Lived PhD Experiences: Critical Reflections from the Students' Point of View

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A thesis to meet the requirements of the Doctor of Philosophy at Torrens University Australia

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Declaration of Originality

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Ethical Conduct Statement

The research associated with this thesis was conducted in accordance with the National Statement on Ethical Conduct in Human Research (2007).

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Abstract

There is a growing number of PhD students enrolled in Australian universities and yet there are high attrition rates and a decreasing number of permanent or tenured academic roles. Considerable discourse surrounds the purpose of the PhD (Group of Eight, 2013; McAlpine & Norton, 2006) and much less on the PhD experience from current student perspectives. Most research looks at 'discrete' aspects, such as supervision, gender or completion (Seagram, Gould & Pyke, 1998; Carter, Blumenstein, Cook, 2012; Green & Bowden, 2012; Jiranek, 2010). Of the research that focuses on the PhD experience, much is conducted upon completion of PhD study and is reflective—not adequately representing the PhD student, their circumstances or their personal experiences. Furthermore, research during the PhD experience mostly consists of one-off interviews and does not capture the longitudinal experience. This thesis reveals how a diverse cohort of PhD students reported their lived PhD experiences – critical reflections from the students' point of view.

This research did not presume or predetermine a framework. Instead, over a period of three-to-12 months, using a variety of introspective methods, 23 participants reported on their lived experience of being a PhD student. Following an initial thematic analysis, the findings were further analysed using Bandura's (1986) social cognitive and self-efficacy theories. The findings are presented through an adaptation of Bandura's (1997) reciprocal determinism theory model: to first, demonstrate from the students' perspectives the bidirectional effects of the environmental, relational and behavioural dimensions; and second, identify the critical incidents that supported and reduced individual self-efficacy.

This thesis presents the adventure park as a conceptual framework for the participants reported experiences of navigating the challenges encountered, which tested participants' self-efficacy and sense of belonging, towards completion and ontological shift. The thesis concludes by introducing a telescopic lens to view the lived PhD experience as process aimed at developing new knowledge that shifts the individual's way of being.

The originality and contribution to knowledge of the outcomes of this research relate to:

- the methodology adopted in this research
- the process of the PhD
- the outcomes of the PhD.

The PhD experience is individual, based on the perceptions of PhD research and the expectations the individual brings with them. It is the process of being a PhD student and doing the research. It is not about the thesis or the knowledge they are creating; it is the process.

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English is my third written language. Although my command of spoken English is clear, my English written expression is much less clear, as my Supervisors will attest. As I could not defend this thesis orally, as a viva voce, I obtained the services of a professional thesis editor before submitting the thesis for examination. I therefore acknowledge that this thesis was edited professionally by Wendy Monaghan Editing Services, and editorial intervention was restricted to Standards D and E of the *Australian Standards for Editing Practice*.

Sincerely Angele V. Jones

Chapter 1: Introduction

There is evidence to support the changing nature of academia, the growth of the knowledge economy and hence the changing nature of the PhD. Questions arise as to the purpose of the PhD in this 21st century knowledge economy. This introduction commences with a brief overview of the changing nature of academia and the knowledge economy in Australia and the changing nature of the Doctor of Philosophy (PhD). The latter raises some questions around the purpose of the PhD in this changing landscape and the diverse nature of PhD students enrolled in Australian universities. The number and diversity of the PhD student population means that expectations differ regarding what a PhD program of learning will entail and what the outcome will be following the many years to complete a PhD. In this overview, I frequently reference a discussion paper released by the Group of Eight (2013) because of its legitimacy and authority on this topic in the Australian context. Furthermore, it was the release of this discussion paper that cemented my motivation to research the lived experiences of PhD researchers in the Australian context. This followed almost two years spent working on a project funded by the Office of Learning and Teaching to develop a research supervision toolkit for new PhD supervisors. During those two years, I found that there was much attention paid to supervision practices and students' access to discipline cultures and resources but little or no discourse about the PhD experience from the students' perspective. This introductory chapter concludes with an overview of the inductive nature of this research and explains the structure and presentation of the thesis that follows.

1.1 Changing Nature of Academia and the Knowledge Economy

There is growing interest in and an ongoing debate about the nature of the PhD, its outcomes, high attrition rates and long completion times in a changing knowledge economy. In the current knowledge economy in Australia, the PhD is 'contested' (McAlpine & Norton, 2006, p. 4) at a macro, meso and micro level. The PhD is contested both in terms of its purpose and, given its introduction into Australia in the late 1940s, in terms of whether it is delivering the skills and knowledge for a 21st-century knowledge economy. As a result, research into the PhD is not novel. At a macro level, the Bradley Review of Higher Education (2008) identified that for Australia to remain globally competitive the higher education sector must continue to deliver quality education

programs. In response, the Australian Government introduced a number of reforms and initiatives, one of which was funding on the basis of an institution's performance. A key element of this performance is knowledge creation. Ernst & Young's (2012, p. 4) report *University of the Future* contends that the 'higher education sector is undergoing a fundamental transformation' and will need to reconfigure itself in order to remain viable. The knowledge economy has seen not only an increase in and diversity of public and private universities vying and competing for PhD students but also an increase in research output. Some of this is due to the growing student market as well as finite funding and resources.

In 2013, the Group of Eight released a discussion paper that reviewed the changing nature of the PhD from its origins in 19th-century Germany to where it is now—the ultimate of academic qualifications. They reviewed the purpose of the PhD in the 21st century because:

the traditional purpose of a PhD was to provide the training necessary to start on an academic career. This is no longer the case and in some countries as few as five percent of PhD graduates find permanent academic positions. Another potential career pathway is as a researcher in industry. However, many PhD graduates find themselves in non-academic, non-research positions. (p. 5)

In a study investigating the employment designations of doctoral students during the period 2000–2007, Neumann and Tan (2011, p. 601) found that around half of doctoral students they surveyed were considering taking up an academic career upon completion. While it is still an 'implicit assumption that the doctorate is preparation for an academic career' (p. 601), they later found that more than half of these PhD graduates were employed outside academia despite intentions to work within academia, and the number of graduates taking up academia as a profession has been steadily declining since the mid-1990s. This is supported by Norton and Cherastidtham (2014) in their report *Mapping Australian Higher Education 2014–2015*, where they report that the number of PhD students aspiring towards an academic role is as high as 60 per cent, although 'fewer see this as a realistic goal'(p. 34).

Two reasons for the low numbers of PhD graduates taking up academic roles are the reduced number of permanent academic roles and the increasing casualisation of the academic workforce. For example, in 2010, approximately 67,000 academics were employed as casual academics (Norton and Cherastidtham, 2014 p.32 citing Department of Education (2013c) data), and approximately 'half of casually employed academics are also students, mostly in PhD programs' (Norton and Cherastidtham, 2014 p. 34). In 2013, there were 7,800 PhD completions in Australia but a net increase of only '1,000 on-going or fixed term contract roles available' (Norton & Cherastidtham, 2014, p. 34 citing Department of Education, 2014). This means that approximately 6,800 PhD graduates needed to find work elsewhere. It is possible that some may already have been occupying academic roles while completing their PhD as part of their university's requirement for upskilling and qualification requirements, and other graduates may have been working full time in other professional roles. Nevertheless, given that 60 per cent aspire to become academics, this suggests a large shortfall between the numbers graduating and the number of academic roles available.

For universities, it is cheaper to hire casual academics than to employ fixed-term or permanent academics all year round. With the high number of PhD students aspiring to become academics, it is of little surprise that half of all casually employed academics are PhD students. For universities, there are considerable benefits to having high numbers of PhD students, even if they do not all follow the traditional pathway to an academic career. PhD students provide universities with over 57 per cent of their published research, new ideas and innovation (Group of Eight, 2013, p. 33) and are a cheap form of labour for research output. Park (2005) argues that 'for the nation, the obvious benefits of an active community of scholars engaged in doctoral level research include enhanced creativity and innovation, and the development of intellectual capital and knowledge transfer, which drive the knowledge economy and are engines of the growth of cultural capital' (p. 191).

However, universities are no longer the only institutions contributing to the knowledge economy. For example, public and private cooperative research centres (CRCs) are increasingly engaging with research and development in industry (Harman, 2002, p. 470), and their numbers have been increasing since their inception in 1991. Harman (2002) researched the experiences of doctoral students working in CRCs and found that CRC-engaged PhD students fare better in terms of skills development and future career

prospects outside academia and that significantly low numbers 'would opt for a research career or a career in academe' (p. 490). Although these PhD students appear to have useful and employable research skills compared to non CRC-engaged PhD students, their desire not to continue with a research career suggests a loss to the public purse. However, with this thesis, I have not pursued this line of enquiry, because none of the participants in my research were engaged in CRCs or in non-university projects.

The evidence that many PhD graduates are taking up roles in industry emphasises the need for the PhD to develop additional and different skills. Some of these skills relate broadly to research management and communication skills and the ability to work across discipline boundaries. This could, however, create a tension between the need for 'specialisation' that a PhD requires and the need for more 'general skills and broader understanding' (Group of Eight, 2013, p. 5) that the broader knowledge economy is calling for. In response, Park (2005) calls for a 'wholesale revision of assumptions and expectations about what the PhD is' (p. 189). He identifies the drivers for the changing nature of the doctorate to be the 'emphasis on skills and training, submission rates and quality of supervision, changes in the examination of the thesis, and the introduction of national benchmarking' (p. 189).

1.2 Changing Nature of the PhD –Is the PhD Keeping Up with 21st-Century Knowledge Requirements?

One response to keep up with the changing nature (or requirements) of the knowledge economy has been the introduction of new variations of the doctoral degree to include professional doctorates. In Australia, the Australian Qualifications Framework (AQF) classifies the PhD (research) and the professional doctorate as AQF Level 10 achievement. Level 10 is the highest level of academic achievement. The Australian model of doctoral education is closely based on the United Kingdom (UK) model, which takes the 'form of a research apprenticeship in which individual students work closely with a nominated supervisor' (Group of Eight, 2013, p. 10). In Australia, however, we have the lowest entry levels for a PhD. Here, the minimum qualification is a bachelor's degree with honours, whereas in Europe and the United States (US), students are required to have completed a master's degree as well as a bachelor's degree.

A higher education is attributed with a higher lifelong earning capacity, a lower probability of unemployment and the 'more intangible benefits of personal development' (Group of Eight, 2013, p. 17). PhD qualifications add to a skilled workforce, although the increase in PhD graduates compared with the number of available academic roles means that many are left vying for positions outside academia for which they are often deemed overqualified or overspecialised. For those who do enter academia, the work is notoriously poorly paid compared with the public and private sectors (Group of Eight, 2013).

Nevertheless, there is a general perception that PhD graduates 'add value and opportunity' to the public and private sector as well to as their own lives (Group of Eight, 2013, p. 22). The PhD is associated with developing the thinkers, leaders, business people and academics of the future. It is believed that research and new knowledge brings significant benefits to society. The Australian Council of Learned Academies 2016 Review of Australia's Research Training System is clear that quality higher degree by research training will deliver a highly qualified workforce and thereby support Australia's 'future economic strength' (McGagh et al., 2016, p. vii) However, there is also an increasing cost associated with PhD students. PhD programs are often free, and some PhD students receive scholarships. This funding is provided through the Research Training Scheme (RTS), and the Group of Eight (2013) cite evidence that 'the RTS underfunds research training costs by almost 30 per cent' (p. 21). It is worth noting again that universities do benefit from the services of PhD students, who provide over 57 per cent of research output, new ideas and innovation, making them an exceptionally cheap form of labour. The value that PhD students bring to universities is reinforced by Park (2005), who argues that 'for the university, PhD students are "the army of research 'ants", as Mitchell (2002) puts it, which helps to keep the research mission forward whilst many academics are overloaded with responsibilities' (p. 190). Some PhD students, perhaps as many as 50 per cent, will become the academics of the future, but in the meantime, they are the 'stewards of a discipline (Jackson 2003) with a responsibility to keep it not just alive, but intellectually vibrant' (Park, 2005, p. 191).

1.3 Purpose of the PhD

It is therefore of little surprise that the purpose of the PhD is generally in contention. It is mostly agreed that one purpose of the PhD is new knowledge creation that is relatively narrow in focus, detailed and specialised (Group of Eight, 2013, p. 19). This suggests a product view of knowledge creation, where the 'tangible product is the thesis' (Park, 2005, p. 198), although the magnitude of that product in terms of an original piece of research

may be somewhat reduced because of the timeframe and solitary nature of the undertaking. The speed at which new knowledge is created with 21st-century innovation and technology supports Mullins and Kiley's (2002, p. 369) argument that the 'PhD is not a Nobel Prize'. We are increasingly seeing the focus 'switch from content to competence' (Park, 2005, p. 199). This switch is 'driven by a shift in emphasis towards the PhD experience for the student and away from simply the product, the thesis' (Park, 2005, p. 191). This is because, in many cases, the product is a short shelf-life product (Group of Eight, 2013) due to the rapidly expanding development of new knowledge through innovation and technology. The PhD is perceived to also have another purpose-that is, the development of an independent researcher. This is possibly because the traditional PhD, by its very nature, involves the individual focusing on a specific area of knowledge over an extended period. This makes the experience of becoming an independent researcher personalised, even 'bespoke, individual and intimate' (Group of Eight, 2013, p. 18). Nevertheless, employers outside academia report that PhD graduates have low levels of written and oral communication skills and that their knowledge is too narrow (Group of Eight, 2013). This may be because the nature of the PhD requires students to write academically and adhere to stringent academic practices, a process that many PhD students find challenging to master, but once mastered find that they are not understood in the knowledge economy that they set out to serve. Perhaps a further purpose of the PhD might be the ability to think clearly; assess, collect and analyse situations and evidence; and use personal agency to progress the aim or project.

The push to develop skills to contribute to the economic growth of the nation in Australia calls on graduates to develop research and process-oriented skills that are transferable from the PhD to the workplace. Mowbray and Halse (2010), in an attempt to find a 'bottom-up perspective into the skills question' (p. 653), investigated the skills that the PhD process develops by conducting in-depth interviews with 20 final-year PhD students at an Australian university. They identified seven broad areas or categories of skills development, which generally fell into the areas prescribed by university, government policy advisors, and business and industry, except for 'personal resourcefulness' and personal and social capacities (p. 656). They concluded that the purpose of the PhD is 'the acquisition of an interrelated suite of intellectual virtues' (p. 662).

On a similar note, Platow (2012, p. 115) found a clear and positive relationship between the PhD-acquired graduate attributes and the level of productivity after completion, whereas Edwards, Radloff & Coates (2009) suggest that the value of the PhD is to develop academic and employability skills as either a 'formal requirement or important for the skills and knowledge needed in their jobs' (p. 44). A key finding and recommendation by McGath et al (2016, p. xiii) in their *Review of Australia's Research Training System* is the need for the HDR training to focus on developing transferable skills that are 'flexible and candidate directed'. Edwards et al (2009) report also finds that people with doctoral qualification have low levels of unemployment however it does not confirm that a PhD makes a graduate more employable or if this is due to the relatively low numbers of people with doctoral qualifications. Nevertheless, Edwards et al. (2009) appear optimistic, suggesting that demand projections indicate growth of 'about 50 per cent between 2007 and 2020' (p. 56) for doctoral-qualified personnel.

1.4 Changing Nature of PhD Students

The number of PhD students enrolled in Australian universities is growing. The number has risen from 10,000 in 1979 to 62,471 in 2013 (Norton & Cherastidtham, 2014). the of According to Department Education and Training (Website https://docs.education.gov.au/node/35987) in 2013 there were 7,787 Doctorate by Research completions in Australia (Department of Education). While the Group of Eight (2013, p.9) reported that during the period 2000 to 2010 the number of completions 'increased from 3,793 to 6,053 per year', they report that the growth of doctoral graduates was 'greater than the growth in teaching and research and research only staff numbers.' Along with this growing number has come diversity in 'age, the growing proportion of part-time students, gender, ethnicity, nationality, background experience, other work commitments, personal values and the path that has led them to work for a PhD' (Group of Eight, 2013, p. 5).

In some disciplines, PhD students are getting older. In the 21st century, there are more options available and greater expectations for people to upskill and to engage in ongoing personal and professional development and lifelong learning. With an increasing number of students, many universities are opening additional opportunities and programs for study. It is now not unusual for someone in their late fifties to undertake a postgraduate course or program for career progress and self-actualisation (Webb, 2010). The increasing

availability of both fee-paying and non-fee-paying programs means that people take on postgraduate doctoral research because they can. In terms of gender equality, in Australia, there are now overall higher numbers of females than males enrolled as undergraduate and postgraduate students (Norton & Cherastidtham, 2014). Notwithstanding the growing and changing nature of Australia's PhD student population, McGagh et at. (2016) highlight that engagement with HDR training by our Indigenous people remains low. In Australia, there is growth in the number of international students, in part due to increased mobility, the reputation of Australian higher education and the relative ease with which some international students can come to Australia to study, compared with other countries, such as the United States. International PhD students as a proportion of PhD students in Australia has increased from 21 per cent in 2002 to 37 per cent in 2011 (Group of Eight, 2013, p. 18). There has been continuous growth in the number of PhD students enrolled on a part-time basis, and approximately 50 per cent of all PhD students are employed full time. These factors herald the potential for significantly different perceptions and expectations based on the individual's background and trajectory.

Many PhD students bring extensive professional and work experience to their PhD experience. Some may have experience and expertise in their field beyond that of their PhD supervisors. Others may have roles and responsibilities that conflict with their role as a PhD student. Additionally, many will be returning to higher education after a considerable time lapse. For those from diverse cultural and ethnic backgrounds, their perceptions and expectations of being a PhD student and of what research entails may vary from their experience of the Australian or western model of higher education in which they find themselves. Notwithstanding other values and preferences, such as around work-life balance or the use technology, such a diverse cohort of PhD students bring enormous diversity to the PhD experience, and the impact this may have on the university and supervisors needs consideration. Already, we are starting to see that the broader context in which the PhD student's experiences are set is causing tensions (Beauchamp, Jazvac-Martek & McAlpine, 2009). McAlpine and Norton (2006) set out to develop an integrative framework to illustrate how the supervisor-student relationship is nested within societal, institutional and departmental contexts, while Lee (2009, p. 13) found that the 'influences on the doctoral student are difficult to identify' and that we require a model to 'disentangle' the influences on the student's experience.

1.5 Perceptions and Expectations

The size and diversity of the PhD student population means there are differing expectations about not only the nature of the PhD program of learning but also the eventual outcome following the many years required to complete the PhD. Given that approximately 60 per cent of PhD students aspire to an academic role (Norton & Cherastidtham, 2014), the outcome, for many, may be establishing a role in academia and 'a licence to teach at degree level and an apprenticeship in "proper" academic research' (Park, 2005, p. 190). Others may aspire to improving their opportunities in the job market and attaining higher earnings. However, some are questioning whether students' expectations about the value of the PhD are reasonable or realistic (Group of Eight, 2013), suggesting that from the perspective of supply and demand, the expectation of earning higher incomes may be unrealistic. One argument is that employers have more choice and therefore do not need to pay high wages or salaries to a person with a PhD. This is particularly the case outside academia, where PhD graduates have been viewed as having too narrow a knowledge base and as potentially lacking industry-relevant writing and communication skills and workplace experience. In fact, in their report, the Group of Eight (2013, p. 30) asked, 'Does a PhD broaden or narrow employment opportunities?' This raises the question: Do universities provide PhD students with 'realistic information about the opportunity costs of doing a PhD and the employment opportunities it will or will not create' (Group of Eight, 2013, p. 42)?

Students' perceptions and expectations of the PhD may involve more than the credentials for career, employment and improved income. Self-actualisation and ongoing personal and professional development are also valid. Many PhD students, particularly those studying part time, are already in a career and are undertaking the PhD for ongoing professional and personal development. Other reasons for undertaking the PhD may be what the Group of Eight (2013) called 'more pedestrian'—while waiting for other opportunities to come along or as more of an 'exploratory career stage, not a definitive first step to a research career' (p. 42). For international students, the PhD provides an 'academic passport with international reciprocity' (Park, 2005, p. 190), although, for some international PhD students, the opportunity to study in Australia is also their passport to leave their country and potentially resettle. There are clearly multiple perceptions and expectations of the PhD and what it will provide, and these are influenced by the diverse nature of the PhD population.

For many students, there is a 'lack of understanding' about the purpose of the PhD (Park, 2005, p. 191). Pre-existing perceptions and uninformed expectations will have an impact on their lived experience, the quality of their learning experience, their skill and knowledge development, and their time to completion, and may possibly lead to attrition. To address the potential of a lack of understanding, McGagh et al. (2010, p. xi) recommends higher education providers have 'duty of care' to inform potential PhD students on the nature of the PhD and its potential outcomes prior to enrolment. Communities and societies have changed considerably since the first Australian PhD program commenced in the late 1940s. These changes include not only the PhD environment into which students enter but also the nature of the students. Given these changes, what will be the experience of completing the PhD in its existing format?

1.6 Why Me, Why Now?

At the start of this doctoral research in mid-2013, I was in the final phases of a project funded by the Office of Learning and Teaching to develop a research supervision toolkit for new PhD supervisors. As the project coordinator, in collaboration with senior academics from across five Australian universities, I had spent close to two and a half years researching and developing tools to support supervisors new to supervising. The project highlighted the intense focus on the part of universities and the literature, at that time, on the role and responsibilities of the supervisor, doctoral pedagogy and the role of the institutions. Much effort was spent conceptualising good supervision practice. An online toolkit was developed, underpinned by the findings of a national survey and interviews at five Australian universities with early- mid- and established-career supervisors and in consultation with an independent advisory committee.

