality, alignment of strengths and characteristics and training to undertake the role of mentor/coach (Kennedy, 2005) can all influence whether this model becomes transformative or transmissive.

Even other terms such as staff training, staff development or performance review imply that something is done to the professional through knowledge being

'delivered' to them in courses (Webster-Wright, 2009). Knowledge as an object or commodity has been a tradition of Western epistemology since ancient Greek times and as such can be systematically separated from the knower and broken down into categories and examined to be more easily grasped. Traditionally, professional learning has been positioned in this way, and this objectivist epistemology may limit a teachers' ability to grasp the bigger ontological implications about the knower in Professional Learning (Webster-Wright, 2009). In her review of 203 empirical articles on professional development Webster-Wright (2009, p. 712) asserts that, "despite decades of research into effective PL, little has changed in PD research and practice across most professions". She argues the discourse of PL is focused on delivering programs rather than understanding more about the PL experience in order for it to be more effective. Webster-Wright (2009) contests, that educational researchers have a responsibility to question the conventional conceptualisation of PL, and that "well-designed PD programs with good facilitators will result in PL and change in the quality of professional practice" (Webster-Wright, 2009, p. 712). Central to Webster-Wright's argument is the need for professionals to reframe the conceptualisation of PD from "a focus on 'development' to 'learning' and from an 'atomistic' perspective to a 'holistic' approach" (2009, p. 713). Webster-Wright (2009) argues this can be achieved through attempting to understand the experience of continuing professional learning (CPL) as opposed to evaluating the PD delivery and defines any instance or activity where a professional feels they have learned as CPL (continuing professional learning). Campbell et al. (2012, p. 144) argues "there is almost no direct evidence showing that teacher development strategies pay off in terms of improved pupil outcomes" as direct causal links are difficult to demonstrate and also evidence of student outcomes linked to teacher development is rarely sought. Desimone (2009) agrees that a focus on the critical features or characteristics of the complex, interactive, formal and informal nature of learning opportunities for teachers, rather than the type of activities, can assist in measuring the effectiveness. Blackmore (2002) agrees post-industrial knowledge production requires a multiple epistemological base, recognising the complexities of educational sites steeped within social and political contexts. There is agreement that a shift in focus is required from the delivery of CPL to the experience of CPL. It was also apparent in a review of the literature that current approaches to professional learning do not show strong evidence of improved student outcomes, and raise the question of whether this

causal relationships is even possible. What is raised as a possibility is the need to understanding professional learning from the perspective of the teacher as a learner over time, and this is a concept central to this research study.

Ryan (2013) suggests teachers need to take control of their learning, including when they need it, how they want it and what they need to learn. Self directed learning shifts the perspective from teachers being told what to learn and empowers teachers to be in control of their own learning. This conceptual shift can be a powerful way for teachers to steer their own learning and consider that they may have “different amounts and kinds of responsibility, different aspirations, and competences” (Ball et al., 2011, p. 636). With the APST only approved in recent years by the QCoT, their professional learning is currently strongly influenced by the professional standards, and it may be some time before Queensland teachers experience greater control of their learning. Decontextualizing content and artificially separating it from its practice promotes a ‘container’ view where bodies of knowledge and skills are identified for specific professions with the assumption that those who complete the programs will be able to perform within it. One of the aims of this research is to inform a change in policy empowering teachers to take greater control of their learning. In the following section an alternative concept of teacher continual professional learning will be examined to explain why the task of identifying specific characteristics of what teachers need to know can be so challenging because pedagogy and praxis do not fit within the more scientific paradigm of a managed system approach.

2.2 TEACHER LEARNING AS PROFESSIONAL GROWTH IN A LIVING SYSTEM

In contrast to conventional Western ideas of knowledge being foundational and absolute, Dall'Alba and Barnacle (2005) argue a transformation and pluralisation has occurred. Ball et al. (2011, p. 637) relate this idea to schools, describing them as “classically complex, single systems made up of multiple interacting parts” with the interactions and individual sensibilities assumed by the actors and referred to by Law (2007, p. 2) as “the messy practices of relationality and materiality of the world”. Within the complex and dynamic sites of practice in schools, Law (2007) cautions a wariness towards large-scale claims which are prevalent in social theory, and instead encourages a descriptive account “about ‘how’ relations either assemble, or don’t”

(p. 2). It is therefore important to understand how beliefs about knowledge itself play a pivotal role especially in relation to professional learning research within the living ecologies of practices. Attempts to understand how schools operate within these continually changing landscapes see schools described as operating within a living systems ontology as different to a managed system (Mitchell & Sackney, 2015). In a living system, learning and growth are considered natural features of life, and this is a feature that occurs within everyone, always, in personally and unique ways (Mitchell & Sackney, 2015). Within this natural living system, “activities are set up to respect the unique capacity of each individual and to capitalize on the interests, experiences and life histories that accompany each person to school” (Mitchell & Sackney, 2015, p. 854). These activities come together and exist with living ecologies of practices.

2.2.1 Ecologies of Practices

Ecologies of practices are diverse kinds of human–social projects and subsidiary practices, which “connect up with one another in ecological relationships that sustain whole complexes of practices,” (Kemmis, 2012, p. 887). Ecologies of practices can be seen as more than organised nexuses of action but as living things, which come into existence at different sites at different times in “whole ecosystems of interrelated practices” (Kemmis, 2012, p. 889). There are architectures of practice that trace the complex ‘hanging together’ of three dimensions of shared life through the broad dimensions of *sayings*, *doings* and *relatings* (Kemmis & Grootenboer, 2008). These intertwined dimensions are pre-formed for participants through interactions in the past, and combine to shape or reshape interactions in the future (Edwards-Groves, Brennan Kemmis, Hardy, & Ponte, 2010). These practice architectures manifest themselves in educational contexts as particular types of living practices and by performing them in changed or new ways, can transform the way living practices can be produced or reproduced. The *sayings (and thinkings)* exist in the cultural-discursive dimension and this semantic space is realised through what people say and think through the medium of language. The *doings (and ‘set ups’ of objects)* are characterised within the material-economic dimension and are revealed in what people do in the physical space. The *doings* include interactions with humans or objects and are expressed in the medium of activity and work. The third dimension, *relatings*, is understood in how people relate to one another within the

social space (Kemmis et al., 2012). Examples of these relations are inclusion, exclusion, conflict and social integration which occur in the socio-political dimension and are realised through the medium of power, legitimacy or solidarity (T. Smith et al., 2010). The framework below illustrates how the practice architectures create the ecologies of practices framework.

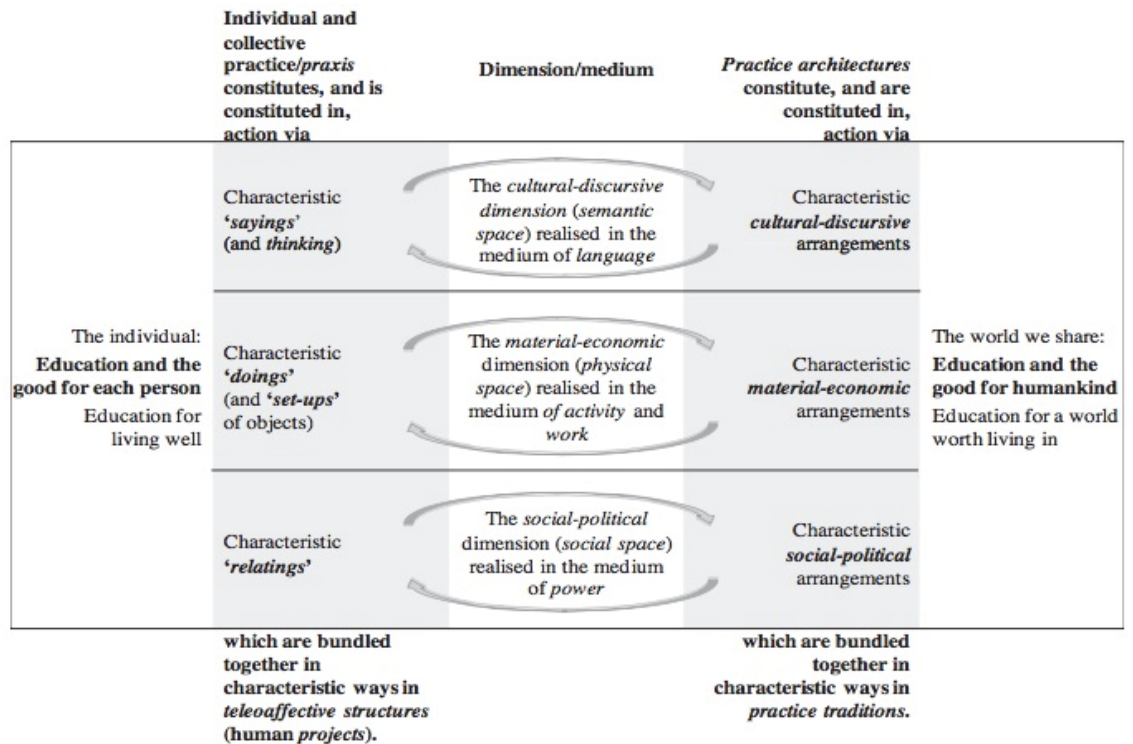


Figure 2.1. Practice architectures (Kemmis, 2012).

Acknowledging the human, relational aspects of practice allows a greater emphasis to be placed on how “social interactions shape the relationships which constitute educational practices” (Edwards-Groves et al., 2010, p. 44). This praxis-oriented view of education explains how participants in educational practices create, reproduce and transform modes of personal and socio-political practice within the contexts of classroom, school and community. Schatzki (2003, 2005, 2006, in Kemmis, 2012) identifies these contexts as site ontologies where practice is situated in particular circumstances and conditions with co-habitants maintaining interdependent relationships with other people, objects and species as well as constructing their own being and identity.

Practices do not exist exclusively within practice architectures, as described above; they nestle, connect and cluster in relationships with other practices and are

described in this situation as *metapractices* (Kemmis, 2012). Metapractices create conditions where participants' practice can be undertaken, for example, the practice of education shapes and influences practices of commercial and political life in a community (Kemmis, 2012). A complex of metapractices describes where these practices shape and influence each other. Practices and metapractices can be understood as living things as they continually evolve and are connected to one another in 'ecologies of practices' (Kemmis et al., 2014). Subsidiary practices such as teaching or learning, of large-scale practices like education exhibit evidence of ecological relationships within local connections as they interconnect and correspond with similar practices (Kemmis, 2012).

From this perspective, practice is situated inside the sites, as are the practitioners themselves. Looking at the practice from the perspective of the practitioner inside those sites gives an insight into how living practices are "coherent in the sense that they relate to each other in coherent ways" (Kemmis, 2012, p. 890).

According to Kemmis (2012, p. 893), the living practice of education is;

the stuff of educators' lives. It is meat and drink and earth and air to those teachers who revel in their professionalism and the individual and collective development of their professional practice. It is what gives them joy and pain in their work, and what keeps them thinking deep into the night about how best to respond to tricky practical situations.

This lens provides scope to understand the interdependent relationships and explain the complex ways participants can create, produce and transform lived practices.

An ecologies of practices perspective acknowledges 'embodied knowing' that is, "rather than thinking of knowledge as transcending the body, the embodiment of knowledge has become a key factor in understanding the nature of knowledge and what it means to know" (Webster-Wright, 2009, p. 717). The embodiment of knowing and learning divert the research emphasis away from the mind of an individual toward "a socially constructed practice and potentially shifts the focus of CPL toward support for such authentic lived practice" (Dall'Alba & Barnacle, 2005, p. 719). The quality of the PL is not the only element necessary to ensure knowledge becomes transactional and evident in teacher practice. This adds weight to the argument that PL is not only an epistemological concern about what the professional knows and does but additionally an ontological concern about who the professional

is (Dall'Alba & Barnacle, 2007, p. 688); it should also resonate with the teacher on a personal and professional level. Sameshima (2008) in Moore and Clarke (2016, p. 668) argue “the teaching profession is dramatically strengthened when teachers understand who they are, know how their experiences have shaped their ideologies, and find and acknowledge their place of contribution in the broader context of the educational setting”. It is important to move beyond a focus of the “effects of professional development activity to consider the individual and school orientations to learning systems that mediate teacher learning and teacher change” (Opfer & Pedder, 2011, p. 394). The focus on the outcome of teacher learning is therefore on the process of transformative professional learning rather than student performance.

2.2.2 Professional learning in a living system

Kennedy (2005) classifies various types of professional learning according to the increasing capacity of the teacher to manage their own learning, with the most individualised and transformative type of professional learning being the *collaborative professional inquiry model* (see Figure 2.2). In the review of the initial (Kennedy, 2005) framework, Kennedy (2014) argues for the *action research model* and the *transformative model* to be combined into the single *collaborative professional inquiry model*.

| Purpose of Model | Examples of models of CPD which may fit within this category |
|------------------|---|
| Transmissive | Training models Deficit models Cascade model |
| Malleable | Award-bearing models Standards-based models Coaching/mentoring models Community of practice models |
| Transformative | Collaborative professional inquiry models |

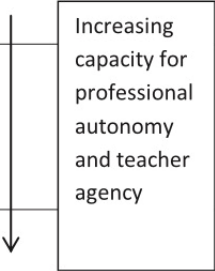


Figure 2.2. Spectrum of CPD models (adapted) (Kennedy, 2014).

Learning existing at this transformative end of the spectrum is defined by Kennedy (2014, p. 693) as “all models and experiences that include an element of

collaborative problem identification and subsequent activity, where the subsequent activity involves inquiring into one's own practice and understanding more about other practice, perhaps through engagement with existing research". Ryan (2012) details transformative learning as a "socio-cultural process involving interrelated ways of knowing" (p. 5). Learning can be achieved by experiencing new ideas, contexts or behaviours and making sense of them according to what is already known or experienced. This information is then digested and analysed against how it sits within broader contexts then applied creatively in new ways or different contexts (Ryan, 2012). As individual teachers have beliefs and practices about teaching and learning, schools collectively also have these beliefs that can constitute what complexity theorists refer to as the *collective conceptual orientation* (Bowers & Nickerson, 2001). This collective sense of capacity directly affects the ways in which a school and its teachers define and pursue goals. Clarke and Hollingsworth (2002) explain that in order for teacher learning or for growth to occur, change must occur in multiple areas of influence and begin at any stage of the change process. Additionally, cyclic movements between these processes in different, contextual situations are required. Simply measuring the output of student achievement or identifying teacher qualifications or years of service does not pay due homage to the complex nature of teaching in an increasingly uncertain environment.

Desimone (2009) and Webster-Wright (2009) support the notion of conceptualising professional development as a complex phenomenon. Complex systems produce 'wicked problems' as Bore and Wright (2009) describe them. This term evolved in the early 1970s when describing the complex problems encountered in urban planning, detailing every problem as unique with solutions impacting either positively or negatively on the problem. It can be realised that teachers encounter wicked problems regularly and that these problems may be evolving and unstable and lead to unforeseen, negative consequences, be socially complex with responsibilities sitting within multiple organisations (Briggs, 2007). Ball et al. (2011, p. 637) speak to the challenges of attempting to capture the complexities of researching the different elements of schools, in particular the changing policy elements by stating, "there is a danger that as researchers we try to analyse away this incoherence as an effective complexity and represent 'school' as more stable and coherent than it really is". In order to rationalise and make meaning within these

complex systems, teacher learning needs to be critical and reflexive, especially with education understood as the “site of critical enquiry and transformation of the self and culture” (Blackmore, 2011, p. 220). As wicked problems in education continually evolve, policy makers are often focusing on moving targets responding to changing legislation, political alliances, resource availability, and research evidence. The challenge for schools and particularly school leaders is to push past the political game playing and focus on providing proven teacher professional learning. This is an opportunity realised by the LGSS staff as they attempted to utilise the policy directive to establish an evidence-based pedagogical framework created through researching best practice and formulated within a community of peers. This supports Timperley’s (2015) notion of professional learning being not only about the acquisition and application of new knowledge but also about the process of ongoing inquiry in which teachers learn to acquire and apply this knowledge in their practice.

Education is discretely linked to the lived conditions of practice in which it exists. These “laws, policies, rules and procedures that govern education institutions at all levels – have endangered the moral agency of educators to the point where the ability to be more than operatives in a system or institution is being threatened” (T. Smith et al., 2010, p. 2). Leadership at the school level can have a profound impact on the way teachers engage with students, their CPL and other teachers through the way educational policy is interpreted and enacted (Blackmore, 2011). Understanding praxis and pedagogy is an important aspect in knowing the extent of this impact on teachers and the students they teach. Pedagogy has been defined in Section 1.3 and now the related notion of educational praxis is explored in further depth. Teacher reflective practice and communities of practice have been identified as essential components of praxis and are also explored in greater detail.

2.2.3 Praxis, dissonance and threshold concepts

The idea of praxis is an important concept as it includes identity within the meaning making process, extending the idea of teacher learning beyond actions to also include personal and collective beliefs. Praxis is connected deeply with the moral and social ways of being, defined by Aristotle as being “morally committed”. More contemporary philosophers describe praxis as the “right conduct in particular concrete situations” (Kemmis & Smith in T. Smith et al., 2010, p. 5). The ‘Praxis Group’ of Eastern European philosophers identified this as “history-making action”

(T. Smith et al., 2010, p. 5) more specifically, “the social, moral and political actions of individuals and collectives that produce and reproduce history” (T. Smith et al., 2010, p. 5). The diagram below (*Figure 2.3*) embellishes a little from each of these understandings as it reflects the double purpose of education, “helping people to live well and helping to create a world worth living in” (Kemmis, 2012, p. 902). This view of praxis requires education to be good for the individual and humankind, as well as transforming generations in modes of personal, moral, social and political life and situating them towards the good for individuals and everybody (Kemmis, 2012).

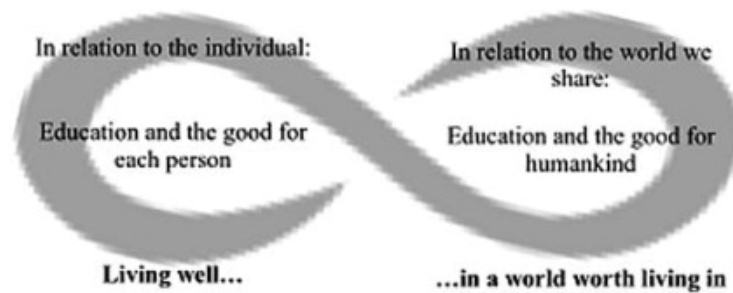


Figure 2.3. The double purpose of education (Kemmis, 2012).

Understanding praxis as something not formed entirely by the individual but collectively through social, political, historical, cultural, material and economic arrangements is important in understanding how teacher learner identity is formed through the interchange of collective and personal praxis.

Traditional scientific research promotes finding new knowledge while praxis-related research aims at transformation, empowerment of people to make a change through “engaging and changing the life experiences of people in a situation” (Kemmis & Smith, 2008, p. 32). Practices are shaped not solely by “the intentional action and practice knowledge of participants but also by circumstances and conditions which are ‘external’ to them” (Kemmis, 2012, p. 887). This type of research is an alternative to the traditions from over 200 years of natural and physical sciences where practice has been objectivised, “to distance themselves from it and to want to talk about its nature in abstract and universalizing terms” (Kemmis, 2012, p. 887). A scientific view of knowledge made its way across to the social sciences 100 years ago where researchers were encouraged to take an antiseptic, detached view of social life and treat it as an “object of the professional researcher’s gaze rather than

to see it as the very stuff of which one's own life is made, whether in one's standing as a person, as a citizen, or as a researcher" (Kemmis, 2012, p. 887). The praxis lens brings a more personal perspective to the data and enables a closer critique, which appears to go beyond the creation of new knowledge but it is still uncertain how empowering or transformational this research will be for people to make changes in their own life experiences.

To understand how a teacher's pedagogy might bring about change for student learners, it is important to realise how a teacher is able to learn to improve. Both Ryan (2012, p. 5) and Opfer and Pedder (2011) detail a change in teacher pedagogy as a staged or layered process. Opfer and Pedder (2011) describe a change in beliefs, which leads to a change in practice and results in a change to student learning. The figure below represents how a change in the different processes can be represented within a cycle of influence.

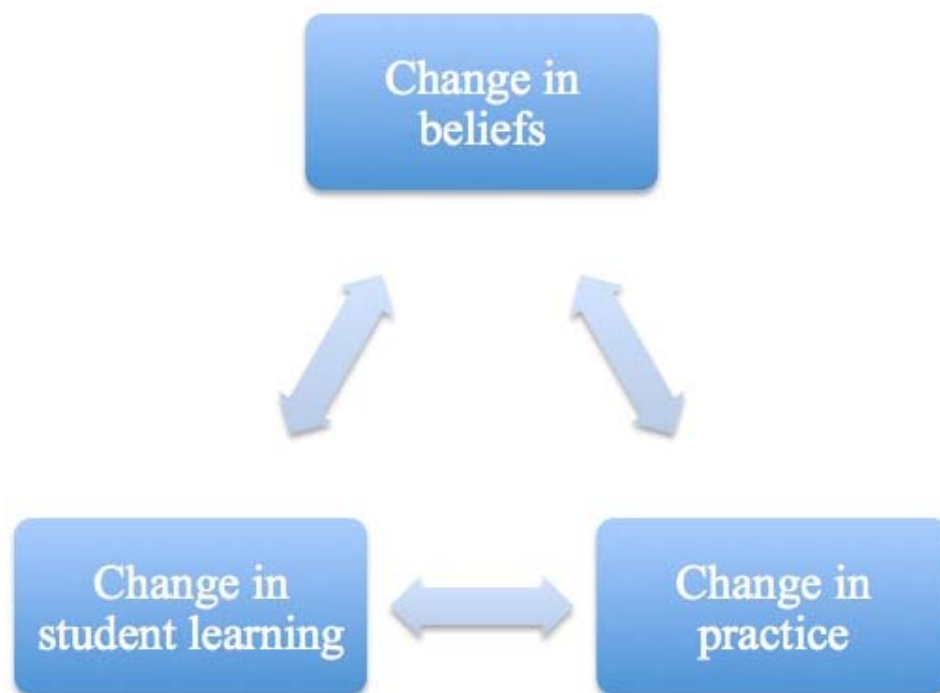


Figure 2.4. Teacher learning cycle (Opfer & Pedder, 2011).

In describing teacher learning they stipulate that it should be “conceptualised as a complex system rather than an event” (Opfer & Pedder, 2011, p. 378).

In understanding teacher learning from a complex systems perspective, it can be realised that even simple decisions can take a multitude of causal pathways due to the various dynamics of social behaviour and the interplay of reason and

circumstance. There is some historical contention of the order in which teacher learning occurs, with different models suggesting a change in belief leads to change in instruction and a subsequent change in students (Desimone, 2009) or as Guskey (2002) describes, a change in teacher behaviour that leads to improved student outcomes, is sufficiently strong enough to change teacher beliefs. Whilst there may be disagreement about the order in which the change sequence occurs, Opfer and Pedder (2011) contend this is a result of “researchers believing change to be a linear process” (p. 395). This research recognises that there are various views regarding belief construction and the role and importance of beliefs on teacher learning, especially the ability for teacher beliefs to be an enabling or constraining factor on educational reforms.

Dissonance, disequilibrium and incoherence are not words readily associated with progress and learning. Opfer and Pedder (2011, p. 393) identify dissonance or disequilibrium as a “commonly recognized characteristic of complex systems”. Understanding education as a complex system means the optimum conditions for complex systems can be applied. Clarke and Collins describe complex systems as having “a capacity for change, are alert to alternatives, sensitive to difference, and open to experiment” (2007, p. 164). The emphasis is placed on the individual teacher as well as systems to feel comfortable and expect complexity and uncertainty. Clark and Collins, identify disequilibrium as a “creative tension – the generative capacity of the system – and not a dysfunctional characteristic that should be eliminated” (2007, p. 164). Seashore Louis (1998) reveal in their work on organisational learning that disequilibrium is necessary for transformative processes to occur, however, if “dissonance among beliefs, practices, knowledge, and experience is too large, teachers may dismiss new ideas as inappropriate to their situations” (Opfer & Pedder, 2011, p. 389). Ball et al. (2011, p. 637) describe this delicate balance as “an incoherence that can be made to work, most of the time”. Conversely, teachers who are comfortable in their pedagogy resist change and thus risk enabling organisational equilibrium. This has potential to block progress resulting in stasis and ultimately, organisational stagnation (Wheatley, 1999) unless the disequilibrium leads to new knowledge, which often involves crossing a threshold of understanding.

Threshold concepts are understood as being transformative and irreversible, once a threshold concept had been grasped it should lead to “a qualitatively different

view of the subject matter and/or learning experience and of oneself as a learner” (Kiley & Wisker, 2009, p. 432). The act of crossing a threshold and acquiring new knowledge describes powerful learning experiences which leads “not only to transfigured thought but to a transfiguration of identity and adoption of an extended or elaborated discourse” (Meyer & Land, 2006, p. 21). Barnett (2009) takes this a step further and argues “through one’s knowing efforts, one’s being may be enhanced” (p. 439). This concept of knowing is encapsulated in the concept of reflection.

Teacher reflection can be understood as a “form of ongoing inquiry formed by the moral, ethical and political purposes for teaching” (Atkinson, 2012, p. 199) and requires the practitioner to continually challenge and question the meaning making processes they operate within. The importance of deep, critical reflection accounts for both the subjective beliefs and motivations of the teachers and also the objective conditions of institutional demands and research evidence. Teachers who only account for one or the other have no chance to mediate these different influences to discern a way forward (Ryan, 2012). Archer (in Ryan, 2012, p. 147) contends, “the interplay and interconnection between individuals and social structures are crucial to understand courses of action produced by subjects through reflexive deliberation”. Atkinson (2012) describes a range of purposeful teacher reflective experiences ranging from “instrumental reflection on instructional strategies to critical reflection on personal beliefs and ideological discourses shaping educational practices” (p. 176). As reflection in educational discourse and practice has attracted accounts of confusion, ambivalence and contradictions, it is argued that these critiques offer an opportunity to “critically rethink the assumptions concerning teacher reflection that underlie its representation and implementation in teacher knowledge scholarship, teacher education and professional development” (Atkinson, 2012, p. 176). This study explores the experiences of teachers as they reflected on their classroom practice as they studied their Master of Education by research in a cohort.