The project's research findings highlight the diversity of supervision practices, based in part on the research discipline, the institution, and the supervisor's personal predisposition and experience—but also on the supervisor's personal experience of being supervised. The findings also highlight the intense nature that the supervisor–student relationship can take, with some supervisors surveyed and interviewed confessing their frustration and confusion. Many others expressed how they wished they could receive feedback from their students about their experience of being supervised.

Working on this project revealed that, in response to the nature of the PhD, much attention was paid to supervision practices and students' access to discipline cultures and resources, but there was little discourse from the students' perspective about the PhD experience itself. My work on the supervision project highlighted that the motivation for undertaking a PhD was unclear and, as Neumann (2003) found, there was a 'growing pressure for the PhD to be everything to everybody' (p. 4).

What we required was a clearer understanding of the nature of the PhD experience, rather than focusing time and energy on specific support mechanisms with little or no proof of their relevance. I noted that there was a lack of comprehensive 'evidence available on the doctoral experience from the students' point of view' (Leonard, Metcalfe, Becker & Evans, 2006, p. 30), with which to garner the appropriate support mechanisms for these students.

Several features of the existing research motivated me to undertake this research. First, while there was considerable discourse around the PhD from an institutional perspective (McAlpine & Norton, 2006), there was significantly less discussion on the PhD experience from the current students' perspectives, with most research looking at 'discrete aspects', such as gender or completion (Seagram, Gould & Pyke, 1998 Jiranek, 2010) and supervision. An examination of some of the existing literature on the PhD experience highlighted that students were affected by a variety of issues within and external to the contemporary higher education context.

Second, recent Australian studies that have examined PhD students' experiences have been in the past tense, not as the experiences are occurring, have used a variety of methods for data collection. For instance, Australian universities have increasingly used the Postgraduate Research Experience Questionnaire to capture the student's experience and satisfaction level. However, as Pearson, Cumming, Evans, Macauley & Ryland (2011) noted, these studies are conducted upon completion of study and are reflective, and thus do not adequately represent the PhD student, their circumstances and their personal experiences at the time that they occur (Pearson et al., 2011). Much of the research was based on a set of predefined questions. Of note within many of the studies reviewed was the call for further research into the 'doctoral experience from the student's point of view' (e.g., Leonard et al., 2006, p. 30). In response to what Ward (2013) found is the silence of students' voices, Ward focused her thesis on PhD students' experiences through a collection of blogs focusing on 'the liminal space that HDR students occupy in academia, and the accidental nature of the learning that occurs during candidature' (p. 5).

Much of the existing literature on the PhD experience appears to have focused on the nature of the supervision, the discipline or the institutional context, although there were some exceptions. For example, in an Australian context, Webb (2010) investigated the interplay between doctoral education and familial relationships for mid- and late-career academics. Cumming (2007) analysed what candidates do and how they operate in a variety of disciplinary, employment and other contexts into a broader concept of the doctoral enterprise to help understand the complexity, diversity and particularity of this phenomenon. Another recent example is Jazvac-Martek's (2009) doctoral dissertation, a longitudinal investigation into the emerging identifies at the heart of the doctoral pursuit.

My conclusion was that the knowledge economy and prospective PhD students would benefit from understanding the nature of students' lived experiences of the PhD from the perspective of the students themselves.

1.7 Lived Experiences of the PhD Student in this Knowledge Economy

It is the aim of this thesis to reveal how a diverse cohort of current PhD researchers reported on their lived experience. The objective of this research was to map the critical incidents and issues that a diverse cohort of PhD students experienced in the current Australian higher education context. This research took an inductive approach to examine the PhD phenomena from the perspective of the students and not within a predetermined framework.

The research question was 'What is the lived experience of a PhD student in Australia?' This question was supported by the following constituent questions, which helped to flesh out the detail:

- How would a diverse cohort of current PhD researchers choose to report on their lived experience?
- Are there critical incidents that the participant encounters?
- What impacts do these experiences and critical incidents have on the participants' ability to successfully complete their PhD in a timely manner?
- How do these experiences and critical incidents affect the participants' being?

The original contribution of this thesis to Australian research is the PhD experience for a diverse cohort of current PhD students during their studies, rather than retrospectively. In addition, this research goes some way to inform how the changing nature of the PhD and pre-existing perceptions and expectations of the PhD have an impact on the lived experience. This research goes beyond identifying the present-day issues; it reveals how participants manage their ongoing progress in this changing and uncertain landscape. This knowledge will not only inform and better prepare future PhD students, supervisory teams and current PhD students, but also establish what the outcome of being a PhD student is beyond the skills and knowledge debate.

1.7.1 Some Key Terms

In this thesis, I refer to the research participants as 'PhD students' and not as 'PhD candidates'. In doing so, I acknowledge that they are researchers-in-the-making in various disciplines and in different phases of their PhD. Consequently, I also interchange the various terms commonly used, such as doctoral student, doctoral candidate, PhD student and PhD candidate in the existing literature. By doing so, I acknowledge that they bring a range of academic, professional and life skills as well as knowledge and experiences to the PhD. The term *PhD researcher* acknowledges the individuality and complexity of their lived PhD experience.

In this thesis, I use Cumming's (2007; 2010) term 'the doctoral enterprise' to encapsulate the integrative nature of 'contemporary doctoral practices and arrangements as mutually constituted and continuously evolving' (2010, p. 26). By encapsulating the full range of doctoral and PhD programs that the participants were engaged in, the term *doctoral enterprise* avoids the need to define each program individually. In addition, it captures what Becher and Trowler (2001) describe as the academic landscape that consists of tribes and territories. The term *landscape* provides a metaphorical view of an environment that varies depending on where one is situated.

1.8 Thesis Overview

The structure of this thesis is designed to take the reader on a journey through my process and my experience of conducting and writing up this research. The style and structure of this thesis is somewhat non-traditional. The structure reflects the nature of the participants' narratives and puts the participants' voices at the forefront. Throughout each chapter, I quote participants verbatim. In doing so, I am giving voice to the participants' lived experience, because this thesis is about how participants chose to report on their lived experience and what was important to them.

As an inductive exploratory study into how the participants would choose to report on their lived experience, the literature review conducted at the start of this research was preliminary. That preliminary review provided information about the approaches others had taken to researching the PhD experience and motivated the inductive approach used in this research. This thesis then contains an in-depth discussion of the relevant literature at the end of each chapter, based on the themes discussed. Although this approach is not traditional, it enables a more detailed and focused analysis of the themes under discussion. There is an additional reason for this approach: inductive research generally indicates and involves the unfolding of the research design as it occurs. Each chapter of the thesis then concludes with the identified findings and their contribution to that particular theme.

The conceptual framework is introduced in Chapter 2, where I use the metaphor of an adventure park to illustrate the nature of the lived experience from the participant's perspective. In this space, each participant has their own individual challenge course to complete within a time phase. However, once in this space, their principal aim is to move through and complete their personal challenge course, the nature of which they are not aware at the start. How they complete their personal challenges is up to them, although they can call on the support of their guide. Only when they have completed their personal challenge course with the approval of the gatekeepers can they successfully exit. It is a space that challenges their existing way of being and knowing, but they are not alone, as it is inhabited by others engaged in their own challenge course. Although free to leave at any time to visit those on the outside, the adventure park becomes the liminal space that participants' reported experiences of navigating the challenges encountered, which tested participants' self-efficacy and sense of belonging, towards completion and their ontological shift.

In Chapter 3, I detail how the research methodology for this research project was initiated, tested and implemented. While it details the methodology used, it espouses an annotated

and iterative process. Given the iterative nature, I do refer at times in Chapter 3 to the findings that progressed the methodology as it evolved over time. Chapter 3 includes a first-person discussion of how this research is nuanced from a constructivist perspective and my experience of researching the lived experiences of PhD researchers while being a PhD researcher myself. It also includes reflexive notes about my role in this research and my engagement with the participants over a period of three to 12 months. The inductive approach of the research meant there was no preconceived conceptual framework to test or guide the data analysis and findings. Consequently, the methodology chapter includes a detailed discussion of the data analysis process and a discussion and identification of social learning theories to accommodate the interdependent nature of the themes identified. The key theme identified was participants' desire for forward momentum and progress and their use of agency to manage that process. In the narratives of their lived experience, participants rarely reported on actions related to conducting their research. Rather, they reported on their experience of being a PhD researcher. Bandura's (1977, 1978) theory of self-efficacy and theory of reciprocal determinism enabled me to integrate the qualitative data and the thematic analysis to frame the interdependency of the findings.

The findings and discussion chapters that follow are set out based on Bandura's (1978) reciprocal determinism. These include environmental, relational and behavioural dimensions. Chapters 4 and 5 discuss the environmental dimension. Chapter 4, titled 'Environment: A Phase of Being in a Liminal Space', presents and discusses the uncertainty, the perceived lack of structure and the experience of being stuck in this weird existence for a time phase. Chapter 5, titled 'Forward Momentum, Stalling and Procrastinating in a Liminal Space' reviews the things reported to get in the way, the physiological impacts and the attempts to find balance while navigating the challenges of being in a liminal space. The relational dimension is discussed in Chapters 6, 7 and 8. Chapter 6 introduces family, friends and acquaintances. It reviews personal community perceptions, the participants' sometimes-divided sense of belonging and the coping strategies they put into place. Although I did not deliberately set out to research supervision experiences, participants' narratives frequently shared their perceptions and expectations of this relationship. Chapter 7 presents and discusses the importance of the supervisory relationship and the initial expectation that the supervisor will be a guide and the shifting expectations as participants develop efficacy. Chapter 8, titled 'Other People on the Inside', identifies the importance of others also engaged in the PhD enterprise for forward momentum and progress. Irrespective of these others, Chapter 8 reviews opting-in and opting-out behaviours and introduces the concept of the communita as a safe place until the liminal space is safely exited. In Chapter 9, which concludes this thesis, I summarise the key findings, draw out the overall conclusion based on the data and the overarching questions posed and make recommendations for future research.

1.9 Contributions of this Thesis

The originality and contribution to knowledge of the outcomes of this research relate to:

- the methodology developed and adopted in this research is one of the contributions to knowledge
- PhD as a process of becoming. The PhD experience is individual, based on the perceptions of PhD research and the expectations the individual brings with them. Being a PhD student not about their research
- the outcomes of the PhD is a shifting ontology

1.10 Conclusion

This introductory chapter has placed this thesis into the context of the 21st-century knowledge economy and the contested purpose and nature of the PhD in this environment. It has drawn on the Group of Eight's 2013 discussion paper on the changing face of the PhD, which contextualises this discussion in the Australian context in which this thesis is grounded. I have also disclosed what motivated me to take a student-centred approach on the lived experience of being a PhD researcher—that is, to balance the attention that has to date been paid to other elements of the PhD, such as supervision and research disciplines. In addition, an outline of the thesis has alerted the reader to the somewhat non-traditional structure of this thesis, a structure intentionally chosen to reflect the nature of the participants' narratives and to put the participants' voices at the forefront.

Chapter 2: The Adventure Park

This chapter introduces the metaphor of the adventure park as a conceptual framework to accommodate the reciprocal nature of the themes identified in the data analysis chapters. The adventure park metaphor highlights the interrelationship between the environment, the relational influence of others on the inside and those on the outside, and the behaviours and actions that participants engaged with in order to navigate being in this space for a time phase. The adventure park is an apt metaphor for the participants' reported experiences of navigating this space towards completion and ontological shift, which tested participants' self-efficacy and authenticity beliefs.

2.1 What Others Have Said

Metaphors to describe the PhD experience abound, and the PhD experience as a journey is the most prevalent. The experience of doing a PhD has been described as travelling from one point to another to become an expert, or craftsman (Guthrie, 2007), in your area of expertise. The literature uses metaphors that give a sense of perpetual motion, or forward momentum, of a journey during which one must traverse the height of mountains, the breadth of valleys and the depths of the rivers along the way. Other metaphors include the PhD as a quest (McCullough, 2013) touring a desert (Chapman-Hoult, 2009, p. 21) and navigating dark unchartered territory (Gopaul, 2015, p. 23) and 'pioneer frontiers' (Gopaul, 2015, p. 24). Body metaphors include feelings such as 'gestation and delivery' (Haynes, 2009, p. 27) and the sense of being an apprentice (Cumming, 2010; Guthrie, 2007; Hasrati, 2005; Hemer, 2012; McCullough, 2013). Although some metaphors could be perceived as melodramatic, they contextualise an experience in terms of events and experiences to which others can relate. I have chosen to present my findings within the conceptual framework of an adventure park as both a space and a phase that PhD students inhabit. Figure 2.1 The Adventure Park or Liminal Space illustrates the PhD experience as being in an adventure park, which they share with others on the inside and a guide who looms, initially, large; while those on the outside are waiting for them. In this environment they are faced with uncertainty, a lack of structure and a range of challenges they will need to complete during a time phase to make it through the narrow exit.

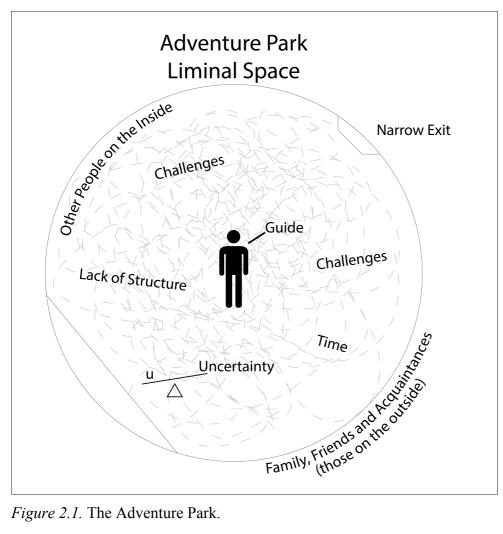


Figure 2.1. The Adventure Park.

2.2 A Conceptual Framework

The adventure park is the liminal space that PhD students enter when starting their PhD. Reference to liminality has been explored in the PhD literature that challenges the status quo. Like other researchers (e.g., Keefer, 2015; Keefer, Wisker and Kiley, 2015; Kiley, 2009; Land, 2014 Pack, 2009; Purdy and Walker, 2013; Trafford and Leshem, 2009; Ward, 2013), I too turned to Victor Turner's (2008 p.91) definition of 'liminality' as a transition of self and status of identity to describe the PhD experience as a rite of passage. Grounded in anthropology, liminality heralds a rite of passage through uncertain terrain and a time during which we remove and distance ourselves from friends and family (Smith, 2009) to attain a transformed self. During the transition, time appears to slow and the existential world time to tick over at a faster pace. The liminal phase has an ontological perspective on the researcher as a condition of observing their own practice.

In this adventure park, the PhD student encounters unfamiliar structures and expectations; in fact, much of what happens and what they do is boundless and unknown. They do know, however, that they will be challenged to produce new knowledge in a given field within a finite time on their own with the guidance of a supervisor. In this liminal space, they are neither who they were before nor yet who they are going to be (Turner, 1969). Accepted as part of the ritual of PhD attainment, the adventure park presents an unknown environment; what will be encountered in it is often unclear and the actions required implicit. There is, however, much excitement and anticipation at entering. Rather like a child entering an actual adventure playground, the participants in my research entered with a level of expectation about the experiences that they would encounter. Even with the best-laid plans (Ward, 2013), the nature of their progression through the phases of their PhD was unknown because, by its very nature, a PhD is to uncover an unknown, develop new knowledge or examine a subject in a way that has not before been done. How they individually would engage with the experience was also somewhat of an unknown. Although participants brought extensive life and academic experience, the PhD challenged them in ways they were at times unfamiliar with, and they were frequently unaware of what the next challenge would bring. They found that their kit of experiential resources did not contain all the resources required to deal with the challenges they encountered. This essentially brought into question their very way of being and knowing.

As sociocultural beings, much of what the participants knew about the PhD experience was influenced by the experiences of others (Brook, Catlin, DeLuca, Doe, et al., 2010; Holbrook, Shaw, Scevak, Bourke, et al., 2014). Perceptions and expectations grounded in second-hand experiences remain the perceptions and expectations of others. Often, shared experiences are post-reflective, by which stage the lived experience has been assimilated and contextualised. Personal lived experiences, by contrast, are bound and affected by the individual's personal nature, where circumstances, experiences and the expectations and perceptions of what that experience will be like and what the outcome will be are personally interpreted. The effect of the personal, then, not only shaped how the participants experienced their PhD but also how they individually engaged with the experience and how they critically reflected on their actions and behaviours in navigating their own way through the experience.

As when entering an adventure park, the participants knew they would be challenged to cover new or unfamiliar terrain. Nevertheless, the challenge of becoming validated, or of being academically authenticated, drove them to overcome any obstacles. Participants reported knowing there would be times of exhilaration and uncertainty, and for some, this challenge was the reason they entered the PhD program. Others, however, entered this space for the credentials—the 'passport'—to pursue future opportunities and obtain the necessary credibility. The adventure park represents the space of being caught in liminality, a ritual experience that we must go through to attain a certain status or transformation towards the next point of our life journey. Status comes with the completion of the PhD, but transformation is the belonging, validation and authentication.

Metaphorically, this adventure park is also the PhD space, which is cordoned off from personal lives and personal communities by a rather low, rickety picket fence. Being in this space metaphorically detaches PhD students from family, friends and acquaintances not engaged in the PhD process but with whom they remain in contact. While free to leave through a side exit at any time to visit those on the outside, the PhD students are nevertheless contained within this space until they either successfully complete the PhD program or decide to leave. There are a number of entry and exit points, but there is only one final exit gate that can be used only once—when they have completed their own challenge course. Bureaucratic gatekeepers grant leave passes and occasionally ignore brief exits, but leaving through the final exit gate requires all challenges to have been successfully navigated and completed, and transformation to have been achieved.

Despite some rules and regulations, there is little structure, pedagogy or guidance on *how* to move forward once inside the adventure park (Ward, 2013). The freedom to try out new ideas and concepts, which is initially welcomed, is soon displaced. Participants in this research soon found that their established ways of knowing and being were challenged.

This flux, flexibility, is great for a while. But, damn, it can be hard to maintain a happy existence without much stability. But we are the only ones who can change it. Onward and upward! (AM, 22nd March)

Others in the adventure park included supervisors, other academics and other PhD researchers on their own challenge course. Being in this phase meant the participants were frequently unaware of what was next, which often resulted in a heightened sense of

uncertainty and a feeling of being stuck before overcoming one challenge (Kiley & Wisker, 2009) and moving on to the next. Many found there was no-one to be accountable to except themselves and maybe their guide—the supervisor—but depending on the supervisor, the relationship with the supervisor, and the challenge encountered, this could vary.

I feel positive – I feel that I can achieve this. It's still the mountain in front of me, and I've no idea how I'm going to get from here to the top, but I'm – that is a good thing. There's a thousand paths to take to get to the top, and one step at a time – you define which path you're going to take. Or you take a completely different one. ... But sometimes being pushed onto certain roads by supervisors or funding bodies or what's expected of you is – it's a constant challenge – you have to step by step make sure that your argument is right for each step you take and way you go. That's why you have supervisors, schools and funding, and all of that. There's a constant demand to make sure that you get to the job – it's not something I'm fighting. It's just a pressure that I didn't realise would be there. (SH, 26th April 26)

How they individually complete their challenges is at times flexible and largely up to them, though their time to completion is finite and measured.

I now understand one of the real benefits of conducting a PhD as an external student – complete freedom (well almost) to choose hours, fiddle with timetables, come and go, and complete flexibility to formulate a workspace from any corner or just using my knees. As long as I count my hours, the world is my office. (MW, 1st October)

2.3 Conclusion

In this brief chapter I introduced the adventure park as a metaphor to conceptualise the lived PhD experience as being encapsulated in a liminal space for a period of time. It highlights the interdependency between actions and behaviours, the challenges of being in that space and others in this space and those on the outside. The unstructured and uncertain nature of the adventure park challenges existing ways of knowing and raises fears about their ability. Perceptions about self-efficacy and sense of belonging affect commitment and the desired actions and behaviours to complete their challenges and leave.

Although each participant is on their own challenge course there is an interdependency with others on the inside, their guide and those on the outside. Each is in this adventure park until they have completed their own challenge course and attained expanding and shifting focus or ontological change; or decide not to complete their challenge course and leave. In the next chapter (Chapter 3) I provide an in-depth discussion on how I developed a methodology to capture the lived PhD experience from a diverse cohort of PhD students and the flexibility to enable participants to choose how to report on their lived PhD experience.

Chapter 3: Methodology

3.1 Introduction

In this chapter, I discuss how the methodology for this research was developed. I start by briefly explaining why I adopted a qualitative inquiry method and the social constructivist lens that shapes my view. I then review the approaches that others have used to research the student nuance of the PhD and how, with this research methodology, I aimed to build on existing approaches. I then share how this review motivated me to undertake a methodology exploration pilot study to explore first, whether the methods I was proposing would capture lived experiences in the here and now-that is, before too much time had passed and the experience had been made sense of, decoded or interpreted; second, how participants would engage with the research and the methods; and third, the types of questions that would elicit self-reflective experiential data. In this chapter, the experiences and lessons learnt from the pilot study are reviewed in order to explain how they shaped the methodology adopted. I narrate this chapter in the first person because this is my account of how my approach evolved. Thus, in this chapter, which represents my lived experience, in which I reflexively draw upon methodology-related findings to analyse and explain my actions. Reflexivity within a methodology chapter may be considered by some as non-traditional in terms of PhD thesis structure. However I have used this reflexive method as this is a PhD which is focussed on the lived experience of the PhD and so to adopt another approach felt disingenuous.