Although being celebrated as a vehicle for self-awareness and enlightenment, a tool for thinking and a process for growth, reflective thinking can be limited by discursive and ideological communities. Contextual conditions such as high stakes testing, increasingly intrusive surveillance and the constraining demands of

classroom teaching, “limits teachers’ choices as well as their agency to act” (Atkinson, 2012, p. 189). Teachers’ individual perspectives as well as the professional and historical communities where they are situated can be shaped by these limitations. As a teacher’s practical knowledge is contingent and dependent on its surroundings, there is a risk that this locally accumulated knowledge could become highly parochial and impractical, in turn impacting on a teacher’s reflective experience and reflective ability.

Atkinson (2012) suggests a need to support and develop teachers as members of critical communities of inquiry, participating in collective reflection and inquiring into the “political implications of teaching in a culturally pluralistic democracy” (p. 190). This presents an opportunity to recruit and develop a greater culturally and racially diverse teacher population in order to stimulate multiple community, cultural and historical perspectives. It is vital for teachers to rethink reflection in order to avoid the often misconstrued and romanticised ideal as “some sort of final solution to problems or issues in practice” (Atkinson, 2012, p. 191). Schools can welcome an opportunity to lay open the ethical code of the profession to practitioner interrogation within a critical community of peers.

The research supporting quality professional learning is continually growing, however it needs to be readily accessible and available to teachers. By embracing the teacher learning cycle (*Figure 2.4*) and promoting praxis, especially the need for teachers to individually and collectively make morally good decisions, teachers are empowered to gain a better understanding of their role and purpose. The importance of reflective practice and threshold concepts can be applied to both teacher and student learning, and can help articulate the precious moments that occur as thresholds are crossed. Teachers are at “different points in their careers, with different amounts of accumulated experience” (Ball et al., 2011, p. 636). Empirical research over the last two decades demonstrates that effective professional learning continues over time and is best situated within a community that supports learning (Darling-Hammond, 1997). Trumper and Eldar (2015) corroborate these findings and add that professional learning also needs to be coherent, based on relevant content matter, and have a focus on instructional practice. These significant concepts informed this research, as both the individual teacher reflections, and the cohort approach to CPL are examined through the HDR learning opportunity.

2.3 HIGHER DEGREE RESEARCH AS PROFESSIONAL LEARNING

Recent policy documentation (DETE, 2013a) encouraging teachers and school leaders to engage in a Master of Education program supports teachers engaging in further study, but the underlying purpose was not made clear in policy. However, it can be argued that the Master of Education degree by Research links strongly with the definitions of Continual Professional Learning as the experience requires learners to construct knowledge and make meaning as they synthesise literature and develop a research study. The notion of teachers as research practitioners is seeing a resurgence of popularity following a period during the 1990s where action research processes driven by conservative governments facilitated policy implementation. During this time teachers were treated as consumers of research, digesting it unproblematically (Blackmore, 2002). Bourke, Ryan, and Lidstone (2013) warn that particular voices can be represented and privileged over others informing structures of normalisation, citing both professional standards and compliance professionalism as potential manifestations of this policy discourse. Encouraging a resurgence of teachers as researchers who are reflexive practitioners will ensure “real evidence of what works to improve student achievement and teacher effectiveness” will inform the conditions of teachers’ work (Bourke et al., 2013, p. 410). For teaching to genuinely attain the status of an evidence informed profession, teachers need to generate and consume research, especially research which is linked strongly to their classroom practice (Barnacle & Usher, 2003; Robinson, 2003; Ward & Dixon, 2014). Supporting teachers to establish trustworthy evidence to inform their teacher work requires policy to reflect and respect the professional identity of teachers to understand the relationships between their students’ diverse needs, community aspirations, curriculum, and provide professional learning pathways for teachers to enhance these connections.

This study was sparked by the assumption that increased teacher qualifications correlate with more effective teachers. Creasor (2008) quotes Ed Balls, the then Secretary of State for Children, Schools and Families in the United Kingdom, in a speech he identified status and recognition as the two reasons for every teacher to have a Master’s level qualification in teaching and learning, where he stated “it will raise the status of teachers and ensure that they get the recognition that they deserve” (p. 4). This announcement was part of a UK plan to introduce

Master's level teaching qualifications to every teacher. In Queensland, similar connections between policy and teachers with Master's level qualifications are emerging. A recent Queensland state government policy was introduced in 2013 linking salary increases and promotional pathways to higher degree qualifications under the heading "Professional excellence in teaching, elevating teaching standards across the board, rewarding high performance and positioning the highest performing teachers where they are needed most" (DETE, 2013a, p. 4). In the policy document (DETE, 2013a), it was made clear that "fast-tracked career advancement opportunities will be available to accelerate high performing, Masters degree qualified teachers to the experienced senior teacher classification" (p. 4). Similar expectations for school leaders are outlined within the same policy stating:

enrolment in, or completion of, a graduate certificate or higher degree in a relevant field will be a prerequisite for obtaining a principal or deputy principal position. Contract extension will be dependent on completion of this qualification and demonstration of satisfactory performance in the annual performance review process" (DETE, 2013a, p. 9).

This policy clearly reinforces the assumption that educators will be more effective and therefore remunerated at a higher rate as a result of completing a Master's level qualification.

Additionally, the policy (DETE, 2013a) identifies the creation of 300 master teacher positions in identified schools, and states "experienced senior teachers with a Master of Education degree who demonstrate high performance in their annual performance review will be eligible to apply for these positions" (DETE, 2013a, p. 8). The focus on Masters level qualifications for teachers continues as, "up to 200 scholarships will be offered each year to high performing teachers (as demonstrated in their annual performance review) to undertake a Masters degree in a relevant education field negotiated with their employer" (DETE, 2013a, p. 9). Additionally, "scholarships will be offered to principals and deputy principals to undertake a graduate certificate in a relevant field negotiated with their employer" (DETE, 2013a, p. 9). Similar to the proposed UK implementation of Master of Education qualifications for teachers, the Queensland government document fails to identify the impetus for the introduction of these changes, link it explicitly to improved teacher effectiveness, or stipulate how these changes will improve students' outcomes in

Queensland. The implied connections between teachers with a Master of Education degree is that it will improve “professional excellence in teaching” and “elevate teaching standards” (DETE, 2013a, p. 4).

Although educational policy assumes such a connection, there is evidence to suggest a Master of Education degree does not necessarily make teachers more effective. Rivkin et al. (2005, p. 449) found “absolutely no evidence that having a master's degree improves teacher skills”. Similarly, in their paper examining the effect of Masters degree level on educational performance, Goldhaber and Brewer (1996, p. 8) discovered that “teachers with Masters degrees are no more (or less) effective than those without an advance degree, clearly a counterintuitive finding”. They did find that teachers with subject specific advanced degrees did have a statistically significant impact on higher test scores for students, however, Goldhaber and Brewer (1996) suggest this is a result of subject-specific training and not teacher skill or ability that support these findings.

Whilst studies have explored doctoral programs (Neumann & Rodwell, 2009) and professional education degree upgrades (Williams, 2005), there has been limited research exploring the HDR experiences of Masters students in Australia to explore their perceptions and effects on teacher practice (Edwards, 2010). Demb and Funk (1999, p. 18) note, “in particular, the perceived benefits of a research thesis for practice-oriented master's students are undocumented”. Whilst Demb and Funk (1999) explored student and faculty perceptions of the Masters thesis experience this research is now over 17 years old. Ward and Dixon (2014, p. 165) acknowledge the “limited literature in the area of masters studies tends to focus on systemic improvements” and whilst some research captured student perceptions of their research journey, there is little research centring on “the personal nature of the journey for the students” (Ward & Dixon, 2014, p. 165). This research provides a cohort perspective to address this gap and contributes currency of research to the Master of Education by research experience. As both Goldhaber and Brewer (1996) and Rivkin et al. (2005) used a student results method of determining teacher effectiveness, these findings cycle us back to the problem of attempting to measure teacher effectiveness, a concept I have argued is not easily defined or measured.

Searching further afield it was necessary to explore tangible links between HDR and teacher experience, and look further into the learning experiences of HDR

students. Neumann and Rodwell (2009) examined the satisfaction and completion rates among part-time HDR students with a specific focus on doctoral students and found that although the part-time students are considered ‘invisible’ or ‘forgotten’ within policy and research fields, they actually complete “far faster than full-time students in FTE terms” (Neumann & Rodwell, 2009, p. 66). Barnacle and Usher (2003, p. 346) argue that many of the business and government perceptions of the relationships between research masters and workplace activities are questionable and that these perceptions need to be “revised in line with the changing nature of research degrees, specifically, the emergence of significant numbers of part-time research candidates in full-time professional work”. In a similar study to Neumann & Rodwell (2009), Williams (2005), explored the learning experiences of 6 teachers recently graduated from a professional education degree upgrade in New Zealand, and found “without exception, the teachers perceived that their study had played a significant role in their professional development” (p. 461). Barnacle and Usher (2003) argue that the relationship between workplace and research lies in the bigger picture, with research providing the background and broader context, as well as the distance to scrutinise and reflect on the constraints of the workplace, with respondents claiming that research made them “better professionals” (p. 353). Whilst acknowledging the importance of articulating the links between teacher professional learning and improved student learning experiences, (Williams, 2005) agree that a “clear causal relationship between the two is difficult to substantiate” (p. 465). A subtle shift in perspective suggests that it should be reasonable to expect that effective professional learning improves teacher knowledge, increases their ability to critically analyse their own and others’ practice, and results in school improvement and student gains (Williams, 2005).

There is a dearth of research supporting the assumption that Master’s level qualifications correlate with improved student learning outcomes. Patterson (2010), in fact found that there was no significant correlation between teacher qualification and teacher quality. She calls for policy makers to re-examine what constitutes teachers’ effectiveness, informed by “best research and not by individuals promoting their political agendas and worldviews” (Patterson, 2010, p. 94). As Clarke and Hollingsworth (2002, p. 947) state, “if we are to facilitate the professional development of teachers, we must understand the process by which teachers grow

professionally and the conditions that support and promote that growth”. Strongly linked with the sense of validation through the governing body, these forms of CPD rely heavily on external bodies that fund the courses and can be viewed as exercising control or alternatively as a mark of quality assurance. Importantly, and a shift intimately linked with this research when considering HDR as an award bearing model of CPD, Kennedy (2014, p. 693) recognised:

with the increasing emphasis on master’s-level learning as a means of enhancing teacher criticality and autonomy, but still acknowledging the capacity for it to be ‘prescribed’ by governments (Bailey and Sorensen 2013), I now consider it to be more accurately placed in the ‘malleable’ category, illustrating its responsiveness to contingent factors such as who is paying and what the motivation is for study, but also acknowledging that in many cases master’s-level award-bearing CPD can be liberating, empowering and a significant contributory factor to enhancing teacher agency .

Furthermore, this study is attempting to assess how relevant HDR can be as a form of CPL for teachers, specifically to members of the LG6 cohort, who are invested in improving their classroom practice.

Teachers and administrators working full-time elected to engage in HDR on a part-time basis for a range of reasons identified later in the analysis of this study. Jamieson, Sabates, Woodley, & Feinstein (2009) and Ward and Dixon (2014) identify the notion of lifelong learning in educational discourse with people being encouraged to update their skills and abilities throughout their working lives. This idea may also be responsible for the “accelerated expansion of higher education in many parts of the modern world” (Jamieson et al., 2009, p. 245), especially over the last 30 years. Part-time study is not a recent phenomenon and has emerged over time as a way for many students to combine their studies with other commitments as they are “de facto studying on a part-time basis” (Jamieson et al., 2009, p. 245). Identified as “the ‘reserve army’ of research students for universities” (Evans in Edwards, 2010, p. 315), research also suggests that part-time HDR students have been “overlooked to the point where they are invisible in both policy and research terms” (Neumann & Rodwell, 2009, p. 55), with government data collection considering all HDR candidates as one homogenous group, which is a “highly problematic conception upon which to base policy”. This research intends to provide insight into

the qualitatively different experience part-time HDR students undertake (Edwards, 2010) which is understood to be performed within a different context to their full-time counterparts.

Many part-time students study for non-vocational reasons and for those who are, they may not have improved earnings in mind. The benefits of learning can be classified along three main dimensions of Human Capital, Identity Capital or Social Capital (Jamieson et al., 2009). Initially, these dimensions formed part of the theoretical framework for the study but became less significant as the focus of the study developed and changed over time. The process of determining a theoretical framework and understanding how this “can function in an analysis of a text and how to interpret through a theory” (Kiley & Wisker, 2009, p. 436) is seen as one of the most difficult activities involved in being a Masters student, and is certainly a difficult task when formulating the research project. Kiley and Wisker (2009) adds yet another layer of interpretation to professional learning through the introduction of threshold concepts as a useful framework to support the understanding of research learning. Six possible generic research threshold concepts are identified as: Argument, Theorising, Framework, Knowledge creation, Analysis and interpretation, and understanding new Paradigms. These are described as “something distinct within what would typically be described as ‘core concepts’; that is, more than a building block” (Kiley & Wisker, 2009, p. 432). Threshold concepts will be explored in more detail in Section 4.4.4. The problematic space identified prior to crossing a threshold known as liminality “might involve much oscillation and confusion” (Kiley & Wisker, 2009, p. 432) however it is acknowledged that passing through this messy state is a necessary part of the research journey. Wallowing in this space for an extended period of time can lead to students losing confidence and questioning their identities (Kiley & Wisker, 2009). Therefore it is important for research students to understand threshold concepts, and especially have an awareness of liminal states and the process of passing through this period of uncertainty. Reflexivity can play an important role in assisting students cross thresholds and appreciate the cyclic process particularly evident within the research learning pathway.

This study is also a bridge between the higher education and schooling sectors. References of complexity also extend to the higher education sector describing the relationships around the dissemination of research (Blackmore, 2002,

p. 260). The model of how research informs teacher practice as outlined in the impact report commissioned by Department of Education Training and Youth affairs (2001), however is described as linear, failing to recognise discursive shifts government policy had produced and how it was informed by research and disseminated by the media (Blackmore, 2002). More recent studies by Blackmore challenge school leaders to address the complexity of “culturally diverse school populations and communities, of organizational change and entrenched educational inequality” (Blackmore, 2002, p. 224), through a pedagogy of discomfort. Kershner, Pedder, and Doddington (2013), also explore the opportunities of schools and universities working together to support each other through CPL experiences. Kershner et al. (2013) compliments Kennedy’s (2014) definition of effective CPD arguing, “a great deal of research evidence suggests that the effectiveness of professional development is enhanced when teachers learn collaboratively and in contexts of classroom practice” (p. 35). Higher degree research by teachers seems to have potential to address critical pedagogic practices and support teacher reflective identities, but as Section 2.4 indicates, this is an area that is yet to be well researched.

2.4 TEACHERS AS HDR RESEARCHERS: A CONCEPTUAL FRAMEWORK

This research study examines the collective experiences of six educators while they were studying their Masters of Education by research to understand whether the professional learning undertaken within the higher degree research field produces knowledge that is evident in their practice, and whether it resonates with teachers professionally and personally. This research aimed to understand if their HDR learning stimulated and changed their thinking and practice “building upon the dynamic tension between theory and practice and multiple epistemological positions” (Blackmore, 2002, p. 261). The data analysis provides evidence of *what* (Chapter 4) LG6 members negotiated between their HDR student and teaching practice, then the data are examined to determine *how* (Chapter 5) they reconstructed their teaching and responded to their own experiences of professional learning as HDR students. The policy context that emphasises measurement of teacher effectiveness and conceptions of teacher learning has been problematised, and the previous Section 2.3 proposes that teacher professional learning needs to be understood as situated and dynamic. The following section outlines the theories associated with the theoretical

framework and summarises these concepts, specifically their relationships to the research study.

In an attempt to synthesise all of the significant elements examined in the above literature, a concept map has been borrowed (Edwards-Groves & Kemmis, 2016) to capture how teacher learning is best understood in order to support valid and relevant experiences for teachers to improve their practice. The concept map (Figure 2.5) below identifies how this research represents the links between the change in teacher learning process and HDR using an ecology of interconnected metapractices approach.

Concept map: Interdependence between practices in an ecology of practices

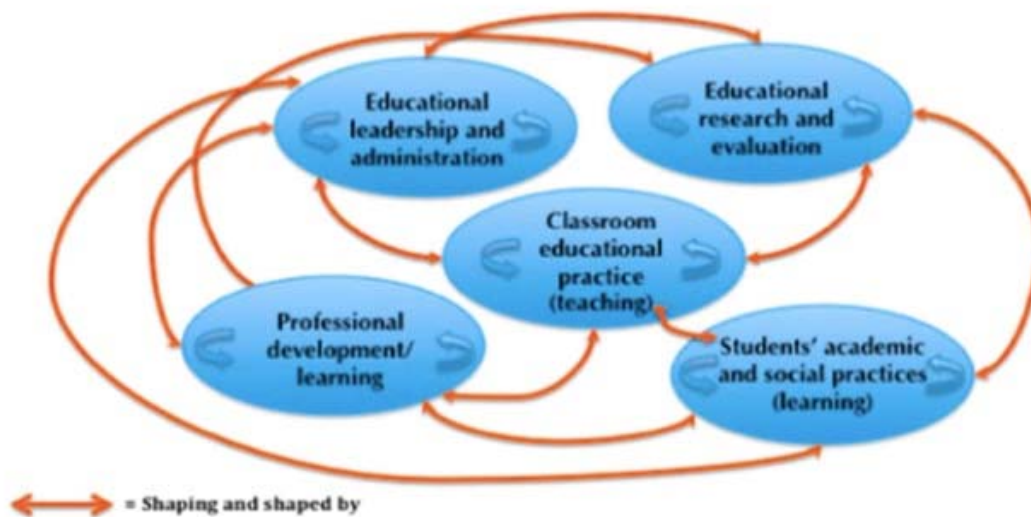


Figure 2.5. Concept map: Interdependence between practices in an ecology of practices (Edwards-Groves & Kemmis, 2016).

The above conceptual framework represents how the various core ideas explored so far in this chapter about teacher professional learning can be understood as living systems. These practices and metapractices are connected through ecological relationships which influence and are influenced by each other (Edwards-Groves & Kemmis, 2016). A major conceptualisation within this research focussed on understanding how HDR (*educational research and evaluation*) interacts with *classroom educational practice*, understanding that these connections form and are formed by relationships of interdependence and exist as living practices, “nudging against one another as they unfold (not always harmoniously, and not always in

relation to all of the others)” (Edwards-Groves & Kemmis, 2016, p. 90). Additionally, this research explores how HDR (*educational research and evaluation*), specifically, a Master of Education by research degree, exists as a form of CPL (*professional development/learning*) for teachers and school leaders undertaking this study as a cohort of learners from a single site. Data from participants has been captured and analysed to provide information about these relationships and better understand how they connect with each other using the practice architectures of *saying, doings* and *relatings* (*Figure 2.1*) and additional themes that emerged inductively from the data as a conceptual framework for analysis (*Figure 2.6*).

Through these negotiations or connections between practice architectures, change can take place and is dependent on a number of elements. Teacher identity can change as teacher learning is realised within the process of continual professional learning (Section 1.3). Central to this framework is that idea that teacher learning is most effective when undertaken within a community of like-minded professionals. As teacher teams critically reflect on their practice through continually challenging and questioning the meaning making processes they operate within, an understanding of how their pedagogy operates within these systems becomes more apparent. This sense of identity describes the notion of educational praxis. Praxis is something not formed entirely by the individual, but collectively through social, political, historical, cultural, material and economic arrangements (Kemmis, 2012). As teachers identify and connect with the idea of praxis, they are able to manipulate the meaning making and understand how contextual and relational factors influence teacher learning.

A further conceptual framework has been developed below (*Figure 2.6*) which pulls together the other elements integral to understanding this research project.

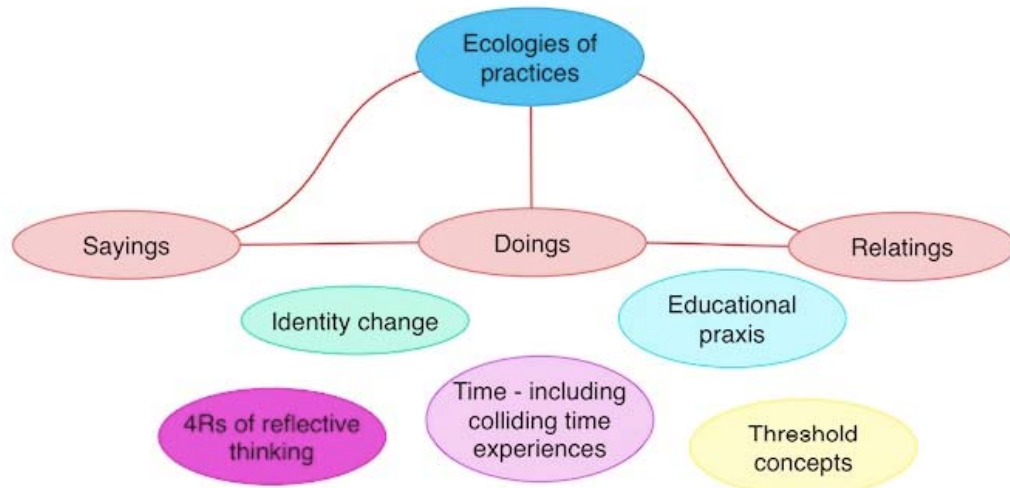


Figure 2.6. Conceptual framework: HDR as professional learning for teachers.

This framework drawn from the literature review (Araújo, 2005; Kemmis & Grootenboer, 2008; Kiley & Wisker, 2009; Ryan, 2012, 2013; Wenger, 2000) is a summary of the concepts that informed the analysis of the perspectives of the teachers undertaking HDR learning. The relationship between the student and supervisor that exists with HDR learning shares many facets of this model of CPL, with the outcome of the professional learning contingent on the skills of the mentor/coach, their motivation and willingness to engage in the process, available time and quality of the interpersonal relationships. Many of the LG6 participants were allocated two supervisors providing either opportunities for increased support and a wider range and level of feedback or created confusion through conflicting information being delivered and having to manage communication through multiple channels. While HDR relationships with supervisors has been a focus of previous study (Bruce & Stoodley, 2013; de Kleijn, Meijer, Pilot, & Brekelmans, 2014) it was not included in the conceptual framework of this thesis as a concept that informed the analysis because it did not emerge as a frequent reference in the data, and the focus of the research was on the experiences of HDR students and their work practices.

When considering the impacts of further tertiary study for teachers it should be remembered “teacher learning varies by the teacher, by school context, and by the learning activities themselves” (Opfer & Pedder, 2011, p. 394). Teachers learn best by long term opportunities to integrate learning and practice (Opfer & Pedder, 2011)

which is understood as praxis (Kemmis & Smith, 2008). Reflecting on pedagogic practices involves context and so should take place in communities of learners who are supported to be reflective. Once teachers return to further study, universities have a heavy responsibility to ensure their learning is situated appropriately, is meaningful, caters to individual learning needs and achieves the desired outcomes as teachers pursue pathways to improve practice. The MEd research pathway is an example of professional learning being tailored to individual needs and for teachers to have a sense of control over the destiny of their study. Through incorporating the idea of praxis and encouraging teachers to be reflexive about their learning, particularly within a cohort of practitioners invested in improving their own pedagogy, LG6 participants assumed that further study would be a transformative process with teachers able to engage in the learning and transform knowledge into knowing.

Aware of the historical interplay between government policy and the impacts on teachers and schools, I was curious about the direction of future changes in education, particularly as a result of government policy and the impetus for teachers and school administrators to hold Master of Education level qualifications. As a participant researcher it is validating to read Kemmis (2012, p. 893) who states “practice seen from the inside is the most important version of practice to connect with, to engage, and to develop if we are to change the world by researching educational practice or praxis”. Through studying the LG6 cohort and following their journey, this study explores the impact of further study; in particular an intensive research Masters degree pathway, has on their pedagogical practices.

If pedagogies are improved through reflexive learning informed by an understanding of praxis, then the research design needed to be able to gather teacher reflections over time, and find out from teachers how they made the connections between their HDR learning and their everyday practice (praxis). The research design is explored in detail throughout the next chapter.

Chapter 3: Research Design

This chapter explains the research methodology undertaken to respond to the research question as stated in Chapter one:

How do full-time teachers studying a part-time Master of Education degree negotiate and explain the implications of their research within their teaching practice?

The first section explains the research design, and then the research participants are described and justified. Intended data collection and data analysis methods are outlined including an explanation and justification for the methods to be used in the research project. The final section addresses the ethical considerations of the research, including potential problems, limitations and steps taken to avoid any of these conceivable issues.

3.1 RESEARCH DESIGN

This research design was developed to capture the experiences of the LG6 within a formal academic, research driven approach in order to enable the participants to describe their experiences of studying a Master of Education Research degree. The sampling frame for this research was discreet and purposeful, with participants identified through their involvement in the same cohort as the participant researcher. Previously defined elements of *praxis*, *practice architectures*, *metapractices* and *ecologies of practice* and the ideas in Section 2.2.1, were used as analytic concepts to make meaning from the participants' stories.

To record these experiences and map them against these conceptual elements of educational praxis, this study assumed an interpretive interactionism style of qualitative research. Interpretation establishes the foundations for understanding, which is the process of “interpreting, knowing, and comprehending the meaning of an experience” (Denzin, 1989, p. 360). The goal of interpretive interactionism is to locate the meaning through the experiences of the interacting individuals. This study is closely linked and intimately connected to the “critical and emancipatory styles of interpretation” (Denzin, 2009, p. 108; T. Smith et al., 2010), as the majority of the material was personal and shared within a group. These stories had a relationship

within a cultural context and were connected to a group or larger institution and included written texts and other discursive systems (Denzin, 2009). These life experiences or ‘epiphanies’ that were written about, were the events and troubles that radically changed and moulded personal meanings and life projects which the “writer has already experienced and witnessed firsthand” (Denzin, 2009, p. 109). Most importantly, by recording these experiences and detailing the related stories people share, the researcher was able to illuminate the powerful moments, which contributed to making meaning in particular contexts and forming a person’s identity. This process will be described in more detail as I explain the connections to the conceptual framework (*Figure 2.6*) of the study.

3.1.1 Qualitative research in education

Merriam (2009) defines qualitative researchers as being “interested in how people interpret their experiences, how they construct their worlds, what meaning they attribute to their experiences” (p. 14). The key concern for qualitative researchers is understanding the phenomenon of interest, the research question, from the participant’s perspective. In order to achieve this, qualitative research demands the “*researcher is the primary instrument for data collection and analysis*” (italics in original, Merriam, 2009, p. 15). Understanding the human instrument has shortcomings and biases may be seen as problematic. However, rather than attempting to eliminate these biases it has been important to “identify them and monitor them as to how they may be shaping the collection and interpretation of data” (Stake, 1995, p. 14). The challenge of collecting data within education research is the inherent complexity and dynamism involved in the task of education. Qualitative research however, provides a method of dealing with this challenge as it is, ‘interpretive, experiential, situational and personalistic’ (Merriam, 2009, p. 15) and therefore particularly useful for dealing with education, which is understood as a complex system (Opfer & Pedder, 2011). As this research explores the experiences of full-time teachers studying a part-time Master of Education degree, it is necessary for the research methodology to be constructed in a way that can explain the range of complexities and contextual dynamisms described above.

3.1.2 Ethnographic case study approach

Case studies are examples of qualitative research utilised because of their research design. Features include the “search for meaning and understanding, the

researcher as the primary instrument for data collection and analysis, an inductive investigative strategy, and the end product being richly descriptive” (Merriam, 2009, p. 39). Merriam (2009, p. 40) explains a case study as “an in-depth description and analysis of a bounded system”. The case to be studied must be intrinsically bound, meaning there is a finite amount of data that can be collected. In this study, the bounded system was signified by teachers from one school becoming MEd researchers. A case study method was used deliberately to evaluate complex educational innovations in contextual conditions that might be highly pertinent to the phenomenon of study (Simons, 2009). Creswell (2012, p. 73) corroborates Simons (2009) and Merriam’s (2009) definition of a case study adding that it draws upon multiple sources of information and can investigate a single bounded system or multiple bounded systems.

In particular, this thesis used an ethnographic case study approach, since it enables the ethnographer to search “for the shared patterns that develop as a group over time” (Creswell, 2012, p. 464). Ethnographers learn from “studying a culture-sharing group at a single site” (Denzin, 2009, p. 110) and in this study elicited information in response to the research question. This research approach accepts the messiness of qualitative inquiry and celebrates uncertainty, undertaking a research approach sensitive to multiple perspectives and voices. This research sought to let the “prose of the world speak for itself, mindful of all the difficulties involved in such a commitment” (Creswell, 2012, p. 469). Characteristics of this study are identified below and assist in describing the method of meaning making employed in this research.

The result of combining the above two approaches is an ethnographic case study methodology, defined as prolonged observations over time in a natural setting within a bounded system. The observational method was the chosen method to understand another culture whereas the case study was used to contribute to our knowledge of individual, group, organisational, social, political, and related phenomena (Yin, 2003). Using the ethnographic case study method allowed for exploration of actions and events of LG6 teachers becoming MEd researchers over a period of time in a cultural setting providing a deeper understanding of the research question.

The site of study was described as LGSS, an inner-city public school in Queensland. The case was defined as (up to six) participant volunteers of the LG6 (the group studying the MEd research) to be involved in the study. Specifically designed qualitative instruments were employed to elicit data about the LG6 experience, to inform a response to the research question. This ethnographic research focused on individual responses from members of a larger culture-sharing group. A culture-sharing group was required to “meet on a regular basis and interact over a period of time” (Creswell, 2012, p. 469), and in this case the group was undertaking MEd research as a cohort approach. This cohort was not a topic of the study, but rather defined the boundary of the case study. From the viewpoints of the individual participants it became possible to examine the shared patterns of behaviour, beliefs and language that developed over the period of engaging in the MEd research as this assisted in describing the impact the HDR study had on their pedagogy.

In order to contextualise the research, additional information explaining the cohort approach to Higher Degree Research (HDR), specifically the intensive research pathway undertaken by LG6 participants was examined to determine the contributing factors this had on their Continued Professional Learning as educators.

3.2 RESEARCH PARTICIPANTS

Merriam (2009) describes the researcher situated in an ethnographic case study as “participant as observer” (p. 125). My role was more complex as I was both an observer and participant (Merriam, 2009, p. 125). As such, I had an “active membership role” (Adler & Adler cited in Merriam, 2009, p. 124) where as the researcher I was involved in the setting’s central activities, and assuming responsibilities that advanced the group. As a participant researcher, my ability to relate to the various identities and ideas from others in the group was crucial to maintaining a sense of ethical validity and critical perspective. However, Peshkin (1988) argues that one’s subjectivities could be “virtuous for it is the basis of researchers making a distinctive contribution, one that results from the unique configuration of their personal qualities joined to the data they have collected” (p. 15). The group knew my role, and my participant status enabled me to gain a deeper understanding of the other participants’ experiences and provided an opportunity to appreciate the data through a similar lens.

Simons (2009) confirms the importance of participatory research, and describes the primary reason for examining the ‘self’ is that “you are an inescapable part of the situation you are studying” (p. 2). My role as a participant researcher was extremely valuable in understanding elements of the participants’ experience and enabled a richer process of gathering qualitative data through the shared understanding of the lived experiences of the participant group. This situation had potential to raise ethical questions in relation to the privacy and protection of research subjects. These concerns will be discussed more fully in Section 3.6. My arrangements to ensure full disclosure and acknowledge the roles and rights of the researcher and participants were approved by the university ethics committee. Individual rights to privacy and confidentiality have always been an extremely important consideration in this study, and before engaging participants in the study, informed consent was discussed fully with participants and their supervisors. The potential hierarchical tension was catered for through the provision of a teacher ombudsman. This teacher was exterior to the study but well respected and trusted by members of staff, and had direct access to university supervisors should any participant have felt undue pressure to engage in the research throughout the duration of the study.

Up to five participants, apart from myself from the same school were invited to participate in this ethnographic case study research. Upon agreeing to participate in the study, participants were asked to provide details about their experiences of study and work within this culture-sharing group. The participants included:

- P1 – Male - school leadership position; 38 years teaching experience
- P2 – Male - classroom teacher; 10 years teaching experience
- P3 Female - classroom teacher; 7 years teaching experience
- P4 Female - classroom teacher; 6 years teaching experience
- P5 Female - Teacher Librarian; 14 years teaching experience
- P6 Male (myself) – school leadership position; 19 years teaching experience

To recruit participants I first held an initial meeting with school staff to describe the research. Requests for participation were then forwarded via email to the other five members of the LG6 to request volunteers to participate in the study. The information below outlines how I managed the ethical considerations regarding the selection of participants. All LG6 participants were offered equal opportunity to participate in the study and there was no expectation to participate. All five participants were given significant information about the research to be conducted. They were asked to participate in two reflective surveys at different stages along their research journey. Additionally, participants were provided with an opportunity to collect regular responses through the GoingOK web application through which members received an email every two weeks prompting them to respond to a question and rate their engagement on a sliding scale (Gibson, Willis, Morrison, & Crosswell, 2013). All participants confirmed their willingness to participate.

3.3 DATA COLLECTION

An initial survey with the participants was forwarded in Week 2 of the research schedule, with a follow up survey in Week 14 of the project. Participants were sent fortnightly prompts to engage with the GoingOK web application but could enter data at any time using this tool and continue beyond the defined data collection period if they chose. The first survey was conducted to understand where participants were situated in their study and elicited experiences about how they were making meaning from their HDR when considering their teaching practice. The final survey was sent out twelve weeks later and asked participants to reflect on similar questions to the initial survey then provide further detail on the implications for their teaching practice in relation to their experiences as HDR researchers. The questions were designed to enable participants to understand how professional learning had impacted on their teacher practice and clarify any barriers and obstacles limiting the ways in which their HDR had impacted on their teaching practice. The surveys were also undertaken to identify elements where they could clearly link HDR research had impacted on their teaching practice.

As stated above, it was intended that the data collection would take approximately 14 weeks and a timeline for the data collection had been developed (see Table 3.1). Time had been allowed at key stages to allow participants time to

locate information or answer questionnaires, and also to allow the researcher to formulate survey questions that were informed by analysis of previous evidence.

Table 3.1
Timeline of data collection

| Date | Activities | Estimated time |
|------------|---------------------------------------|----------------|
| 13/10/2014 | Participant Consent | 30 minutes |
| 20/10/2014 | Initial Survey/ GoingOK reflection | 20 minutes |
| 03/11/2014 | GoingOK reflection | 20 minutes |
| 17/11/2014 | GoingOK reflection | 20 minutes |
| 01/12/2014 | GoingOK reflection | 20 minutes |
| 15/12/2014 | GoingOK reflection | 20 minutes |
| 29/12/2014 | GoingOK reflection | 20 minutes |
| 05/01/2015 | Final survey GoingOK reflection | 30 minutes |

3.3.1 Surveys

Surveys were sent to preferred email accounts identified by participants. As a participant researcher, I designed the data gathering process through online surveys to allow for some relational distance between myself and participants so they did not feel pressured to report on issues in particular ways that may have occurred if I had interviewed them face to face. The initial survey was structured to probe for

understanding of professional learning issues early in their MEd studies while they were still completing their university course work (Silverman, 2006, p. 128). The final survey was conducted to gain an understanding of the experiences of the LG6 participants as they negotiated the meaning of their HDR within their teaching practice after the course work component had finished. As the participants described these experiences, an account of what had taken place acted as “a culturally available way of packaging experience” (Silverman, 2006).

The initial survey used the questions outlined below.

Initial survey questions:

- Why did you decide to undertake your MEd research study?
- In what ways have these reasons changed or stayed the same since starting your study?
- What were your expectations of this degree?
- In what ways has your study met these expectations?
- Describe any significant moments of satisfaction you experienced throughout the study period.
- Why were these a cause of satisfaction?
- Describe any significant moments of frustration you experienced throughout the study period.
- Why were these a cause of frustration?
- What did you do to reduce your frustration levels?
- What are some new concepts that have informed your professional practice that you have come to understand throughout your MEd Research study?
- What importance have these concepts had for your professional practice?
- What do you anticipate will be a positive outcome for your professional practice from your studies as you continue into the future?
- If there have been unanticipated positive outcomes for your professional practice from your MEd Research study, what have they been?

As these surveys were attempting to describe the accounts of individual participants, the questions were designed to reveal displays of identities, which arose as part of participants' artful practices, and as such sought to explore both identities and practice (Silverman, 2006). A decision was made in negotiation with supervisors for participants to create their own pseudonym in both the initial and final survey so results could be aligned for individual context.

The final survey was conducted 12 weeks later with questions designed to provide evidence of growth and understanding when compared with the initial survey questions, and was informed by theoretical perspectives relevant to the literature review being compiled at the time. The questions used in this survey have been outlined below.

Final survey questions:

- Please provide the same pseudonym as used in the first survey, or provide one below if you have not completed the first survey.
- What experiences of working full-time as a teacher and studying the MEd Research part-time have been most significant for you?
- Before enrolling in the MEd Research degree, what was your most memorable professional learning experience as a teacher? What made it memorable?
- What do you see as the key features of effective and worthwhile professional learning experiences?
- How effective has the experience of studying a MEd Research been as a professional learning experience?
- Under what circumstances would you recommend MEd research as a professional learning activity for teachers?
- In the first survey, participants identified these anticipated positive outcomes
 - improved understanding of evidence and research
 - improved ability to work academically
 - presenting to peers or coaching

- What evidence of any of these hoped for outcomes have you experienced so far? Under what circumstances might this outcome be even more likely?
- Describe any experiences where you believe your teaching practice has changed as a result of studying a MEd Research? What outcomes do you think this has had in your classroom or teacher work?
- Describe your experiences of studying as a cohort

3.3.2 GoingOK web application

The GoingOK web application was investigated initially as a unique way of capturing progressive reflective information in response to the research question. Data gathered through this process provided rich feedback, both qualitative and quantitative data about how LG6 participants were interacting with their HDR and teacher work. Participants opted-in to receive reminders every 2 weeks directing them to the web application profile page they had registered for and created through a unique link provided for this research project. This enabled them to respond to the question prompt linking their responses to the research question. These responses were sourced from the GoingOK data as the connections were often described when the participants indicated a high point score in response to the probing statement, “Describe how your MEd is influencing your practice”. These scores were gathered from a sliding scale within the application (*Figure 3.1*).

Dissatisfied = 0

Satisfied = 50

Very satisfied = 100

The qualitative data entered at the same time as the sliding scale provided opportunities for participants to reason how and/or why they gave the sliding scale score. The sliding scales were recorded and historical data were represented in the below format for users to view. The user interface provided a text box for users to type additional qualitative information within the reflections.

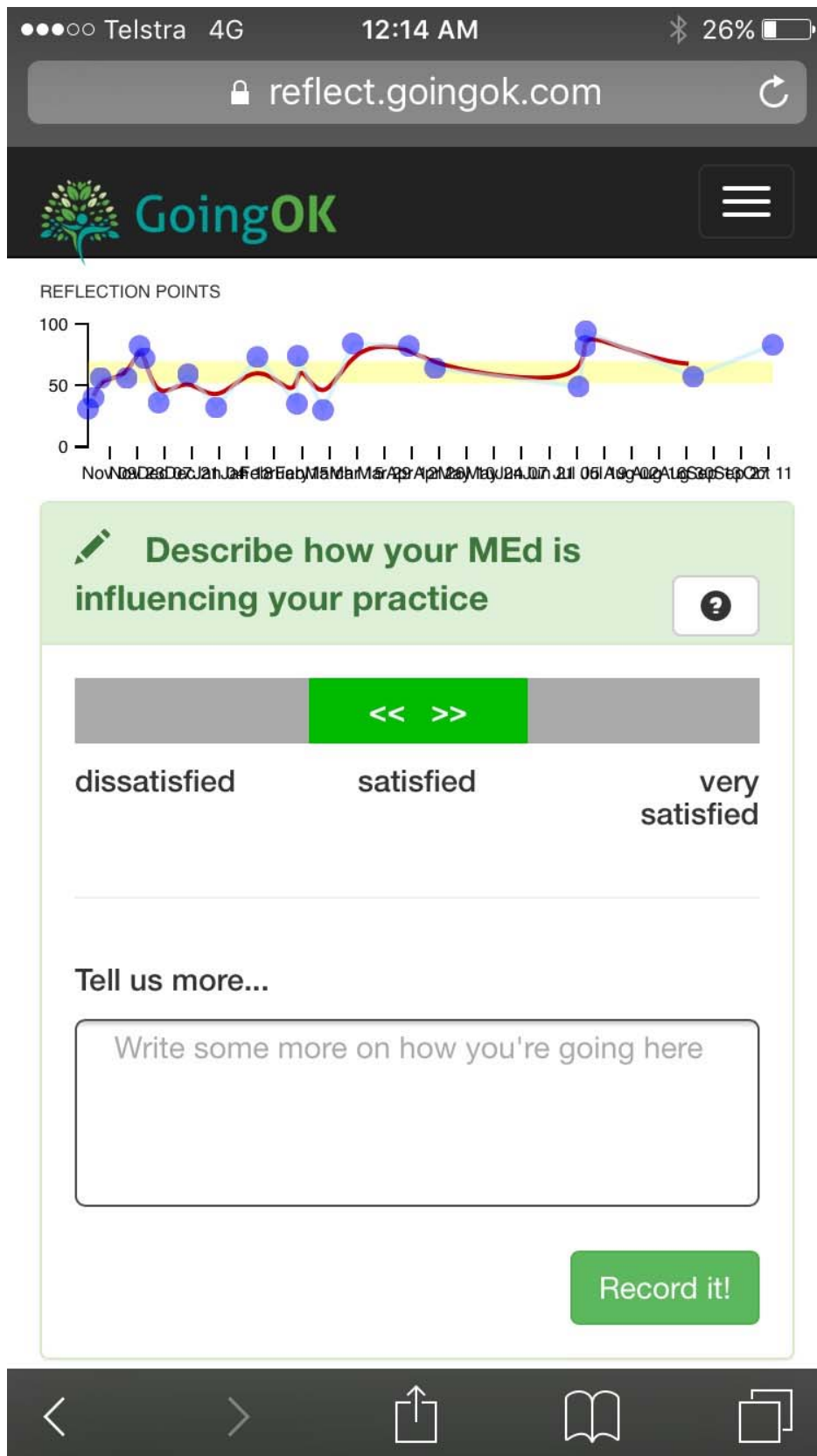


Figure 3.1. GoingOK web application screen shot.

As seen in the screen shot above the GoingOK web application provided opportunities to capture quantitative data, through the continuum that enabled participants to slide a scale between three qualifiers that had been developed as an appropriate range of responses; *very satisfied*, *satisfied* and *dissatisfied* to the question prompt, *describe how your MEd is influencing your practice?* Qualitative data was captured through the text box below the sliding scale where participants could enter more information in response to the question prompt. As the sliding scale translated to a score out of 100, both the historical graph of satisfaction and previous text responses over time were visible to the participant. This was made available to the researcher at the end of the data collection period and contributed rich data for further analysis. Although the style of data collection was relatively new, the security of information and confidentiality was confirmed and approved through the ethics submission. The web application <http://goingok.org/> was developed by a HDR student and had been used to capture data in other research studies (Morrison, Willis, Crosswell, & Gibson, 2014).

3.4 DATA ANALYSIS

The data analysis methods are described in the following section. The research includes multiple data collections consisting of an initial reflective survey, a follow up reflective survey and data collected through the GoingOK web application. Some data analysis occurred simultaneously to the data collection (Gibson et al., 2013; Merriam, 2009), particularly the data which was needed in order to inform the shape, structure and content of the follow up survey. Throughout the data collection period, the data were prepared and organised for analysis (Creswell, 2012; Merriam, 2009) with a systematic approach of data analysis related directly to three interlinked processes of *data reduction*, *data display* and *conclusion drawing and verification* (Simons, 2009). In line with the ethics application for this research study, to safeguard the data from corruption or loss, duplicates of transcripts were created and stored safely in secure web housing sites and also backed up on hard drives and stored in locked cabinets.

Data reduction involved selecting, focussing, and abstracting important relevant data from the transcribed text of the survey responses and quantified data points from the GoingOK web app. This process was informed by the theoretical framework of the research study and included themes which arose during the data

analysis. Survey responses were analysed line by line and initially coded by levels of reflective practice informed by the 4Rs of reflective thinking framework below. This was completed in an attempt to identify the more powerful statement in the participant responses, representing reflections at the deep ‘reconstructing’ end of the model. These reconstructing reflections (examples in Appendix A) were later identified through the conclusion drawing process as representations of significant moments in the data.

Table 3.2

The 4Rs model of reflective thinking with question prompts (Ryan, 2013, p. 147)

| Level | Questions to get started |
|--------------------------|--|
| Reporting and Responding | Report what happened or what the issue or incident involved. Why is it relevant? Respond to the incident or issue by making observations, expressing your opinion. |
| Relating | Relate or make a connection between the incident or issue and your own skills, professional experience, or discipline knowledge. Have I seen this before? Were the conditions the same or different? |
| Reasoning | Highlight in detail significant factors underlying the incident or issue. Explain and show why they are important to an understanding of the incident or issue. Refer to relevant theory and literature to support your reasoning. Consider different perspectives. How would a knowledgeable person perceive/handle this? What are the ethics involved? |

| Level | Questions to get started |
|----------------|--|
| Reconstructing | Reframe or reconstruct future practice or professional understanding. How would I deal with this next time? What might work and why? Are there different options. What might happen if...? Are my ideas support by theory? Can I make changes to benefit others? |

Following this initial analysis, I closely read the data again to identify relationships and common themes through an open, axial coding approach (Charmaz, 2000). This lengthy process involved identifying and coding themes within the data collection of participant responses, then looking for repetition of themes by going back and forth between the data sources, colour coding, and gradually reworking the broad themes to identify the strong common elements (Appendix E). Themes emerged inductively and changed regularly. The final themes identified through this approach have been captured below:

| | |
|--|----------------------------|
| | Shifting identities |
| | Motivations |
| | Family/relationship |
| | Teacher |
| | Student |
| | Writer |
| | Time |
| | Guilt |
| | Cohort |

Figure 3.2. Colour coded concepts for data analysis.

Data display involved the concepts (*Figure 3.2*) of identity (student, teacher, writer) family/relational, cohort, threshold crossings, guilt, motivations, and ecological relationships of practice architectures were used to colour code and

synthesise the categorised data in a deductive analysis and explore the themes as they arose in the initial survey (Appendix B), the final survey (Appendix C) and the GoingOK data (Appendix E). The concept of time was initially included as a theme arising from the data analysis. However after exploring the impact of time on the lived experiences of LG6 participants, and developing a deeper understanding of how time can disrupt and create equilibrium and disequilibrium, a lengthy reflexive and inductive process of data analysis promoted the concept of ‘time’ as a significant organiser of the data. The GoingOK data enabled individual recounts of participant experiences to be analysed for similar themes. This GoingOK web app response data provided access to participant reflections in more informal contexts, and provided ‘just in time’ reporting of participant responses. The GoingOk web app has been used in other research to record and analyse the reflections of beginning teachers (Willis, Crosswell, Morrison, Gibson, & Ryan, 2017) and university science students (Gibson, Kitto, & Bruza, 2016).

The conceptual framework (*Figure 2.6*) provided elements to be used for the analysis of the data considering ecologies of practices, the practice architectures of *sayings*, *doings* and *relatings*, and praxis as identified in Section 2.2.3. Within these broad themes, the data was coded for understanding and application of concepts and changes in teacher behaviours. There was a constant comparative approach of survey responses and GoingOK data to determine emergent themes and categories. This *data display* presented the data in a visual form to easily represent what was happening through the data and to inform what further action was required to further the analysis (Simons, 2009). Coding arose from the interaction with the data (Charmaz, 2000) and assisted to facilitate comparisons between data. This comparison of the coded data enabled the *data conclusion and verification process* to occur and reveal emerging patterns, propositions and explanations to be confirmed and verified (Denzin & Lincoln, 2011; Simons, 2009). As revealed above, ongoing changes were required to respond to the data inductively as themes became more significant and developed as significant drivers within the conceptual frame became less important in comparison to other concepts.

3.5 ETHICAL CONSIDERATIONS

Ethical approval was obtained from the school principal and sector (Department of Education and Training Queensland). As both the principal and

deputy principal were part of the cohort, the risk of coercion was considered. As a participant with strong relationships with the teachers in the cohort, members of the team had already been approached and offered to participate in the research and had offered informal consent.

A respected member of staff who was not part of the cohort had also been approached and agreed to act as an ombudsman for participants to engage if there were concerns of discomfort, coercion or unethical practice and contact details for both the university supervisors and sector employee advisor were provided. Participants were also offered the opportunity to review their data before submission. LG6 teachers were assured that participation was not compulsory and that they could withdraw at any time without consequence. Pseudonyms were used for the school and participant names. Sector permission was sought and granted by the principal to offer participants allowances for any time used to respond to the surveys and GoingOK web application reflection tool. Ethical approval was obtained from QUT through the human ethics review committee.

3.6 POTENTIAL PROBLEMS AND LIMITATION IN CONDUCTING RESEARCH

As this research was conducted during the school academic year the volume of work for the teacher participant and researcher were a consideration. This was one reason why the data was collected through online surveys over a defined period of time. This meant that participants could record their reflections at a time that most suited them. Power relationships between researcher and potential participants were identified, acknowledged and agreed understanding about expectations and opportunities to withdraw at any stage were communicated as understandable and acceptable. As a participant researcher and one of the LG6 cohort, identity and proximity to research were also a consideration. Kemmis (2012, p. 893) argues:

When we come to speak of, and research, our own practice (for example, our practice as teachers, or as researchers) we see practice from the inside. Our living practice unfolds in a continuous present, shaped by often unseen hands and habits inherited from the past. It is more or less intensely present to us in our consciousness.

Maintaining a critical perspective has been an ongoing challenge throughout this research study. In an attempt to mitigate this problem I invited critical perspectives

from other teachers, colleagues and supervisors to ask questions or challenge interpretations.

This research is not concerned with measures of teacher effectiveness but a focus on discussion and reflection of personal growth and various perspectives of individuals who began their studies as a HDR cohort. Without this focus it has been challenging to appropriately code participant responses to effectively identify the impact of undertaking a MEd research on pedagogical practices. Ideas of impact have invariably included a mixture of personal and professional findings.

3.7 CHAPTER SUMMARY

This chapter has provided a clear description of the research methodology this study undertook. An ethnographic case study was conducted through an, interpretive interactionism style of research that sought to understand how full-time teachers studying a part-time Master of Education degree negotiated and explained the implications of their research within their teaching practice. Participant selection for the interviews has been described and the methods of collecting the data have been presented. An overview was provided to explain how the data was analysed and the ethical considerations pertaining to this research study were also addressed.

Chapter 4: Findings I – an analysis of ‘what’ LG6 participants negotiated

An ethnographic case study methodology was employed to gather the data collected over a 12-week period during the end of the second and beginning of the third year of part-time study in 2015. The study participants had finished their university confirmation stage, 1/3 of the way through their research candidature, and were working towards preparing their own ethics submissions for their individual projects at this time (see *Figure 4.1*). In this chapter, the practice architectures evident during that time period, that is the *cultural-discursive*, *material-economic* and *social-political* arrangements forming the patterns of relationships described as ecologies of practices (Kemmis, Wilkinson, Hardy, & Edwards-Groves, 2009) are analysed to answer the research question:

How do full-time teachers studying a part-time Master of Education degree negotiate and explain the implications of their research within their teaching practice?

Placing the participants’ experiences at the centre of this research recognises the importance of individual teachers as both teaching practitioners and teacher researchers. These two domains of experience, teaching and research, were intertwined in the existing lived experiences of LG6. An ecologies of practices perspective (Kemmis, 2012) informs the data analysis in this chapter to identify and explain the interdependent relationships and knowledge structures coalescing between HDR and teaching practice. An ‘ecologies of practices’ (Kemmis, 2012) perspective suggests practices behave like living things, which respond, react and adapt to the changing environments and circumstances around them. Practitioners co-habit sites with other objects and people, and these ecological relationships are closely interdependent and interrelated, sustaining the larger complex of education within schools. In this chapter, the dynamic elements of these relationships are articulated through analysing participants’ responses to the surveys and reflection tool. These responses have been analysed through the theoretical framework to identify **what** elements were part of the ecologies of practices (Kemmis, 2012).

Understanding **what** was being negotiated is an important analytic first step before being able to explain the tensions of teachers negotiating the implications of their research within their teaching practice.