The aim of this research was to develop a participant-driven theory of the lived experience of the PhD researcher. This was done by analysing participants' reports of their experiences, in particular which experiences they prioritised when reporting and how they reported on them, rather than by analysing the theories of stakeholders external to their PhD experience (Mowbray & Halse, 2010). One of the values of this research lies in what it can tell us not only about a cohort of PhD researchers' perceptions of their experiences but also about how the methodology adopted enabled that cohort to choose *how* to report on those experiences. By not focusing on predetermined elements of the PhD experience, the methodology used in this research enabled the participants to choose which elements of their PhD experience they wished to discuss freely and without constraint. The methodology for this research was chosen for a number of reasons. First, it was doable, and second, it was right in terms of the objective of the research, my sense of being a professional researcher, and what I felt capable and comfortable with. Given the research's aim and what others have done before, this research required approaches that would best capture how PhD researchers experience their PhD as and when those experiences are occurring—through a process of reporting their experiences, feelings, emotions and incidents—rather than approaches that would rely on a reflective sharing of something that happened in the past. I believe that our sense and understanding of an experience changes after time has elapsed. The minutiae of our senses become lost, and our perception of an experience alters once we have made sense of it. I wanted to capture the fresh experience, not a past version already made sense of and understood.

3.2 My Reasons for Doing This

The literature on the experience of the student is growing, but no-one to my knowledge has yet conducted research that involved asking a diverse cohort of current PhD researchers to reflect on and conceptualise their experience—specifically in Australia; this research is uniquely in the present, as their experiences occur, over an extended period; and without predefined methods or questions. Hence the methodology is one of the claimed contributions to knowledge.

My decision to develop and adopt multiple methods to collect data from the participants, beyond in-depth interviews, included some concerns I held about the process of iterative interviewing over an extended time. One of my concerns related to internal validity: the effect that I would have on the students and their experiences (and they on mine). Additionally, I believed then—and still do—that a certain level of autonomy for the participants requires less need to launder what they say; in other words, distance between the participants and the researcher is good for the external validity. Conducting repetitive interviews over a period of 12 months is time consuming, and negotiating suitable times can be challenging; I was concerned that the participants and I would tire over time and their commitment to my research wane. Therefore, my approach needed to be flexible and timely, requiring a minimum level of interaction.

3.3 A Constructivist Approach

Schwandt (2000, p. 205) proposes that in qualitative inquiry 'labelling is dangerous, for it blinds us to enduring issues, shared concerns, and points of tensions that cut across the landscape' and these are 'issues that each inquirer must come to terms with in developing an identity as a social inquirer. In wrestling with the ways in which these philosophies structure our efforts to understand what it means to "do" qualitative inquiry, what we face is not a choice of which label—interpretivist, constructivist, hermeneutist, or something else—best suits us. Rather, we are confronted with choices about how each of us wants to live the life of a social inquirer' (p. 205).

With the predisposition of a social constructivist, I consider an individual's reality to be subjective. In terms of lived experiences, there is no objective standalone truth for me to discover, nor is there only one true way to experience a phenomenon. Lived experiences are interpretations that are subject to social, cultural and historical domains and agree with Denzin and Lincoln's statement that 'constructivism adopts a relativist ontology (relativism), a transactional epistemology, and a hermeneutic, dialectical methodology. Users of this paradigm are oriented to the production of reconstructed understandings of the social world' (Denzin and Lincoln, 2011, p. 92).

How a person reports on their lived experiences is based on that individual's interpretation of those experiences—an interpretation framed by their socio-culture and economic background; the activities and persons they engage with; and their beliefs, such as who or what they want to be. The relationship between the participants and me—the researcher—resulted in, at best, an understanding that is produced through participative, conversational and dialogic engagement and 'not something reproduced by an interpreter through an analysis of that which he or she seeks to understand'(Schwandt, 2000, p. 196).

In this study, the lived experiences that participants reported on were situated in a dynamic temporal space, in and through their relations with others and their actions and behaviours.. Instead, experiences are an ongoing form of making meaning where 'meaning is negotiated mutually in the act of interpretation' and it is not simply discovered (Schwandt, 2000, p. 196).

Constructivism means that human beings do no find or discover knowledge so much as we construct or make it. We invent concepts, models and schemes to make sense of experience, and we continually test and modify these constructions in the light of new experience. Furthermore, there is an inevitable historical and sociocultural dimension to this construction. We do not construct our interpretations in isolation but against a backdrop of shared understandings, practices, language, and so forth. (Schwandt, 2000, p. 197)

The lived experience of the PhD is a socially constructed phenomenon with a backdrop of shared understandings, practices and language. Participants' narratives about their experiences are not precise representations of the world. Instead, they are the representations of the participants in this research during their time of participation.

A critically reflexive practitioner not only questions her basic assumptions but also whether she may be silencing the voices of others, and she is more aware of how she constitutes and maintains realities and identities through responsive interaction. (Cunliffe, 2004, p. 418)

As a critically reflexive practitioner, I am aware that being a PhD researcher researching the PhD experience of others could create what Ellis and Bochner (2000, p. 733) call the 'crisis of representation'. As a PhD student researching the lived PhD experience I acknowledge that my lived experience may bias this research. I, too, kept a diary of my experiences, but I have not included it as data because it did not add value to the research. Nevertheless, it provided me with an insider perspective that enabled me to empathise at times with what participants were reporting on. Importantly, it also enabled a trust to develop between the participants and me because we were sharing an experience. This thesis represents my interpretation of the participants' reports of their own lived experiences. It is for this reason that I continually reflexively engaged in my practice and questioned the basis of my assumptions.

3.4 My Approach

Lived experiences, by their very nature, are in a perpetual state of change and flux; they are individualistic, context bound, and based on individual interpretations that are socially and culturally constructed. A snapshot of a lived experience can be gained through a one-

off interview or narrative; however, the PhD experience is one of doing, knowing and becoming over a period of time. In this research, I set out to walk alongside a diverse cohort of PhD researchers during a phase of their experience of doing, knowing and becoming, and to hear how they chose to report what this experience was for them.

This research was inductive. I did not set out to prove or disprove an existing theory or model, and I was not seeking an undebatable definition of the PhD experience. I aimed to explore what a cohort of PhD researchers would choose as important and relevant to report on, not what those researching the PhD think are important. The currently available literature on the PhD experience was produced by those already involved in higher education, and this can lead to a limited or biased view of the PhD experience. With an inductive mindset, I opted for a qualitative approach. I believe the lived experience is not something that can be measured or counted. I acknowledge that quantitative data, such as data derived from surveys, can provide valuable information, but it cannot illuminate or uncover those experiences that are not often discussed (Halse & Mowbray, 2011).

As I did not set out to test a hypothesis, I required a research framework that would enable me to explore what those experiences might be. I therefore opted for an emergent flexible approach to capture the participants' experiences repeatedly. Consequently, I was guided by Whitehead's (2015) encouragement to be inventive, and I developed a research framework specifically for this research rather than adopting an existing framework. Nevertheless, as Denzin and Lincoln (2000, p. 18) argue, never before have there been so many paradigms and strategies of inquiry, nor as much debate on what constitutes legitimate research (Schwandt, 2000, p. 190). The debate on what constitutes legitimate research initially bewildered me in my attempt to establish in which of the various types of qualitative inquiry this research could be categorised.

3.5 The Approach Others Have Taken

This section discusses approaches that have been used to date and the way in which the methodology that was developed for this research builds on some of those established approaches. However, it is worth first noting some interesting features of existing empirical research on the topic. A review of the literature showed a growing interest in the PhD, with the focus mainly on addressing growing attrition rates, less so on students' perceptions of the PhD.

First, the approaches used to date to research and 'to paint a more nuanced picture of the doctoral students' experience' (Aitchison & Mowbray, 2013, p. 860) have been predominantly qualitative and, to a lesser extent, quantitative. Of the studies reviewed, the geographic origins were Australia (17), UK (15), Canada (7), US (7), New Zealand (NZ) (1), Singapore (1), Sweden (2) and Finland (1).

Second, the data-collection methods used in the Australian studies included:

- one-off interviews with current PhD students (Aitchison & Mowbray, 2013; Crawford, 2003) and post-completion PhD students (Crawford, 2003; Owler, 2010)
- mixed methods, such as surveys, focus groups and one-off interviews with current PhD students (Council of Australian Postgraduate Associations [CAPA], 2012; Harman, 2003; Neumann, 2003)
- personal reflections of current PhD students (Morrison-Saunders, Moore, Newsome & Newsome, 2005) and post-completion PhD students (Bansel, 2011)
- quantitative surveys with current students (Pearson et al., 2011) and postcompletion PhD students (Heath, 2002; Jiranek, 2010; Platow, 2012)
- longitudinal approaches (i.e., iterative data collection over an extended period, such as a few months to five years) have included Cotterall (2011) who used biographical learning methods, reflective interviewing and narrative analysis; Higgs and McAllister (2005) with observation and iterative in-depth interviews; and McCormack (2004) with iterative in-depth interviews.

Third, each of the Australian longitudinal studies was focused on students from one university or one PhD program only. The other longitudinal studies (six in total) were conducted primarily in the UK, Canada and the US. Five of those six studies used activity logs completed weekly to capture the PhD students' day-to-day activities, interactions, challenges and difficulties (Beauchamp et al., 2009; Hopwood & Paulson, 2012; Jazvac-Martek, Chen & McAlpine, 2011; McAlpine & Amundsen, 2009; McAlpine, Jazvac-Martek & Hopwood, 2009).

Lastly, one-off interviews with current students remained the method of choice among the international research reviewed (e.g., Aitchison & Mowbray, 2013; Baker & Pfifer, 2011; Beauchamp et al., 2009; CAPA, 2012; Deem & Brehony, 2000; Gardner & Gopaul, 2012; Gardner & Holley, 2011; Harman, 2002 Higgs & McAllister, 2005; Hopwood & Paulson,

2012; Hovland, 2012; Jazvac-Martek et al., 2011; Lee, 2009; Lindén, Ohlin & Brodin 2013; McAlpine & Amundsen, 2009; McAlpine et al., 2009; McAlpine et al., 2012; McCormack, 2004; Murphy, Bain & Conrad, 2007; Neumann, 2003; Owler, 2010; Rennie & Brewer, 1987; Sweitzer, 2009).

With those features noted, I will now discuss approaches that have been used in previous research and how this methodology has built on the existing research. Personal, one-off reflection during the journey provides a snapshot of the experience. Self-written reflective narratives or memoirs provide an opportunity to reflect on lessons learnt thus far, power and identity shifts (e.g., Brown, 2009). Callary, Werther and Trudel (2012, p. 5), however, 'used Jarvis's (2006, 2009) theory of human learning' (p. 5) to guide Callary et al.'s research reflections throughout the PhD journey, and used them as a process of learning and self-discovery as well as an approach for tracing the lived experience. Post-completion reflections such as those by Bansel (2011) provide a temporal trajectory on how 'the process of knowledge production . . . [is] complex, messy and not-always-rational' (p. 554).

Essentially, in a post-reflective experiential narrative, any wounds may have been soothed and any raw edges blunted or, as Crawford (2003) pointed out, 'participants would be able to deliberate on their experiences, with hindsight, rather than in the "mist" of their studies' (p. 3). If I had used a post-completion approach in this research, it could have resulted in the loss of the immediacy and rawness of the experience and of the process of trying to make sense of it all. For this very reason, I opted for reflections in the present tense with the aim of exploring the experience of the journey during the travel, not after the event. However, this posed a challenge: how to identify an approach that would capture the lived experiences of the events, emotions and feelings.

One-off interviews—semi-structured, open or conversational—with current or past students (Crawford, 2003) have been used to explore (Gardner & Gopaul, 2012; Lee, 2009; Owler, 2010) and seek out key issues (Gardner & Holley, 2011), events (Hovland, 2012), activities (Hopwood & Paulson, 2012) and beliefs (Murphy et al., 2007) that the student holds. Alternatively, repeated, in-depth, unstructured and semi-structured interviews provide an opportunity for the researcher and participant to engage and to tacitly exchange their personally nuanced experiences. However, in reporting on a five-year study into the

lived experiences of clinical educators, Higgs and McAllister (2005) found and recognised that repeated engagement and interviews 'placed a considerable demand on participants, particularly new clinical educators facing the stress and demands of their new roles.' (pp. 158–159). Additionally, repeated interviews could result in participants (and the researcher) tiring of the research engagement and potentially withdrawing. Therefore, this research required alternative methods that could be used over an extended period.

Beauchamp, Jazvac-Martek & McAlpine (2009) used activity logs completed by PhD students over an extended period to systematically capture day-to-day activities. They based their activity logs on Engestrom's activity theory (Engestrom, 1987) to comprehend the complexities that the doctoral experience entails by examining what students do and with whom they interact. However, I believe asking participants to complete a questionnaire of activities would not inform this research regarding *how* students account for their experience. Although such a questionnaire would have provided a structure for the purposes of reporting, the data collected would have been driven by me, rather than student-driven; that is—it would not have enabled the students to report on their experiences. Hence, this avenue of methodology was also not pursued.

In the qualitative realm, the sampling procedures used in the existing literature have been research specific. In some instances, previous research has set out to examine students' perceptions in specific settings, such as Sweitzer's (2009) study into the identity development of students in a business school at a prestigious US university. Others have examined students' perceptions according to the specific discipline, mode of enrolment (see, for example, Deem & Brehony, 2000; Sampson & Cohen, 2001) and socioeconomic and family circumstances of the student (Gardner & Holley, 2011; Webb, 2010). Some research has included the views of students, supervisors and institutional staff (e.g., CAPA, 2012; Morrison-Saunders et al., 2005; Rennie & Brewer, 1987), although the issue of anonymity and fear of retribution (Jazvac-Martek et al., 2011) meant that, in some studies, students withdrew from the study.

Some research studies have used an inductive or 'grounded theory' approach, where the researcher is not looking for 'evidence with the data to validate a priori position' (e.g., Crawford, 2003, p. 2) and exploratory approaches (Gardner & Gopaul, 2012; Gardner & Holley, 2011; Hovland, 2012; Lee, 2009; Linden et al., 2013 Morrison-Saunders et al.,

2005). To gain a student-centric view of the experience, approaches such as autoethnography (Hovland, 2012; Owler, 2010), self-reflective memoirs (Guthrie, 2007), biographical learning methods, reflective and individual narratives (Brown, 2009; Higgs & McAllister, 2005) have all been used successfully. While ocial media tools such as blogs have gained increasing popularity as evidenced by the *Thesis Whisper* blog (thesiswhisperer.com, 2017) that provides an open online academic community for PhD students to share their experiences.

Based on the approaches discussed in the preceding paragraphs and the pitfalls, challenges and findings shared by other authors, I aimed to develop a methodology that not only built on these existing approaches but was also specific to the needs of this research and to my ontological and epistemological stance. I sought to develop a methodology that would be flexible in terms of allowing the participants and researcher to engage with the method comfortably and over an extended period without placing undue demand on the participants. It also needed to be rigorous; to be based on engagement with participants over an extended period, which would allow for a deep exploration of the experiences; and to draw on the participants' tacit knowledge through self-reflection. An exploration of lived PhD experiences does not allow for assumptions. It is the interpretation and meaning that the participants bring to the study that is of value. To shed light on these experiences requires a methodology that is flexible and adaptable.

3.6 Methodology Exploration Pilot Study

As discussed thus far in this chapter, to shed light on lived experiences requires a methodology that is flexible and adaptable. I therefore undertook a methodology exploration pilot study (MEPS) and used participant feedback regarding which introspective methods they would prefer to use and which methods made the process of capturing and reflecting on their experiences most suitable to their needs.

The objective of the MEPS was to pilot the methodology and four introspective datacollection methods. In the pilot, I tested four introspective methods of data collection. I tested for how participants used the methods, how they reported their experience of using the methods in terms of ease, and the types of questions that elicited a frank discourse. I also wanted to establish what in particular would motivate the students to participate in a longitudinal study and regularly report on their experiences over an extended period of three to 12 months. I then used the participants' feedback on the use of the introspective methods and on which process of capturing and reflecting on their experiences was most suitable to their needs.

The qualitative methods piloted were:

- semi-structured interviews
- a reflective written diary or journal
- audio recordings
- online blogs.

3.6.1 What I Did and What I Learnt

I obtained ethics approval on 18th September 2012 to conduct the methodology exploration pilot study (see Appendix 1). Participants for the pilot study were recruited from Swinburne University of Technology in Australia (all campuses except Sarawak). Convenience sampling was chosen because it would be accessible and would allow basic data to be obtained. The drawback to convenience sampling was that the results would not be generalisable and potentially would not accurately represent future participants' feelings and reactions to the proposed methodology. However, considering that the purpose of the pilot study was to explore the methodology and methods rather than collect data on the PhD experience, this sampling option was considered the most appropriate. From a purposive sampling perspective, the PhD participants recruited were at that point still very likely to be representative of the data that would be collected on a larger scale.

An open letter of invitation was disseminated to PhD students via local Swinburne University higher degree by research groups, and five PhD students from Swinburne University of Technology in Australia volunteered to participate. A brief individual faceto-face meeting was held with each participant to explain the aim of the pilot study and to complete the consent form as stipulated in the ethics approval. At these brief meetings, each participant was randomly allocated only one of the four methods for recording their experiences over four weeks. The four methods were:

- fortnightly interviews
- written reflective journal
- blog
- audio recording.

Participants were randomly allocated only one method to record their experiences over four weeks, but as methods were taken up, further allocation was based on ensuring that each method had equal pilot testing. When each method had been allocated, the fifth participant was left to choose a method and subsequently decided to try the audiorecording method. Participants were asked to use their allocated introspective method to record anything that struck them about their PhD. As examples, I suggested they reflect on how they were feeling about their research or on any incidents or occurrences that affected their PhD. Their reflections were to be recorded as close as possible to the time that the experiences occurred. Audio recording, blog and written reflective journal participants were asked to send their recordings to me via email each week. The interview participant and I met fortnightly for an 'open' discussion about his experiences.

Participants reported they were eager to try out their assigned method. Each acknowledged they had always wanted to record their experiences but had not done so consistently in the past, although it was later revealed that the journal participant was in the habit of keeping a personal journal. All acknowledged that recording lived experiences in the here and now would prove to be of value for them: reflection for furthering their knowledge of themselves and tackling issues and problems with their PhD. Nevertheless, each participant registered confusion about what to record. Among the participants, there was an element of uncertainty about the information I wanted to collect. Comments included:

Write the diary / journal ... keep track of where I'm at ... oddly, there's a difference between writing 'notes to self' and 'notes to self for someone else' ... (J1, Week 1)

I started reflecting on the questions that I should be asking to best capture lived experiences. Although the pilot study explored how participants engaged with the methods for recording their experiences, it also uncovered the different interpretations of reporting on lived experiences. Questions were deliberately open-ended; participants were asked to report on what was happening around them that was affecting their PhD and how they felt. It was not to be a diary or a description of daily activities but rather it a narrative about experiences that 'struck' in relation to the PhD (Cunliffe, 2004, p. 410).

At the end of the pilot study, the narratives were analysed to determine how participants reported on their experiences and whether there was a difference in how experiences were recorded across methods.

The findings are as follows:

- participants' interpretations on what and how to report differed
- participants reported how and what they chose to report on
- uncertainty over how and what to report decreased with time
- as uncertainty decreased, the narratives of experiences flowed
- audio-recording participants initially experienced some unease in talking to self; however, for one participant, it became the method of choice, while another indicated she would like to try other methods because she was concerned about her language skills (English is her second language)
- the method used must suit the participant's needs, and participants' needs change over the course of the PhD journey.

Finally, all participants provided feedback during in-depth conversational interviews. Interview questions pertained to:

- their experience of engaging with the research
- their use of the allocated method for recording experiences
- the personal benefits, if any, they derived from the engagement
- when they record their experiences—as and when events occurred or at a self-allocated time
- their motivation to continue engaging and sharing their experiences over an extended period, such as three to 12 months.

The data highlighted the participants' different approaches to reflecting on their experiences. The resulting continuum of experiential data ranged from the specific processes and activities that participants engaged in through to a holistic reflection of engaging with the PhD.

The methodology exploration pilot study aimed to explore how participants would engage with various introspective methods of recording their PhD experiences. A goal of the MEPS was to establish the types of questions that would elicit narratives grounded in the experience of the individual without using predefined questions that would funnel information to certain topics. The pilot study clearly showed that individuals' interpretations regarding *how* to report differs. All, except the participant who piloted being interviewed on a regular basis, sought guidance as well as reassurance that the way in which they were reporting was appropriate and met my requirements. Initial uncertainties about how to report on their experiences was alleviated somewhat as they habitualised the experiential recording and thus became more at ease with their allocated method.

Importantly, the postings revealed a flow of information, perceptions of self and perceptions of others that manifested in how they chose to reflect. It was only after considerable deliberation that I concluded this was exactly what this research was seeking—the students reporting on their experience. This methodology empowered participants to discuss and reveal what was relevant to them; this is where the potency of this research lies. There are calls for research to better understand what this PhD journey in fact is (Pearson et al, 2011). The Group of Eight (2013) suggested there is a 'paucity of useful data, for example of the kind that would come from detailed longitudinal studies of the experience of PhD graduates' (p. 44). The data captured in the MEPS highlights a personal aspect of the PhD that has not been captured in previous research, mainly because research to date has tended to focus on predetermined dimensions of the PhD experience.

The pilot study also revealed that there is no best way, no best method of collecting experiential and critical incident data. Participants must feel comfortable and able to interact with the chosen method of data collection. All participants in the pilot study found the experience of recording their own PhD experience rewarding, not only in terms of being engaged as a participant in a research project but also in terms of having a tool for tracking, reflecting on and sharing their own PhD experience. Although the process of recording their experiences was bound by individual preferences and needs some pilot study participants felt that keeping a reflective diary was beneficial to both their personal and professional development. Others felt that in the process of writing about their experience was difficult. As a consequence of these findings and to ensure the feasibility of the research and the ongoing participants to choose the method of recording that most suited their circumstances and needs, and to enable them to change the introspective method used as their circumstances required.

3.7 Next Steps

Based on the experience and feedback received from the methodology exploration pilot study, I expanded the range of introspective methods that participants could use and on 14th January 2013 obtained ethics clearance to start data collection (see Appendix 2). The following is a discussion on the final methodology adopted.

3.7.1 Methods

The ability to capture participants' reported experiences was paramount in the choice of data-gathering methods. Within a qualitative position and constructivist stance, the number of methods available to me was limited only by my imagination and the needs and preferences of my participants. However, I felt that although I may design a data-collection processes, this research required a high level of built-in flexibility to allow participants to engage comfortably and to allow for the new and the unexpected.

Personal narratives are ethical because they constitute the stated, not the interpreted. Introspective methods, such as reflexive diaries and audio and visual recordings, have been prominent in ethnographic research tradition (Anderson, 2006). They are used as a record of how and what the researcher captures and how the researcher 'comes to certain (mis)understandings' (Anderson, 2012, p. 2). The journaled narratives provide part of the evidence for the research. However, what is relevant here is that it was the participants who were keeping the diary or journal, not the researcher.

The stories we write put us into conversation with ourselves as well as with our readers. In conversation with ourselves, we expose our vulnerabilities, conflicts, choices and values. . . . Our accounts seek to express the complexities and difficulties of coping and feeling resolved, showing how we changed over time as we struggled to make sense of our experience. Often our accounts of ourselves are unflattering and imperfect, but human and believable. (Ellis and Bochner, 2000, p. 748)

Whether any of these methods could capture *experience* is doubtful, but they do capture the participants' interpretation of their experience, or as Ellis and Bochner (2000) put it, 'the truth is that we can never capture experience' and in a sense a 'narrative is always a story about the past' (p. 750).

Reflexive journals are more than a description of day-to-day events: 'they are an assemblage of records, reflections and considered arguments oriented around a theme or issue, rather than specifically around chronological dates or events' (Anderson, 2006, p. 2). The potential benefit for the participants is that journals can be used to tackle issues, and they allow for reflection—a means to observe what has changed or developed.

This research found that some participants were not able, or willing, to keep a reflexive journal. For those participants, I then resorted to interviews. One of the reasons participants gave for not keeping a reflexive journal was lack of time. Although not specifically identified in the data from this research, reflexive journaling requires a level of 'self-questioning', which can be difficult or can bring out issues or feelings about oneself that are not as pleasant as we would like them to be. Anderson (2012) describes this as the 'trepidation of the naked scholar' (p. 4) of feeling exposed when confronted or challenged in a way for which they feel unprepared or uncertain. As a form of conversational tool, the reflexive journal captures events, issues and the related trains of thought or logic that result in certain understandings, or even misunderstandings. In this research, it provided an opportunity for participants to discuss what was important to them at the time rather than me trying to ask the right questions. Participants could set the direction of the topic, and they could focus on what was important to them, whereas in an interview, I could direct the topic or flow. During an interview the researcher needs to understand the information that is being shared, which can be blurred by non-verbal cues, and interpretation of those cues is left to the researcher. However, with the reflexive journal method, much of the interpretation is left to the participants, as they analyse their own behaviour in the context of the situations faced.

3.7.2 Why Longitudinal?

This research adopted a longitudinal approach to the data collection and tracked the reported experiences of a cohort of PhD 23 participants over a period of three to 12 months. Lived experiences are dynamic and in a perpetual state of movement and flux and therefore require more than one engagement—such as a one-off interview or introspective recording—to explore how the various points of the journey are reported on.

The process of doing and completing a PhD takes many years, and hence it is often described as a journey of doing, knowing and becoming (Barnackle & Mewburn, 2010; Higgs & McAllister, 2005). This research set out to explore the lived experience during this journey. This exploration required a longitudinal approach that would focus on 'the immediacy of experiences, generate 'thick' description, uncover tacit dimensions of practices, generate 'whole chunks of data and allow for understanding in context' (McAllister, Whiteford, Hill, Thomas & Fitzgerald, 2006, p. 371).

The longitudinal approach has a number of advantages. Chronicling the experiences and issues at different stages 'captures the phenomenon in real time' (Cavanaugh & Whitbourne, 2003, p. 89) and benefits both the researcher and the researched. A longitudinal approach provides a landscape of encounters in which to track changes over time (Minichiello, Aroni & Hays, 2008, p. 176). It also allows for trust to develop between the participants and the researcher, and for the opportunity to validate early reporting.

The disadvantage of a longitudinal approach is that engagement and commitment can wane over time because of participation fatigue, lack of time, changing life circumstances and concern over identity disclosure (Cavanaugh & Whitbourne, 2003, p. 89). Another drawback is the potential for participants and researchers to get to know each other too well, which could lead to the researcher making assumptions about the researched.

Concern about anonymity or identity disclosure inhibited some participants early in this research. Some sought reassurance that their experiences would be anonymised sufficiently to ensure they would not be identified in future research output. Another inhibitor to participating was insufficient time. Most participants were time poor, and a commitment to regular experiential narratives over a period was daunting for them. Deciding what to report on and being time poor caused long breaks between instalments.

3.7.3 Quality and Validity

To ensure that my practice-based research would be rigorous, significant and contribute to knowledge, I adopted Furlong and Oancea's (2005) quality framework for assessing applied and practice-based research. Although there are, at times, competing views about what constitutes quality research, Furlong and Oancea (2005) find that, in fact, there is a 'shared core of concerns when it comes to examining methodological and theoretical

robustness' (p. 11). The purpose of their quality framework is to 'provide a set of dimensions along which research might need to pass a threshold of quality if it were to aspire to excellence' (p. 11). Their framework (see Appendix 3) is divided into four dimensions of quality: 1) epistemic, 2) technological, 3) capacity building and value, and 4) economic. In sequence, these dimensions are a continuum of robustness from scientific to social to economic.

Furthermore, the validity of the data lies in the participants' iterative reporting of their experiences and the use of participants' reports verbatim rather than the description of an indicative experience. The themes discussed in this thesis are the common themes identified in the data. In the discussion, I highlight potential explanations that were not found in the data but do not pursue these; they do, however, provide avenues for future research. Consequently, while each reported experience cannot be verified in the research design, the validity of the overall data lies in the ongoing reports of shared themes. Lastly, final interviews provided an opportunity to question participants regarding points of uncertainty and verify with the participants my interpretation of their reported experiences.

3.8 Participant Recruitment

I aimed to recruit a diverse cohort of participants from Australian universities outside Swinburne University of Technology. I used a purposive sampling approach to allow for maximum variation sampling and differentiation (Minichiello et al., 2008, p. 171). Sourcing participants from other institutions meant that this research was less likely to encounter an ethical bind in terms of anonymity for the participants and their supervisory teams. Shared lived experiences of students from different institutions and disciplines would ensure that the findings could not be misconstrued (Crawford, 2003) as experiences specific to any one institution or discipline.

Participants were recruited through PhD student associations and referrals from fellow PhD students. Specifically, this included:

- current PhD students in Australian institutions
- students at different stages of their PhD
- students from various disciplines and universities
- students from diverse age groups
- domestic and international students

- male and female students
- students from all enrolment modes.

On 14 January 2013, I obtained ethics approval from the Swinburne University of Technology Human Research Ethics Committee (see Appendix 2) with the condition that participants be recruited at institutions other than that of the researcher through forums that PhD students attend, such as research workshops and conferences, through introduction by fellow PhD students and through word of mouth. I created an introductory communiqué, approved by the Swinburne University of Technology Human Research Ethics Committee, for fellow students to pass on to student colleagues; recipients of the communiqué were free to contact me directly if they wished to participate. This approach went some way to creating a degree of separation and leaving the process of recruitment to self-selection. Invitations to participate were disseminated by acquaintances at other universities, which

enabled me to gain access to a cross section of students. Colleagues and fellow PhD students at Swinburne University of Technology also acted as conduits to students enrolled at other universities who, in turn, disseminated the invitation to participate. Recruitment, however, was initially very slow until the invitation reached the president of a support body for PhD students at an interstate university offered to post the invitation in the organisation's newsletter and disseminate via email to PhD students.

In response to this posting and emails, I received many emails requesting more information about the project and asking what their participation in the research would entail. Given the success of this approach, I emailed information about the research to other PhD studentrun support groups at universities around Australia, some of whom also kindly posted the invitation notice in their newsletters and correspondence.

Although there was a high level of interest, converting interest into participation required a lot of email communication. Some students were simply interested in the nature of my research and in how I proposed to conduct it. Others found the prospect of participating over an extended period daunting and withdrew their interest. The time from registration of interest to agreement on the method of reflection and frequency of instalments—weekly, fortnightly or monthly—to posting the first reflection was, on average, three to four weeks.

I soon realised that my aim of recruiting a diverse cohort was not happening. Female participants were outnumbering male participants, and only five international students had

been recruited to participate. In the international cohort, however, male participants were outnumbering female participants. To recruit more international students, I contacted a number of international student organisations and introduced myself and my research. I also spoke to international colleagues and requested they introduce me to others, but this achieved no results. By April 2013, I had recruited 23 participants: 17 females and six males; 4 international and 4 part-time. By the end of the 12-month data-collection phase, 3 participants had withdrawn for various reasons. (See Appendix 4 for more detailed information about the participants, including gender, age group, enrolment mode, domestic or international status, stage of PhD.)

3.9 Selection of Qualitative Methods

In response to the findings of the methodology exploration pilot study, participants were asked to select their preferred method to record their experiences. They were given the option to extend the methods over time as their needs and requirements dictated. The introspective methods proposed included:

- regular emails
- blog
- journal, sharing via Dropbox
- audio or visual recording
- in-depth interviews conducted face-to-face or via Skype defined by Minichiello et al. (2008) as 'repeated ... encounters between the researcher and informants directed toward understanding informants' perspectives on their lives, experiences or situations as expressed in their own words' (p. 329).

Importantly, the method adopted by each participant would enable them to easily record and share their experiences on a regular basis for three to 12 months. Once an initial preferred method of sharing their experiences had been selected, we negotiated regular weekly, fortnightly or monthly experience reflection instalments and a system of reminders. The method of data collection was unique to each participant; it was important to craft an individual approach that felt natural to the participant and that allowed for both the participant and this research to benefit from the self-reflection process. Most participants opted for regular fortnightly or monthly email. One participant opted for audio recordings, and one opted for writing a blog. 3 participants opted for face-to-face interviews (via Skype) because, as one respondent, put it: I am not eager to do this 'on my own' so to speak. I don't keep journals as I abhor them – and I am not into pre-recording my own thoughts for someone else. However if you want to interview me monthly on the phone and you record and transcribe the data that is fine with me. (NC, 27th February)

This participant was interviewed four times and kept me informed about significant experiences by email.

Participant culture and English skills also had an impact on the method preferred:

Afraid I oversaw your previous email. I looked at the consent form and sample questions today. My original thought was one time participation. Anyway, for time cautiousness, is it possible to interview me two times, say mid April and June. I anticipate to do my confirmation in late May (BL 27th March)

This participant was interviewed three times, once in person and twice via Skype.

Participants were asked to record a reflective narrative about what was going on around them that affected their PhD. The narrative was not to take the form of a diary or description or log of daily activities (Beauchamp et al., 2009; Hopwood & Paulson, 2012; Jazvac-Martek et al. 2011; McAlpine & Amundsen, 2009; McAlpine et al. 2009) Rather, it was to be a continuous narrative about experiences in the present—the 'here and now'— about what struck (Cunliffe, 2004) them in relation to their PhD, how those experiences felt and their impact on their PhD. The narrative was to be a dialogue with the self, making a note of any events or issues that affect the being, the student, and hence their PhD. What students were asked to reflect on was their sense of 'being struck [which] involves our spontaneous response (emotional, physiological, and cognitive) to the events or relationships occurring around us' (Cunliffe, 2004, p. 410).

3.10 Questions

Participants were provided with some questions to guide their experiential narratives if they felt stuck on what to report or reflect on:

• Tell me about events that have impacted on your PhD research. Why/how did they impact?

- On a scale of 1–6, how was your week in relation to your PhD journey (1 = very bad; 6 = very good)? Why did you rate it that way?
- What were some of the key learning points for you this week in relation to your PhD?
- This week, have you resolved any issues outstanding in relation to your PhD? How did you resolve the issue(s)?
- Describe how you are feeling about your doctorate this week.
- Is there anything worrying you about your doctorate this week?
- How do you think others perceive you as a PhD student?
- Metaphors. In your opinion, what animal/colour best describes your week? Why did you choose that animal/colour?

Nevertheless, in the early phases, there were multiple requests for clarification regarding *what* and *how* to report; for example, some participants wanted to know how much reportage was required. Essentially, I found that participants wanted to know *what* I was looking for, and the fact that I was not actually looking for anything in particular caused some angst initially. A possible explanation for this angst is that participants were not accustomed to operating without guidelines, word limits or marking criteria. The other possible explanation is that most research is looking for something, whereas this research was asking participants to lead with what was important and relevant to them. How the participants reported on their experiences was bound in the ambiguity they were experiencing, and their reported experiences varied along a continuum from nothing to report (see Example 1, below) to the doings and activities engaged in and the emotional process of sense-making (see Example 2, below).

Example 1.

Nothing to report. The world continues. (KT, 19th October)

Example 2.

I guess my emotional state of being is tired. I don't really feel any sense of achievement because it was such a slow slog to get here. Every little molehill mountain had me working towards this. It wasn't a sprint to the finish but a slow meander. And now I have to freak out about what happens if I don't get my required response rate. I worry about some of the questions *included in the survey and how they don't seem to be capturing what I want. But it's too late now. Hindsight 20/20 etc etc.*

It does draw a little bit of a line in the sand, though. It has me thinking about my entire research project. Not so much back to the whole 'why am I doing this', but more the whole 'I've finished 20% and shouldn't forget about it while I'm doing the next 40% and should probably start thinking about the final 40%'. I'm especially feeling this way because I haven't heard a single word back from one of the papers I submitted 10 weeks ago. The other paper won't actually be published until late 2014/early 2015, which means the policy work will be redundant by then. So I've got to start thinking more about how to get the research out now while it's relevant etc. Which is scary, scary.

I think these little hiatus periods make you feel lazy, as well. While you aren't popping data into a spreadsheet, waiting for something to be approved, (marking second year essays like mad) there is this sense of nothing happening. I spent two hours today reading news articles. Not all were related to my research, but some were. This kind of behaviour makes me feel very lazy, like I should be doing 'real' work. However, I also know how important it is to being a good academic. You have to know what's happening in the world. And to be honest I have no idea what's happening in my world, at least not academically. I guess that's kind of what happens with policy, though. The news is where it's all happening, journal articles are kind of an afterthought. But still, I find reading makes me feel stupid, lazy and restless as well. At least I'm getting more comfortable with this feeling and the sense that this is normal for the kind of work I'm doing. If I can write some kind of blog article and get it out there, based in part on some of the readings, it will all have been worthwhile. I guess. (GS. 4th October)

Neither example is more valuable than the other, but together they illustrate how the PhD experience is portrayed by participants given the same loose research framework—that is, to illuminate how the students report on their lived experiences and what they chose to report on. It is worth noting here that the participant in Example 1 commenced

participation in the research in early March 2013 and reported on his experience via email fortnightly until the end of November 2013.

Towards the end of the data-collection phase, many written reflections had extended from weekly or fortnightly to three- to six-weekly instalments. Audio recordings remained at weekly to fortnightly, and the blogger continued to blog monthly. At the end of the data-collection phase, I invited all participants to take part in a final in-depth conversational interview. These interviews were an opportunity for me to contextualise the individual experiences and to fill in any gaps in the experiences they had shared with me.

glad that my contributions have been helpful for your research. I found it quite interesting to record my PhD experience, so thank you for allowing me to participate! (AR 7th January (the following year))

I was delighted to hear from a participant who had disappeared without further contact in May 2013, which explained how the experience of being a PhD researcher is not only about doing a PhD but also about all those other things:

I'm sorry I dropped out, I found things quite difficult; I eventually took 3 months, changed topic... have taken more time off as I was recently broken into... life just keeps getting in the way! I'd be keen to hear the results/read about your study once you've finished? (IM 27th December)

3.11 The Final Interview

17 final interviews were conducted either face-to-face or via Skype and were recorded and transcribed. In most cases, this final interview was the first time I had met the participant either in person or via Skype. The interviews were unstructured, recorded with the participant's permission and then transcribed by me. The interviews provided the opportunity to fill any gaps in the narratives, personally thank the participants and answer any questions the participants may have had for me.

The participants' iterative narratives over an extended period had provided rich data on their experiences. With some, there was a sense that we knew each other because of the ongoing nature of their engagement. However, interviews were an opportunity to communicate verbally and non-verbally and to draw on shared understandings and tacit knowledge. I found this process particularly useful with those participants where engagement had been *ad hoc* or infrequent with staccato bursts of data that were devoid of the contextualising nuances around which to frame them.

It is important to note that these conversations included information about me. In a sense, my identity as researcher changed to that of fellow PhD student during these interviews. They were also an opportunity to close the official participation gently. Some expressed gratitude for the participation:

Having this journal has been a life saver for my mental health. it has meant I have somewhere I at least feel heard in a culture that is stifling and toxic. (GH, 20th December)

Some participants reported how their engagement with this research gave them a sense of value, including a feeling that they were providing value to someone else, which, in turn, validated their sense of belonging.

I've been, I know I haven't been very focused on getting you your fortnightly statements. I think hardly any I think. And I think often they are a bit sketchy. I don't want to make up stuff just to have stuff to tell you either. I don't think that's going to help your results at all, so in a roundabout way of asking, I suppose you would have liked more regular stuff. But is it useful what you're getting from me?

I'm pretty self-reflective anyway. So a lot of the stuff that I've been thinking about for you is the kind of stuff that I would think about anyway. And a lot of what I sent through to you is actually just the crystallisation of thoughts that I have been having for myself anyway. And then I think, oh well, I realise that, so I'll send that through. But you know, the thing that's probably kept me most engaged is the, is the thought of being helpful to you. Not you personally necessarily but somebody else who's engaged in this same kind of work. It's important in its own field that I don't necessarily understand, but just to be a part of something like that. To be helpful in something like that, even if only potentially, probably that's the thing that has kept me engaged, and a lot of the time when I haven't – when I've been missing weeks or fortnights or whatever – it's not because, it's not because *I've forgotten about the project or rejected the project.* (KT, 25th November)

Reporting on and journaling their experiences was also expressed as being of value to the participants. One participant emailed to explain how she was using her blog to reflect on her experiences. Although she felt that she was not as vigilant with narrating her experiences as she would have liked, her blogging had come to her as a way of dealing with situations as they arose. We discussed how she might even use these reflections to help her write up her dissertation because each entry was evoking a memory and feeling that might otherwise be lost. Although she planned to keep the blog to share only with me during this research, because of her geographical isolation she was considering continuing with the blog and asked if I could persist in prodding her to keep it going.

3.12 Analysing the Data

In this section, I discuss how I analysed the data, identified existing theories that explained the phenomena and developed a conceptual model. Analysis of the data was an iterative cycle of reading and analysing—a lengthy process of discovering initial categories and themes that gradually distilled to form what is now the final conceptual model.

During the 12-month data-collection phase:

- all interview and audio recordings were transcribed in full by me
- all reflections were filed electronically in individual password-protected participant folders
- upon receipt, all reflections were read to establish familiarity with the content but not formally analysed.

This approach enabled me to remain detached and to avoid drawing conclusions and potentially *guiding* participant narratives. Final interviews were an opportunity to clarify with participants their reported experiences and my interpretations.

3.12.1 Phase 1: Immersion

At the end of the data-collection phase, I read and then re-read multiple times each participant's narratives and interview transcripts with the aim of achieving a holistic summary. This involved me immersing myself into the narratives and interview transcripts in order to develop a sense of how the participants portrayed their experiences and to enable categories to emerge (Marshall & Rossman, 1999).

As a fellow PhD researcher and insider, I encouraged the participants to report how they wished to report rather than asking them what and how they were experiencing. At times, I faced similar issues and experienced similar emotions. At those points, I felt a distinct synergy that brought these emotions into reality and confirmed their existence. It was important for me not to focus just on those synergistic experiences but to allow the participants' flow of experiences to retain validity even when I did not experience them. I noted that although I was 'walking the walk' with them, it was the participants' experiences, not mine, that I aimed to report on. Fortunately, in the act of sharing their experiences, the participants themselves reported their interpretation of their experiences, and I could therefore report what and how they reported rather than attempting to interpret everything they were saying. If I did not experience something, it did not mean that that experience was not relevant or pertinent (Fine, Weseen and Wong, 2000).

First-round impressions left me with the following themes:

- Uncertainty There was uncertainty among the participants about what they were doing and how to go about their PhD. The PhD was generally an unknown, so different from anything they had experienced previously, such as a master's degree or workplace employment. The expectations and processes were unclear, and although participants considered themselves 'lucky' with their supervision, there was a lack of guidance. There was also uncertainty in relation to skills and knowledge development.
- Supervision I had not planned to research supervision; however, it was
 impossible not to code a reference to supervision. Reference to supervision was
 associated with trying to find solutions to their uncertainty and their desire for
 forward momentum and progress.
- Forward momentum Making progress and maintaining forward momentum was related to maintaining motivation and avoiding procrastination as well as to developing new skills and knowledge. There was a great desire to feel productive, to feel a sense of forward momentum, although measuring progress was difficult because everything was such an unknown and there was a great deal of guilt associated with a sense of nonproductivity.

- Diversions Reported distractions and diversions were manifold and impeded participants' forward momentum and progress. Diversions came in the form of the expectations of others, such as family and friends, and in the form of work commitments. But diversions also resulted from uncertainty on the part of participants and a general lack of control over their circumstances. Diversions then affected the value that participants placed in doing the PhD and their capacity.
- Value The extent to which participants valued the PhD related to how they felt about themselves and their PhD research. When there was a lack of forward momentum and an increase in uncertainty and diversions, value was low. However, value or validation improved when there was a sense of forward momentum, a reduction in uncertainty and diversions and a sense of having some control over what they were doing.