As a participant researcher, the data analysis was informed through my perspective where practice was viewed from within, situated in the specific circumstances and conditions of shared sites. These lived realities share the same interpretative categories with other participants providing an insider-practitioner lens, with considerable deep and reflective processes undertaken (Kemmis, 2012). The analytic process undertaken in this research is described by Nicolini (2012, p. 219), whereby:

first...we zoom in on the details of the accomplishment of a practice in a specific place to make sense of the local accomplishment of the practice and the other more or less distant activities. This is followed by, and alternated with, a zooming out movement through which we expand the scope of the observation following the trails of connections between practices and their products.

This process was represented in this analysis chapter by firstly identifying **what** practices the teachers were navigating, then the relationships between these are explained utilising an ecologies of practices perspective. Following this initial thematic analysis, the data was then further interrogated in Chapter 5 to understand **how** teachers from the LG6 cohort accounted for their negotiations and connections between HDR and their own teacher practice, and explored any common experiences that emerged. The iterative zooming in and out concludes as a “convincing and defensible account of both the practice and its effects on the dynamics of organizing” (Nicolini, 2012, p. 219) are established. This represents how the individual participant responses contribute to the generation of broader effects of HDR on teacher practice.

The chapter is organised by the time phases of the experience, because these represented significant changes within the university course structure and became the impetus for different ways of working from cohort support to independent research with supervisor support.

1. **Time Phase 1 – coming to study.** This phase included how the participants reported, rationalised and reasoned through their motivation to study. The

decision to engage in further study was made by the LG6 members at the same time as a group, which enabled the LG6 participants to enrol as a cohort.

2. **Time Phase 2 – beginning to study.** This phase included becoming a HDR student and involved completing two subjects by coursework, part-time over a year, where research approaches were explored and critiqued. This second phase was recognisable by the strongly positive participant feedback about the experience of cohort support with the defined units of work supporting group work and synchronous study time periods.
3. **Time Phase 3 – researching.** This phase included moving to an independent study phase following confirmation and ethics submission. This phase was defined by the shift from HDR experience being a public unit-based space to individual private study spaces. Strong HDR supervisor guidance and support replaced the on-campus LG6 cohort support structure.

This chapter reports on the data obtained from the initial and final surveys, and the reflections from the GoingOk web application using the below codes to identify the data origin.

Table 4.1

Code to survey responses

| S2PNQ3b = Survey 2 – Participant N (Natalie) – Question 3 – section b. | |
|--|---------------------------|
| Survey 1 | = Initial survey |
| Survey 2 | = Final survey |
| Survey 3 | = GoingOk app reflections |

Although LG6 members were travelling along the same lineal candidature path as outlined by the university policy guidelines (see *Figure 4.1*), the data revealed individual experiences, where personal time phases juxtaposed with the linear sequential phase of academic study. These collisions of personal time and academic study time demanded time strategy decisions, and data reveals evidence where these competing time phases created stress or anxiety and would often be

emotionally demanding (Araújo, 2005). The data captured through all three surveys provides insight into individual circumstances impacting on the participants' ability to negotiate the HDR within their own teaching practice at three time phases, with the ongoing reflections captured from the GoingOk web application providing commentary that linked the time phases of the survey.

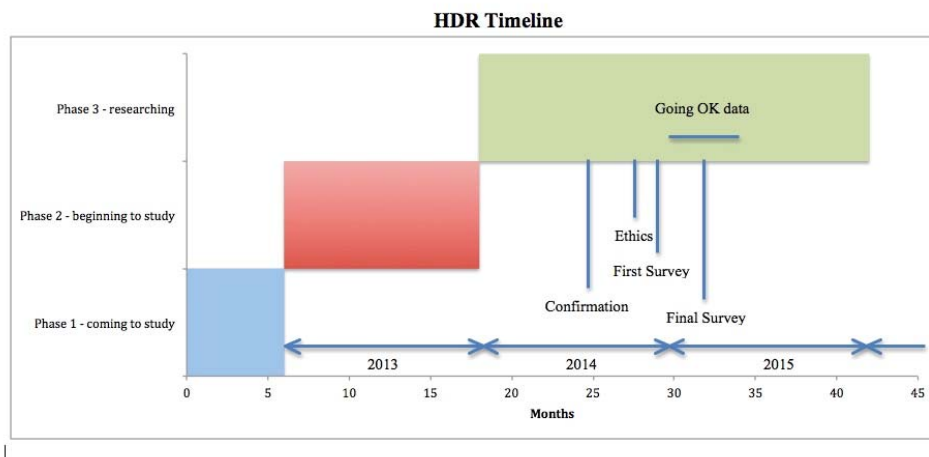


Figure 4.1. Higher degree research LG6 timeline.

However, these individual circumstances are not mapped into individual stories but common experiences are identified to explore the shared patterns of the group over time (Section 3.1.2). The stories of **what** the participants were negotiating represent common ecologies of practice evidenced through analysis of the data. Participant responses reveal a story of how LG6 teachers' negotiated and explained research implications within their teaching practice.

4.1 TIME – EVER PRESENT

This chapter seeks to identify the interdependent relationships of practices, (ie *sayings, doings and relatings*) shaped by practice architectures (ie *cultural-discursive, material-economic and social-political* arrangements) present in the site, occurring within ecologies of practices, and their varied time phases that participants indicated were influencing their HDR experience. Kemmis and Grootenboer (2008) describe these arrangements as enabling or containing elements of practice, which occur within, respectively, the mediating preconditions of semantic space, physical space-time and social space. Importantly, these transformations were an impetus for

changing and evolving practice as they evolve and change over time and are reproduced and transformed through cycles of time in response to changing circumstances and environments (Kemmis & Mutton, 2012). Time was a recurring theme, which evolved from the data analysis of this research and informed current conceptualisations of the ecologies of practices research about teachers.

The relationship between time and HDR is explored by Araújo (2005) who examined the experiences of 37 HDR doctoral students to provide insight into the uses and representations of time and its conceptualization as a 'phase'. Araújo (2005) examines the dispensation period in which Portuguese academics are provided a period of time away from work and classes to complete PhD study. The strong comparisons of complexities between other life phases and this intense study phase can be applied and potentially magnified with the experience of the LG6 participants who continued full-time work whilst undertaking their HDR study. The French philosopher, Henri Bergson (as cited in Araújo, 2005, p. 195) proposed that time forces us to confront a reality constructed of "a diversity of durations, all distinct from one another regarding tension, celerity and rhythm". People's lives are made up of different phases with many of these regulated by events, which can be controlled by individuals to maintain a semblance of regularity in daily life. These time periods may be biological with distinct endpoints; consider pregnancy as an example of a well-understood biological time period. These measurable periods can be quantified using calendar time and some of these phases may be socially realised and understood through the experience of growing up, or by comparison with others' lived experiences or general social time expectations. These competing time periods or phases are cyclical, they do not follow a sequential pattern and may often be occurring simultaneously.

Juggling multiple time phases does not imply a need to prioritise one over another (Araújo, 2005), however the demanding challenge of maintaining a range of emotionally demanding phases in synchronicity can become a cause of stress or tension, especially when juxtaposed against the lineal path and duration of HDR candidature. Thompson and Cook (2017) explore a similar tension in their research where they found education reform agendas were impacting on the individual experiences of teachers and principals, disturbing the rhythms of their day-to-day teacher practice creating a perception of accelerated work life and causing them to

feel out of sync with the new expectations the reform agendas promoted. This feeling of being ‘out of time’ is a result of teachers “being forced to experience time in two incompatible ways” (Thompson & Cook, 2017, p. 29), creating an arrhythmia as two competing time experiences, or temporalities, co-existed but were not occurring in synchronicity.

For LG6 participants, time had the potential to become an impetus for either frustration: “it has also been exceedingly difficult to manage my time between Uni work and school work” (S1PF1c), or celebration: “therefore, once again, it was a case of the opportunity being offered at the right time” (S1PP1g). Time was also identified as either an enabling factor; “it is also an exciting time politically as schools face a range of challenges and have been provided a number of opportunities to deal with” (S1PY2c) or restrictive force; “frustration was mainly due to the time constraints of working full-time and studying” (S1PY7a). These can be described as conflicting time perspectives where linear and circular times clash, and lived time conflicts with the time of clocks and calendars (Adam, 2013; Araújo, 2005; Ylijoki & Mäntylä, 2003). Araújo (2005) suggests time should not be divided into opposing linear and circular or feminine and masculine poles, but understood as a continuum with each ‘time experience’ displaying independent levels of linearity and circularity. It is through this multitude of times that individuals make sense of their world around them and arrange the experiences they encounter. The following data will be interrogated with the understanding of these differing and often conflicting time perspectives.

4.2 TIME PHASE 1 - COMING TO STUDY

The perception of time and the impact time has on the *sayings, doings and relatings* (Kemmis, 2012) of teacher practice changes throughout the different phases discussed in this chapter. Of the 75 references to time across the 3 surveys only 5 entries associated time with Time phase 1.

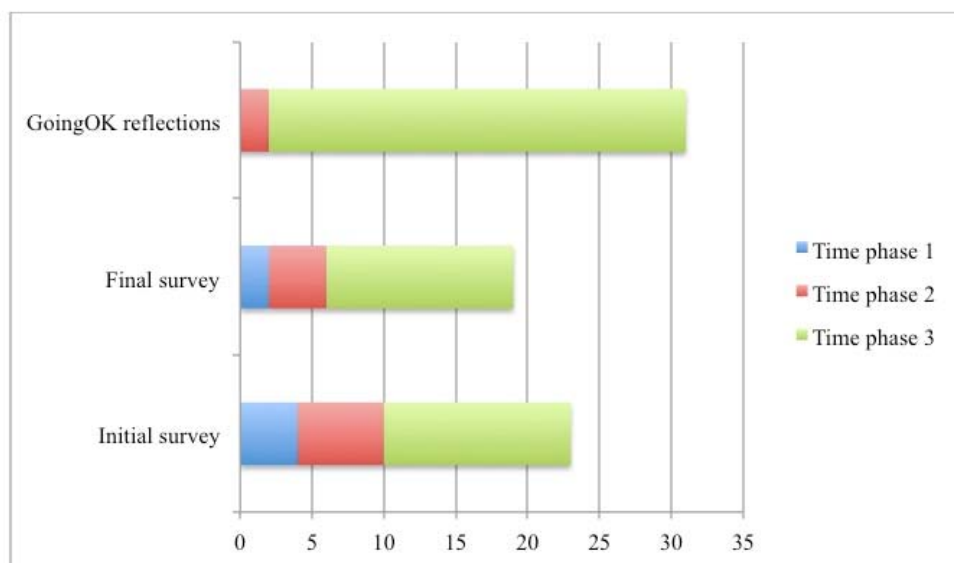


Figure 4.2. References to time in different phases from separate surveys.

During Time Phase 1 - coming to study, 3 participants over 5 entries acknowledged time as one of the reasons they began the HDR degree; it “was the right idea at the right time with the right people” (S1PP1c). Participant N related, “I have always been vaguely interested in further study - it is always a matter of timing however, and after you have children, there is always a reason not to do it” (S1PN1d).

In these reflections time issues identified by participants included; having children, studying with a group, and career opportunities, demarcate positive, individual ‘time experiences’ which informed individual decisions to begin HDR study. Time is also embedded in different ways throughout these experiences, regulated by events and usually within control of the individual to maintain stability of daily life (Araújo, 2005). Although the participants had experienced study before, none had engaged in research and were unaware of HDR time phases; a time phase is defined by an uncertain outcome and deferred academic gratification (Araújo, 2005). The following analysis of the data identifies the Time Phase 1 *sayings* (cultural-discursive dimension) and *relatings* (social-political dimension) of the practice architectures (see *Figure 2.1*), exemplifying how combinations of these practices form patterns known as ‘ecologies of practices’ (Kemmis, 2012) These practice architectures enable and constrain practices of a project (HDR study) within a particular site (LGSS). References to time increase significantly in the next two time

phases with the data reporting the experiences as more significant challenges and frustration for the participants.

4.2.1 Motivations to study

To find out what factors were influencing the participants in choosing to begin study in Time Phase 1, Question 1 in survey 1 asked, “why did you decide to undertake your MEd research study?” Both personal and professional reasons were identified for reengaging with further study. Insights into the experiences of LG6 teachers studying HDR provide evidence to understand the individual and shared reasons they came to study the Master of Education degree, research pathway. The personal motivations identified through the data gained in significance over the period of the study and professional motivations became more easily defined. Themes of personal motivations to study described by participants, were not directly related to their teacher work and included studying as a cohort, career change possibilities and cost of study. Themes relating to professional motivations reflected opportunities for LG6 participants to become better in their teacher work either as a school administrator, classroom teacher or specialist teacher librarian. Factors enhancing this work were identified as improving teacher practice, supporting teacher work, and improving research skills. These topics will be discussed throughout the chapter as part of linear time phases.

The opportunity to learn within HDR was aligned with other prior experiences of learning. Appreciating the power of travel and looking for experiences and practices outside of their classroom aligns with the material-economic practice architecture as defined by Kemmis (2012) where teachers explored the tensions of *doings* in different environments and settings. Travelling as a teacher and teaching in different countries was identified as a significant prior experience as it exposed teachers to a “wide variety of teaching approaches with a range of resources” and gave teachers a “good insight into how to extend myself as a teacher from a practical point of view” (S2PA3b). This was also identified through accessing Twitter as a Professional Learning Network where access to a network of colleagues from around the world “opens up the doors and windows between teachers' experiences” (S2PN3b) enabling the socio-political arrangements of practice architectures. Participant N described this experience; “I sometimes feel isolated, restricted and burdened in traditional schooling situations and having access

to people and ideas beyond my day to day is enormously powerful” (S2PN3c). *Relatings* are closely aligned with establishing solidarity among and around these practices and through the medium of power, can change the way people relate to each other towards a consciously inclusive team relationship (Kemmis et al., 2009). Before choosing to enrol, LG6 teachers were demonstrating an early knowledge of their own practice. Links to the characteristics and practices of *relatings* and *doings* in Time Phase 1 were already evident through the ways LG6 members related to others, willing to share and learn from those outside of their immediate sphere of influence.

Recognising how teachers acquire knowledge has been an important feature within the data as participants recounted meaningful learning experiences highlighted in the below *Figure 4.3*. Themes emerging from different surveys.

In response to Question 3 from survey 2; “before enrolling in the MED Research degree, what was your most memorable professional learning experience as a teacher? What made it memorable?” The intent of the question was to understand teacher perceptions of professional learning prior to HDR study. Participants identified significant on-the-job situations, such as “when a student had learned a new skill or concept” (S2PY3a), “helping a student move on from a difficult situation socially or personally” (S2PY3b), and “5 hours of joint planning per week” (S2PF3c). Webster-Wright (2009), discuss a reframing of professional learning where the teacher considers they are actively learning with a focus on learning rather than development. This is in contrast with the more traditional Professional Development (PD) or workshop where the teacher is situated within a passive mode and knowledge is delivered to them in courses. As HDR time is considered circular, it requires a great deal of reading, reformation and reconstruction of ideas. It is the link to the cyclical time phases, which incorporate the disequilibrium of uncertainty and not knowing, into threshold crossings that transform knowledge into knowing. These are the genuine learning experiences and they take time, structure and an open mindset, promoting a willingness to learn. Crossing these thresholds then provide a sense of equilibrium and satisfaction, these will be explored further in Section 4.4.4, and Chapter 5.

4.2.2 Cohort support

Although the cohort was established in this research as the context or boundary of the case study it was also identified inductively through the data analysis

process as an enabling factor to engage with HDR study. Studying as a cohort, that is as a group of teachers from the same school, was a significant, personal motivational factor both to begin the degree and to continue studying. Being part of a group was a decisive element for participants to enrol. 100% of respondents reported positive sentiments in relation to studying within the cohort in Qu. 1, 2, 3, 4, 5, 6, 9 and 13 from the initial survey and Questions 1,5 and 9 from the final survey. Cohort support was only referred to three times by three separate participants across 42 GoingOK reflective entries.

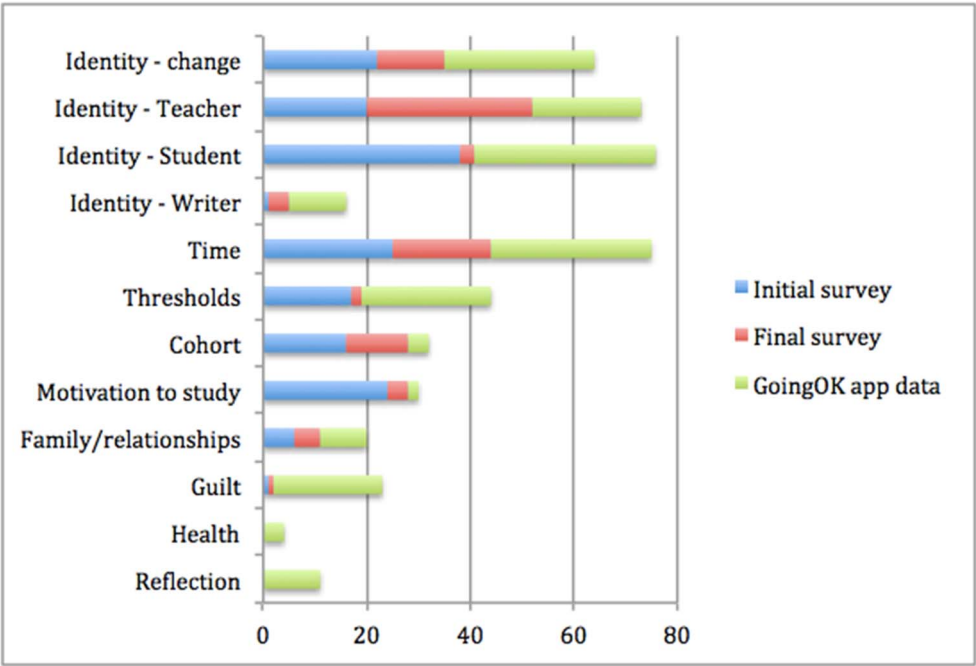


Figure 4.3. Themes emerging from different surveys.

The above data identify instances across the three data gathering instruments where different themes are referenced. The reason for this lack of acknowledgement of cohort support within the GoingOK data capture may be attested to the period of data gathering As this data was collected in Time Phase 3 (see Figure 4.1) when independent research was occurring, less connection with cohort members was experienced. Choy et al. (2015) agree that by the end of the first year, members of a cohort of HDR learners become more self-directed and are able to navigate much of their learning alone.

Selected feedback described the group starting together was “really too good an opportunity to turn down” (S1PN3c), “I saw a huge benefit in doing this as part of a cohesive, supportive group” (S1PN1b). Participant P reported, “the cohort approach has only upsides as far as I can see. If I hadn't been in the cohort I doubt if I could have got to this point” (S2PP9a), going on to describe the cohort as “a mutual help group” (S3PPS3). The HDR program at the University is open for enrolments all year round, yet for these teachers, a specific prompt for enrolment was the opportunity to begin together. For me, garnering the interest and readiness of my peers shifted the vague idea of studying ‘one day’ forward to ‘now’. Based on a similarly small sample size as LG6, Choy et al. (2015) confirm, the cohort learning approach “seems to be a viable option when developing research skills and knowledge through a Masters-by-research degree” (p. 32) and acknowledge a number of processes should be put in place to ensure success.

Significantly, Participant M moved to another school and withdrew from HDR following the first year of study, commenting, “I have realised that study is very dependent on the space and opportunity that you are given, regardless of your personal motivation” (S3PMS1). This sense of space and opportunity can include collegial support and being situated within a group of teachers invested in their own development. The importance of physical co-location was therefore important and this element of cohort support is recognised throughout this chapter. This is also acknowledged through Ward and Dixon’s (2014) study where as a result of their research a cohort approach to supervision is being offered to all research masters students. These cohort support meetings required four key features in providing structural support for the students, that the groups were collaborative, responsive, supportive, and flexible. Positive data relating to peer interaction is identified specifically in Time Phases 1 and 2, and an absence of cohort support recognised through Time Phase 3.

There was an existing perception within LG6 that the peer group was already supportive of one another, and that this would continue throughout the new experience of study; “we had at school a strong group of teachers/leaders that would undertake the course together. This is important as I felt there would be support from peers during the course” (S1PF1c). Throughout the survey data, participants identified the importance of undertaking the study as part of a group of like-minded

professionals. The group approach was valued also as a continuing motivational factor: “The research Masters is a very open degree with little structure and having others there for advice and support is essential” (S2PF9a). The benefits of studying as a group from the same school, year level or department was supported through existing research as the collective approach to professional learning had a stronger effect on teacher learning and teacher practice (Desimone, 2009; Desimone, Porter, Garet, Yoon, & Birman, 2002; Garet, Porter, Desimone, Birman, & Yoon, 2001; Wayne, Yoon, Zhu, Cronen, & Garet, 2008). It is unclear from this research if the effect on teacher learning would be different if teachers were directed to study by the school or Government department (for example) rather than making an independent choice. However, Kennedy (2014) confirms, the most valuable professional learning experiences must be teacher (or student) driven to avoid becoming contrived collaborations, serving externally imposed department or administrative interests. Teachers within the LG6 had made autonomous decisions to undertake HDR, following all teachers at the school being offered the opportunity to study by the leadership team. There was an existing connection between the university and two members of the LG6 through an established pre-service teacher education program. The strong cohort support captured throughout the survey data suggests the individual choice to study had a strong influence on LG6 group cohesiveness and strong internal support, as none of the participants had been “directed” to participate. From my own perspective this process promoted individual choice and ensured participants acknowledged full responsibility if things became too difficult.

The *relatings* evident in the social support of the cohort was a significant factor to the group, confirmed by my own response to Qu. 13 from Survey 1, regarding *unanticipated positive outcomes for your professional practice from your MEd Research study*. One outcome I identified was, “getting to know my cohort colleagues better in a different environment, outside of the workplace” (S1PY13a). This social support element was apparent across different environments, including at school, on campus, and even through the digital environment, “when we all had an assignment due, there was a lot of light hearted banter from the group email” (S1PY9c). This ongoing social support was an important finding as it was not part of the formal structure of the university program of study beyond the introductory core units of study. Kempe and Reed (2014) support and acknowledge the strength of

studying as a cohort and highlight the challenges for teachers returning to schools following a period of studying as a group. Their research indicates the professional conversations continued in a less formal way and were responsible for enabling and continuing confident teacher identities, established during the university study period. Just as Kempe and Reed (2014) found with their participants, the professional collaborations and ongoing social ties within LG6 have continued as members from LG6 attend study meetings together and support each other at conferences, presentations, and through online social media platforms, providing ongoing professional and personal motivation and support. The cohesiveness of the group is captured through a survey response to question 5 in survey 1 about significant positive outcomes from MEd research. The outcomes I identified included “sharing the learning with members of the cohort, going to uni again, sharing a drink in the refectory, all make up the memorable moments” (S1PY5b). The strong cohesive support was again captured in response to Question 9 from Survey two, where Participant N described the cohort support as “possibly one of the best aspects of the study I undertook” (S2PN9a), and Participant F shared, “studying as a cohort was essential” (S2PF9a). Certainly the above statements detail strong evidence of *relatings* occurring within the cohort across Time Phase 1 of this research.

4.2.3 Financial considerations to study

Alongside the personal motivation of the group deciding to start together, a further enabling factor in the first time phase identified through the data was that there was no financial barrier to begin the study. At the time, the MEd (Research) was a federally funded degree pathway in the faculty, with the tuition fees funded by the federal government’s Research Training Scheme (RTS), providing the study was completed within the allotted “2 years full-time (or equivalent) timeframe” (De-identified university website, 2014). This financial support was acknowledged by 3 participants as positive motivation to undertake the MEd (research) study; “as the research masters approach was free we decided we would have a go and see what it would be like” (S1PY1b). This enabling element may not be available to future students as proposed federal policy changes include institutions being able to charge a “contribution towards the cost of that degree” (Australian Government Department of Education and Training, 2016, p. 23). Kennedy (2014, p. 693) acknowledges that “in many cases master’s-level award-bearing CPD can be liberating, empowering

and a significant contributory factor to enhancing teacher agency”. In a review of her earlier 2005 paper, Kennedy (2014) placed the award-bearing models of CPL forward into the *malleable category* but encourages wariness about its responsiveness to contingent factors such as the motivation for study, and who is paying for it. Soon after the LG6 enrolment in HDR study, there was a policy announcement by the system employer requiring all school leaders undertake further study (Department of Education Training and Employment, 2013a). The timing for LG6 was not related to this announcement, and so it confirmed the motivation to study was independent choice, and is also suggestive that the enrolments of LG6 members may have been fewer if there was a financial cost associated to HDR students for studying.

Completed Master of Education degrees by research contribute to the corpus of research knowledge generated by Australian education institutions, and the RTS scheme is based on a formula that is reflective of the research performance of participating providers (Australian Government Department of Education and Training, 2016). The university had a strong motivation to support students to complete the MEd (Research) degree as HDR student completions make up 50% of the RTS performance index, providing a valuable source of federal government revenue for Universities to access (Australian Government Department of Education and Training, 2016). In the architectures of practice, there were significant structural enabling factors, such as investment by teachers in continuing professional learning evidenced through changes in teacher identities, cost, cohort support, and even uncertainty, reinforcing personal motivations to begin the doing of further study. Participants were making links to the socio-political factors as informing their practice architecture; “it is interesting with the recent political debate about potential fee increases for students that I feel more obligated to knuckle down and complete this masters which has been essentially provided free of charge through federal funding. Now...how is it influencing my practice?” (S3PYR8). The co-dependency between the socio-political or *relatings* and the material-economic *doings* of practice architectures reinforce the complex and distinctive practices that exist and are perhaps interdependent on each other in ecologies of practices. A practice architectures perspective accepts the *relatings* and *doings* as identifying changes in how things are done and how people relate to each other, enabling an understanding

of how teachers negotiate their HDR within their teaching practice. It can be seen in the response above (S3PYR8), enrolling in the course free of charge was a motivating factor, and the social responsibility of accessing something for free when students in the future may be charged a fee, personally inspired a sense of guilt and pressure to ensure that the course was completed. The challenges to actually complete the degree are clearly substantial with a high proportion of students not completing the MEd (research) degree, placing significant importance on this study to provide insight and support for future teacher researchers.

The following Time phase (Section 4.3), reports the data in relation to LG6 teachers beginning study and looks specifically at the strong cohort support continuing during this phase and the interplay of developing HDR identities within the social-political arrangements or *relatings* of the practice architectures.

4.3 TIME PHASE 2 – UNDERTAKING STUDY

The experience of time in relation to HDR changed from those in Time Phase 1 as the challenges and intensity of teacher work and HDR expectations began and considerations of family and relationships became realised. These conflicting time perspectives were intensified as the collision between linear time, of calendars and candidature; and circular time, the lived experience of daily life (now including HDR) demanded action and a sense of expectation (Araújo, 2005). References to time within the data changed as the participants realised and responded to the collision of linear and cyclical time experiences. Sentiments about beginning HDR, especially within the LG6 cohort were described as a “positive experience doing it with the group - this met my expectations” (S1PN4d). From an individual perspective I felt “lucky to have identified a topic that has real meaning for me as I move through an exciting time in my career” (S1PY2b). The simultaneous juxtaposition of phases then becomes evident through the data; “it has also been challenging to fit in the time required to complete the MEd, without making sacrifices to other activities”, as it “became exceedingly difficult to manage my time between Uni, work and school work” (S1PF4c). The *doings* (Kemmis, 2012) of HDR study were colliding with the *doings* of teacher work creating a tension between these and individual lived experiences, necessitating important decisions about appropriate time strategy (Araújo, 2005) to enable both HDR study and teacher work to continue.

4.3.1 Developing HDR identities

LG6 members initially identified uncertainty about their knowledge of the MEd research pathway. Five participants responded that they did not fully understand the requirements of HDR as they began the degree echoing the sentiment “I did not know what we were getting into, I did not appreciate the effort required,” (S1PP2d), and I described the initial experience to enrol as “more of a ‘jump in and see if I can swim’ approach rather than a considered and planned process” (S1PY3c). As they moved into their HDR study, LG6 members were then able to identify elements of HDR they felt were beneficial in assisting their understanding of research and were able to articulate and explain the links to their professional practice. Even though the LG6 participants had chosen to participate in the MEd course prior to the policy announcement linking HDR to promotion, they anticipated that their studies would support the work they were already undertaking at school or that it would “be a good thing to do in terms of future prospects” (S1PN3a). The cultural-discursive arrangements shape the *sayings* (Kemmis, 2012) and were only beginning to be explored at this early phase of study, and LG6 members were only able to provide uncertain descriptions of their reasons for studying with only tentative links about what they believed they would acquire through the HDR process. As LG6 members developed an understanding of HDR through Time Phase 2, they were able to more directly describe and articulate their learnings. This research confirms that the links between HDR and improved teacher practices are intertwined within the ecologies of practices, are not easily distinguishable, and are difficult to articulate succinctly.

As participants from LG6 moved through the first year of HDR, their understandings of worthwhile learning experiences or *sayings* became more conceptual. The table below (Table 4.1) displays how LG6 participants’ developed their cultural-discursive language enabling them to articulate some of their new experiences as they progressed through their HDR journey. Participants were asked to record their most “memorable learning experience as a teacher” (S2Q3) prior to enrolling in the MEd research degree. The next question (S2Q4) asked participants what they saw as “key features of effective and worthwhile professional learning experiences”. These descriptions of prior learning experiences were generated from reflections captured at the time of the second data collection, two years into their

HDR part-time study (*Figure 4.1*). Selected comparisons of participant responses are detailed below and provide evidence of how members of LG6 became more proficient at describing their *relatings* and *doings* as their *sayings* of the practice architectures developed into the first year of HDR study. They were able to better describe the arrangements that existed and related to one another in the ‘ecologies of practices’ (Kemmis, 2012). These data give some insight into how teachers developed a deeper understanding of professional learning through HDR study and how this impacted them as professionals. Words and phrases have been highlighted to draw attention to the developing complexity when comparing prior (yellow highlighter) and current perspectives (green highlighter) about effective learning experiences. Statements align horizontally to represent data from the same participant.

Table 4.1

Comparison of Prior (to HDR) and Current Learning Experiences

| Memorable Prior (to HDR) Learning Experiences | Current Effective Learning Experiences |
|--|--|
| Twitter - makes for memorable learning experiences (S2PN3e) | opens you to new ideas and experiences (S2PN4a) |
| teaching in London (S2PF3a) | Interactive, hands-on activities that show a high degree of planning (S2PF4a) |
| travelling both interstate and overseas (S2PA3a) | engaging and meaningful to me as a professional (S2PA4a) |
| helping a student move on from a difficult situation socially or personally (S2PY3b) | meaningful discussions with colleagues (S2PY4b) |
| 5 hours of joint planning per week (S2PF3c) | relevant to my context and provide knowledge that I have not encountered before (S2PF4b) |

knowing a student
had learnt a new skill
or concept (S2PY3a)

they can be correlated
directly to your own
practice and inform or
challenge you and
make you rethink how
you undertake your
professional work.
(S2PY4a)

winning merit based
positions (S2PP3a)

learning experiences
should be more than
just an exposition of
trends (S2PP4c)

be part of a process
that has the whole
school working
toward (S2PP3d)

collaborative and part
of a process toward
the achievement of a
group devised and
agreed to goal.
(S2PP4a)

In order to appreciate how HDR may influence teacher experiences of professional learning it was important to understand teacher experiences of professional learning prior to undertaking HDR learning and relate why they were worthwhile to either themselves, others or to students they taught. It was clear from the data (Table 4.1) that the LG6 participants were able to show new understandings of professional learning experiences following enrolment in HDR study and articulate these perceptively through their choice of language. The data indicated that as the teachers' identities shifted towards becoming teacher researchers, their *sayings* moved towards a more critical response about the happenings around them, as seen from the representations above taken from Survey two, questions three and four. LG6 participants developed more academic language to describe their learning experiences in response to Time Phase 2 as they considered their learning over the duration of the HDR study initially using simple verbs e.g. *makes for, teaching, travelling, helping, joint planning, winning* and *be part of* then moving towards less specific verbs representing a higher register of intellectual rigour and more conceptual in their descriptions e.g. *meaningful, challenge, inform, rethink, exposition and collaborative*. These *sayings* demonstrate that all five participants who responded to the survey question, showed a change in the ways they perceived their learning experiences. These changes are reflected within the cultural-discursive

dimensions or semantic space of practice architectures (T. Smith et al., 2010), enabling a more developed and articulate teacher researcher voice. In the final survey, my response about effective learning experiences stated, “they can be correlated directly to your own practice and inform or challenge you and make you rethink how you undertake your professional work” (S2PY4a). Iliško, Ignatjeva, and Mičule (2010), acknowledge that teacher researchers become more able to define and describe their own educational philosophy as they develop their teacher researcher identity. The significance of reflection in further education and other fields of work is strongly recognised (Bain, 2002; Carrington & Selva, 2010; Ryan, 2012) and using the Going OK reflective web application to gather participant data was a deliberate choice to capture intimate moments of teacher researcher identity change. These reflexive accounts will be discussed further in chapter five as the data is interrogated using the 4Rs of reflective thinking (Bain, 2002; Carrington & Selva, 2010; Ryan, 2013) as a lens to reveal ‘how’ teachers negotiated their HDR within their teacher practice.

Change to professional identity while undertaking HDR is implied in the course description on the university website, where it states the Master of Education (Research) will equip you with “the research and analytical skills to position you as an expert in your field” (de-identified university website, 2015). Yet while changes to identity were part of the advertised benefit and an important early finding from the data, when asked about their expectation of HDR in question three from Survey one, LG6 participants responded as having “very little expectations of this degree” (S1PY3a), “expecting it to be relatively straightforward” (S1PP3b), “not sure I had any clear expectations” (S1PN3a), and “expected that it would be manageable to complete the tasks while working full-time on class” (S1PA3b). Participants indicated an uncertainty about the amount of work to be undertaken in HDR which was an important consideration as the change in identity reflects an understanding of the work required. When asked if the study had met their expectations (Survey one Question four) Participant P responded; “I quickly learned that there was to be much more thinking, reading, writing and analysing, of going back to the drawing board and starting again” (S1PP4a). Other responses included “it has been exceedingly difficult to manage my time between Uni work and school work” (S1PF4a). My own response recognises, “the impact on family during the busy writing and drafting

times, especially when this happens on top of a busy school workload” (S1PY4b). Choy et al. (2015, p. 31) reported the participants in their study also felt “overwhelmed by the demands on their time” and found it difficult returning to academic study after some time away. The above data highlighted the cyclical nature of HDR study and reported some of the competing time experiences facing the participants. As these time experiences collided they became significant waypoints or specific markers along a journey for teachers as they developed HDR identities, and became teacher researchers.

4.3.2 HDR - current action for future possibility

The uncertainty of HDR candidature impacted participants as they attempted to resolve their research and complete the thesis within the timeline provided. Araujo (2005) explores the notion that HDR students project the present into the future, with the final submission of the thesis at an undetermined point, this critical future date impedes on the entire experience now affecting ordinary daily life. The malleability of HDR timelines did not work for all participants as Participant N shared; “I am the sort of person who likes ‘closure’ and for things to be completed and put to one side and I never felt like I got anywhere close to this” (S1PN7f). Three participants also identified HDR as a vehicle for potential career change possibilities and as a personal motivation to undertake HDR study. Participant N and I indicated the return to study would “be a good thing to do in terms of future prospects” (S1PN3a) and “open up the potential for a more interesting range of future employment possibilities” (S1PY13c). Utilising the MEd study to engage with an alternative career path was alluded to when Participant P stated, “it is **not** my intent **not** to take this further” (bold added for clarification) (S3PPS10). These three participants had considered the future potential of completing HDR study, however, the uncertain HDR timeline extended the ongoing colliding time experiences and also delayed the academic gratification of completing the thesis. As participants moved into Time Phase 3, they gained a better understanding of influencing, transforming and reproducing practices and dispositions in different ways, in a range of present and future time phases and at different sites of practice (Edwards-Groves & Kemmis, 2016). There was still the reality of completing the thesis within the time allocated through the federally funded HDR candidature program, allowing for extensions and taking leave from study. For me, this meant the 2 year part-time course was completed after 4 years.

Time is encoded throughout individual experiences, and change is expected within time. The 75 references to time captured by LG6 participants throughout the data reflected the determination to achieve balance or equilibrium between HDR study, teacher work, family and social times. These collisions created disequilibrium and could be compared to complex systems thinking where large organisations need to be off balance, and in a state of flux to progress and move forward (Opfer & Pedder, 2011). A further link to the literature informing this research could be drawn through the malleableness of practice ecologies, and their ability to assume the status of living ecologies evidenced by their response to change, energy flows, diversity and other criteria meeting the principals of living systems (Capra, 2005) The responses from three participants in the paragraph above, demonstrated that some participants undertook the MEd study with the potential to utilise the degree to explore possible career changes in the future. Teachers identified further study as a possible waypoint to modify or enhance their current careers but were uncertain what that change may look like. This uncertainty will be explored as *liminality* in Section 4.4.4 with strong ties to threshold crossings and realising new learnings.

4.3.3 Transition to teacher researcher

LG6 members constructed multiple identities as HDR students, teacher researchers and professional educators. These identities were formed through adjusting and responding to the practice architectures whilst being immersed in separate conditional time experiences. Additionally, LG6 members were manoeuvring between linear times of teacher work and HDR candidature. The cyclical events of lived experiences and HDR work were interspersed throughout, forming the living ecologies of practices. These life events can be both planned and unpredictable with the HDR work located within an evolving and uncertain time and space. Edwards (2010) describes life as a part-time researcher “can be like living on a seemingly uncontrollable see-saw” (p. 332) with HDR requirements at one end; life and work commitments at the other; and the student see-sawing between both but never achieving balance. As described here, the complex nature of colliding time experiences and the tentative nature of research study generated high levels of disequilibrium. When viewed through the conceptual lens of literature informing this research, periods of imbalance and uncertainty created ideal conditions where strong learning occurred (Kiley & Wisker, 2009). My response from the seventh question in

the initial survey highlights the complexities within this transition phase to becoming teacher researchers, “whilst there is a certain joy in discovering new things and achieving goals, wallowing in a period of uncertainty for a time is dangerous and not great for self esteem, productivity, and can impact on relationships at work and at home” (S1PY7b). The time, family, relational and social sacrifices undertaken to allow HDR to interrupt daily life for HDR students supports the strong belief that in the future the MEd study would be completed, and lives might return to a sense of stasis.

There was also evidence that elements of HDR students’ lives had been deferred and put on hold (Araújo, 2005; Opfer & Pedder, 2011), Participant N described the experience of HDR and competing time experiences as “trying to force study into a life that was already full” (S3PNS2). The delayed sense of needing to continue the HDR study is evidenced through participants’ statements; “as it is time to consider the data collection, I will attempt to start this soon” (S3PYS10), and “much of the xmas holidays will be dedicated towards finalising the research and to be writing the final chapters” (S3PYS5). I had found that I was becoming disconnected from the HDR learning and that it was “challenging to find the time and energy to dedicate to this” (S3PYS7). These statements suggest participants’ futures, of finishing the research and the continual need to be writing and researching, were being lived through the present.

As a teacher undertaking further study, I experienced an interesting shift from being the owner and in control of knowledge in the workspace, to becoming a student invested in transforming knowledge into knowing. Being a HDR student can require a significant identity shift for teachers that the LG6 participants have identified. Participants related that it was important for them to understand their paradigms of learning, and by doing so “helped me situate myself in many discussions and assisted me to understand alternate points of view” (S1PY11b). This shift in understanding from teacher practitioner to HDR student assisted the teachers to discover where their teaching practice was positioned within the broader “cultural, social and political contexts...and [therefore] engage in critical reflection about the assumptions that underlie methods and classroom practices” (Smyth, 1989, p. 14). This can also be applied to a development of the school leaders’ voice, captured in this reflection from Participant P; “as I read, or listen to ideas and commentary

around my research I find myself reflecting on my practice and making changes. I feel that I have been a much more focussed school leader as a result” (S3PPS1). Whilst this data reflects a very positive affirmation of the relationship between HDR and teacher work, it was not always reported as a silver bullet to improved practice. Participant P again gives some insight:

...this stress is affecting my sleep, so I am starting work in a tired state, am slightly preoccupied with working toward resolutions and, as a result, feeling frustrated that none of my MEd study seems to be the thing that solves the problems. Furthermore, to add to the frustration, I know that the framework of my study, the growth mindset, actually can provide the solution, but it requires others to accept my message” (S3PPS4).

The tensions identified above highlight common tensions experienced by other participants. It seemed that the disequilibrium of blending and blurring time perspectives, of present teacher role requirements and emerging awareness of the uncertainty of knowledge as a HDR student still constructing, did see participants record a state of disequilibrium emanating in emotional states of annoyance, anxiety and frustration. My own response demonstrated that these experiences were located within the challenges of navigating and negotiating competing time experiences; “I have recognised the impact on family during the busy writing and drafting times, especially when this happens on top of a busy school workload” (S1PY4b). Participant F also related a similar experience, to “find the enthusiasm and energy to complete Masters work after school hours is extremely difficult and requires a great force of will to overcome” (S2PF2c). These scenarios exemplified the living, breathing ecologies in practices, emanating from the heuristic struggle and adversity of HDR. Through these interconnected relationships, new knowledge was developed and a power shift identified as the teacher researcher identity was borne.

Data from three LG6 participants reported they felt the MEd would support the school based teacher work being undertaken at school to develop a research based, pedagogical framework; “I initially thought that perhaps our study would mirror what we were doing with our pedagogical framework research” (S1PN3b). Participant N assumed that there would be a strong alignment between schoolwork and their HDR learning. This assumption of alignment was supported again by Participant N, using the term ‘mirror’ to indicate the strength to which they believed

HDR to be only a small addition to the work already being undertaken at school; “when we initially talked about it, we discussed the fact that we were already doing a lot of work on our pedagogical framework which was research based and this MED could mirror or support this work” (S1PN1c). These statements also identified hope as an underlying expectation of synchronicity between the *doings* of HDR time and time spent on the *doings* of teacher work. The above comments indicate a realisation of change, using the term *initially* to demonstrate that at Time Phase 3, the period of data collection, LG6 participants’ perceptions of juggling HDR and teacher work were being redefined. These intersections became lived experiences, contributing to their changing identities, across conflicting time perspectives, within the miasma of ecologies of practices. Davis and Sumara (2005) analysed this further when considering complex learning systems, they believe the system itself transforms as it experiences the world. It becomes evident that the reality of the work required in HDR was different from the initial understandings of LG6 participants and that the HDR work changed as LG6 participants adopted new information over time. This sense of growing and changing supports the concept of ecologies of practices existing as living entities (Kemmis, 2012) fluctuating and responding to the interdependent and interconnected relationships, the *sayings*, *doings* and *relatings* of practice architectures.

The change in *relatings*, especially between LG6 members, generated the conditions to enable a change in *doings* from Time Phase 1 to Time Phase 2. Working with teacher colleagues to plan and “unpack the English curriculum” (S2PF3e), being recognised through “winning merit-based positions” (S2PP3a), and being part of a “process that has the whole school working towards” (S2PP3d) especially where they are given “joint planning” (S2PF3c) time at school to do this, were described as significant, learning experiences prior (to HDR) and aligned with the characteristics of the *material-economic* practice architectures (Kemmis, 2012). Within these practices of *doings*, teachers are recognising the *material-economic* arrangements of their practice, something that is central to teacher work. The challenge of synthesising the direct *doing* learnings from HDR to improve teacher practice in Time Phase 2 was captured by my response, “it (HDR) has not directly assisted many of the operational tasks which are required on a daily basis, however it has informed the way I approach my work and the discussions I have with my

colleagues” (S2PY5a). The HDR study was seen to be developing the *relatings* for members of the LG6 through enhancing their socio-political arrangements, especially through working together in the cohort. The day-to-day practice of teaching whilst studying HDR was situated within the practices of *doings*. Iliško et al. (2010), contend that this *doing* enables teachers to become “active interpreters and negotiators of their experience involved in the educational reconceptualization” (Iliško et al., 2010, p. 62). Kennedy (2014) confirms Masters level learning has potential for an increased level of teacher autonomy and possibly teacher agency, especially if there is a positive change to their practice as a result. Opfer and Pedder (2011) propose that it is the link between the change of beliefs and change of practice that informs a change in student outcomes: the purpose of education. Development in the *relatings* seemed to be a stronger outcome of professional learning than *doings* of classroom practice. Edwards-Groves et al. (2010) would not find this surprising as they argue that *relational architectures* underpin all of teacher work as teaching is a praxis oriented profession. Change occurring within the practices of *relatings* can facilitate and more easily enable change to occur in the *doings*, eventuating in a direct and more apparent impact on teacher practice. This combination of practice architectures working together can empower teachers to construct and realise a sense of agency and enable teachers to develop competence and confidence as educational professionals, assisting them to negotiate the challenging landscape of schools and understand the relationships between the social, cultural and material environments (Kemmis et al., 2012).

There was evidence that HDR was contributing to professional learning through the changing role to teacher researcher, “I also like that it was exposing me to new ideas. I like that it gave me a background to research and access to quality research” (S2PN5b). Continual professional learning “refers to any experience where professionals consider they have learned” (Webster-Wright, 2009, p. 713), challenging the QCoT requirements for ongoing teacher registration where teachers are responsible for recording up to 20 hours of PD per year which must “can be differentiated from the normal expectations of the teacher’s role or engagement in extra-curricular activities” (Queensland College of Teachers (QCoT), 2017, p. 2). Participant F reported, “professional learning experiences are relevant to my context and provide knowledge that I have not encountered before” (S2PF4b). In a very

positive statement about HDR learning and articulating the changes between Time Phase 1 and 2, Participant P shared “I cannot imagine how a long-term, on-going commitment to learning could be bettered by a seminar, or a conference, or even by collegial team meetings” (S2PP5b). Kennedy (2014) considers the purpose of professional learning to be extremely important and although the abovementioned experiences recounted by LG6 members do not fall specifically within any of the CPD models identified in Kennedy’s (2014) framework (*Figure 2.2*) it is important to note that this framework was designed as an analysis of system-wide and institution-wide CPD approaches. The increased autonomy realised in the transformative (most effective) models of CPD (Kennedy, 2014) support the HDR approach to authentic learning, which occurs in cyclical time phases (Araújo, 2005) requiring reading, reformulation, focus, and repetition and acknowledges the teacher as a learner and respects the professional for who they are. This is especially salient in a time when the teaching profession expects research-informed and evidence-based practices (Ward & Dixon, 2014) and for this to occur, teachers need to generate their own knowledge in regards to teaching and learning and be critical consumers of research.

4.4 TIME PHASE 3 - RESEARCHING

Within the linear HDR timeline of the university, as the HDR study moves beyond Confirmation the focus of HDR student work changes and becomes more focussed on the individual research projects, which is represented in this study as Time Phase 3. For the LG6 participants, this individualisation meant a shift away from working closely and collegially within the cohort. I reflected on this shift, commenting, “this (cohort) support appears to have changed over time, initially in the first year much of the work could be completed together and in close communication with each other” (S2PY2a). Participant P confirmed, “having gone off on my own this year, I miss the brief moments to chat and check in on each others’ work” (S2PP9a). The ability to continue with HDR and full-time teacher work was challenging as the *relatings*, in this case the connections within the cohort, transformed and became more independent as stronger relationships with the supervisors became necessary to build research knowledge and skills. In developing the new *relatings* of practice architectures, an additional time perspective is introduced and members of LG6 were negotiating with their supervisors’ time

periods as well as their own. Participant P alludes to these changes, and the apparent loss of time and associated guilt to describe the effort involved to manage the conflicting time perspectives of completing HDR study whilst undertaking full-time teacher work:

I have allowed myself to be distracted by trivial matters, and, while I have put some time and thought into my practice, I cannot escape the feeling that I have allowed time to slip away. I know this will pass, but the Masters study is weighing me down. I have to stress, it is not because I don't want to do the work, nor because I don't have the time, nor because of anything other than the fact that I feel guilty about not putting in plenty of time toward the project. I know that has to change, and that the guilt does not help. I just have to do the work to overcome the feeling of lethargy (S3PPS8)

Participant F revealed how the changes within the doings of HDR became challenging to resolve; “I have found that my area of interest has changed since the beginning of the course/conception of my research question and therefore my motivation to complete work has declined” (S1PF2b). One of my reflections captured through the GoingOK web app identified similar challenges of making appropriate time decisions when trying to complete HDR during usual school holiday times; “during this holiday phase I am finding it difficult to attend to any work and have focused on enjoying some family time with my wife and children” and, “given that there is still much school work to be done before the beginning of school there will need to be a balance to achieve the things I need to complete” (S3PYS10). Using the term ‘balance’ to describe what is needed in order to progress identifies an ongoing struggle for alignment between circular and linear time (Araújo, 2005) as well as equilibrium and disequilibrium (Opfer & Pedder, 2011). My response above alluded to holidays being used as a time for teachers to spend time with family and prepare for the next term, and it was not aligned with a break in the HDR timeline. There were no formal breaks in the HDR candidature and in Time Phase 3, LG6 members had an increased requirement to manage their own time with their supervisor’s time. Understanding these time perspectives and managing them appropriately combined the practice architectures of *doing* HDR and preparing teacher work for the next term with the *relatings* of family, friends and supervisors. This became a necessary skill to learn and was realised through overcoming

uncertainty and dissonance, which can act as a precursor to the creation of new knowledge and lead to threshold crossings (Kiley & Wisker, 2009; Opfer & Pedder, 2011).

AS LG6 members became teacher researchers an understanding of how HDR related to the practice architectures became more evident. The strong links between HDR as a catalyst to develop and support school based teacher work was described by Participant N who claimed, “a thorough understanding of the evidence and the research is going to become increasingly important in what I do” (S1PN12a). As the nature of the learning experience changed over time, ways in which HDR supported teacher work, and the associated challenges became more apparent. For Participant N, although acknowledging above the important links between HDR and future teacher work, the interceptions of different time perspectives occurring within the Third Time Phase of researching were identified as motivation for the decision to withdraw from HDR study. “For me, the practicalities were onerous - the reality of combining work (which I often find all consuming) with study and a young family was all just too difficult” (S2PN5d). The data revealed a change in perception regarding their motivation to begin study, and these evolutions had either a positive or negative effect on a teacher’s impetus to continue studying. In this response, my experience of incorporating my HDR learning with my teacher practice was positive, where; “discreet knowledge of my field of influence has made some tasks easier, mostly because of the motivation I can describe to encourage others along a path or journey” (S2PY8b). The positivity associated with my experience here was situated within my identity shift from teacher to teacher researcher and a realisation and acceptance of the associated changes in these *sayings*, *doings* and *relatings*. Edwards (2010) suggest these range of emotional responses are common for part-time research students who identified widely differing positive and negative feelings about their study at the same time. The result of experiencing these extreme and opposing feelings combined with the challenges of HDR work, and other family, social and work commitments “presents a potential threat to their level of emotional wellbeing” (Edwards, 2010, p. 330). The different nuances between the intercepting time perspectives and the practice architectures reported by the participants indicated separate experiences were lived, and formed quite different ecologies.

4.4.1 Changes in relatings – reduction of cohort dependency; power transitions and developing the teacher voice

Although the support and enjoyment of group study began as a personal motivating factor, the synergy of the group changed over time; “for the first year, we did participate as a cohort and it made it significantly more enjoyable. Then, when our research took different paths, I still had the support and understanding at work when I needed it” (S2PN9b). The challenges of synchronising time phases and learning new skills whilst transitioning to teacher researcher was acknowledged where, “to begin with it was quite successful because we kept each other focused and on task, but as others deferred the MEd it became harder to work on the MEd independently” (S2PA9a). During Time Phase 3, Participants N and E withdrew from the course and other participants began to take leave for separate reasons. Whilst being part of a group engaged in further study contributed to a strong sense of identity and inclusion, a disruption of these *relatings* (Kemmis, 2012) through LG6 members taking leave and withdrawing impacted on the socio-political dimensions of the group. The disruptions indicated in the response above also represent a time when the HDR study became naturally more independent with a change in *doings* as the teacher researcher identity became apparent as HDR knowledge developed.