3.12.2 Phase 2: Thematic Analysis

Based on the first-round impressions, I decided to continue with a thematic analysis of participants' narratives to see the range of lived experiences. This relied on what Marshall and Rossman (1999) describe as a 'heightened awareness of the data, a focused attention and an openness to the subtle, tacit undercurrents' (p. 154). Analysing and coding large volumes of data in Microsoft Word proved very challenging. I therefore decided to use NVivo to manage the data, which proved more manageable, and I developed the following NVivo nodes:

- Sense of belonging
- Finding balance
- Forward momentum/progress
- Liminal space/phase and uncertainty
- Other people to be accountable to
- Perception of self
- Supervision

3.12.3 A Thematic Qualitative Inquiry

Qualitative inquiry seeks to discover and to describe in narrative reporting what particular people do in their everyday lives and what their actions mean to them. . . . The qualitative researcher first asks, 'What are the kinds of things (material and symbolic) to which people in this setting orient as they conduct everyday life?' (Erickson, 2011, p. 43)

With this statement by Erickson (2011) in mind, I set out to analyse the data thematically to uncover the kinds of things participants chose to report on. Interestingly, discussions were rarely, if ever, about *doing* the PhD research itself unless there was some breakthrough or setback. Participants reported on their experience of *being* a PhD researcher. 'Being' involved processes in which they engaged forward momentum and progress, being in a liminal space, their relationships with others and their planned and actual activities they engaged with to make sense of their research. A good deal of the reporting consisted of meaning-making activities to grapple with and make sense of the PhD phenomena 'because it is the meaning-making, sense making, attributional activities that shape action (or inaction)' (Lincoln, Lynham and Guba, 2011, p. 116).

A deconstruction of the themes, issues and events indicated the interconnectivity between being a PhD researcher and their other identities. A demarcation between the being, the PhD and their environments would disintegrate the experience into a matter of processes and tasks engaged with only and not representing the lived experiences that participants shared. This supports Packer and Goicoechea's (2000) argument around the hidden ontology of sociocultural theories of learning that there is not a strict demarcation between a person's learning or epistemology and their being or ontology. Hence, contextualising the PhD experience as situated in higher education alone would represent only a part of the experience and fail to shed light on the individual and personal nature of the experience. Although I use the term *personal nature*, this research revealed that despite the diversity of participants (i.e., faculty/discipline, stage of PhD, institution, nationality, etc.), the themes identified touched all participants. Therefore, the validity lies in the reporting of themes that were iteratively shared across the cohort.

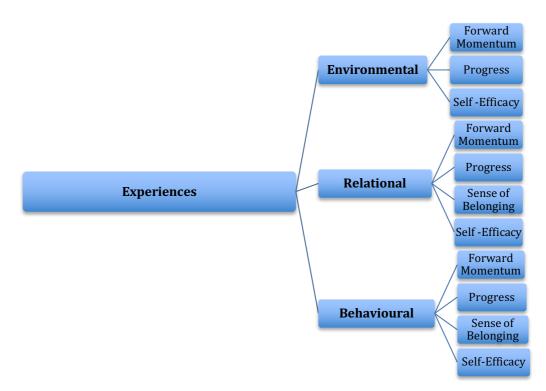


Figure 3.1. Dimensions and Themes

Figure 3.1 shows the reported experiences as situated within three dimensions: the environmental, the relational, and behavioural. The five key themes identified were forward momentum, progress, self-efficacy and perception of self, and sense of belonging. Except for sense of belonging, all key themes were prevalent in all dimensions.

The reported experiences are situated in a time phase, where participants engaged in relationships with others, within an environment in which they performed actions and behaviours. This resulted in a breadth of experiential data. The common thread throughout the data is the participants' desire for forward momentum and the progression of their PhD to a successful conclusion. Participants did not perceive being a PhD researcher as a permanent state; rather, it was perceived—and desired—as a temporary state of being before moving on. Participants' experiences related to validating their forward momentum and progress; PhD completion was the ultimate objective for all participants. However, a sense of forward momentum could be elusive and subject to how participants perceived their abilities and whether they felt they fitted into or perceived a sense of belonging in this environment.

A sense of belonging is a complex concept that comprises an individual's perceived personal, academic and research capacity, and requires validation. Experiencing the feeling

of fitting into the environment, even if not wishing to pursue an academic career, related to their goal orientation. Relational experiences affected their perception of themselves, their capacity and even their research. These findings steered me to investigate constructivist and sociocultural theories of learning and development.

3.12.4 A Theoretical Framework

Constructivist learning theory, generally attributed to Piaget (see Ackerman, 2001; Lourenço, 2012; Packer & Goicoecchea, 2000), has inspired others, such as Seymour Papert's constructionism—a pedagogy focused on problem-based learning—Freynet, Freire, and even Dewey (Ackermann 2001). Piaget's constructivist theory of learning holds that learning is constructed and active; later, it was acknowledged as also being a social process (Tudge & Winterhoff, 1993). Learners go through a process of assimilating new knowledge and accommodating or adjusting this new knowledge with what they already know about the outside world. Constructivist learning theory explained how learning is a process of integrating new experiences however sense making is socially bound. In other words, we learn from and within social contexts; this took me to Vygotsky's social constructivist theory of learning (Lourenço, 2012; Tudge & Winterhoff, 1993).

Before I move on to sociocultural learning theory, it is worth noting that while there are similarities between Piaget's constructivist learning theory and Vygotsky's sociocultural learning theory, such as active involvement between the learner and others, there are also ontological differences (Liu & Matthews, 2005; Lourenço, 2012; Packer & Goicoechea, 2000). Constructivist learning theory holds that learning is active and involves engagement with others, whereas sociocultural learning theory holds that knowledge is co-constructed, that it has the capacity to influence and affect sociocultural understanding of reality, and that reality is a sociocultural construction. Therefore, reality—or objective truth—cannot be discovered because it does not pre-exist without sociocultural intent. Herbert Blumer declared (as cited in Crotty, 1998, p. 72):

- "that human beings act toward things on the basis of the meanings that these things have for them";
- "that the meaning of such things derives from, and out of, the social interaction that one has with one's fellows";
- "that these meanings are handled in, and modified through, an interpretive process used by the person in dealing with the things he encounters." '

However, in Piaget's constructivist learning theory, being and one true reality pre-exist, and the learner does not affect that reality. In addition, in Piaget's learning theory, learning is unidirectional—the adult teaches the child—whereas in Vygotsky's legitimate peripheral participation, learning is bidirectional (Tudge & Winterhoff, 1993).

3.12.5 Sociocultural Learning Theory

Sociocultural learning theory is attributed to Lev Vygotsky (Tudge & Winterhoff, 1993). Vygotsky's learning theory formed the foundation for other theories of sociocultural learning, which I will address briefly later in this discussion (e.g., Lave & Wenger, 1991; Wenger, 1998). Vygotsky's work, like Piaget's, involved children's learning. However, rather than perceiving learning as being constructed, Vygotsky saw learning and development as a social process, which occurred:

- through interacting with others in an environment or culture, and
- through a *zone of proximal development*—leading the student into a zone where she or he is supported by a more experienced peer, in other words, where learning is scaffolded by others, such as in collaborative learning.

As with Piagetian constructivist theory, Vygotskian learning theory involves interactive participation with others; however, Vygotsky also proposed that the environment or culture affects learning and that learning is culturally, historically and socially constructed. Tudge and Winterhoff (1993) suggested this could be due to Vygotsky's Marxist roots; Piagetian constructivist learning theory does not discern cultural differences. The development and learning of the individual depends on the environment or culture in which they are located. The zone of proximal development holds that the learner is placed in a zone to challenge learning with the assistance of a more experienced peer or facilitator. The zone of proximal development of relationships in learning and the effects of collaboration, and it can thus be defined as a form of scaffolding, with someone older or more experienced challenging the learner to move to the next stage of development.

Since the development of Vygotsky's sociocultural theory, several other sociocultural learning theories—including (but not limited to) legitimate peripheral participation, situated learning and communities of practice—have played an important role in explaining how learning and development is socially and spatially connected. Lave and

Wenger's (1991) communities of practice theory links learning and development to either deliberately manufactured (organisations) or organic (cultural) communities. Membership can be open or closed, and participation motivation is linked to social capital and learning as well as enjoyment. Legitimate peripheral participation (Lave & Wenger, 1991) is a method of participatory membership of a community of practice.

In the process of identifying a theoretical framework with which to analyse the data, I found that sociocultural theories explained the relational effects on learning and development but did not address perceptions of self or belief in self or the reason why participants chose, for example, not to interact or to withdraw from their relational environment. My research had shown that engagement with others resulted in research and capacity validation; however, participants distinctly chose who to interact with—a theme I initially labelled as individualistic or collectivist behaviours (cf. Hofstede, 1983). Although, on further analysis, these actions for me symbolised the participants exercising their agency, a behaviour that Bandura (2001) in social cognitive theory defines as cerebral processing.

When I read Bandura's (2001) statement below, it rang true in relation to what the participants were doing. They exercised deliberate, proactive and reflective thoughts and made decisions that were not only reactive, such as in Piagetian and Vygotskian theory, which sees the individual following or passively imitating their social world (Tudge & Winterhoff, 1993, p. 64), but also saw them mentally working through how to achieve what they had set out to do and reach their goal or desired outcome (i.e., forward momentum and progress). Sometimes, I could almost feel the physiological cogs and wheels turning in order to come up with a solution.

One must distinguish between the physical basis of thought and its deliberative construction and functional use. The human mind is generative, creative, proactive, and reflective, not just reactive. The dignified burial of the dualistic Descartes forces us to address the formidable explanatory challenge for a physicalistic theory of human agency and a non-dualistic cognitivism. How do people operate as thinkers of the thoughts that exert determinative influence on their actions? What are the functional circuitries of forethought, planful proaction, aspiration, self-appraisal, and self-reflection? (Bandura, 2001, p. 4)

Therefore, the participants' behaviour and learning were not simply based on the sociocultural environment but also incorporated their individual characteristics, such as their personal beliefs and their goals and expectations as well as the environment and the interpersonal. This bidirectional force was affecting the participants' perceptions of self, their belief that they could undertake the PhD and their sense of belonging that confirmed that this was still what they wanted to do and that they fitted in.

The second aspect that Bandura's social-cognitive theory addresses is self-efficacy. Selfefficacy is defined as the extent to which an individual perceives they have the capacity to do something, such as accomplish a task or attain a goal (Pajares & Schunk, 2002; Phan, 2016; Schunk & Pajares, 2002). Self-efficacy is about the belief we hold in our ability to undertake and succeed in a task and has a direct impact on motivation to regulate behaviour. Self-efficacy is based on reciprocal determinism, the bidirectional effect of self and environment and actions and behaviours. Self-efficacy is also related to the locus of control that was developed by Julian B Rotter in 1954. Rotter was interested in how individuals attribute their success or failure to internal or external control, whereas attribution theory also considered controllability and stability (Gardner, 2009). What attribution and locus of control theories have in common is their focus on the individual's belief in their ability to control events. In this research, the data analysis showed that PhD development is more than the result of sociocultural learning, or of imitating others or of personal ability; it is also the impact of the environment and the impact that the individual has on others.

As already indicated in this thesis, I have adopted self-efficacy theory because it goes some way to explain participants reported actions and behaviours. As Figure 3.2 shows, there are a number of contributors and/or deterrents to an individual's self-efficacy. Although in this thesis I use self-efficacy theory to discuss participants' experiences, my aim with this thesis is not to test self-efficacy. Rather, I am using self-efficacy to theorise the lived experience, in particular, the affective nature of the lived experience and participants' ability to learn and master their PhD activities to achieve their aspirations of forward momentum and progress for ultimate completion (Bandura, 1993). It should also be noted that self-efficacy is domain-, situational- and task-based. What participants believed their abilities to be was not uniform across domains, because self-efficacy itself is not a trait (Bandura, 2012, p. 13).

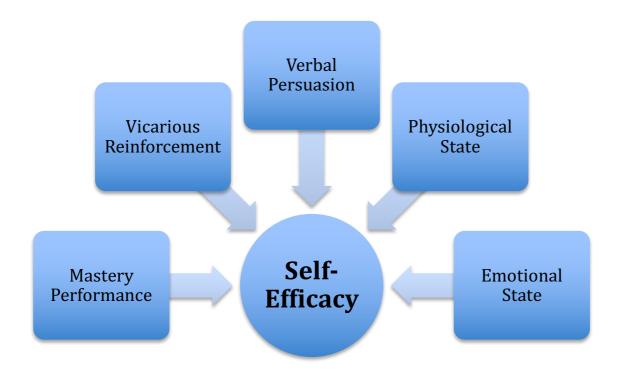


Figure 3.2. Self-efficacy theory, adapted from Bandura (1997).

Mastery performance or self-conception of ability is based on previously acquired knowledge or understanding of one's ability. This may be in the form of prior mastery, such as completing a master's degree. Vicarious experience, or social comparison influences (Bandura, 1993) means that people base their perceptions of and judge their own ability by comparing themselves with others such as mastery or coping models on which to base one's behaviour or strive to emulate. However, social comparison does require some caution. Bandura (1993) found that 'seeing oneself surpassed by others undermined personal efficacy' but also noted that when comparing oneself to others, 'seeing oneself gain progressive mastery strengthened personal efficacy, fostered efficient thinking and enhanced performance attainments' (p. 123). Verbal persuasion and feedback, especially from a subject-matter expert or someone with kudos, 'can strongly affect . . . self-efficacy appraisal and thereby alter the course of attainment' (p. 125). Physiological and emotional states relate to one's perceived controllability of the environment and perceived personal ability or efficacy to alter the situation. Perceived efficacy or ability to usurp personal agency and control ambiguous situations is what Bandura calls the 'emotional mediator of self-efficacy belief' (p. 132).

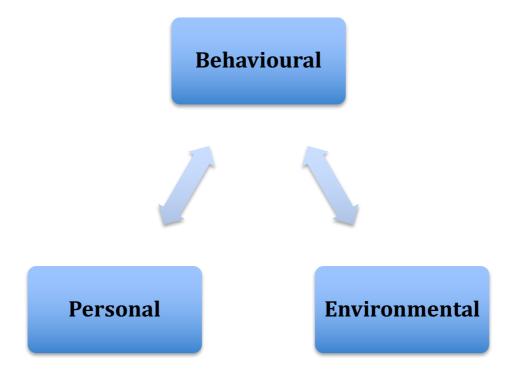


Figure 3.3: Albert Bandura's triadic reciprocal determinism.

The lived experience of doing a PhD points to a 'triadic determinism' framework (Bandura, 1986) see Figure 3.3 above. Within this framework, the environmental and relational dimensions have a bidirectional effect on participants' actions and behaviours. Self-efficacy is the belief we have about our capability to perform a task. Self-efficacy is more than just how we feel about ourselves; it also affects our behaviour and actions. Gist (1987) stated that 'an individual who feels highly efficacious about his or her skills in interpersonal relations when compared to the referent subgroup may lack self-efficacy to the broader setting' (p. 481). This definition of self-efficacy is contextually based and goes some way to explain why participants in this research who held high self-efficacy in their personal or professional settings did not exhibit that same self-efficacy within the PhD environment.

Social cognitive theory went some way to explain participants' agentic actions and the reciprocal effects of the environmental, relational and behavioural dimensions on self-efficacy. It is for this reason that I chose to use Bandura's reciprocal determinism theory to situate the experiences of the participants and to discuss the bidirectional effect.

Self-efficacy beliefs affect the quality of human functioning through cognitive, motivational, affective, and decisional processes. Specifically, people's beliefs in their efficacy influence whether they think pessimistically or optimistically, in self-enabling or self-debilitating ways. Self-efficacy beliefs influence how well people motivate themselves and persevere in the face of difficulties through the goals they set for themselves, their outcome expectations, and causal attributions for their successes and failures. People's beliefs in their coping capabilities play a pivotal role in their self-regulation of emotional states. This affects the quality of their emotional life and their vulnerability to stress and depression. The final way in which self-beliefs of efficacy contribute to self-development and change concerns choice processes. Such beliefs affect the slate of options people consider and the choices they make at important decisional points. By their choices of activities and environments, people set the course of their life paths and what they become. (Bandura, 2012, p. 13)

People make choices based on their perceived self-efficacy. Experiences can alter selfefficacy; consequently, choices—such as pursuing a PhD—can change based on these experiences. For example, if participants felt they did not fit in or belong in the academic environment, this could change their personal orientation or goals, irrespective of the level of self-efficacy they perceived themselves to have and I have labelled this 'sense of belonging'. PhD research requires engagement with a broad scope of activities and is therefore not limited to one task, per se (Bandura, 2012, p. 17). In the findings and discussion chapters that follow, I do not aim to measure self-efficacy. In this thesis, I adapt Bandura's reciprocal determinism model to conceptualise and discuss the PhD experience from the participants' perspectives.

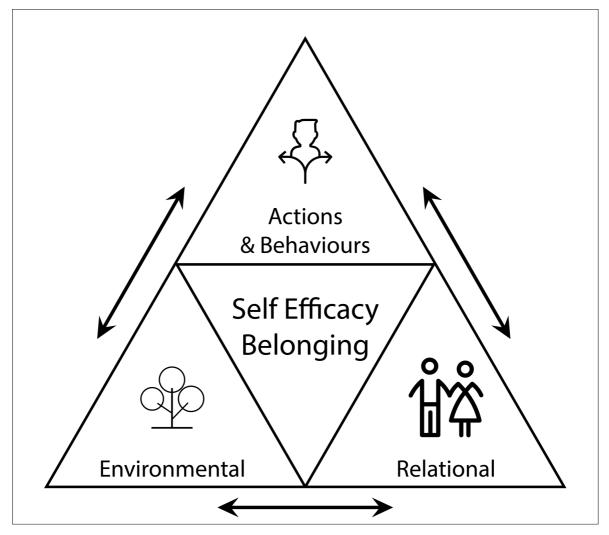


Figure 3.4. Bidirectional nature of the PhD experience

I adapted the triadic reciprocal determinism model to represent the interconnectedness and bidirectional nature of the lived experience of doing the PhD (see Figure 3.4). The environmental, relational and behavioural dimensions allow me to conceptualise being a PhD researcher and discuss the interconnectedness of the PhD environment and relationships with others: others who are engaged in the PhD enterprise, including the supervisor, as well as those who are not engaged.

3.13 Conclusion

In writing this chapter, I have reflected on how the methodology evolved and adapted to the research, the participants' needs and my sense of what research is. Some key outcomes were the iterative nature of checking what I was doing against what I had aimed to do, which was to capture the lived experiences of a diverse cohort of PhD researchers in the here and now over an extended period. This chapter also disclosed my approach to conducting the research and how, as a researcher and a fellow PhD researcher, I became both an insider and an outsider. While I realise this structure does not follow the traditional norms of methodology presentation, I believe the nature of this inductive research is made more transparent by using this structure. Given the inductive approach, the way in which the data would be analysed could only be determined once the data had been collected because, essentially, I needed to establish how participants would report. Additionally, my discussion on the constructivist and sociocultural learning theories was determined by what participants chose to report on.

The structure of the findings and discussion chapters that follow are based on the triadic reciprocal determinism model in order to represent the interconnectedness and bidirectional nature of the lived experience. The chapters that follow are grouped into the Environmental and the Relational dimension. The first of two chapters in the environmental dimension introduces being in this environment as a phase in a liminal space (Chapter 4). The second and final chapter in the environmental dimension focuses on the causes, choices and consequences that drove forward momentum, stalling and procrastinating in this liminal space (Chapter 5). The relational dimension consists of three chapters. The first relational chapter informs how other people, such as family, friends and acquaintances (Chapter 6) not directly engaged with the PhD had an impact on the participants' lived PhD experience. The second relational chapter (Chapter 7) reports on participants' supervision experiences, that highlight the importance of the relationship and the impact of expectations. The third and final chapter in the relational dimension (Chapter 8) discusses the social, professional and research engagement participants reported on with other people on the inside, those who were also engaged with the PhD enterprise.

Chapter 4: Environment: A Phase of Being in a Liminal Space

4.1 Introduction

This is the first of two chapters on the environmental dimension and focuses on the reciprocal effect of the environment on the participants' self-efficacy and their sense of belonging or of fitting into this environment. The overarching theme in this thesis is the participants' desire for forward momentum and the progression of their PhD. The four themes presented in this chapter focus on:

- 1. the uncertainty or implicit nature of the challenges;
- 2. how uncertainty and a lack of structure affected the participants' ability to self-regulate;
- 3. how being in a liminal space was perceived as a time phase; and last,
- 4. the sense of feeling stuck and the perceived opportunity costs associated with being in this space.

The findings show that initially the flux and flexibility of living in a liminal space reduced the participants' self-efficacy because their existing way of being and knowing was challenged. Uncertainty related to both the nature of tasks and what they might entail and to which challenge to tackle next in order to progress their PhD; this uncertainty was like being lost in a maze and trying to find a way forward.

4.2 Uncertainty

The safest road to hell is the gradual one—the gentle slope, soft underfoot, without sudden turnings, without milestones, without signposts. (C S Lewis)

Upon entering the liminal space, participants faced an environment that differed from the perceptions and expectations they held before entering. I propose that the participants' contextual understanding of what the PhD would entail varied, based to some extent on the their purpose in commencing the PhD in the first place. Participants were unprepared for their personal emotional reactions when their expectations and perceptions were not being met. This confirms what Land, Rattray & Vivian (2014) state is 'the problematic dimension of "unlearning" or letting go of a prevailing view' (p. 14). Being in a liminal space, they experienced uncertainty that often felt uncomfortable.

The findings presented and discussed here were analysed through a sociol-cognitive lens using Bandura's (1978) reciprocal determinism framework to demonstrate the bidirectional impact between the environmental and the relational (other people) and the participants' own behaviours and actions. It highlights how participants used their personal agency to effect desired outcomes and (re-)establish their self-efficacy. Personal self-efficacy is situated within Bandura's (1997) sociol-cognitive theory and represents 'one's capabilities to organize and execute the courses of action required to produce given attainments' (p. 3). Self-efficacy is not broad spectrum. It is contextualised to tasks or domains of functions, such as academic achievement. Self-efficacy can motivate people to undertake certain projects and tasks and has an influence on their choice of actions and behaviours. It also affects their aspirations and equips them with a sense of persistence that may otherwise be missing; it has been found to have a direct effect on academic performance (Phan, 2016).

This research found that the lived experiences were shaped by a combination of the participants' expectations of the PhD environment, their perceptions of themselves in comparison with others, their self-efficacy and their sense of belonging or of fitting into this environment. The findings indicate that much of what occurs at each phase in the PhD environment was unknown until participants reached that particular phase of their PhD. It was this uncertainty that had the most significant impact on the participants' reports of their lived experiences because it affected their ability for forward momentum and the progression of their PhD.

In the following discussion, I outline the reported issues and explore the effect that being in liminality had on participants' self-efficacy and their sense of belonging. However, before I continue, it is important to note that participants perceived being in this PhD liminal space as a temporary phase. They were highly focused on forward momentum, on progressing towards a conclusion and exiting liminality.

But it's good – it's a good feeling when you get a grant or when you get a paper accepted. Those are like a - can compare it to a birth of a child – but it is a very good feeling. It is a piece of your mind that is accepted somewhere. People that are working in the same area think that it is good – it is validated. That is a good feeling. (SS, 21st March)

In Bandura's theory, mastery performance is one of the elements that support self-efficacy and, in turn, drive behaviour and actions. In this research, mastery performance was achieved when there was learning and a sense of forward momentum and mastery of the PhD progress. Mastery involves learning new knowledge and skills that create a sense of forward momentum, and it is positively related to self-efficacy. Mastery resulted in participants using what Bandura (1997) refers to as self-directedness and forethought to plan actions and behaviour that not only regulated their behaviour but also set about a course of actions to enhance their ongoing performance and PhD progress. While mastery alone positively produced self-efficacy by heightening and improving participants' physiological and emotional states, mastery accompanied by performance was associated with PhD progress or other tangible outcomes, such as grants or papers being accepted. Mastery performance positively boosted participants' physiological state, which in turn increased their confidence and resulted in behaviour and actions to progress their PhD. An experience of mastery performance not only validated their capacity but also provided them with a sense of belonging and of fitting in.

I thought a PhD would be a bigger master's, and it wasn't. It's totally different – you're on your own. (SS, 21st March)

A lot of students don't know what they're getting themselves into – it's not clear cut. Can be some terrible surprises that can affect them long term – how they perceive themselves and to complete. But mainly how they feel about themselves and academia – relationships with others as well. Especially because – in Australia anyway – we have quite a young PhD population. If you're like me, you've just come straight out and come and start your PhD, and you're young and you come out of this structured system where you've always had someone taking care of you. Even in honours in the university it's always been quite structured and you know what to expect, and by the end of that year, pass or fail, you will have done it – it's a huge jump to go from that to a PhD. (SK 13th March)

These findings indicate how uncertainty could reduce mastery performance and selfefficacy because participants did not know what to do at first. For many, the mastery or learning expectations they faced were larger than or different from those they had expected. PhD task mastery and learning challenges have also been described as thresholds (Meyer & Land, 2006). The word *threshold* derives from the Latin word *limen*, and Turner (1969, p.94) described liminality as a threshold that detaches the individual from their community; a ritual process that is ambiguous 'a realm that has few or none of the attributes of the past or coming state'. Consequently, being in this space challenged the participants' ways of knowing and being.

A reduced sense of mastery, or of knowing, appears to be *what it is to be* in this liminal space. However not knowing had a negative effect on participants' physiological state. It could be argued that to possess mastery at the start is a paradox, but I propose this may have been linked participants' misconceptions about what the PhD would entail and highlights that there is need for a period of time in which to learn. A space for learning that will require time because 'intellectual work that elicits something new' will require time (Green and Bowden, 2012, p. 70). In this research, progress that took time tended to result in participants feeling 'stuck' (Kearns, Forbes, Gardner & Marshall 2008; Kiley, 2009; Kiley, 2015; Trafford & Leshem, 2009) and not performing (or progressing) as they came across 'a particular threshold' (Kiley, 2009) or learning experience or came to a particular point in their PhD. At times, irrespective of how studious they were, feeling stuck and the possibility of never finishing was a huge fear for many (Pyhältö & Keskinen, 2012; Ward, 2013, p. 66). A reduced sense of performance, progression or forward momentum frequently resulted in fear—an emotion that had a negative effect on their physiological state.

The process of (re)learning and mastering new skills or knowledge led many participants to question whether they indeed had the capacity to undertake the research. The sense of having capacity is related not only to task self-efficacy, such as mastering or learning, but also to the individual's perceived personal competency to fit in and their sense of belonging. The findings of this research indicate that when mastery performance was reduced because of uncertainty, participants experienced a decrease in capacity validation and questioned their capacity to learn and progress in this academic space. On a positive note, this research found that a decrease in capacity validation led participants to act mindfully to drive their behaviour and actions towards desired outcomes (Bandura, 2001). In other words, participants used forethought and self-reflection to exercise self-regulating behaviour through actions.

Uncertainty also reduced the participants' sense of belonging and their self-efficacy. One possible explanation for this is that perception of self is closely related to self-efficacy, with the added element of questioning whether this is where they want to be. In other words, sense of belonging was very closely associated with their academic identity, which was in a liminal flux. Although many of the participants' experiences were situated in the environmental and relational dimensions, their self-perception, academic identity and validation remained within the individual.

In this research project, all participants reported how their lived experience differed from their expectations. One explanation for this is the liminal nature of the environment (Deegan & Hill, 1991; Trafford & Leshem, 2009, p. 312), which can result in negative feelings about one's personal ability and sense of belonging. As a rite of transition and transformation, this liminal space (Land, 2014) is not a stranger to 'uncertainty, confusion or doubt' (Keefer, 2015, p. 18). Some participants had envisioned a greater level of supervisory support (Sayed, Kruss & Badat, 1998) but found themselves in situations where there was a perceived lack of supervision or where the guidance differed from what they had expected, and this led to 'zones of uncertainty' and miscommunication (Green & Bowden, 2012, p. 70). Supervision will be discussed in detail in the relational chapter on supervisory boundaries led many participants to report feeling uncertain about the nature of the task and environment. The unknown nature of the PhD resulted in participants experiencing uncertainty that, at times, brought into question their sense of belonging and purpose.

This finding is supported by McAlpine and Amundsen (2009, p. 109), who found that 'doctoral experience may be filled with tensions and challenges due to a sense of isolation, lack of clarity about doctoral expectations, incomplete understandings of academic life, and uncertainty as to whether their own values can be aligned with those of the academy.' For some participants, there was also uncertainty about the rules (Gardner & Holley, 2011) of higher education and PhD education, which is possibly explained by the fact that only one participant was not the first in their immediate family to pursue a PhD. It could be argued that the PhD, by its very nature, is about uncovering or developing new knowledge and, it is thus normal to experience a level of uncertainty about their research. Therefore, this experience is a way of being until the next phase is reached, when other challenges

open up other ways of being, and this continues until they re-establish ways of knowing and belonging. Although experiencing uncertainty may not be unusual in this liminal space, participants' uncertainty did reduce their self-efficacy to successfully undertake and complete their PhD.

I rated this week 'generally okay' (scaled at 4). 'White' might reflect my week. There has not been a clear picture in my mind showing where I am standing now and what the following steps will be like. (EY, March)

4.3 Lack of Structure or Lack of Self-Regulation?

Being in an environment that lacked the structure they were acquainted with reduced participants' ability to self-regulate their behaviour and act in the manner they wished to. One possible explanation for this is that in assuming or adopting a student identity the relative *freedom* limited their ability to self-regulate. While Valentine, Dubois and Cooper (2004, p. 135) suggest that Bandura's self-regulation is intended to 'expand freedom of action and enable people to serve as causal contributors to their own life course by selecting, influencing and constructing their own circumstances' (Bandura, as cited in Zimmerman & Schunk, 2003, p. 446). This research found that *being* in this unstructured environment reduced participants' ability to regulate their behaviour, not because they were unmotivated but because the uncertainty reduced their self-efficacy until they had the required time or intellectual space (Green & Bowden, 2012) to establish their ways of knowing.

the type of discipline it takes to do a PhD. Doing a PhD, 99 per cent of the time totally you are self-directed, in between supervisor meetings. It translates into a very flexible lifestyle where you really don't ever have to be anywhere or do anything at a particular time. Rather, you can work at your own pace and as long as you meet your milestones; everything else is totally unstructured.

I find it hard to impose a schedule on myself when all the deadlines (even the official ones) are really arbitrary. And because I have no fixed schedule, my family don't really 'get' what I do. They ask me to do stuff during the week – go for coffee or babysit – which technically I always have time for

because I never have anywhere that I actually need to be. (AM, 4th February)

In summary, uncertainty and a lack of structure in this liminal space reduced self-efficacy and the ability to self-regulate behaviour. What this also highlights is that mastery performance and learning requires time. Although the actual time required to master and learn differed from the performance and progress that participants so desired. They were looking for verification of their way of knowing (epistemology), which they could not have in their existing way of being (ontology) because they had to *be* in PhD study longer in order to *know*.

4.4 Time Phase

There is nothing like a deadline to motivate me. (AM, 4th March)

Being in this liminal space could not be punctuated into the structured components of their other academic or professional life. There were no semesters of learning punctuated by assessments and breaks. In this environment, participants were faced with what seemed to many a barren space that was left to them to populate with meaningful progress punctuations. The process of managing this time proved to be a foreign concept for participants, many of whom had come from structured environments where the task was at least defined; this required a distinct shift from using time to measure progress. Participants used time on task as a measure for expected progress. Although, with little or no structure except completion timelines, participants described institutional timelines as arbitrary, wherein providing the PhD was finished in a timely manner it was left to participants to manage their own progress.

I simply can't work without a deadline. I've tried using arbitrary deadlines, but it has to be something concrete or I won't do it ... This PhD journey seems to be quite unnatural and brings out unnatural behaviours in people. I have friends at uni who I think feel the same – it's not about progression, it's about hanging in there – such different mentalities – and just 'hanging in there' is quite a foreign concept to us perfectionistic hard workers. (AM, 31st May)

The deadlines are few and far between, and largely self-imposed, and there are only four weeks of holidays a year. In between these rare moments of

excitement, there are weeks and months of solitary labour, which most often produces no immediate reward. This new rhythm has a tendency to make me feel flat and lethargic, as I toil with no immediate deadlines but also no relief in sight. And, in addition, while a PhD can feel more dull than a semester of coursework, it is also more stressful, because the task at hand is so much larger and more unfamiliar. Indeed, 'anxious monotony' sometimes seems to best describe my experience of the PhD. (AR, 19th August)

Participants perceived being in a liminal phase where time moved at a different pace, often slower, from the outside world. Araújo (2005) conceptualised the PhD as a 'phase' in time that 'encompasses both the way institution and tradition constrain and affect people's desires and aspirations, enclosing them in a bounded set of opportunities'(p. 205). Participants in this research reported feeling constrained in so far as their ability to progress and move at the pace they felt was required to progress their PhD. Time was something that could be measured and defined, whereas PhD learning could not be so easily measured or defined. It is in this vein that I concur with Araújo's (2005) conclusion:

PhD candidates locate the period of dispensation to prepare the doctoral thesis 'in' a temporal line which progresses along a series of multiple other phases. PhD candidates consider periods of 'crisis' as a deviation from that line. Because time is strongly understood as a linear process, the designation of the period of dispensation for the PhD preparation as a 'phase' signals the extent to which individuals believe their life may return to a point of equilibrium after finishing their PhD. (p. 207)

The time or *phase* spent in the PhD environment often reduced participants' physiological state because they found their PhD *mastery performance* was difficult to measure using a linear lens of time because, as discussed earlier, PhD learning required an 'intellectual space' (Green & Bowden, 2012). This intellectual space is essentially a time for the development of knowing to occur; however, if this time lasts longer than they had expected, it could have a negative effect on perceived self-efficacy. Consequently, some questioned their ability to undertake the task and to self-regulate their actions and behaviours, such as time management. Another way of looking at this is that they were seeking verification of their ways of *knowing* (epistemology), which in their present way

of *being* (ontology) was not possible, yet. Potentially, they needed to *be* in this current phase for longer to come to *know*.

The perception of time as linear, punctuated with defined intervals, such as deadlines, also increased uncertainty about how to proceed. The findings indicate that to restore a sense of familiarity, participants exercised their personal agency to establish or re-establish their own deadlines to create time pressures that improved their physiological state. They also engaged in relational agency and activities, such as setting personal deadlines and seeking out others for support to improve self-efficacy and forward momentum. This again highlights the positive outcomes that participants achieved by using forethought to drive their forward momentum and progress.

I think I cope well with a little bit of pressure. In fact I actually work well under pressure – I don't know why that is. But just kind of motivates me to get things done. I think I do have good sort of support networks and coping strategies in place. (BF, 28th May)

I think having time pressures is a motivator in itself. Like if I know I have a whole day and that time is available to get the study done and I don't spend it on study then you get all of the guilt associated with that. ... I don't find it unpleasant. I don't find the work of doing a PhD unpleasant. (KL, 13th September)

4.5 Stuck in this Weird Existence

Being in a liminal space was expressed as being stuck for many years. From entry to exit, being in a liminal space could be a long time, and participants reported finding themselves stuck in this weird existence while watching the world go by.

And I'm still just doing my PhD. So that's what I mean about – the rest of the world changes, and you're still the PhD student. That's what I mean. Because you know other people in the general workforce, they turn over jobs really quickly these days. There's always new projects and things going on – it's contract to contract. It's not for this full-time, permanent work anymore. So the world around you seems to be moving at a very fast pace, and we still do these fairly traditionally structured pieces of academic labour that go for a lot longer than any other kind of labour – really than the common kind of labour. You know I've got friends who own their own businesses, and you know they've just gone from here to here in this time, and I've kind of gone from here to here – and it's not that I don't value what I'm doing, it's just that it seems to move a lot slower. Yeah, that's what I mean. Maybe stuck was the wrong word – maybe slow motion. (AM, 10th December)

Being in a liminal space was perceived as being 'stuck in this weird existence' for an undefined phase that consumed other elements of their life. Participants were fully aware of the opportunity cost of the PhD on their life, both within and external to the PhD (Wellington & Sikes, 2006). They were cognisant of the outside environment and how their existence differed from the existence of others in that environment. Although the opportunity costs they experienced were contextually related to participants' circumstances, the associated cost was most frequently raised during times of frustration with forward momentum and progress.

You need to realise – think about your five- to ten- year life plan. What do you want to achieve in the next five to ten years. I sort of walked into this as a short term – well, I got a scholarship, let's see what happens ... that kind of thing – oh, I didn't get a job, well let's do a PhD. You can't – for three or four years, the government will pay you for three and a half years if you're lucky, but you need to think five years because you don't know if you're going to finish in the three years. Even five years – you might want to be adamant that you've bought a house or had a kid – a PhD might not allow you to do that. What you want to do is get a PhD or want to have a home by the age of... or whatever – because these things interfere in your life. Are you going to be happy earning minimum wage in your 20s. It's OK when you're 20, but I was 21 earning \$26K per annum, and this was a huge drop. *You realise that I'm ready to become an adult now – but I can't because I'm* stuck in this PhD – this weird student existence – but not in the real world, and you can't go on and become an adult. This is ridiculous; I'm a graduate with [an] honours degree and I'm earning less than a graduate because I've chosen to do more study, and yeah – thinking about all these things. (SK, 13th March)

Their realisation regarding the opportunity costs affected participants' emotional state. For most, the perceived opportunity cost was acceptable. In those cases, the perceived benefits of doing the PhD in terms of personal development outweighed the opportunity costs or the PhD was positively related to role outcomes and future job security. However, regardless of the perceived outcomes, there remained an underlying cost that related to other elements of the participants' personal lives. This underlying cost can be broadly summarised as financial, time, and the perception of self in comparison with others not engaged in the PhD enterprise.

Opportunity costs caused some participants to question whether they still wanted to pursue their PhD. The findings indicate that participants who had entered the PhD at a young age or because it was recommended by their supervisor, or because the PhD became the thing to do while they figured out what they were going to do, were most likely to question their motivation and their purpose in starting the PhD. Observing peers move ahead quickly—especially peers not engaged in the PhD enterprise—caused some frustration and questioning about their future in academia (Hugo, 2005; Norton, 2013). Reflecting on the plausibility of poor PhD outcomes had a negative effect on participants' emotional states. A discussion on attrition or of 'dropping out' because of perceived high opportunity costs and poor future outcomes is outside the scope of this thesis, primarily because none of the participants mentioned dropping out because of opportunity costs. Nevertheless, future uncertainties around employment did affect participants' experience, in particular their sense of belonging, and they questioned whether an academic career was their desired outcome.

The perceived quick and easy successes achieved by others not engaged in the PhD enterprise caused frustration. It also increased the participants' propensity to plan courses of action—through self-observation and reflection—to alter their current actions and behaviours accordingly. Frustration, even annoyance, about potential opportunity costs served as a catalyst for participants to exercise personal agency to achieve forward momentum and progress.

Another external concern raised by participants was whether their research would be judged 'good enough' or whether their research was significant enough to make a difference to society or, indeed, be accepted by society. These concerns had a direct effect on participants' sense of belonging and gave rise to what I will call the 'ugly' questions around 'Why am I doing this?' The purpose of entering the PhD was discussed in Chapter 1 of this thesis, and the findings suggest that if the participant had entered the PhD for the credential rather than for the personal development process, the perceived opportunity costs resulted in them questioning why they were dedicating years to something that may not have the outcome they had planned. However, even for those participants who had entered the PhD for the personal and professional development, family and social pressures around purpose and outcomes had negative effects on their physiological state. Worrying ultimately led to agentic behaviours to take control and improve their research progress and self-efficacy. For example, in the following narrative, a participant described declining a role that would provide him with financial freedom because it would also mean handing over control of his own research to an organisation. He did this at the cost of immediate financial security and exercised relational agency by more closely aligning himself with his supervisor to reach his goal objective and future benefits.

Early this week I was offered a permanent full-time job with the employer for who I work one day a week. They offered me a job with a decent salary, working in my field, and with the option of continuing to do a PhD on one of their projects. I was only given one day to decide what to do! I eventually decided to turn down the offer in favour of continuing with my current supervisor, as I preferred the direction that my research was taking with him. But it was a trade off, trading more financial freedom and exposure to the industry for my personal development goals. Thankfully, I am receiving enough financial support from my supervisor not to be too tempted. There is however a constant reminder that I am earning only a small amount of money and that I could be much more well off, and reach some of my other goals (like start a family and buy a house) more quickly if I abandoned the PhD. I have had to make a conscious decision to defer these goals, and am constantly (it seems) having to reaffirm my commitment. (JC, 24th May)

It is worth noting that the majority of participants in this research were undertaking their research on a full-time basis. It could be argued that for part-time PhD researchers, their sense of belonging and even their purpose in doing the PhD would be aligned with their ongoing career development, and hence the sense of purpose would be less acute. The same could be said for participants' self-efficacy. For example, a part-time PhD

researcher's self-efficacy could be supported by how they perceive themselves in their professional or practice life, not only in their role as a PhD researcher. The acutely personal and affective aspect of being in a liminal space may be reduced for part-time PhD researchers because their PhD experience would be balanced with their other way of being. However, part-time PhD researchers may have less access to relational engagement with others, and this will be discussed later in the relational chapters (Chapters 6, 7 and 8).

When the PhD phase was ending or their scholarship was running out, participants became increasingly aware of how they were spending their time.

When I started, I did work from home – you're all enthusiastic. But throughout most of the middle bit, and until recently, I didn't work from home at all. I didn't work on the weekend, and I didn't work after hours when I got home. But now, more recently, because I've got those deadlines and it's more like it's the inspiration to finish that I really do and stay up to finish the project. The supervisor says I need the chapter by Friday – so I stay up late Thursday night to do it. Now it's at the pointy end. (SK, 8th May)

As doctoral completion deadlines drew near, self-imposed deadlines started to appear also. These provided inspiration and energy as well as anxiety. The surge of inspiration and energy appears to be linked to what some participants referred to as 'seeing the light at the end of the tunnel'. Their time in this liminal space was finally coming to an end. For some, this resulted in a renewed focus on the task at hand, with less time for stalling and procrastination behaviours because there was now both a deadline and a finish line. This for many provided the structure they had missed so much during the earlier phases. A looming completion deadline and the perception of structure tended to have a positive effect on participants' physiological and emotional states. Whenever possible, the participants exercised their agency to set time specific tasks, even when these tasks were boring and repetitive, in order to establish a sense of forward momentum (Wäschle, Allgaier, Lachner, Fink & Nückels, 2014) and achieve their progress goals.

4.6 The Literature

I now address what others have written about the PhD environment and how it affects the lived experiences of PhD students relative to the findings revealed in this chapter. Here I

discuss how these findings are supported, note the points of difference, and review the contribution of this research to the literature on the lived experience of being in this environment. In particular the impact the environment had on participants self-efficacy and sense of belonging.