Although the link to school based teacher work may have been an important motivation to undertake HDR initially, more significant benefits become apparent in responses to other survey questions. As teachers became teacher researchers there was a transition of power over educational decision-making (Smyth, 1989) from groups outside the school, to empowering teachers within the school to reconstruct their own practice, an important benefit of HDR studies noted by other researchers (Iliško et al., 2010). This can be empowering for administrators as well as teachers as Participant P reveals, “I believe that I have been able to engage in conversations more powerfully, not because of my position, but because of a deeper knowledge and understanding of the issue...I can ask questions that draw out thoughts and ideas more powerfully before implementing a course of action” (S3PPS1). Discovering a more authoritative and informed teacher voice was an interesting by-product of HDR (Iliško et al., 2010), and important for teachers in this research to be able understand and describe any changes in belief or practice that have occurred as a result of HDR.

Participant A captured the by-product of HDR developing teacher empowerment and authority through her reflection:

Attended conference closely linked with my research topic and gained insight into how a range of schools are running in class and extra-curricular activities linked with my topic. Felt that my research this far gave me a good understanding of the theories and policies surrounding this area that I would not have otherwise had. (S3PAS2)

This growth in confidence empowered educators and encouraged educational reform by enabling them “to open up and create spaces in schools through which it would become possible to ask worthwhile questions (Smyth, 1989). Participant P again shared evidence of changes in belief becoming a change in practice “each day, as I read, or listen to ideas and commentary around my research I find myself reflecting on my practice and making changes. I feel that I have been a much more focussed school leader as a result” (S3PPS1). Increasing the educational quality and rigor of the sayings occurring within the cultural-discursive arrangements of school sites created a shared understanding as individuals negotiated the complex social practice landscapes (Kennedy, 2014). Building a common language of *sayings* through Time phases one and two HDR study enabled the interconnected *doings* and *relatings* to thrive within a culture of robust rhetoric and critique.

4.4.2 Teacher realisations of HDR

Expectations of teachers prior to undertaking HDR differed significantly from the experiences they recounted through the survey and GoingOK data in the second year of their study. These differences could be related through the range of professional learning experiences that resulted from LG6 HDR as they transitioned their learning and attempted to conceptualise these *doings* within the spatial arrangements of their classrooms or workspaces. The GoingOK data (represented as S3 in the participant response codes) enabled participants to give a more personalised account of their HDR journey and record information at a convenient time to relate accounts of whatever they considered important at that time as it related to HDR and their professional practice. Captured during Time Phase 3, the GoingOK data provided interesting insight into the *relatings* of HDR and workplace relationships. One example was my reflection on the challenges of adjusting to a new colleague at work with a different world view to that of a previous colleague; “I have found that

being able to identify this difference and understand where views come from has made it easier for me to reason in uncertain times (when ideas conflict with my own views about things). Being able to resolve these issues internally has been as a result of my research learning” (S3PYR1). This sense of personal growth and understanding of self and others is attributed here directly to the HDR learning and is amongst the many unanticipated outputs of HDR work.

Another theme identified through the data as a motivating factor for LG6 members to undertake HDR was for teachers to improve their research skills. Again, this was not overly apparent in the initial survey, however in the final survey, a follow up question asked; “In what ways have these reasons changed or stayed the same?” (S2Q2), and improved research skills were identified by me to “validate my thinking on a number of occasions and supported my decision making so I felt confident in making a considered decision” (S1PY2d). The research skills that were shared in this part of the survey were not analysis and writing skills but deeper understandings of the theoretical side of research. Participant F revealed being “able to use my research and critical skills to look for educational research”. I continued to describe how “the research approach has also helped me identify who I am and how I look at the world” (S1PY2e), which demonstrated a deep connection to developing the *saying* and *relatings* of the practice architectures, in turn enabling a stronger connection for members of the LG6 to articulate the relationship of the HDR to professional aspects of teacher work. A corollary to the ways participants identified the links between research and teacher work was noted in my reflection; “at a cluster school meeting I put my research hat on and was able to talk clearly amongst a room of principals about the benefits of working closely with a research team and how this may benefit the cluster of schools to give us evidence about practice and the shared understandings of networks and relationships” (S3PYS14). Additionally, when interviewing pre-service teachers I “spoke a lot about identity and the how important it is for them to realise that this will change over time as they teach more” (S3PYS6), being able to convey this message clearly was attributed as “a direct link to understanding praxis and being able to intimate this to pre-service teachers at a level they can appreciate” (S3PYS6). It became clearer through analysis of the data, how broad and varied the links were between becoming a teacher researcher and the influence this identity shift has on teacher practice. The link was evidenced here by

an impact on the *sayings* and *relatings* of teacher work as the lexicon of practice had been directly influenced by HDR.

4.4.3 Understanding HDR study as an experience of professional learning

LG6 participants modified their expectations of the degree as they were exposed to the work required to engage in HDR as evident in the changes between responses in surveys 1 and 2 in Table 4.1. Supporting the change in *sayings* identified in Table 4.1, LG6 participants described initially how they were unsure of what HDR as a student would be like. LG6 participants had high expectations of a well-organised degree with strong support from the university, “anticipating that it would be very little additional work if I chose the right topic” (S1PY3a), and “I expected it to be relatively straightforward, similar to undergraduate degrees, only more detailed and challenging” (S1PP3b). Participant F recounted initial expectations of returning to study and highlights how the *doings* of being a HDR student impacted on the *doings* of being a teacher. The most significant misunderstanding, related to the amount of work and the time it would take to complete the HDR work, “I did think it would be more formulaic. That is, that I would progress through the tasks step by step, read, think, research and report” (S1PF3a), “I also expected that it would be manageable to complete the tasks while working full-time on class” (S1PF3b). As a part-time HDR student feelings of pressure and isolation can be more evident, especially in comparison to many of their full-time HDR colleagues who have access to observe other researchers and de-brief with fellow HDR students. Although the cohort support had been realised in Time Phase 1, this had reduced significantly by Time Phase 3 therefore the solitude of part-time HDR combined with the extremes and switches of emotion resulting from other major areas of family, social and work life competing for attention may be particularly disconcerting and tiring (Edwards, 2010). The ability for LG6 members to be either a teacher or HDR student was tested with conflicting time requirements becoming a problematic element to control as it encroached on participants’ ability to assume either identity.

The range of experiences conveyed by LG6 participants supported and strengthened the notion that a ‘one size fits all’ approach to professional learning did not account for individual teacher strengths, experiences, philosophical assumptions and workplace needs. One of the real challenges to consider within this research is to

understand more about how a professional learns and their experiences of time, than attempting to assess the quality of a program that produces knowledge (Webster-Wright, 2009). Inherent in the LG6 cohort approach was that it was difficult to separate the learner from their professional practice and the ever-present impact of time, especially whilst studying HDR as a cohort from the school where they teach.

4.4.4 Crossing thresholds - realising learning

As described in Section 4.3.3 threshold crossings underpinned many of the documented experiences of LG6 participants and these moments support what is considered an irreversible change in the understanding of the subject matter and of the learner also (Kiley & Wisker, 2009). Recounts of where these experiences have been recognised as threshold crossings in the data analysis depicted numerous positive experiences of HDR. Some examples include; “passing my first assignment” (S1PP5a), “completion of first 3 chapters of the thesis” (S1PF5a), “completing the literature review, deciding on the right methodology, enjoying feedback loops with supervisors...” (S1PF5b). These recounts linked strongly with the concept of identity shaping and together describe the tenuous, messy and challenging nature of HDR. Whilst these threshold crossings are important, the literature contends (Kiley & Wisker, 2009; Opfer & Pedder, 2011) it is valuable and even necessary to experience frustration and become stuck at some point in the research journey. Araújo (2005, p. 207) describes the PhD journey in her research as a “permanent state of transition”, where candidates’ lives are “marked by a process of changing and *becoming*” (italics in original). However wallowing in this uncertain and tentative state of liminality for extended periods of time can cause HDR students to “question their identity as researchers” (Kiley & Wisker, 2009, p. 433). My own response below provided evidence of liminality followed by the experience of threshold crossings.

These periods of liminality were often most prominent just as deadlines were imminent, however these were usually coupled with a period of intense learning as you were forced to grapple with concepts and ideas.

(S1PF7b)

Kennedy (2014) argues the transformative model of CPL is the most effective approach for teachers and develops a stronger sense of agency and autonomy. This research attempted to describe how the LG6 HDR learning contributed to any changes in identity or belief. Participant feedback from the surveys revealed how

these changes occurred, and the extent to which participants linked this change to their HDR learning. To understand these changes in more depth, it was necessary to revisit Opfer and Pedder (2011) and consider that teacher learning was described as a cycle where a *change in beliefs* (identity) leads to a *change in practice* (pedagogy) that bring a *change in student learning* (educational purpose). Clarke and Peter (1993) and Clarke and Hollingsworth (2002) support this teacher learning process and described a change in these processes as reciprocal and dependent on change occurring in all three areas. To recognise the dynamic conceptualisation of teacher learning, changes in practice and beliefs were identified through this qualitative research. The concept of time emanated inductively as a significant factor, and the living ecologies of practices aligned with the complexity thinking perspective of progressing within a state of disequilibrium and change. Changes in student learning were not a focus of this research as the focus was on the links between HDR and teacher work.

Evidence of practitioner learning was apparent through the initial uncertainty and limited knowledge of being able to access, analyse and conduct research in Time Phase 2, which was strongly conveyed by the four participants who responded to Qu.3 in the initial survey. Examples of these responses include Participant N who was “not sure I had any clear expectations”, and I “had very few expectation of this degree and was anticipating that it would be very little additional work if I chose the right topic” (S1PY3a). Whilst the first year of the degree was dedicated to understanding and conceptualising these processes, the workload required and the investment of time to become proficient enough to complete a research study was not fully understood. A question in the second survey asked participants “Under what circumstances would you recommend MEd research as a professional learning activity for teachers?” and all survey respondents’ posited time as an essential consideration to undertake HDR. Thompson and Cook (2017) confirm that teachers are not feeling the stress of time because there is less than there once was, in fact “there is as much time as there has always been” (p. 29). The multiplicity of time pressures can be expressed as “time poverty” (Thompson & Cook, 2017) and is explained as a paradox of technology increasing and the apparent availability of time decreasing. The introduction of digital technologies means the idea of work is less contained by the physical work space and the potential to access work shifts into the

home and after hours spaces through digital platforms, increasing the perception of work time becoming longer in duration. As HDR work only adds to this perception of time poverty I suggested, “if teachers were provided time to assist them complete the study it would be very advantageous and a great way to support teachers to improve their teacher work” (S1PY6b). Although an understanding of research knowledge and skills were reflected through responses in Time Phase 3, as LG6 members became teacher researchers, the ability to engage with HDR study whilst working full-time as a teaching practitioner remained problematic.

4.4.5 Conclusion

This chapter presents a number of findings that require further discussion. The critical elements to unpack further are the themes of threshold crossings and the relationships to different time experiences, in particular, how these different time experiences contribute to HDR and the ability for teachers from LG6 to negotiate these experiences within their teaching practice. Over time, LG6 participants gained an understanding of HDR and associated theories and methodologies, and whilst the expectations of the degree did not evolve to align with their initial ideas, “to be relatively straightforward” (S1PP3b) and “very little additional work” (S1PY3a), they conveyed individualised experiences of what they had learned at the time of data capture.

Whilst some of these expectations were readjusted and through collaboration, participants were able to make meaning from the study once the HDR was underway, managing the time to study, complete schoolwork and foster family or significant relationships continued to be an ongoing theme of challenge and frustration. As LG6 participants embraced the circularity of time and were open to growing HDR and teacher practices within the mediating conditions that pre-configure the practice architectures, they were provided with an opportunity to influence the overall ecology. Using the framework of 4Rs of reflective thinking (Table 3.2), the data will be synthesised even further in Chapter 5 to identify powerful examples where participants have reconstructed their teaching practice as a result of their HDR and analyse *how* they negotiated these complexities.

Chapter 5: Findings II – an analysis of ‘how’ LG6 participants negotiated their experiences

In response to the research question, “how do full-time teachers studying a part-time Master of Education degree negotiate and explain the implications of their research within their teaching practice?”, this chapter will focus on analysing **how** teachers from the LG6 cohort accounted for their negotiations and connections between HDR and their own teaching practice and explore any common experiences that emerged. Whilst there were differences for participants depending on their years of teaching experience, gender, type of role, and family circumstances, this analysis did not focus on these, but looked for commonly shared experiences in order to identify how these negotiations and connections between HDR and teacher practice developed as a group over time. To synthesise the data, moments of reflection at a deep reconstructive level were identified.

5.1.1 Reconstructive reflections

The GoingOK web application data provided opportunities for LG6 participants to reflect on their learning and recount instances where they felt their HDR had influenced their teaching practice. There are different levels of reflections, building from descriptive accounts; reporting and relating, to deep critical reflections; reasoning and reconstructing, that lead to new actions that are often characterised by the 4Rs of reflective thinking framework Table 3.2. The reflections identified at the transformative or reconstructive level, that is the fourth ‘r’ within the 4Rs of reflective thinking framework, were considered instances where the data provided evidence of learning for LG6 participants as a result of HDR influencing understanding of specific concepts or particular ways of working. These critical reflections identified changes in beliefs or evidence of learning and enabled different perspectives through growth in professional and academic knowledge (Ryan, 2013).

This analysis discovered that these transformative reconstructive reflections occurred within three different modes, derived from this research:

1. Mode 1 - Conscious (intentional) reconstructing – where reflections demonstrated clear accounts of new learning related to HDR
2. Mode 2 - Messy reconstructing – identified through liminal moments leading to threshold crossings. These learnings may not have been immediately apparent to participants but were evident when the participants created interesting tangential connections within the ecologies of practices, enabling relationships to make sense with one another.
3. Mode 3 - Incremental reconstructing – These reconstructions were more evident through comparisons between survey 1 and 2 responses. These learnings developed over time, often unconsciously, and were only noticed after a period of time had elapsed. These insights often developed as a result of exposure to a unique combination of research papers informing a personal ecology of learning.

Data to support these findings is included through the rest of this chapter.

5.2 MODE 1 – CONSCIOUS (INTENTIONAL) RECONSTRUCTING

The conscious reconstructions were identified specifically through the GoingOK data as LG6 participants described accounts where important concepts had been discovered and new learnings occurred. Learning was not linear but occurred either along multiple branches or as meaningful singular experiences as LG6 participants reconstructed and reconnected their HDR learnings with their teaching practice. Many of these reconstructive reflections were identified as threshold crossings where LG6 participants had attained a qualitatively different view of the world and themselves as a learner.

The data in this analysis was initially categorised by identifying responses where participants entered data describing how they related their HDR to teaching practice which was collected and plotted over time. An example of these historical reflection points is included the *Figure 5.1* below.

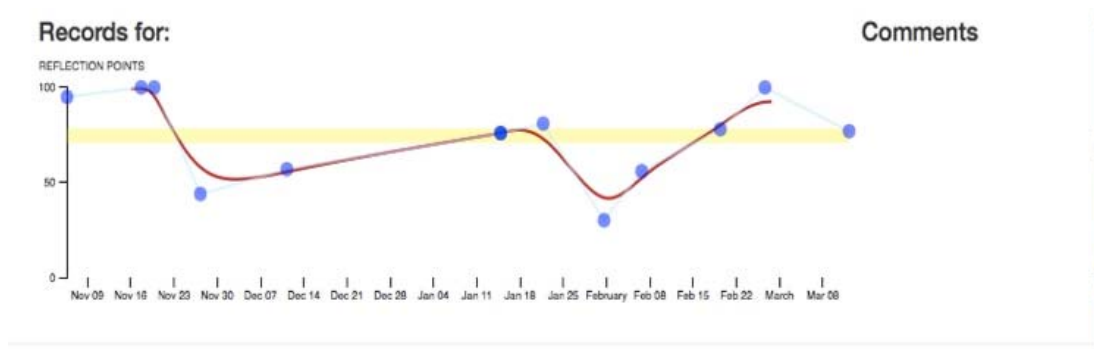


Figure 5.1. Example of an LG6 GoingOK plotline.

It should be recognised that the sliding scale scores (see above *Figure 5.1*) did not always align with the same strength of descriptions captured through the comments within the GoingOK web application (Appendix E). These ongoing opportunities to reflect on their HDR and the influences on their practice through the online tool often produced reflective thinking at a reconstructive level – where participants deconstructed ideas and reconstructed their own practices, imagining an alternative reality (Ryan, 2013). Throughout the rest of Section 5.2 the practice architectures of *sayings*, *doings* and *relatings* will be used to represent the data within the conscious (intentional) reconstructing mode.

5.2.1 Poignant sayings

Changing the dialogue, thoughts and lexicon within the semantic space had potential to bring significant change to a site through accessing new knowledge and interaction between peers affecting the cultural-discursive dimension (Kemmis et al., 2014). A more thorough understanding of concepts experienced through HDR enabled interactions to occur within the cohort and through other interactions, these were realised through the medium of language. Examples of these semantic learnings included a reflection from Participant N where in response to questions about school projects and evidence-based practices wrote, “my MEd study has provided me with the knowledge and experiences that enabled me to answer these types of questions” (S3PNS1-65). Developing knowledge and experience through HDR was key in this reflection, changing the *sayings* and having an impact on the cognitive process and the language used. Through this reflection Participant N had reconstructed practice and shared how HDR had helped create an alternative reality to what it may have been without HDR study.

A change in *sayings* was also indicated through my own response where, “at a cluster school meeting I was able to put my research hat on and was able to talk clearly amongst a room of principals about the benefits of working closely with a research team” (S3PYS14-74). I continued, “understanding the process and knowing how this type of research may be beneficial is linked strongly with my learning throughout the MEd course thus far” (S3PYS14-74). Articulating the knowledge learned throughout the HDR study developed the teachers’ voice and brought with it a teacher-researcher confidence. The teachers’ voice is recognised as “a teacher’s ability to define their educational philosophy, as well as to act accordingly towards implementing sustainable changes in the educational realm” (Kincheloe (2003) in Iliško et al., 2010). Teachers participating in research and contributing to the educational dialogue provided opportunities for the teachers’ voice to be heard, with the potential of informing education policy. The teacher-researcher is characterised by Iliško et al. (2010, p. 53) as “a professional who is reflective and motivated to identify and address problems in his/her praxis”. It was also the ability to articulate their educational philosophies and realise the inadequacies of their conceptual frames of reference that enabled LG6 participants to become more critical thinkers and change their educational practice. The statement I made when I “put my research hat on” (S3PYS14-74) was an indication that I had developed a teacher-researcher identity and was able to access this to support my practice.

Participant P suggested a similar awareness as “I am aware that this could sound like I am ‘sprouting research’ in order to win arguments” (S3PPS1-95), then exemplified the *sayings* of teacher-researcher identity by confirming, “rather, I can ask questions that draw out thoughts and ideas more fully before implementing a course of action” (S3PPS1-95). The ability to ask more meaningful questions was one element concluded by Iliško et al. (2010) and ensured teacher-researchers became active interpreters and negotiators of their experience, undertaking action for a changing and more sustainable future. Being aware of how *sayings* can influence and effect situations can be mediated by an understanding of oneself and others, Participant N found HDR “impacts on my practice and ability to understand things and to see things from different perspectives” (S3PNS2-45) and in response to questions from parents at school further confirmed HDR “helped me reflect on this experience and to understand why things were said by different people” (S3PNS1-

65). Iliško et al. (2010) confirms that teachers who researched saw new perspectives in their operational contexts and became active decision makers, gaining new and better ways of understanding their practice.

5.2.2 Poignant doings

The practices of *doings* influence and are influenced by the practice architectures of material and economic dimensions, the physical objects and spatial arrangements realised in the medium of work (Kemmis, 2012). It is the everyday reality of teacher work or HDR student work that is apparent within this element of the practice architectures. In a following strong GoingOK response, Participant P indicated a change in the *doings* where “the process of doing my research has developed my skills of critical reflection. When I read now I can more deeply probe into the nuances of meaning and of possible implications” (S3PPS2-100). The realisations and clear interpretation described an active relationship occurring between HDR and the *doings* of teacher work, in this case, within the work of a teacher administrator. My own HDR learnings provided valuable competencies whereby using “student test data and survey responses I was able to lead a firm review of the process to share with teachers, parents and the provider...” (S3PYS5-82). I was consciously “becoming more aware of how my MEd learning is influencing my practice as I am thinking more deeply about these reflections” (S3PYS5-82). This reflection described an awareness of HDR constructing my practice and informing the way I approached and completed my work.

Within a significant GoingOK entry (score 100) Participant P utilised the reflection “to ponder, to wonder why I feel that way, and what I can do about it, or, more correctly, what a leader ought to do about it” (S3PPS11-100). Within this entry of emotional realisation, Participant P continued, “I am looking forward to making more such discoveries, and having those influence practice” (S3PPS11-100). The deep understanding and recognition of reflection on practice, combined with Participant P’s own HDR learnings, signified the potential to influence practice as a result of being a participant in a research study. Iliško et al. (2010) confirmed that teachers who took initiative as researchers became active decision makers, saw new perspectives within the contexts they operated within and believed teaching must be constantly developed and structured in personal and meaningful ways.

The strong links between HDR and teacher work became more apparent through Participant N's reflection whilst on leave from study. Within this reflection Participant N recounted, "whenever I think about a project that is constantly evolving, I must also think about evidence and data to justify and maintain it. And I think that my study has given me a good grounding in why this is important. So, as much as the day-to-day routines and needs must be dealt with, it is important to keep considering the evidence, the data and the research..." (S3PNS3-57). The new 'National School Improvement Tool' developed by Masters (2012) through the Australian Council for Educational Research (ACER) was based on a series of national consultations commissioned by the Commonwealth Department of Education, Employment and Workplace Relations. This document refers to "evidence-based teaching strategies" (Masters, 2012) within domain 5, *Expert teaching team*, and domain 8, *Effective pedagogical practices* and "evidence-based teaching practices" (Masters, 2012) within domain 6, *Systematic curriculum delivery*. This document is used as a review tool at least every four years in Queensland schools (DETE, 2016c) with the word "evidence" used 29 times and "research" 7 times within the descriptions of recommended practices. It was becoming evident that an understanding of research was an expected component of modern teaching competencies (Ward & Dixon, 2014) and the reflections above confirm it was effective in supporting the practice of LG6 participants.

5.2.3 Poignant relatings

The potential for HDR to impact on the *relatings* within the site of practice became more evident as subtle shifts in power and social arrangements became evident through the constraining and enabling arrangements formed as a result of interactions with HDR study (Edwards-Groves & Kemmis, 2016). This poignant response from Participant P demonstrated where "each day as I read or listen to ideas and commentary around my research I find myself reflecting on practice and making changes" (S3PPS1-95). Interestingly this effected the *relatings* through the ability to "engage in conversations more powerfully, not because of my position but because of a deeper knowledge and understanding of the issue" (S3PPS1-95). Looking beyond the site of practice, Participant A "attended a conference closely linked with my research topic and gained insight into how a range of schools are running in class and extra-curricular activities linked with my topic" (S3PAS2-80). Building

relationships beyond the site of practice supports the networking of practice, as it is not dependent on one site more than another or with one group more than another (Kemmis & Mutton, 2012). Participant P gave an example of this where accessing support from the university and feeling more positive about the research resulted “from having met with my supervisor and having a clear direction of the next steps (S3PPS9-56). This range of support also became evident from working within the cohort as Participant P again shared that “with research, and in particular, research with a group of colleagues, the LG6, it has been a mutual help group. Again, it is questionable whether I would have kept going but for the cohort” (S3PPS3-100). This reflection also indicated the strongest score (100) from the slider indicating Participant P at this stage was feeling extremely positive about how HDR was influencing practice.

Within the socio-political realm, the dimension that enables and constrains how we are able to express ourselves in the social medium of language (Edwards-Groves & Kemmis, 2016), Participant N shared the experience of accessing professional readings, “I am a person who reads professionally a lot. This is not necessarily academic type materials but more blogs and articles that have been written by other practitioners” (S3PNS2-45). Participant N continued, “I am accessing via my PLN via Twitter which is the best tool for teachers that I know of in terms of accessible professional reading and professional support and advice” (S3PNS2-45). The significant *relatings* informed by engaging in HDR was then revealed at a deep reflective and reconstructive level (Ryan, 2013) as “I guess the research masters has given me the knowledge of how important it is to be critical of what I read and try to evaluate perspectives and validity of data” (S3PNS2-45). Additionally, it gave “an insight in to the rigorous process that others go through in order to have research published” (S3PNS2-45). It was evident here that HDR had empowered a change in the interactions with others and developed a more sophisticated and skilled awareness when accessing professional readings, support and advice.

A direct impact of HDR on my own *relatings* was revealed when I reflected “now that I have a new principal at work who comes from quite a different ontological space (in some ways) as my previous boss, I have found that being able to identify these differences and understand where views come from has made it

easier for me to reason in uncertain times (when ideas conflict with my own views about things)” (S3PYS16-84). The strong change at a reconstructive level within the practices of *sayings* was articulated as I continued, “being able to resolve these issues internally has been as a result of my research learning” (S3PYS16-84). Iliško et al. (2010, p. 62) suggests that teachers who engaged in research were able to “reshape their schools in democratic ways”, from an ‘ecologies of practices’ perspective, the focus is not centred on practitioner competence but the niches that are formed through the practice architectures that provide “conditions of possibility” (Edwards-Groves & Kemmis, 2016) for particular structures of knowledge and language, modes of activity, and ways of relating to others that are necessary for practices to survive. Edwards-Groves and Kemmis (2016) assert these cultural-discursive arrangements make particular practices possible and “prefigure, (but do not predetermine) them in their course as they unfold in different, particular, places and times” (p. 87). Participant P recognised a change in *relatings* when “having moved from the position of school leader, my practice has shifted toward being an influencer of education” (S3PPS10-78), however recognising that the HDR research was “by and large, reinforcing my views about education” (S3PPS10-78). The significant realisation came as this statement was clarified, “I do come across evidence that challenges my thinking as well. However this only serves to deepen my understanding. It is as if the challenge is able to sharpen my attention – it forces me to think about what it is I believe, and to make sure that I am not deluding myself, twisting information to suit my purposes. (S3PPS10-78). It was a deeper understanding of themselves and their own praxis and the way they interacted with others that enabled LG6 participants studying HDR to challenge the traditional act of teaching and as critical researchers linked their own practice to “profound pedagogical, social and philosophical purposes” (Iliško et al., 2010, p. 62). By developing skills through HDR to re-evaluate their own practice, LG6 participants demonstrated how they became active interpreters and negotiated their own experiences to enable change within their own teacher work.