4.6.1 Liminality as a Space or Rite of Passage

Reference to liminality has been explored in the PhD literature that challenges the status quo. Like other researchers (Keefer, 2015; Keefer, Wisker & Kiley, 2015; Kiley 2009; Land, 2014; Pack, 2009; Purdy & Walker, 2013; Trafford & Leshem, 2009; Ward, 2013), I too turned to Victor Turner's (2008) definition of 'liminality' as a transition of self and status of identity to describe the PhD experience as a *rite of passage*. Grounded in anthropology, liminality heralds a rite of passage through uncertain terrain and a time during which we remove and distance ourselves from friends and family (Smith, 2009) to attain a transformed self. It is a transition during which time appears to pass in slow motion while the existential world time ticks over at a faster pace than the pace of time in liminal space. The liminal phase has an ontological perspective for the researcher as a condition of observing their own practice.

In his reflection as an action researcher in a faith-based organisation, Burns (2012, p. 269) argued that the researcher is situated in three liminal positions: observing one's actions as a researcher, the PhD environment or program, and the changed status of the person in the making. He suggested that these three liminal positions challenge the individual's power or lack thereof as a researcher in the making. He asked whether this 'liminality inhibits craft' and found that perceived power imbalance and authority 'inhibits both facilitation and effective learning in action'. In my research, although the participants did not report on discriminatory power imbalance, *being* a student did affect their sense of personal agency and forward momentum while trying to regain sufficient self-efficacy to take control of their own development.

The literature has also explored the notion of uncertainty around what the PhD entails. Becher and Trowler (2001) in their seminal work on the academic landscape suggest that newcomers need to work their way through the 'folkloric discourses and codes of practice and convention' (p. 48) of their tribe and somehow gain access to the 'hidden curriculum' (p. 48). In terms of curriculum, there is growing consensus that there is a lack of PhD curriculum. In fact, Hopwood, Boud, Lee, Dahlgren & Kiley (2010) on the perceived lack of curriculum or PhD curriculum argue that this is a 'rich, powerful, contested, difficult and sometimes slippery notion' (p. 83). This leads to the question: If there is no curriculum, what then is the nature or the purpose of the PhD? Ward (2013) raised this point in her thesis, where she argued that there is no rational plan to help participants who inhabit this space:

It's a state which moves at it [*sic*] own pace, regardless of how much planning or work you do, because it is not a product of a rational plan (although having rational plan may help you negotiate it). You will continue to inhabit this liminal space until you have worked out what it is you need to know in order to cross the final threshold. Only you will know what this will be, and no one can achieve your goal for you—although people may help, and there may be guides available, none will contain the complete answer. (Ward, 2013, p. 5)

4.6.2 Living in a Liminal Space as a Phase in Time

Time in liminality is at odds with our socially constructed norms of time. In the spatialtemporal academic construction of time, PhD researchers are pressured to perform while also enjoying what Keenoy (2005) referred to as the notion of academic freedom. This highlights a tension experienced by the participants in this research whose PhD time was tied to an academic construct of time regardless of the fact that time is not a measure of transformation or movement in a structureless liminal state.

There is agreement that liminality is, or should be, a temporary phase because it is a transition from one to another; in other words, it is an ontological state of 'being' as one develops their epistemology or knowing. The epistemology or knowing provides the forward momentum to move through being in liminality. This notion is supported by Araújo (2005), who asserts that the PhD is a phase that situates PhD researchers' lives within a temporal line because it defines an interval of time.

In this sense, the 'phase' is a designation that 'freezes' time, insofar it respects to a linear representation of time in which time itself may be controlled, managed and allocated according to a personal attitude that tends to postpone everything which is regarded as possibly disturbing. (Araújo, 2005, p. 208)

The word *phase* is socially constructed as being in a space bound by time and is only temporarily inhabited. Humphrey and Simpson (2012) propose that it is 'a place and a time which is outside of the conventional structures of process and in which there is the opportunity to engage in play and experimentation in relation to values and assumptions that might otherwise be constrained by the structure and conventions that prevail in other contexts' (p. 744). This idea is also supported by Burns (2012), who suggests that liminal spaces are 'places to be explored' (p. 272). However, this view is at odds with the contemporary academic socially constructed norm of time. Here, time to completion is measured, and timely completions are rewarded (e.g., CAPA, 2012; Green & Bowden, 2012; Jiranek, 2010; Pearson et al., 2011). These views of liminality are at odds with each other. This supports the finding by Crane et al., (2016) in their report Engaging postgraduate students and supporting higher education to enhance the 21st century student experience that there is limited support or guidance provided by universities to prepare postgraduate students for their transitioning experience. Contemporary literature suggests that the PhD researcher inhabit this liminal space in which socially constructed norms relating to place and time should be suspended while she or he pursues and explores and yet academic institutional norms deter this practice by setting time constraints.

4.6.3 Crossing Liminality as a Threshold

Hofmann and Voloch (2012) proposed that when liminality as a threshold has been breached, there is no clear boundary between our other self (old self) and our new self, but there is tension as the boundary is brokered and breached. Our sense of self is tested to establish on which side of the boundary we feel comfortable. But 'feeling comfortable' is not a description used in PhD experiential dialogue. This is a dialogue steeped in a lack of clarity and a sense of uncertainty. Breaching the boundary between new and old is fraught with tensions and uncertainty as we garner sufficient self-efficacy to meet the challenge to cross.

Whereas Kiley and Wisker (2009, p. 432) argued that it involves crossing multiple conceptual thresholds that are linked to the formation of academic identity, while Deegan and Hill (1991, p. 322) describe the PhD process in sociology as a liminal journey that is a

'conflictual rite de passage'. This research, however, indicates that the challenges or thresholds are indeed multiple and also about negotiating one's expectations and perceptions of the PhD, finding a balance to deal with diversions, and managing relational aspects to develop academic identity either on one's own or through relational agency to develop self-efficacy. This may also depend on the research discipline.

Being in a liminal phase requires students to develop what Meyer and Land (2006, p.xvi) defined as a 'purposive coping strategy' to establish clarity in uncertainty. However, attaining clarity is not a linear process, and Land (2014) argued that 'liminality ceases to be a clearly differentiated linear sequence of pre-liminal, liminal, and post-liminal states on the grounds that a "true learner is never in a permanent postliminal state" (Land 2014, p.9 quoting Bailie et al 2013 p. 243). The liminal state is what we inhabit as lifelong learners and where we develop the capabilities for what is called 'knowledge capability'—the capacity to deal with the new and the unstructured and perhaps even confronting experiences. This capability is developed as a result of breaking through and crossing potentially numerous liminal states and their thresholds. This process of crossing liminality thresholds is a transformative challenge that results in resilience and independence in the face of the unknown.

Kiley and Wisker (2009) defined liminality as 'crossing a conceptual threshold [that] involves a transformed way of understanding, interpreting or viewing "something" (p. 440), and without this new way of seeing, the learner cannot progress at the level required for more advanced study or research. Trafford and Leshem (2009) defined the 'doctorateness threshold' as one that essentially blocks a candidate's ability to move forward, which is often the result of not understanding or 'not getting it' (p. 309)—hence, moving from an ontology of *being* a PhD researcher to an epistemology of having completed a PhD. The other term is that of *being stuck* in writing or in moving forward in a liminal space, where numerous obstacles must be overcome before once can move on (e.g., Humphrey & Simpson, 2012; Kiley, 2009; Meyer & Land, 2006; Turner, 1995) and transformation can occur. Trafford and Leshem (2009) suggest that because of the uncertainty, PhD researchers' 'enthusiasm and excitement for research, and even for the doctorate itself, can suffer because they feel confused by knowing that they are not making progress. . . . this can produce emotions of annoyance, dismay, loss of confidence or reduced self-esteem' (p. 312) and result in the negative emotions that van Gennep (1960)

referred to as liminality. Because of these uncertainties, PhD researchers may start doubting their ability and essentially stall.

This research highlighted that being in a liminal space is about dealing with the unknown and developing self-efficacy to overcome challenges, or cross threshold, in a timely manner. So, how is this achieved? In this research, participants achieved this by exercising their personal agency through deliberate forethought and planning (Bandura, 2001; Bandura, 2012; Wäschle et al., 2014; Zimmerman, 2002) to develop their self-efficacy and motivation to continue, even in what were uncomfortable situations.

Therefore, the question is: What processes are effective for developing self-efficacy? Specific challenges rather than vague goals, and shorter or more proximal goals with appropriate feedback and standards in place to gauge progress will all contribute to a sense of forward momentum, because as Schunk and Pajares (2002, p. 15) argue, a perception of progress strengthens self-efficacy and motivates people to continue.

4.7 Conclusion

All this freedom to do what I want, but I don't know what to do. (AM)

For the participants in this study, entering the adventure park involved dealing with uncertainty that challenged their way of knowing. Not knowing resulted in them questioning their self-efficacy, their sense of belonging and their authenticity in this environment. Transitioning through a liminal space occurred as participants encountered what Hibbert and Cunliffe (2015) describe as 'unsettling feelings of confusion, doubt, and frustration' (p. 181). Frequently, this uncertainty impaired participants' self-efficacy; although, their own reflexive practice that they shared with me highlighted how they understood that the responsibility for action and agency to achieve forward momentum and progress lay within their own behaviour.

In this chapter, I have presented four interconnected themes in the environmental dimension and discussed how the participants' desire for forward momentum and progress drove their behaviour. The participants' reported experiences focused on the uncertainty of being in this environment and the impact of that uncertainty on their lived experience.

Generally, the findings indicate that uncertainty initially reduced self-efficacy because, at first, they did not know what to do. This essentially reduced their sense of forward momentum and progress, which exacerbated their uncertainty. That participants could possess mastery while in the process of being a PhD researcher, particularly in earlier phases, could be a bit of a paradox, but I contend that this may have been due to participants' perception or misconception of what the PhD would entail for them and their personal reaction to the uncertainty. This finding confirms the Group of Eight's (2013) discussion around the purpose of the PhD and the nature of the PhD student. From a critical incident perspective, being in a liminal phase or this unstructured environment reduced the participants' ability to regulate their behaviour, not because they were unmotivated but because the uncertainty reduced their self-efficacy until they had the required time or intellectual space (Green & Bowden, 2012). This pointed to how time proved to be another element of being in a liminal space that affected their self-efficacy because using time to measure forward momentum and progress proved difficult especially when compared with other academic pursuits that are distinctly punctuated. The findings indicate that to restore a sense of familiarity, participants exercised their personal agency to establish or re-establish their own deadlines in order to create time pressures, which improved their physiological state.

These findings show that what may initially be considered as negative experiences can lead to positive behaviours and actions to learn new skills in order to achieve the desired outcome: forward moment and progress. The participants' way of being was challenging their way of knowing, and hence they needed to review and re-establish their way of knowing. In other words, participants used forethought and self-reflection to exercise self-regulating behaviour through actions. These findings contribute another aspect to the discussion around the nature of the PhD experience, an aspect that has yet to be explored in the literature.

The final theme discussed in this chapter illustrated how being in a liminal space was perceived by participants as being 'stuck in a weird existence' for an undefined phase of time that consumed other elements of their life. For the participants in this research, there remained an underlying opportunity cost to being a PhD researcher. Comparing their personal progress with the progress of others caused frustration. While the literature discussed in this chapter acknowledges the opportunity cost associated with being a PhD

researcher, this research highlights that this frustration with—and even annoyance at potential opportunity costs led participants to take control in order to manage their forward momentum and progress.

The findings in this chapter support and contribute to the literature in that the experience of being in a liminal space can be uncomfortable and cause considerable uncertainty. None of the literature reviewed had examined the experience from a self-efficacy perspective. In doing so, this research has shown how experienced task uncertainty while being in a liminal space has a negative impact on self-efficacy, sense of belonging, and motivation. This research has also shown how participants perceive the implicit nature of the tasks and how as newcomers they often struggle to access the 'hidden curriculum' (Becher & Trowler, 2001, p. 48). Being in a liminal space is about transforming the individual from a novice to an independent and resilient researcher. Participants' narratives certainly indicated how they exercised their personal agency to take control for forward momentum and progress—the hallmarks of becoming an independent researcher.

A contribution to the literature is the positive note in what could be a critical experience. This chapter has presented how participants used their agency by deliberately using forethought and self-reflection to exercise self-regulating behaviour in order to improve their forward momentum and progress. Nevertheless, beyond the uncertainty of being in a liminal space for a time phase, there were also distractions and diversions for the participants to deal with. As the following chapter elaborates, there were other things—real or perceived— that got in the way. This meant that participants faced diversions/distractions and had to make choices and deal with the consequences: either maintain forward momentum and progress or stall and procrastinate.

Chapter 5: Forward Momentum, Stalling and Procrastinating in a Liminal Space

5.1 Introduction

This second and final chapter on the environmental dimension focuses on the causes, choices and consequences that drove forward momentum, stalling and procrastination in the liminal space. PhD researchers enter a liminal space that initially challenges their self-efficacy and sense of belonging. Many of the participants in this research brought with them perceptions and expectations of what the PhD experience would entail, only to find that they needed to establish or re-establish their way of knowing and being. The ongoing theme in this chapter is the participants' desire for forward momentum and the progression of their PhD research. In fact, what got in the way of their progress and the actions and behaviours they employed in order to create and maintain forward momentum was the key theme of participants' narratives. In Chapter 4, the liminal nature of the environment was explored. That exploration highlighted the uncertainty and unpreparedness that participants experienced in being in a transformational space that challenged their way of being and knowing. In addition, the period of time that participants needed to spend in what was referred to as 'a weird existence' was often at odds with their expectations and made it challenging for them to measure their forward momentum and progress.

In this chapter, I report the causes, choices and consequences of diversions, stalling and lack of forward momentum, and discuss the possibility of them being a consequence of uncertainty and fear, or a factor of being in a liminal space. I commence with a discussion of the reported diversions; the behaviours, such as stalling and procrastinating; and the emotions attached to the behaviours. I then discuss how participants grappled with finding balance before I move on to the relational dimension chapters.

The findings presented and discussed here were analysed through a sociol-cognitive lens, using Bandura's (1997) self-efficacy and reciprocal determinism framework to establish the level of task self-efficacy participants possessed to motivate and effect change. Personal self-efficacy is situated within Bandura's (1997) sociol-cognitive theory and represents 'one's capabilities to organize and execute the courses of action required to

produce given attainments' (p. 3). Self-efficacy is related to tasks and function domains, so self-efficacy is narrow in scope. Self-efficacy motivates people to undertake certain projects and tasks, and it impacts on their choice of actions and behaviours. It also affects people's aspirations and equips them with a sense of persistence that may otherwise be missing, and it has been found to have a direct effect on academic performance (Phan, 2016).

5.2 Forward Momentum Versus Stalling or Procrastinating

Generally, participants reported on diversions. Diversions were 'things that got in the way' and diverted their focus from being the PhD researcher they wanted to be. Being in a liminal space was often portrayed by participants as an uncomfortable experience spent grappling with diversions, real or perceived, that could distract, reduce forward momentum and progress, and cause them to stall.

The reported diversions came in many forms, such as the demands from other roles, the (university) bureaucracy, and uncertainty. Participants perceived diversions as taking them away from being a good student; that is, one who is focused, hardworking and progressing their PhD thesis. Diversions competed with time and subsequently had a significant impact on how the PhD was emotionally experienced. The other theme relates to the participants' choices around stalling and procrastinating versus forward momentum. The long-term nature of the PhD means there were phases of dull monotony that reduced their sense of forward momentum, and there were phases of resting between moving from one milestone to another.

I then explore the emotions associated with levels of productivity, and the impact of positive feedback loops on wellbeing and guilt. Then I move on to finding balance between the PhD and those other things. As a result, the emphasis shifts to behaviours and actions to find a balance between the environmental and relational aspects of the lived experience. Here again the reciprocal relationship between the environmental, relational and actions and behaviours that foster or hinder forward momentum and progress become evident.

In other news, I continue to relish the opportunities for travel that academia provides. I recently attended a conference in XXXXXX, and in February will attend a conference in XXXXXX. However, I also plan to cut down my commitments next year, to leave more space to focus on writing and thinking. This year I have given four conference papers, been involved in the production of two academic journals, taught sixty first year students, and acted as postgraduate representative on the peak body of Australian XXXXXX. It has been wonderful, but all rather distracting, and I increasingly feel the need to hunker down and concentrate ...I loved being away but it's sort of – I feel that I am better able to concentrate on my own research being home. Because there isn't the distraction, new places, and new people to interact with. (AR, December)

The common thread in the findings is the participants' desire to progress their PhD. A sense of forward momentum and progress had a positive effect on the participants' emotional and physiological state, which bolstered self-efficacy and agentic behaviour. For participants to experience and achieve that forward momentum, they needed to iteratively develop and build on their self-efficacy to tackle increased levels of domain challenges. This meant that developing self-efficacy once was not sufficient because PhD domain tasks and challenges were progressively evolving. Self-efficacy provided motivation and resilience to keep going in the face of challenges, but participants also needed to validate their sense of belonging.

I define the term *to stall* or *stalling* as stopping, halting, hedging or hesitating, either temporarily or permanently until such time as the hurdle or obstacle has been removed or overcome. I use the term *stall* because it indicates a standstill or a lack of movement within a period of time, or a pause in order to recover, recoup, or develop and transform. However, stalling is sometimes procrastination. Procrastination is a lack of forward momentum that may be due to a lack of focus or a lack of interest and discipline. Participants' reports, however, did not report a lack of focus; they reported a lack of ability to be disciplined, either because the task was boring or because of task aversion. Generally, procrastinating behaviours reported were conscious or subconscious behaviours brought about by feelings of uncertainty, fear and low self-efficacy. Procrastinating behaviours may also be brought about by boredom, and loss of interest or sense of belonging.

5.2.1 Things That Got in the Way

The majority of participants undertook paid work and held roles external to their PhD, such as teaching or other academic or professional roles. During this research, only three participants did not have a scholarship to undertake their PhD. One of those three was retired. The remaining two were engaged in paid work outside academia and outside their research practice, and due to these other commitments, they were enrolled on a part-time basis. One of the remaining two was a personal carer for a relative, and the other had just commenced a new full-time professional role that was not associated with her research. Due to the latter's new work commitment and the role's non-alignment with her research, she withdrew from her PhD within the first six months of commencing. She was the only participant during this research project to discontinue their PhD before successful completion. She reported discontinuing her PhD because her new role absorbed a lot of her energy and was not aligned with her research, which led her to question how doing this participant's experience highlights the need for goal alignment and a sense of belonging to sustain motivation and purpose (Sweitzer, 2009).

When participants doubted whether the PhD would result in the desired outcomes and intentions, they questioned their sense of belonging and their ability to sustain the effort required to complete, irrespective of task self-efficacy. Irrespective of self-efficacy, a participant could become disengaged if:

a) they did not have a sense of belonging or feel they fitted into the relational and environmental dimensions, and/or

b) the intention or intended future outcome was no longer perceived as important or relevant to present intentioned outcomes.

This finding is in line with socio-cognitive theory, which proposes that agency is exercised through actions and behaviours for desired outcomes to happen (Bandura, 2001).

Nevertheless, for the participants, there was a bidirectional effect between being a PhD researcher and their personal or private life. The interchange between the PhD and the personal life dimension meant that participants at times experienced role strain (Bates & Goff, 2012; Webb, 2010). Role strain occurs when an individual has difficulty maintaining or balancing multiple roles (Webb, 2010), and it appeared especially relevant for participants with other responsibilities or roles and external family commitments.

So juggling – I guess my personal and private life in XXXXX was easier because there were fewer variables. I could just do what I wanted when I wanted really. I think it's a bit – it's definitely a lot different here but I'm not – I don't really feel like I'm juggling because I don't feel that busy. I don't feel – I don't know if I can call it 'juggling' because juggling to me means that I haven't got a moment to think about anything else and I've got a million balls in the air at once. It doesn't feel like that. It feels like I've got a lot going on in the background, and I choose to focus on one thing and that kind of comes to the fore. I don't feel like all the balls are up in the air and I'm trying to catch them. And so there's all this stuff in the background, and sometimes if I'm lazy or unmotivated I don't choose any of them to focus on; I just kind of flounder around. But other times, then I do get down to work, and I get stuff done. (AM, 10th December)

5.2.2 Other Roles

For many participants, other paid roles augmented their meagre scholarship stipends and, for some, became the principal source of income when their scholarships dried up. They reported high levels of personal satisfaction and for some, these paid roles also provided synergistic opportunities to engage with other people in an academic environment. However, regardless of the reported enjoyment and synergetic effects, when the paid work was attributed to the need to earn sufficient money because their scholarships had dried up, there was a sense among participants that this paid work diluted their focus on the PhD—deemed their main purpose —and therefore raised concern about the amount of time and energy spent away from the PhD. These findings suggest that when the participants were in control of their 'other' paid work requirements, those other roles were not perceived as a diversion, whereas paid work— critical for their financial survival—was perceived as a diversion.

However, when other roles improved their mastery performance, their emotional and physiological states were improved, even without immediate perceived PhD progress. I propose that this was because relational engagement with other researchers, particularly when working collaboratively on research projects where there was a perceived synergy between the project and their own PhD research, validated the participants' sense of

belonging. This supports the notion of integration and persistence that Milem and Berger (1997) explored using theory of involvement and theory of interaction. Milem and Berger (1997) found that 'various forms of involvement do influence students' perception of institutional support and peer support . . . these perceptions of support appear to have an effect on students' levels of institutional commitment' (p. 398). This could also explain why, for participants, roles and activities away from the PhD could appear to be diversions—because they may not immediately result in mastery or performance—whereas, the findings indicate that such roles and activities could support participants' sense of belonging (Lieff, Baker, Mori, Egan-Lee, Chin & Reeves, 2012, p. 312). For example, one participant who worked on a project not directly related to her research found it provided her with validation and sense of acceptance by others because 'performance-contingent and proximal goals each provide information to learners about their progress' (Schunk & Pajares, 2002, p. 17), which added to her sense of achievement and self-efficacy.