5.3 MODE 2 – MESSY RECONSTRUCTING

The messy mode of reconstructing emerged as a way of describing the more indirect and tangential learnings that occurred sporadically. They were symbolic of the living ecologies of practices, representing the continual movement and shifts that

connect the practice architectures. These became significant as meaning was constructed through the new combinations of interconnected relationships or through singular moments of realisation. The messy nature of research practice was reflected in the comments about how messy learning through research appeared. Not all reconstructing was recognised as positive experiences. The uncertain and troublesome periods were identified as knowledge building moments, which were often stressful for the LG6 participants. Uncertain entries often lead to realisations of new concepts, understandings of conceptual frames or theoretical lenses. These moments of disequilibrium or liminality pointed towards moments of threshold crossings and reconstruction of new knowledge, enabling the learner to have a greater control over their practice.

The idea of threshold concepts was a useful way to describe one's learning progress through HDR education, particularly given the challenging and messy nature of research. The transformations or realisations that occurred by crossing thresholds were understood to happen either quickly or occur over a substantial period of time. Liminality was described in this context as the period directly preceding the threshold crossing (Kiley & Wisker, 2009). This state could be dangerous for students to wallow in for too long, and motivation had potential to wane substantially, especially if the conceptual understanding became too difficult to the extent where they seriously questioned their identity as researchers and their ability to complete the HDR course.

Threshold concepts could also be understood as troublesome knowledge (Kiley & Wisker, 2009), which confronted the learner in being counter-intuitive, conceptually challenging and foreign. The bounded nature of threshold concepts meant that by overcoming or crossing these borders, other conceptual developments became apparent. This meant that through HDR learning, LG6 participants were developing knowledge and skills that could irreversibly change who they were and how they viewed the world. It is these transformative moments that were identified and demonstrated where LG6 participants were able to interpret HDR knowledge, changing previously understood perceptions of subject matter and potentially informing a shift identity as new knowledge was not able to be unlearned once these thresholds were crossed.

The nature of HDR was understood to be messy and demanding without predetermined and succinct elements in place. Kiley and Wisker (2009) confirm it was widely acknowledged that strong learning occurred whilst being in the liminal space directly preceding a threshold crossing and that it was necessary to be stuck in this state at least during some stages of the research journey. Overcoming the oscillation and confusion of liminal states could reduce the feelings of HDR students being stuck, depressed, challenged or confused and perhaps provide moments of celebration through enabling “the articulation of a deeper understanding and meta-learning resulting from threshold crossing” (Kiley & Wisker, 2009, p. 433). An understanding of the transformative and irreversible nature of threshold crossings and the potential learning opportunities availed by an understanding of the challenging nature of liminality could lower attrition rates in HDR courses, provide a less stressful experience for research students and an enhanced learning experience for both the student and supervisor. The concept of liminality, specifically the challenging moments encountered whilst in the liminal state, provides an important analytical tool in this study to help understand the process of messy reconstruction.

In an attempt to identify reflections where participants had encountered challenging moments, the GoingOK data was reviewed for low scores initially for evidence of interruptions or blockers when describing how their MEd was influencing their practice. As described with the high score responses, these scores did not always align with the qualitative data captured within the reflections, for example a low score may have been given to a reflection but positive accounts of learning were identified within the qualitative data. For this reason, all GoingOK data were reviewed and analysed. Occasions where participants had detailed examples of challenging and frustrating moments were categorised inductively and the data arranged within the following themes of guilt and also to further explore the influence of time on HDR students, in particular how disequilibrium can signpost potential learning.

5.3.1 Guilt of messy reconstructing

Guilt became a significant theme throughout the GoingOK entries where dissatisfaction, uncertainties and discrepancies were identified. The entry below by Participant P provided insight into the nuances of factors providing a sense of guilt through the reflection:

This week's rating is more from the sense of guilt I am attaching to not being more focussed on pushing forward. I have allowed myself to be distracted by trivial matters, and, while I have put some time and thought into my practice, I cannot escape the feeling that I have allowed time to slip away. I know this will pass, but the masters study is weighing me down. I have to stress, it is not because I don't want to do the work, nor because I don't have the time, nor because of anything other than the fact that I feel guilty about not putting in plenty of time toward the project. I know that has to change, and that the guilt does not help. I just have to do the work to overcome the feeling of lethargy. (S3PPS8-30)

The low score (30) indicated a feeling of dissatisfaction of how HDR was influencing practice, However the reflection conceded it was not available time, intent to do the work, or anything else that were preventing the doing of Masters study, but the feeling of lethargy which needed to be overcome. Participant P continued in the next entry where a higher score was also reflected within the qualitative data:

Edging up again. This comes from having met with my supervisor and having a clear direction for the next steps. What's more, having undertaken some of those next steps there is an increasing re-energisation of my purpose. This comes from deeper understanding about the research, and how this can influence my practice. I am only scratching the surface, and the rating would be higher if I had got further along. Interestingly, yesterday, had I reflected, I would have moved the slider more toward very satisfied. But, I didn't get as much done today, and the guilt I spoke of last reflection haunts (S3PPS9-54).

The sense of working through the experience of liminality is detailed through the meeting with the supervisor, having a clear idea of the next steps, and having a deeper understanding about research. Although the guilt still haunted, there was recognition of progress, where the messiness of the initial reflection had been consolidated and the reenergisation of purpose suggested a threshold crossing may have been the impetus for the increased enthusiasm.

My own reflection alluded to a sense of guilt where the “added pressure of needing to reengage with the masters work has made it feel burdensome, whereas I know there will be a stage where I have crossed a threshold into the data analysis

world and made sense of the work. I look forward to this time, but know there will be many hours of problematising in between” (S3PYS15-30). The recognition of problematising in this situation demonstrated the messy reconstructing occurring, also an understanding of threshold crossings noted within the reflection revealed a sense of the unknown was a cause of the burden. In relation to the feeling of HDR students being stuck and confused, Kiley and Wisker (2009) note, “understanding threshold concepts and the liminal state in research education can more adequately assist students during this time” (Kiley & Wisker, 2009, p. 432). My quote above confirmed Kiley’s statement, however the actual *doings* of HDR eventuated through a sort of pinballing between the known and unknown, bouncing back and forth to connect the multiple branches of coalescing knowledge structures until they became meaningful for the person within the ecology. An understanding of liminal states and threshold crossings enabled further concepts to be explored.

Another reflection of mine alluded to additional blockers, the practice architectures interrupting the *doings* of HDR where the “MEd study is consuming my little free time with guilt at the moment as I know I need to engage again deeply with the research and data. I am hoping to schedule this into a more regular space in my life to ensure I can get the next chapters underway and research the data. Meeting with supervisors today so hoping to get a plan together” (S3PYS13-35). The guilt was associated in this statement with free time and knowing there was HDR work to be done. Although the knowledge of what was needed to continue was indicated, there was a link to the practices of *relatings* in the *social-political* dimension, realised in the medium of *power*, where a meeting with supervisors was indicated as a potential solution to reengage with the study. Participant A reflected, “feeling like the writing part of it is a bit of a cloud hanging over my head, but going to try and get data collection done by March and analysing done by June. Deadlines are starting to feel like shifting sands” (S3PAS7-60). The writing of HDR was alluded to as a cause of guilt in this reflection with the uncertainty of deadlines another cause of frustration. Understanding that HDR was a messy and uncertain process was also a realisation that could be a threshold crossing for HDR students and ensured candidature remained intact. For Participant N, the uncertainty of HDR became the impetus to “have withdrawn from my course. This does not mean I don't value the idea of a Masters. For me, the practicalities of fitting this type of research study into

my work and family life just hasn't worked. I value what my involvement in this Research Masters has given me but consider that a course masters would be much more suitable for me” (S3PNS4-45). Participant N had a deep understanding of self and through consideration of other impacting factors and knowledge of his/her own conceptual frame, was able to make the informed decision to withdraw from the HDR course. Depending on the range of additional factors, the HDR course was not suited to all LG6 participants regardless of the support and knowledge of imminent threshold crossings, however, a knowledge of these factors may have made these decisions easier to make.

5.3.2 Time influencing messy reconstructions

Time has been discussed as a major theme within the previous chapter with conflicting time periods a source of frustration for LG6 participants as the equilibrium of lived and understood time perspectives was disrupted through the cyclic nature of lived experiences and the linear timeframe of HDR candidature (Araújo, 2005). The introduction of additional and uncertain time experiences through the *doings* of HDR created disequilibrium and contributed to the messy reconstructions identified below.

Participant A had “taken a break from masters as demands of work are too much to juggle at this time and every time I try to spend time on ethics or redrafting I can’t focus” (S3PAS3-25), then “having confirmation in early June meant I spent a lot of time drafting and becoming very familiar with my topic (S3PAS1-85). These two reflections described two different times within the HDR journey, the juggle between the time of work and needing to progress with ethics and becoming familiar with the topic signal an awareness of the work required and knowledge of personal time constraints (Araújo, 2005). The unknown and uncertain time of HDR was evident in another reflection from Participant A “starting to realise there is still a fair way to go to complete the research masters. Keen to keep going, however losing momentum towards the end of the year. Holding off on collecting data until early 2015 when school resumes” (S3PAS6-50). Each phase of the research journey was unknown to LG6 participants before they entered into it and it was necessary to become immersed in the *doings* of HDR to understand and conceptualise the learnings. Meyer and Land (2006) describe these as portals or spaces that need to be approached or negotiated as they come into view and even experienced as “a

transition in terms of sense of self” (p. 19). Participant A alluded to the uncertain time periods of HDR above, acknowledging that there was still a fair way to go to finish. These loosely defined HDR time periods lacked a regular structure familiar to teachers used to working within discreet daily timetables and termly academic calendars and they became out of step with familiar time experiences where they experienced a disconnect between competing rhythms (Thompson & Cook, 2017) creating a sense of arrhythmia and discomfort. Additionally, whilst researching and writing the thesis, each HDR concept was experienced in different ways (Trumper & Eldar, 2015) by LG6 participants with different research topics, ethics submissions, methodologies and participant samples contributing to the diverse and immense possibilities offered through the HDR pathway. These diverse and immense possibilities also contribute to the messy nature of HDR learning.

5.4 MODE 3 - INCREMENTAL RECONSTRUCTING

The *doings* of HDR involved an intense amount of reading research papers, consolidating information, writing, observing, evaluating, experimenting, editing, rewriting and more reading. This continual cycle of knowledge production became a learning cycle in itself, not always apparent to the learner but evident in the process of incrementally reconstructing knowledge. This process is described by Su et al. (2016) as “proper and relevant professional learning” (p. 7). Through their review of the literature on teacher learning Opfer and Pedder (2011) identify three recursive systems, the individual teacher system, the school system and the learning activity. These three systems overlapped with the individual teacher and school systems interacting generatively with the learning activity (in this case HDR learning) for teacher learning to occur.

The incremental reconstructing mode of teacher learning complimented the variability of teacher learning (Opfer & Pedder, 2011) supporting the notion that it could be produced in many ways. The causes that influenced teacher learning could be pre-conditions that teachers brought with them, catalysts, influences or direct impacts but understood within an ecology framework, these causes could work either singularly or together to produce and reproduce teacher learning. The delicate balance of interconnected multiple branches of practice architectures that mediate learning within this ecology were able to be easily disrupted causing stagnation and apathy. One constant within this conceptualisation is therefore variation with a

reliance on appropriate environmental niches (Tilly, 2008) which are able to sustain these living ecological practices within different local settings or sites of practice.

5.4.1 Understanding research – improving teacher practice

Understanding research was identified by a number of participants as a significant outcome of their HDR work, contributing directly to a change in the way they undertook their teacher practice. The cyclic nature of HDR learning supported this mode of incremental reconstructions as LG6 members built on their individual knowledge bases through experiencing the HDR loops. Participant F shared; “in essence, I have become more cynical and resistant to anecdotal evidence. Also, having access to the (deidentified university) library databases has been quite beneficial” (S1PF10c). The depth of learning and acknowledgment of understanding research was further conveyed where “I now look at educational research with a critical eye and am able to compare and contrast different research presented to me in PDs, meetings and general conversation” (S1PF10b). Participant P noted a change in research understanding, now demonstrating an “ability to argue for qualitative evidence as valid argument to take a course of action” (S1PP10b). Considering these statements within the context of the research question for this study, there was clear evidence whereby these teachers were negotiating and explaining implications of HDR within their teaching practice.

Growth in understanding research and the links to teacher practice were strong determiners of a common experience shared by five of the participants within this study and another indicator of incremental reconstruction. Participant N articulated the links between HDR and teacher practice as a “thorough understanding of the evidence and the research is going to become increasingly important in what I do” (S1PN12a). The next recount by Participant N recognised the transformative level of the HDR experience, describing a change in practice, “feeling like I was more able to speak with knowledge and expertise on certain topics that I have always been intuitive about” (S1PN5c). The collaborative strength in undertaking HDR as a cohort was described by my own reflection; “It has forced me to continually reflect on my learning and share my findings with colleagues” (S1PY11a), and also capturing a change in the *relatings* of practice architectures; “Getting to know my cohort colleagues better in a different environment, outside of the workplace” (S1PY13a).

As suggested in Section 4.4.4, the learning experiences could be conscious or unconscious processes. The strong subtleties of how the changes in beliefs and teacher practice were realised and evidenced through Participant A's reflection to Question 8, "Describe any experiences where you believe your teaching practice has changed as a result of studying a MEd Research?" The initial response, "Whilst I do not see a direct impact on my practices in the classroom through the MEd program" (S2PA8a), presents no direct link to classroom practice. The following statement in the same response continued; "I believe it has improved my outlook as a professional and given me insight from a theoretical and academic perspective" (S2PA8b), exploring the existence of links to a change in the ways of working within the broader and less explicit *relatings* of teacher practice. Through this evaluation of the data between surveys 1 and 2, there were interesting cumulative developments whereby teachers distinguished their identity as teachers differently to the constructs and *doings* of teacher classroom practice. This research purports that these practice architectures were interconnected and reconstructed in different ways within the living ecologies of practices.

5.4.2 Reconstructing the ecologies of practices

The survey and GoingOK data provided insights into participants' conceptualisations of the relationships between HDR and teacher practice over a period of time in the MEd study. The individual and collective practices of *sayings*, *doings* and *relatings* which interconnect and develop to form ecologies of practices (Edwards-Groves & Kemmis, 2016) also provided a way of analysing what elements of the data were being negotiated within the Education Complex, specifically *professional development/learning*, *educational research and evaluation*, and *classroom educational practice*. The conceptual framework (Figure 2.6) utilised the 4Rs of reflective practice (Table 3.2) with a focus on 'reconstructing' reflections as an analytical tool where the data was analysed inductively to observe how these negotiations were experienced. These identified reflections enabled a critique whereby participants were able to deconstruct their own practice and reconstruct an alternative reality informed through their experiences of negotiating and explaining the relationships between HDR and their teaching practice. The *sayings*, *doings* and *relatings* and practice architectures were used again to structure this analysis, using

an alternative lens of reflections that appeared to be related to the reconstructing level to view the data.

As Chapter 3 identified, the positive impacts of HDR study were personal and diffused across individual ecologies of practices rather than easily identified with a single policy logic, linking teacher learning to student outcomes. Stepping out of the participant role and assuming the researcher identity, this chapter concludes with my view as the researcher reflexively considering the elements to confirm and explain the conceptual framework that relates how teachers reconstructed their experiences either consciously and deliberately, messily and through a combination of experiences including liminal moments leading to threshold crossings of knowledge making or, incrementally, over time, through engaging with HDR study. Through their research of practice architectures, Kemmis et al. (2014) coined the term 'Education Complex' of practices to describe the conceptual resource of five different educational practices - *student learning, teaching, professional learning, leading* and *researching*. As described in Section 2.4, each of these practices could function as a practice architecture and had potential to change practice and constrain or enable one or more of the others as they existed within an ecological nexus. Kemmis et al. (2014) represent the education practices by using arrows to connect each practice with the others within the Educational Complex represented in the structure (*Figure 2.5*) which has informed the conceptual framework for this research utilising the practice architectures and themes that arose inductively from the data analysis (*Figure 2.6*)

The educational practices of student learning, teaching, professional learning, leading, and researching interacted and the contents of the *sayings, doings* and *relatings* had potential to grow and travel becoming resources for the others. Each site of practice produces and reproduces these arrangements in site-specific ways. Therefore, the interdependent connections of knowledge production and reconstruction of the organic nature and complexity comprising the ecologies of educational practices exist as a living system. The different modes of reflexive reconstructing summarised and explained below are informed by different elements drawn from the conceptual framework (*Figure 2.6*).

Conscious Reconstructing – The intentional and deliberate actions to reconstruct knowledge connecting the practice architectures of *sayings doings* and

relatings and reflecting the actions of *doing* HDR work. Accessing journals, writing, and consciously engaging in HDR to reconstruct learning represent attempts to actively increase HDR skills and knowledge. These conscious actions also stimulate and nurture other connections.

Messy Reconstructing – The deliberate, conscious efforts make connections in multiple ways throughout the different practice architectures. An example of this would be when a HDR students read a particular article, had a discussion with a colleague, tried something new in their classroom as a result of the discussion, then encouraged others to try the same thing. The outcome was not a deliberate result of the intended learning but was nonetheless connected to the action of being a HDR student.

Incremental reconstructing – Incremental reconstructing occurs as a combination of both deliberate and messy reconstructing and as an accretion of experiences over time. The deliberate action of undertaking HDR and engaging in reading and writing academic information builds knowledge and expertise. Becoming a better HDR student and engaging in discussions with peers, colleagues, supervisors, friends and acquaintances and reflecting on these interactions have potential to improve your understanding of different topics as you come to know yourself better and gain a more in depth understanding of the research topic. This type of learning occurs incrementally over time, and may not be immediately apparent.

The Conceptual framework (*Figure 2.6*) has been understood through the practices of *sayings doings* and *relatings* and the interdependent relationships occurring between these nexuses. Learning had been evidenced by identity change (becoming a teacher-researcher), enabled through developing an understanding of ones educational praxis, experienced through crossing thresholds and liminal states, understood through the 4Rs framework of reflective thinking specifically at the deep reconstructing level, and challenged by the colliding cyclical time experiences of lived experiences and HDR and the linear time of candidature. The disequilibrium of time was also experienced through these interactions, and in line with this research, although equilibrium may be desirable, this also reflected an absence of learning. The next chapter will discuss the potential contributions for research, university support, teacher practice and the potential to inform future policy.

Chapter 6: Conclusions

This research investigated the experiences of further study, particularly a part-time intensive research pathway, from the perspective of teachers reflecting on their pedagogic practices whilst studying their Master of Education degree by research (MEd). A policy intending all principals and deputy principals to undertake further study to maintain their working status (DETE, 2013a), and my personal experience through studying HDR provided a context for the study. As I was part of a small cohort of four teachers and two administrators from the same school undertaking the HDR study, a qualitative case study was designed to gather information about the group and provide opportunities for them to provide information in response to the research question:

How do full-time teachers studying a part-time Master of Education degree negotiate and explain the implications of their research within their teaching practice?

To answer this question, firstly the data was analysed to understand **what** was being negotiated, and this was explored in Chapter 4. In Chapter 5, the analytic focus shifted to understand **how** teachers negotiated and explained the relationship of the HDR research and daily teacher practice. In this final chapter, I reflect on the conceptual framework and the research design before summarising the key findings and exploring implications for practice and for policy. Next, I include the limitations of the study and suggestions for further research. Finally, I conclude with a personal reflection about my own learning through this study.

6.1 REFLECTIONS ON EXPLORING PEDAGOGIC CHANGE FROM AN ECOLOGIES OF PRACTICES PERSPECTIVE

The influence of the larger ecology of teacher work, and the policy shift in focus from curriculum content and design, to pedagogic practice was clearly outlined in Chapter 1 as a process that was directed by departmental policy. Large scale policy changes have a flow on effect to teachers and their practice, with initiatives having residual overlapping effects on teacher learning and classroom practice. The introduction of a national curriculum and implementation of teaching and learning

audits throughout all Queensland schools was occurring as members of LG6 began their HDR study. This provided an excellent opportunity to explore how further academic study might align with these significant shifts within the education policy and curriculum landscape, and ascertain what role teachers who were also HDR students may play within the school improvement agenda. There is little research about the experience of teachers engaging in a Master of Education by research (Ward & Dixon, 2014). Some research that had sought more general causal relationships between teachers with higher degrees and improved practice did not find a positive effect (Goldhaber & Brewer, 1996; Rivkin et al., 2005). At the conclusion of my MEd research journey, I can confirm that my personal experience has conflicted with the Goldhaber and Brewer (1996) research findings. I could document how my own teacher practice improved as a result of engaging in HDR, and the findings from the experiences of my LG6 colleagues indicate that these personal experiences were also evident in the experiences of others who engaged in their HDR learning at the same time, from the same context.

In seeking to identify any change in pedagogic practice as a result of HDR learning, the literature about measuring teacher effectiveness was explored. It became evident that attempts to measure teacher effectiveness were varied and due to the potential for influence at so many levels, causal relationships were difficult to determine. Those relationships that were evident were understandably complex and mostly unobservable. As a result an alternative conceptual framework was adopted based around the concepts of conflicting time experiences, identity change, educational praxis, threshold crossings, and reflective practice. These concepts enabled LG6 participant responses to be analysed in order to understand the relationship between HDR and teacher practice. The practice architectures of *sayings doings* and *relatings* provided a well-established model to capture the important LG6 reflections and were able to be explained effectively as (like schools) they operated within a living ecologies of practices framework. Threshold concepts and liminality were explored and introduced as a way to explain the experiences of success and capture the challenges of frustration, guilt and apathy. The communities of practice model was also important to understand the relationship between LG6 members and supervisors, and how they communicated as a group and connected with the different environments and sites of practice.

6.2 REFLECTIONS ON THE RESEARCH DESIGN

The research design was developed to capture participant responses in a way that would be least intrusive to LG6 members, but also provide enough quality data to be able to effectively analyse the responses and develop findings and a conclusion to the research question. Two surveys 12 weeks apart provided opportunities to capture data from participants at different stages within the HDR pathway. This meant that participants could complete the survey at a time and place that was convenient for them. It also created some distance between me as a participant researcher, and also a person with supervisory relationships, that would not have been possible in a face to face interview. However, to gain an understanding of how the HDR studies might be influencing day to day classroom practice over time, and in order to gather a range of qualitative and quantitative data the GoingOk web application tool was utilised. As the research question asked how LG6 members negotiated and explained the implications of their research, the GoingOK web application provided an efficient tool to collect participant data and resulted in a variety of rich feedback for analysis.

There remained a significant part of the HDR journey that occurred after the data collection that was not examined, as it was beyond the limits of the timeframe for this thesis. As I was a member of the LG6 cohort, my research timeline was more or less synchronised with the research timelines of others in the cohort. More change and development could be anticipated as LG6 participants worked towards resolving and completing their HDR studies. This data analysis therefore points to some areas of significance that may be developed by other research.

6.3 SUMMARY OF FINDINGS

The data analysis process identified time as one of the major themes, which was subsequently used as a structure for the data analysis and findings chapters. Time phase 1 - Coming to study, explored the reasons for undertaking HDR. The support of the cohort and financial considerations were outlined as significant themes from the data analysis. Time Phase 2 – Undertaking study, provided insight into the experience of studying as a HDR student and the associated identity shifts resulting from engaging in further study. The transition to teacher researcher became a strong focus within this time phase as researching skills became more adept and proficient.

Time Phase 3 - Researching, captured LG6 responses which demonstrated growing competence, knowledge and research skills. These time phases would also impact on personal times, university times, school times and social times, becoming problematic and difficult for LG6 participants to resolve.

Further data analysis of the participant reflections explored how these experiences were being negotiated and constructed within 3 different modes of 'reconstructing' information, conscious, messy, and incremental. The practice architectures of *sayings*, *doings* and *relatings* were utilised again as a way to explain the implications HDR had on their teaching practice and framed the responses within the living ecologies of practices framework. This conceptual frame provided an educational research context capable of representing the complex nuances of LG6 responses considering the range of influences impacting the individual experiences of undertaking part-time HDR whilst working full-time as a teacher.

LG6 members all had different experiences of undertaking HDR. However members shared similar challenges and frustrations of being able to dedicate sufficient time to the *doings* of HDR study. These challenges eventuated in an array of outcomes realised through placing the spotlight of research on the interconnections between HDR and teacher practice. This small-scale study of teachers at one site of practice revealed the following significant findings in response to the research question:

- All participants believed teachers should be provided with time to undertake further study and discouraged teachers working full-time to engage in HDR due to the complex nature of research and the uncertainty associated with learning research skills and developing new knowledge.
- All participants agreed they were learning throughout the HDR process. The messy style of research learning suited some participants more than others, however the moments of feeling lost and helpless were also often followed by realisations of knowledge creation. The seesawing between liminal moments and threshold crossings are an important part of HDR and once concepts are learned they are never lost.

Participating in HDR did not make the daily tasks of teacher work easier. However, participants agreed it increased their academic writing skills, and improved

their ability to access and interpret research. They also agreed they felt more empowered and confident when interacting with peers and parents. This resulted in a more confident teacher voice and enabled them to contribute to school based teacher work with a stronger sense of agency and knowledge of their own paradigm of learning and an appreciation of other perspectives.

This research comes at a significant stage in Queensland state schooling as the department of education and training (DET) is looking to research and evidence to support practice in a variety of ways (Department of Education and Training Queensland (DET), 2016a). Selected Queensland state schools are currently engaging in evidence based cycles of inquiry projects to support and provide research about their expenditure and how this funding supports student learning (Department of Education and Training Queensland (DET), 2016b). These projects are designed to “share best practice and research about school improvement” (State of Queensland, 2016, p. 20) to improve outcomes through more rigorous, research-based educational practices. It will be necessary through this renewal to support teachers and school leaders to become proficient in understanding, accessing and conducting research for these proposals to become embraced and an expected process within implementing educational practices. Findings from this research indicate that the daily integration of an evaluative stance towards research and practice is not a process that occurs in a short professional development course, but that it occurs across conflicting time cycles, in conscious, messy and incrementally reflexive ways. Support for teachers, in terms of finding a supportive cohort and being given time to become more proficient and skilled research practitioners will need to be provided for academically rigorous ways of working to become understood and enacted by more teachers. To this end, this research has important implications for universities, teachers and employer bodies.

6.4 POTENTIAL CONTRIBUTIONS

This study has several potential implications for universities supporting HDR students, employers, for teachers and also further research.

6.4.1 Implications for universities

The cohort approach to study has been a focus in some similar small scale research (Kempe & Reed, 2014; Lassig et al., 2009). Given that professional learning

outcomes are enhanced when teachers work collaboratively in small groups, especially when focusing on contexts applicable to their classroom practice (Kershner et al., 2013; Su et al., 2016), and considering the strong positive outcomes of cohort support identified through this research, particularly in the first year of study, it is certainly an area that universities could focus on. Universities can consider ways to provide more attention and support these groups to minimise attrition rates from HDR courses.

A deeper knowledge of threshold crossings and liminality, including an understanding of the threshold concepts identified by Kiley and Wisker (2009) as a framework for learning for HDR students would be a useful way of supporting students through their HDR journey. Identifying these key transformative experiences with students would support students to understand the challenging times and provide a structure of support and confidence to know that these liminal moments were purposeful and necessary as they are linked strongly to the notion of identity within the HDR structure. A reflexive approach (Ryan, 2013) to supervision would provide students and supervisors opportunities to regularly ascertain the personal, social and structural conditions and discuss ways to mediate these at any stage throughout candidature. Similar to gaining an understanding of threshold concepts, this approach to the student and supervisor relationship would need to be understood through professional learning for supervisors in order to provide a process for working with HDR students in this way.

Araújo (2005) describes a delayed academic satisfaction that can be experienced from completing the thesis, a time period where HDR students sacrifice things in the present in service of the future. The dominance of the idea of completing the thesis influenced how the present time became more like a vacuum, or a suspended time where HDR students lived in continuous anticipation of the future through the event of finalising their HDR candidature. Acknowledging thesis submission as a significant threshold crossing and exploring additional information about how to provide assistance to reach this milestone will improve actual academic satisfaction for many students.

6.4.2 Education department implications

Education departments can investigate the research on system-wide models of Continual Professional Learning and focus attention on developing and delivering

CPL that exists at the transformative end of the spectrum of Kennedy's (2014) CPL models (*Figure 2.2*). The research gathered from this study supports the claim that HDR is a form of collaborative professional inquiry given the cohort approach undertaken by LG6 participants. The cohort provided a sense of collaboration early in the degree with supervisor contributions also becoming a form of collaboration, especially after confirmation and ethics approval. HDR sits comfortably within an inquiry cycle of learning and an improvement in teacher voice was identified by participants and discussed in Section 4.3.3. Whilst an increase in teacher professional autonomy, teacher agency, trust and respect are altruistic goals for any professional learning, the practice of HDR includes elements represented by the transformative model of Continual Professional Learning and has potential to influence these attributes in teachers.

HDR study, particularly with a cohort of colleagues has many attributes that align with Kennedy's (2014) collaborative professional inquiry model, which was a meld of her previous *action research* and *transformative* models (Kennedy, 2005). This approach to CPL identified "all models and experiences that include an element of collaborative problem identification and subsequent activity, where the subsequent activity involves inquiring into one's own practice and understanding more about other practice, perhaps through engagement with existing research" (Kennedy, 2014, p. 693). This description of CPL sufficiently described elements of the HDR approach to learning as experienced by participants in this study and can therefore be considered an approach of CPL which supports teacher autonomy, agency and even when subsumed within the *award bearing* category, was promoted in the Kennedy (2014) study due to the liberating and empowering nature of masters level CPD.

The education department in which the LG6 teachers worked already has a number of teachers and workers with Masters level and PhD degrees. However their achievements and research are not acknowledged, or recognised through departmental channels. Many employees with doctorate degrees do not acknowledge these academic titles in internal departmental profiles suggesting a lack of positive emphasis in regard to personal academic achievements. It would be exciting to acknowledge these successes and encourage education employees to speak at Principal conferences on the research they have conducted and the implications for practice to embrace the considerable internal knowledge base they already have

within the DET workforce. Specialised knowledge structures and areas of expertise can be enhanced through a living ecologies of practices framework where the interconnections bubble, weave and become enmeshed, strengthening existing practices and creating other new and interdependent relationships. Celebrating and recognising academic achievements could contribute to new practice architectures within DET through new opportunities for *doings* and *sayings*. In this, specialised knowledge bearers can promote their ideas and enable research driven practices to develop and flourish in an environment where evidence based practices should inform any change to existing processes.

6.4.3 Implications for teacher practice

Whilst participants identified many occasions where HDR study influenced their teacher practice, the influences of HDR on practice were challenging to identify without looking back over time. It was clear that connections to teacher practice came through conscious restructuring, and more indirect relationships including incremental and messy reconstructions. The *doings* of HDR often conflicted and collided with personal lives. The challenges impacting on teachers undertaking HDR should be considered against the learning benefits and positive experiences associated with HDR. While there is a recognition that moments of liminality and opportunity to cross thresholds are integral to HDR learning, there is also room for solutions generated by both universities and education department personnel to minimise excessive stress and anxiety resulting through the time pressures of completing HDR study when working full time. Suggestions to support teachers to engage with HDR study will be discussed in policy implications (Section 6.4.4).

Currently, when Queensland teachers undertake further study they are not provided with additional time through work hours so the expectation is that further study will occur in addition to regular teacher work and during personal time. Additionally, further study is not yet supported industrially, and there is no recognition through remuneration in the state schooling system to support those who achieve HDR certification. However, the process of recognising lead and highly accomplished teachers throughout Australia is being introduced at varying stages throughout the different states and territories. Further study may satisfy one aspect of this certification process, however a number of domains require approval in order for teachers to be awarded this classification (AITSL, 2016). In order for teachers and

schools to seriously respect the academic institution that embraces, continues and honours the teacher work in schools within the wider practice of education, significant redirection is required. This can be achieved in the academic sector through a stronger push by universities to capture evidence supporting the worth of their programs. Changes within the Department of Education and Training Queensland sector can be realised through capitalising on the recent policy shift away from curriculum content to teacher efficacy (Ward & Dixon, 2014) and embracing the evidence supporting quality teaching

This study found that HDR time is experienced as circular, and requires a great deal of reading, reformation and reconstruction of ideas. As HDR study exists within cyclical time phases, the disequilibrium of uncertainty and not knowing are often revisited with potential to progress into threshold crossings that transform knowledge into knowing. These are the genuine learning experiences and they take time, structure and an open mindset, promoting a willingness to learn, crossing these thresholds then provides a sense of equilibrium and satisfaction. As teachers become aware of the HDR process and threshold concepts, there is potential for these teachers to acknowledge and embrace a style of professional learning which draws them out of passive receivers of knowledge, respects them as a professional and takes into consideration their prior knowledge and interest areas. Promoting and supporting teachers to undertake further study, especially through HDR pathways has the potential to build an ongoing learning culture of teachers with a strong knowledge of research to inform evidence based practices within our schools.

6.4.4 Policy implications

Policy design and construction often changes in response to societal events, changes in government or research realisations. Suggestions for this research to inform policy would be to:

- a. Provide teachers with the capacity to convert a small component of unused sick leave to study leave. Teachers could then access an element of their already accrued sick leave and convert these hours to study time. Teachers already access leave in this way to support their HDR learning, but through supervisor approval or through covert measures. One suggestion would be to formalise this process and enable teachers to transfer a negotiated and agreed percentage of accumulated sick leave to

study leave. In order to protect the integrity of teachers' sick leave entitlements, this could be limited to enable teachers to transfer only small amounts of their available sick leave in this way (eg maximum 1 week every 2 years).

- b. The only other current alternative for LG6 participants and others like them, was to take leave without pay to undertake study. This has been one solution undertaken by 3 teachers studying within the LG6 cohort in order to finish the HDR study. This research study proposes a different approach to support teachers invested in promoting and improving their own practice. Currently New Zealand offers 75 annual awards to support primary teachers and principals to engage in full-time teacher equivalent study leave for the duration of the course (TeachNZ, 2016). One policy implication from this research would be for the Minister of Education or education department to supply bursaries or scholarships to support teachers willing to undertake HDR study. These fully paid and supported leaves of absence would support teachers to focus on their study and expeditiously complete HDR study. Additionally, schools may be able to sponsor research relevant to that site with findings folded into practice as a result of evidence. The results of these studies could be compiled in a journal supporting teacher work in schools. Applications for teacher study leave (or sabbatical) are currently supported in the Northern Territory (for teachers in remote areas) (Northern Territory Government, 2012) and Victoria (State of Victoria Department of Education and Training, 2015). NSW has a deferred salary scheme for teachers to put aside part of their annual salary over four years to have the fifth year away from their position at a reduced salary (Department of Education and Communities (NSW), N.D.). South Australia has conditions associated with remote service to take one term of paid study leave after 2 years in a promotional role in Aboriginal or Anangu school communities (South Australian Department for Education and Child Development, N.D.). Other states and territories do not currently support paid study leave.
- c. The third recommendation is to support teachers through remuneration and recognition of completed HDR degrees. A stimulus or increase in salary upon completion of the degree and industrially supported study

leave to complete HDR would create an environment where HDR is respected, recognised and acknowledged. This will be an important culture shift in embracing further study within the realm of CPL for teachers.

6.5 LIMITATIONS AND DIRECTIONS FOR FURTHER RESEARCH

While this study addresses a significant gap within research into the relevance of HDR for teachers, its focus has been deliberately limited to providing specific insights from a practice based and participant perspective. What eventuated was an extremely complex and challenging topic to explore within a Masters by research study. It was also limited by a number of elements. This was a small-scale study with a sample size represented by only six participants from one school. The responses represented the collective experiences of six people working as teachers, school leaders and a teacher librarian in a Queensland state primary school whilst also completing HDR study. During the time of the study, two of the participants withdrew from their HDR studies, meaning that the data set became smaller. This thesis is however a particular view, seen from my perspective where as the writer I attempted to capture the experiences and insights of all LG6 participants. Whilst the data in these responses differed between each respondent, and potentially between the different teacher and administrator roles, the LG6 data was considered as a cohort and treated as such within the bounded concept of case study research. A further limitation was that the data collected only represented a period of 3 months in the HDR experience, around confirmation of candidature prior to data collection, as it was necessary to fit within the timeframe of my own study.

As a participant researcher I added valuable internal evidence to the participant responses. As an inescapable component of the situation being studied, I was best suited to gather the data and declare and observe how my world view and values influence my actions and, in turn, interacted in and with the case (Simons, 2009). Also, as a participant researcher I maintain the ability to adapt and select appropriate data to support selected and predetermine findings. This risk was addressed through a meticulous data analysis approach (see Appendix A), which was cross-referenced with supervisors and other LG6 participants for verification. The ethical responsibility to source relevant data was a consideration and obligation in any research study and should not only be seen as a limitation in participant research.

This study supported the notion of responsible participant research in sourcing accurate and relevant data to respond in appropriate ways with relevant information from within the collected data.

There are many possibilities for further study of this topic, that include comparisons of full-time HDR students with part-time HDR students to better understand the stresses of managing part-time study with full-time work and other family and life responsibilities. Additionally, researching the advantages of studying within formally structured cohorts is an area that requires further study. The benefits of HDR study for teachers can be further evidenced through larger studies, understood from the perspective of the HDR student and not measured through evaluating student achievement gain scores.

6.6 SUMMARY

The production of this research has taken place through the conflicting time periods outlined within the literature and subsumed spare time, family holidays, weekends and placed undue expectations on colleagues, supervisors and family. The outcomes have also been significant. An awareness of threshold crossings as they occurred has not only provided solace in times of confusion and turmoil, but also provided an explanatory framework to articulate professional learning to teacher colleagues, school leaders, departmental representatives and political advisors.

Significantly, this research has identified the importance of promoting teachers as inquiry practitioners and as recent education policy is shifting towards a demand for evidence based practice, it is essential that teachers have the research training to understand, articulate and be immersed in and produce research properly. Characteristics of research, including reading, observing, evaluating and experimenting, where the teacher continues and fine-tunes subsequent learning until the meaning of the whole and related parts are understood (Su et al., 2016) should be woven into CPL opportunities. Additionally, teachers who are undertaking the gargantuan task of studying whilst working should be recognised and rewarded, and this should determine and underpin the culture of every school! CPL of this nature is complex, challenging and requires careful planning and support to make it happen.

Problematising and challenging assumed notions about HDR learning and teacher CPL has given me insights as a school leader and informed my own practice.

However, it is important to step back at this final stage and reflect on the last four years of completing HDR study whilst working full time with a young family and respond to the question that first sparked my curiosity to study; “is it worth it?” A capricious “Yes” is the response. Whilst the impost on personal time and family life has been significant, the learning has also been powerful particularly as it has been undertaken over such a long period of time. Now, rather than speak from a position of hierarchy or authority, I better understand alternative viewpoints and reconstruct these to provide a better informed, alternative course of action. The consideration and respect from teacher colleagues when discussing the HDR study has been humbling and a driving force to ensure the study was completed.

The cohort was a really important function particularly the support and camaraderie in the first year of study. The structure of the learnings then changed as the research projects began and took the cohort members off in different individual paths as the supervisor relationships developed and grew. The importance of understanding different time cycles became apparent and helped explain the discomfort being experienced as HDR study time conflicted with other family, work, personal and social times. As the research project explored a range of policy impetus for teachers to undertake further study, an examination of support structures enabling this to occur were theorised. A broader ecological understanding of how professional learning works was problematised and understood to occur in different ways. Three different types of reconstructing were identified and represented in multiple recontexturising layers and different time scales. Professional learning was understood to be complex with the potential for transformative learning to occur particularly when undertaken in a collaborative professional inquiry approach, applicable to the workplace and supported by likeminded peers.

Education is a huge industry and the search for a successful method of producing effective and highly skilled teachers is an international venture. This study has only scratched the surface in determining what effective teaching is, let alone providing the solution for developing and producing effective teachers. The ecologies of practices framework (*Figure 2.5*) helped to represent the complex elements of teaching, and confirmed that it is dependent on many factors. Teachers can undertake CPL or HDR to inform their practice, but no silver bullet exists whereby this practice becomes a simple and streamline process that leads to an

immediate transfer of improved learning to students. It does however make more sense within an *ecologies of practices* framework as teachers become more expert, more adept and more conscious and aware of their threshold crossings, their limitations and ability to be resilient with the liminal moments which inevitable arise, and then pass.

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Appendices

Appendix A

Figure A1. Example of analysis of participant responses identifying reflections at the reconstructive level

| Reflective Reconstructions | | |
|---|---|---|
| | S1PP1f | |
| Why did you decide to undertake your MEd research | What's more, I was also becoming increasingly interested in reading what others had spent time researching and finding out about various trends and emerging influences in education. | Almost in RECONSTRUCTING mode - describing the researcher in practice and able to articulate in broad terms reasons for making the decision to study. |
| | S1PY2d | |
| In what ways have these reasons changed or stayed the same since starting your study? | The research certainly has helped validate my thinking on a number of occasions and supported my decision making so I felt confident in making a considered decision. | RECONSTRUCTING - reflecting on how research has transformed decision making processes |
| | S1PN5c | |
| Describe any significant moments of satisfaction you experienced throughout the study period | Feeling like I was more able to speak with knowledge and expertise on certain topics that I have always been intuitive about. | RECONSTRUCTING - knowledge building-change from intuition to expertise. Threshold crossing |
| | S1PY9d | |
| What did you do to reduce your frustration levels? | This also helped steer us in the right dorection when we could share the workload in searching for information or discovering better or more efficient ways to work. | RECONSTRUCTING - identifying ways the cohort enabled support - discussion, sharing of effective study processes and reducing the workload by sharing resources. 'Steer us in the right direction' describes a gentle but effective support structure. |
| | S1PY10c | |
| What are some new concepts that have informed your professional practice that you have come to understand throughout your MEd Research study? | Much of what effective teachers do is unobservable reflective practive | RECONSTRUCTING - the importance of reflective practice and knowing that it is not clearly evident what effective teachers do |
| | S1PZ10b I now look at educational research with a critical eye and am able to compare and contrast different research presented to me in PDs, meetings and general conversation. | RECONSTRUCTING - actual identity change, describing utilising researching skills in teacher practice. |

Appendix B

Figure B1. Example of initial survey data analysis

| | | First Survey: Comparative Data Analysis - A Master's Degree For Teachers: What is it Worth? | | | | Final (F) | | | | THEMES | |
|---|--|--|---|--|--|---|---|---|---------------------------|---|--|
| Pseudonym years in schools? teacher or admin? | Questions | Luzry (L) | | Middle (M) | | Final (F) | | Analysis | Opportunities/Seis/action | Challenges/ frustrations | |
| | | Administrator | Responses | Teacher | Responses | Teacher | Responses | | | | |
| 1 | Why did you decide to undertake your MEd research study? | a To support the project at school to develop the pedagogical framework and work on TOPS a group of teachers, myself and the principal decided to enrol in a local university. | a The whole staff had been offered the opportunity. | a It was an opportunity which arose out of a research based project at the school to develop our own pedagogical framework. | a Strong link with school work. Research based to support pedagogical framework. | a Financial reasons - the cost of the MEd is covered by QUT/The Federal Government. | a REASONING - purpose to begin study was (5) cost to self. Course sponsored by the federal government. | a Cohort approach, Supporting school based teacher work, cost (free) | | | |
| | | b As the research masters approach was free we decided we would have a go and see what it would be like. What could we lose right? | b While just 6 of us made the decision to proceed, I had seriously considered undertaking higher degree study previously, but had not had the impetus to do so. . | b I saw a huge benefit in doing this as part of a cohesive, supportive group. | b Cohort approach identified as a supportive structure. Cohesive (like-minded, collaborative?) Very important for initial engagement | b Extend myself - something intellectual that will enable me to research an area that I am personally interested in. | b Links to SELF - improving knowledge - intellectual stimulation. Personal interest linked to professional practice? | b Cost (free), unformed decision, Cohort approach (like minded motivated professionals), Supporting school based teacher work | | | |
| | | c Cost as a motivation to study. Signalling element of the unknown of what's ahead. Unformed participants re what is involved to undertake a masters via research. | c This, then, was the right idea at the right time with the right people. | c When we initially talked about it, we discussed the fact that were already doing a lot of research based and this MEd could mirror or support this work. | c REPORTING and RELATING shaping motivation to study. Aligning the work in the Med to the study. | c Group task - we had at school a strong group of teachers/leaders that would undertake the course together. This is important as I felt there would be support from peers during the course. | c Group Learning a motivating factor! "Strong leaders/teachers" reflects a commitment to learning and support from peers Ecologies of practice. | c Supporting school based teacher work, Cohort approach (like minded motivated professionals), | | | |
| | | d As for why I did it by research, that seemed to me to offer the greatest flexibility. I had booked BAULDED indicates a deadline of assignments. | d Why - REASONING research, that seemed to me to offer the greatest flexibility. I had booked BAULDED indicates a deadline of assignments. | d I have been vaguely interested in further study - it is always a matter of timing however, and after you have children, there is always a reason not to do it. | d Not powerfully motivated to study - There is a factor - Children can be a blocker to study. | d Area of interest - due to it being a research Masters, I felt that I would have the freedom to investigate a topic of my own choosing. | d Freedom of choice, not constrained in choices of study, investigate - to engage in teacher learning. | d Research approach, more flexible, personal topics of interest, | | d Time (a consideration), Family challenges | |
| | | e Higher degree research still has these things, but they are more easily negotiated, and structured to suit personal circumstances. | e Skill in REASONING describes the considered decision making in practice. Identifying with SELF | | | | | e Flexibility of research approach to pursue choice of topic | | | |

Appendix C

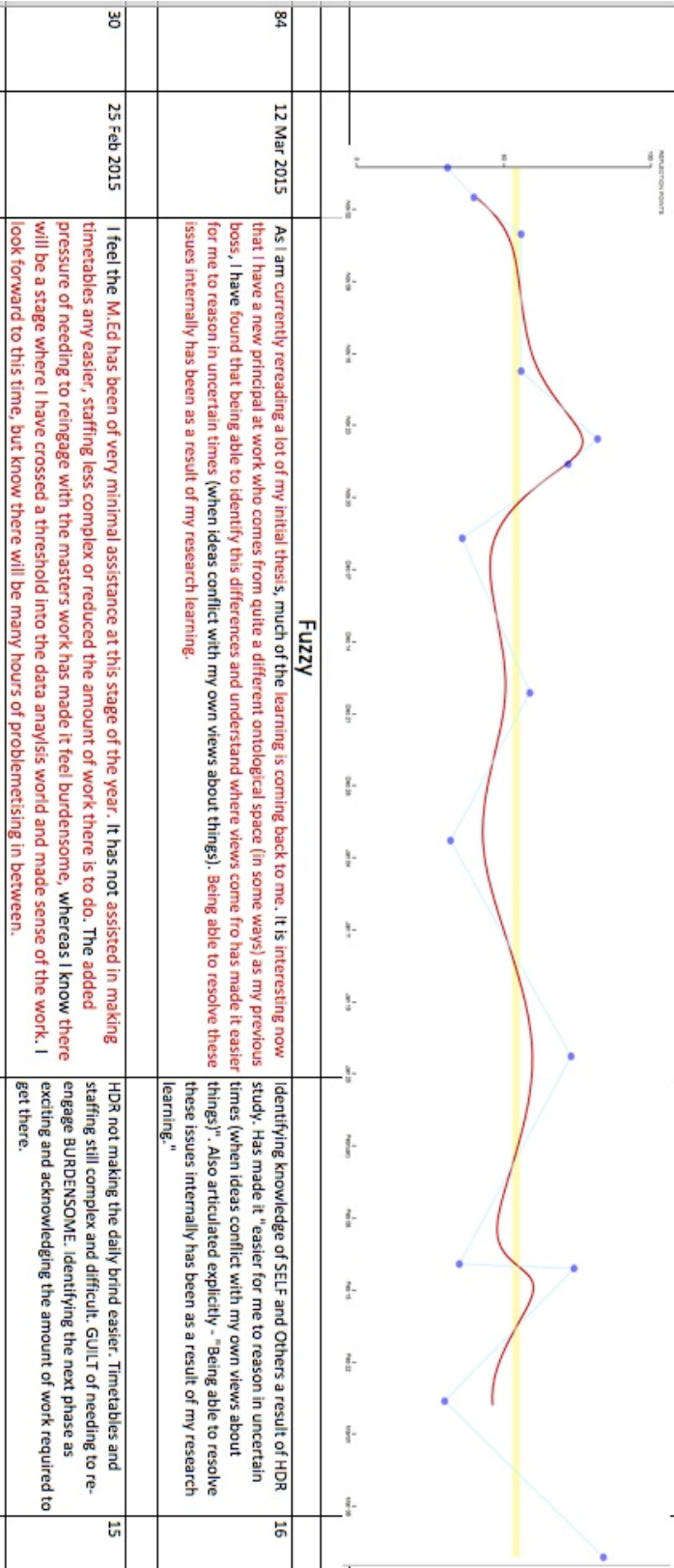
Figure C1. Example of final survey data analysis

Survey 2

| | | Comparative Data Analysis - A Master's Degree For Teachers: What is it Worth? | | | | | |
|-----------|--|---|--|--|---|---|---|
| Pseudonym | years teaching in schools? teacher or administrator? | fuzzy (V) | | pickles (P) | | | |
| | | Administrator | Responses | Administrator | Responses | | |
| Questions | | | | | | | |
| 1 | Please provide the same pseudonym as used in the first survey. | a Fuzzy | | a Pickles | a Natalie | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| 2 | What experiences of working full time as a teacher and studying the Med Research part time have been most significant for you? | a The support of the cohort has been invaluable. This support appears to have changed over time, initially in the first year much of the work could be completed together and in close communication with each other. | REPORTING - COHORT support great support structure which changed over time from close knit and heavy interaction to more individual as study became more individualised. | a The lack of time. This is not that there is not available time, but that everything has to be done quickly. there is little time for reflection and thinking through a decision. | TIME - not allowing time for reflection and decision making | a Having the opportunity to connect with research and understand its significance in the educational arena. | RELATING - research with education. Opportunity implies something of significance with benefit to self. |
| | | b As the research became more individualised it was just good to know people were going through the same challenges. | As research took different pathways it was advantageous to know people were undergoing similar challenges. | b This applies equally to the Med research, the employment role and the little free time available. Everything is compressed. | TIME - busyness of everything - compressed. | b Being exposed to qualitative and quantitative tools and processes for data collection. | REPORTING - learning new ways to collect data. Reference to these as tools and processes (ecologies) |

Appendix D

Figure D1. Example of GoingOK data analysis



Appendix E

Figure E1. Example of initial coding

| Questions | Responses | Analysis |
|--|---|---|
| 1 Please provide the same pseudonym as used in the first survey, or provide one | a Pickles | |
| 2 What experiences of working full time as a teacher and studying the MEd Research part time have been most significant for you? | a The lack of time. This is not that there is not available time, but that everything has to be done quickly, there is little time for reflection and thinking through a decision. b This applies equally to the MEd research, the employment role and the little free time available. Everything is compressed. | TIME - not allowing time for reflection and decision making TIME - busyness of everything; - compressed. |
| 3 Before enrolling in the MEd Research degree, what was your most memorable professional learning experience as a teacher? What made it memorable? | a Winning merit based positions. The role of teaching is such that I cannot imagine a time of being certain about my worth as a teacher or a leader. Everything is contestable. b So, to apply for and win a promotion does offer a sense, however temporary, of knowing that others think you are doing a very good job. c And doing a good job only happens if you are constantly learning. d Equal with this is to watch and be a part of a process that has the whole school working toward, such as we did at Oakleigh with TOPS. That was tiring, but ultimately invigorating. | Winning promotional role a positive (moving out of classroom?) - challenges of both roles. Promotional position - acknowledgement of performing role well. Objective reinforcement. Learning and improvement - change in beliefs, change in practice, change in student learning. REASONING - enjoying participating in whole school change. Exhausting and invigorating. |
| 4 What do you see as the key features of effective and worthwhile professional learning experiences? | a That it is collaborative and part of a process toward the achievement of a group devised and agreed to goal. b Furthermore, such a professional learning experience is based on learning goals rather than performance goals. c So, getting a high mark on the assignment in the MEd course was not as important, as nice as it is, to learning more, and achieving what you wanted to learn. | REASONING - part of a larger process, collaborative in nature. RECONSTRUCTING - reflecting using learnt understandings. How and what you learn rather than how well you perform. Understanding and articulating differences between learning goals and performance (achievement) goals. |