It's good at the moment. I'm quite enjoying it. I'm feeling sort of increasingly confident about my topic and sort of where it's going. I found it a bit frustrating I suppose the last month, particularly because I've been teaching this semester and there's been a lot of marking and so on to do. That means I haven't had as much time to work on the PhD as I'd like, but it's generally going well at the moment. (AR, 23rd October)

Semester 1 then Summer Semester completed, done teaching at master's and MBA level. I love it, I would like to do it more, but I have decided that two semesters was enough. It takes up too much of my time because I want to be good at it, and it is distracting from the main game of getting my PhD done. (TM, 15th February)

These other roles validated participants' capacity and had a positive effect on their physiological state and sense of belonging. The participants exercised forethought and engaged in behaviour to capture these relational opportunities to improve efficacy. The characteristics of agency include intent, forethought, self-reactiveness and self-reflectiveness. This means that people do not blindly follow an objective but will alter their course of action towards that objective relative to their environmental and relational requirements. Nevertheless, the challenge to realise their intent for many participants lay in

finding a balance between these other roles—work and academic activities—and the space to progress their own thesis.

5.2.3 Bureaucracy

My period of ill health certainly impacted on my research. I originally intended to study, in relation to health reasons and other commitments, about 0.75 FTE. I found this untenable in terms of funding. Barriers to this included difficulty in accessing scholarship opportunities as part time student – many required fulltime enrolment. The APA scholarship is only funded at a 1.0 or 0.5 FTE rate, there is no flexibility. It is fully taxed if part-time. Although this has been an issue from the commencement of the PhD, recent difficulties have made it a prominent concern again. A lot of time, effort (and worry) is caught up in trying to sort out how I might keep paying the bills if shifting to part-time. To my mind, as a student officially with a disability, this is a form of indirect discrimination. The loss of time has impacted on my interviewing and contributed to loss of some participants, I suspect. (MC, 15th July)

I am ALMOST through the quicksand of getting a new laptop and suffering through getting Windows 8 and Office 365 working. Such a first world problem to have really isn't it...but there you go. It has been distracting. (TM, 9th April)

Another reported distraction was dealing with the bureaucracy of higher education. Participants reported spending considerable time and energy trying to retain what they perceived as their legitimate rights. This included, for example, access to resources, such as computers, office space, data and funding, which they felt were necessary to undertake their research. Participants rarely used their supervisor as an agent to resolve bureaucratic diversions, although they did keep their supervisors informed. I propose that the participants perceived that the primary roles of their supervisor were to guide them through the research process and be a subject-matter expert, and they felt that their supervisor would be too busy to be bothered with bureaucratic issues. The other possible explanation is that the participants wanted to exercise personal agency, and they saw these bureaucratic issues as something they could control, whereas they needed the supervisor as the guide for

the research, something they may have perceived as having less ability to do or to control on their own.

This is probably more insightful and articulate than my rant. Sometimes in this PhD game (as in life really) you feel so out of control of your own destiny. You work hard and try to meet all the criteria (set by others!) and you are not always rewarded for it. I just don't like the trapped feeling of waiting for someone else to judge or decide what I can and can't do. It makes me feel part of a system! I tried to escape the system coming to academia (i.e., I hated the 9–5 rat race) only to find myself in another system, which is decidedly less predictable. There are A LOT of freedoms being a PhD student, which I sometimes take for granted, especially when I'm pissed off about an application I spent ages on, and then spent ages waiting on the outcome for, only to be told 'computer says no!'. (AM, 12th April)

Frustrations with the academia bureaucracy resulted in participants acting mindfully and engaging in 'self-enabling' self-talk (Bandura, 2001, p.5) to motivate themselves to continue in the face of what appeared to them as a hostile environment. Therefore, while the bureaucracy, financial worries and other roles could all be perceived as diversions that could detract focus away from the PhD, participants exhibited behaviours in which they deliberately set out to take control and improve their self-efficacy to complete their research and thereby address the 'diversions' and avoid them becoming long-term distractions.

5.2.4 Physiological State

In this chapter, I have thus far discussed some reported issues that got in the way and how participants dealt with those diversions. However, those issues were not the only obstacles to achieving forward momentum. I now discuss how participants' physiological and emotional states could be an obstacle or diversion that stalled their forward momentum and progress.

One reason for stalling is uncertainty. In other words, if one does not know what to do, it can be very difficult to progress. In Chapter 4, I discussed how 'uncertainty' was reported

by participants as an integral part of entering this environment. Uncertainty reduced participants' forward momentum and progress, and they questioned their task efficacy and sense of belonging. This uncertainty also challenged participants' willingness to tackle the task because they questioned their capability.

How do I feel about my doctorate this week? I'd say less positive than previously. I'm starting to feel exactly how daunting this is. ... The enormity of the challenges and knowing that perhaps not exactly perhaps I don't have all the skills that I need. Writing for me is the biggest issue and challenge and I'm finding it – by the end of my PhD I need to be able to write well. ... And I'm just worried that they're going to look at me and go 'you know maybe I'm not good enough'. And that's really, really, scary. (SH, 12th April)

At times, the challenge lay with participants' sense of belonging. Without a sense of belonging, their goal orientation or motivation was in question. With a low sense of belonging, participants questioned not only their ability but also whether they still wanted to pursue the PhD goal. Self-efficacy could improve confidence, motivation and resilience in the face of task challenges, but to establish or re-establish their sense of belonging, they required validation. Validation was attained through relational experiences with others—that is, through a process of engaging, doing and performing—and will be discussed in further detail in the relational chapters that follow.

Self-efficacy is domain-, situational- and task-based. What participants believed their abilities to be was not uniform across domains because self-efficacy itself is not a trait (Bandura, 2012, p. 13). In other words, success in other domains did not result in self-efficacy in the PhD domain, and this research found that one of the key challenges to participants' self-efficacy was academic writing.

The whole thing is worrying me. I have all of part two to be working on and I have stalled over rewrites of part one which (according to my 'proposed timetable for completion') should be over and done with by now. (RR, 15th May)

The 'need to write' and academic writing as a task was one of the most compelling challenges participants reported on. In fact, the need to write and their perceived inability

to write created tensions even for those with an academic background and experience in academic writing. This highlighted that the hurdle is not necessarily the task of academic writing per se and that stalling and procrastinating about writing is not exclusively related to mastery performance issues but also to participants' physiological and emotional state and their sense of belonging. There is a strong emotional and physiological component to writing, beyond mastery performance. This finding does not imply that academic writing efficacy cannot be improved through the many suggestions in the literature. What it does imply is that there is an emotional dimension to writing that requires validation.

5.3 Blaming Diversions for Stalling and Procrastinating

The belief that we can undertake a task is established during the forethought stage (Wäschle et al., 2014). For example, when we consider a task, we evaluate whether that task is pleasant. We question whether it is something that we wish to do, and we perceive our ability or self-efficacy regarding that task according to our self-efficacy based on prior experiences. It is in this forethought stage that participants were less likely to tackle a task (Wäschle et al., 2014, p. 105). They may have perceived the task to be unpleasant or aversive, or their task efficacy to be low. Earlier in this chapter, I discussed how stalling or putting off tackling a challenge could be due to uncertainty and fear. At other times, stalling may be a result of not taking the time necessary; it takes time (see Chapter 4) to develop the necessary skill and knowledge, or mastery performance. At other times, participants may have engaged in what Kearns, Forbes et al. (2008) describe as self-handicapping behaviour for which diversions become an excuse, and I will refer to this later in a discussion of procrastinating behaviours.

Nonetheless, distinguishing between stalling, pausing to gain the necessary self-efficacy before tackling the next challenge and procrastinating or hedging in the form of self-sabotaging behaviour to avoid the task, is somewhat difficult. On close examination, self-sabotaging or procrastinating behaviours became noticeable in participants who:

- held low self-efficacy because they could not establish a mastery performance experience;
- had negative vicarious experiences or little relational engagement;
- received little or no verbal persuasion from a convincing source, such as a supervisor; and
- had a reduced physiological state.

The following narrative is from a participant who, at the time of this narrative, had not had a mastery performance experience and had experienced little engagement with others; in addition, her sense of belonging was often in question because she could not identify her practice or research within an academic environment. Nevertheless, in this reflection, she identifies how her behaviours are having a negative effect on her forward momentum but appears at this point unable to alter this behaviour.

All of my coaching practice sessions are about how can I get this writing done. So I'm trying all sorts of different mechanisms to just get myself to sit down and integrate those ideas and just sort of write them down. I think my drive to find out is so strong that you know I'm always going off on those – oh wow that looks really interesting – oh wow that's so insightful – oh wow that's really great – I will just a make a few notes on that. And then the hours have gone and I haven't actually written and integrated that into 'What does that really mean for me?'. So I find that – that's a real hurdle that I think I'm slowly building the brick by brick steps to get over that hurdle. (TM, 2nd July)

I do have time each day totally consumed by fear and guilt. Guilt that I am not working until late at night and on the weekends like so many others seem to be doing. Fear that as a result I am not going to make it. My first milestone is really really due in early Jan. I will be on hols [holiday] then so really it is early December. The document that I need to submit 6 weeks prior is barely an outline at this stage so I think there is no doubt I will miss it. I am hiding from that reality too. Just hoping that the fact that I actually did write 500 words today will help me to write 600 tomorrow and 700 the day after that. I just have to keep on going don't I. I still have my weekly coaching practice calls as part of my coaching training and each week some dear colleague helps to get through a few more days. (TM, 4th October)

This behaviour exhibits what Kearns, Forbes et al. (2008, p.30) labelled as perfectionistic 'self-sabotaging' behaviours. Rather than complete the task at a standard that was not *perfection*, the participant continued to stall or put off starting and completing the task, and she gave diversions and distractions as the reason for not successfully tackling the task.

The findings imply that just because an individual had an internal locus of control (Rotter 1954, 1966), the belief that outcomes are controllable and based on personal effort did not equate to self-efficacy or belief in task competence. For example, a participant may believe that if they engage in certain behaviours, such as time and effort spent working on a project, this means they are in control of their own success and that equates to self-confidence to undertake a challenge such as the PhD. This supports the notion that their previous way of knowing, or epistemology, was challenged, and planned behaviours did not result in actioned behaviours or they resulted in outcomes that had a negative effect on self-efficacy and sense of belonging. Expression of guilt was sometimes used as an emotional confessional to legitimise this behaviour in situations they could have controlled. I propose that until this behaviour cycle was broken it lowered their physiological state and ability to exercise personal agency.

5.3.1 Task Aversion: It's Boring Grunt Work

For participants in this research, being in a liminal space was experienced as a long drawnout phase with relatively few points of perceived progress but many points of monotony. This monotony was sometimes expressed as repetitive 'grunt work', and participants questioned the utility of or reason for some of these tasks. I have labelled this experience *task aversion* and suggest that stalling behaviours could result when a task felt uncomfortable, distasteful or downright boring or when the value of the task was in question.

I've been very active with recruitment in recent weeks, trying to flesh out my core sample. This, yet again, is something I procrastinate about as I don't like feeling like a salesman, even with the best of intentions I know there's an opportunity cost of effort that might be expended elsewhere when I seek support from those providing services in the area. A little silly, I recognise, but then I acknowledge I am someone who can be silly about silly things. Applying Covey's Grid to my project as a whole, for current tasks and goals, is helping me keep on track here. (MC, 24th April)

Their research sometimes required participants to perform tasks that were not suited to their personality or that were inconsistent with the perceived independent nature of their research. One such task was participant recruitment, which was referred to by some as 'feeling like a salesperson'. A possible explanation for this is that they were shy and did not wish to cause discomfort—to themselves or others—or they did not want others to feel obliged to contribute to their research. However, these feelings could also be related to participants' desire for research independence, and may suggest a reciprocal determinism view whereby asking for favours and support from others may require reciprocal favours, which could threaten the independent nature of their research.

Repetitive tasks that yielded little sense of forward momentum led to boredom, and phases with few perceived milestones resulted in what one participant called *monotonous anxiety*.

Sometimes trying to get your head around it though – that can be frustrating. Filling out ethics forms is not that exciting – doing it again in a slightly different format seven times over is not that much fun. I want to get it done. I want to get the thing done, and in order to do that you just do the work. ... Probably the hardest thing to get done was ethics – because it was boring. Having said that – it didn't take weeks of full-time work to do it. You can see progress. You can keep going. Because if something is boring, you do want to finish it – the quicker you can get it done – the better. (KL, 13th September)

Task aversion, questioning task utility, such as bureaucratic requirements, and repetitive boring tasks diminished participants' physiological state and resulted in unproductive behaviour, such as stalling or even procrastinating, and consequent feelings of guilt about not controlling their personal behaviour. For some, long-term task aversion reduced their self-efficacy and sense of belonging, at which point persistence could become a problem (Pajares & Schunk, 2002).

I felt rather exhausted because of continuous hard work which affected my working efficiency and mood. I struggled sometimes because I did not feel like working – this negative thought was especially strong in the early morning when I woke up thinking that today I needed to finish re-coding one lengthy transcript. (EY, May)

I don't think I know how to manage my time. People say you can manage your time well, – you will know how to balance your time and your work. For me I am totally – I think I don't have a life. At this moment I am totally, totally, focused on my study. I can tell you that I have no holidays and no weekends and no evenings and no daytime and only if I am energetic I am working. I am going to Adelaide for one week's break. My two supervisors suggested it to me that I have two weeks break – I say OK. ... I have seen so many successful people – they can have their life, their family, their career – sometimes I feel a little bit disappointed about myself in this part, I don't know how to manage it. I am curious because I am at a stage where you must devote your life to study or career or really it's my problem and that I don't have that skill. I am struggling with that. (EY, 27th June)

Participants questioned their ability if they felt they were not as capable as others appeared to be. Consequently, vicarious reinforcement could support efficacy if it was based initially on a coping model (Schunk & Pajares, 2002) until the participant had sufficient self-efficacy to base their self-efficacy vis a vis model performers. The narrative above is from a participant who did not engage with peers and based her perceptions of her own ability on a comparison with accomplished academics and her supervisors, rather than a comparison with her peers.

5.3.2 Resting

Thus far in this chapter, I have discussed the damaging effect that low levels of forward momentum had on participants' self-efficacy and sense of belonging, but this was not always the case. They understood that forward momentum could be improved not only through more effort but also through improved or effective strategies (Schunk & Pajares, 2002), which sometimes included taking time out to collect their thoughts and pausing between challenges. For example, when a major task was completed and before the next task commenced, participants celebrated briefly those 'welcome distractions'.

I haven't jumped into the next stage yet. I think I'm procrastinating, enjoying wallowing in days that are without clear goals & responsibilities. I have used the time to reconnect with the community I'm living in, which has been valuable. But I've also made two delicious preserves (chilli jam and eggplant pickle) and some healthy nut sweets. The pantry is full and the house is clean. Yes, that definitely sounds like procrastination tactics. I think it's time to set some new goals and generate a new sense of urgency! (MW, 27th October) Successful task completions or forward momentum and progress had a cumulative effect, and with it came the expectation that they would succeed with the next task (Schunk & Pajares, 2002, p. 18). Cumulative task mastery experiences added to their self-efficacy, and a positive feedback loop was established. This is not to say that there were no further setbacks to self-efficacy or sense of belonging, but those who had their self-efficacy heightened were more invigorated and less likely to stall or procrastinate.

5.4 Emotions in Behaviours and Actions

My metaphor for this week is Dr Who. It always seems that the XXXXXX has a thousand problems he is trying to solve at once and he's always funny and enthusiasm that just seeps. I guess that it feels that that is what I am doing. ... That doesn't stop you from doing – it just kind of gives you more enthusiasm more energy – more focus – I'm more productive when I'm productive. (SH, 26th April)

Positive feedback on achievements enhanced self-efficacy, and participants with heightened self-efficacy set even higher goals for themselves (Bandura, 1993). Those with higher self-efficacy, mounted 'a vigorous effort to realise these goals', while those who were uncertain about their self-efficacy or distrusted their self-efficacy lowered their goals and reduced their efforts or stalled (Bandura, 2012, p. 18). When participants hit a positive feedback loop, it meant that rather than reducing the level of energy and effort placed into their forward momentum and progress, they increased their level of effort and set themselves higher goals (Bandura, 2012). This is in direct contradiction to perception control theory (Bandura & Locke, 2003), which suggests that the level of input is reduced when goals are achieved. The findings suggest that successful experiences created an anticipation of success that motivated participants to persist (Schunk & Pajares, 2002).

These positive feelings are very helpful for my productivity. Lately I hardly have any days that I finish feeling like I procrastinated too much or didn't achieve enough. That is a satisfying feeling in itself, because my procrastination and low productivity really bothered me for a long time earlier in my PhD. Also the positive feelings help me deal better with any setbacks. ... So... in conclusion I would say that I'm in a positive feedback loop, which is awesome! I hope to stay in it for the remainder of my PhD and hopefully I can also use the time to set up some work for post-PhD and *therefore remain in the loop rather than falling off it as soon as I submit in December. That's all for now, Hope all is well for you.* (MT, 6th September)

5.5 Wellbeing

Teaching semester has started – just getting my bearings that's all. Yeah, pretty good. I don't know how I cope with the amount of work that I've got but because I'm near the end, I don't know, I'm just busy all the time and tired but no time to get sick – really. I can't afford to get sick and I suspect that when I do finish will probably get sick but not in the short term. (SK, 8th May)

Participants often expressed emotions such as worry, anxiety and physiological exhaustion in relation to maintaining the continued level of effort required. They expressed these feelings when unable to put in the level of effort they wanted (or wished) to, or when the effort required was at a level they felt incapable of achieving. These emotions had a negative effect on their physiological state and sense of wellbeing, and perhaps unsurprisingly, participants frequently reported concern about their wellbeing. Consequently, a focus on wellbeing became a coping strategy for dealing with distractions, real or imagined.

I wish to have a good break and then get back to work, but every morning when I wake up, my brain starts to run and I tell myself that today I need to finish coding at least one transcript. I worry about my PhD study, but I worry even more about how long I can keep on working in this way. (EY, 12th April)

That's a constant worry for me and maintaining the stamina and keeping juggling – a PhD is up and down – and maybe I'm coming toward a down time because I'm a little bit stressed – a little bit tired. I'm not too sure how much longer I can keep pushing on like this but I've got a lot of good work done. And my work done is really good – which is better. (SH, 5th April)

The combination of stamina required over extended periods and little or no sense of forward movement had a negative effect on participants' emotional and physical states. They were acutely aware that this could negatively affect their health, their ability to

function adequately and their forward momentum. The perception of having some control over their work–life balance increased their sense of wellbeing (Kinman & Jones, 2008). Consequently, participants paid particular attention to maintaining adequate wellbeing to ensure forward momentum, but I propose that this was also because managing their own wellbeing was something over which they could gain control.

Participants reported an increased sense of wellbeing when they experienced a new breakthrough or progress in their PhD. At these times, there was a sense of euphoria, even in the face of other problems or crises. PhD progress had a restorative effect on participants' sense of wellbeing and could even ameliorate personal problems, especially when they had experienced a long homeostatic phase with little or no perceived progress. Consequently, the central mediating role of self-efficacy on emotional and physical wellbeing should not be underplayed.

I don't know, it's hard to tell at all from the divorce because that's what smashed my discipline and I didn't do anything for months – at all. I was making myself feel sick about it, and so there was a coincidence of me gradually getting back into it. I was getting back into at least a minimum level of discipline and engagement and maybe working for a couple of hours a day. That was just baby steps, getting back into it, but at the same time that's when I discovered my technique, my technique for analysing verse and so that really – I was so excited and amazed! I nearly spent 10 or 12 hours a day working on it for weeks and weeks at a time. So I think that coincidence really helped get me back into the swing of studying and focused enough to work at home. (RR, 25th November)

5.6 Guilt

Participants frequently reported feelings of guilt. Whereas focus on wellbeing was a coping strategy, the expression of guilt could become a self-effacing and self-gratifying strategy. Participants reported feeling guilty when their actions did not match the behaviours they believed were appropriate or necessary to successfully progress their PhD. These expectations may have been based on their prior academic or professional successes and experiences, or they may have been based on the behaviour modelled by others. Often, however, their actions and behaviour differed from what they wanted them to be. Some of

this may be explained by being in a liminal space where their existence and ways of knowing were challenged.

Participants' narratives revealed how they were questioning themselves about why they were not progressing the way they felt they should. This raises questions about their expectations. For example, were their expectations based on incorrect perceptions of the task or the time required for mastering that task? Or was it that the uncertainty they were experiencing in the liminal space initially reduced their self-efficacy until they were able to re-establish their way of knowing. The sense of being 'stuck' in this weird existence and of not behaving the way they felt they should or could were often reported as feelings of guilt.

Scale 1-6 - I'd say – my week in relation to my PhD – I don't know I'm probably about a 4. I'm still racked by the guilt but the work I've gotten done has been really, really, good. I've gotten a decent bit of work done so in the days I could do work. I'm sitting about a 4 – I need to learn to stop demanding the same amount of work and the same amount of time – I never thought I was – but deep down I am very well aware that I'm doing things that are not necessarily – I don't know – there? . . . I've got to be ok with that – I think I'm learning to do that. (SH, 10^{th} May)

The emotional reaction of guilt experiences relative to time spent varied. In some instances, it related to not putting in the time that they, or others, felt was necessary. Often this was attributed to diversions. I propose that, at times, these perceived diversions served to legitimise and validate the guilt experienced. Interestingly, feelings of guilt were not attributed to diversions outside the participants' personal control, such as dealing with bureaucracy. Diversions such as these resulted in feelings of anger, annoyance and frustration at their lack of power as a student, and with these diversions they applied personal and relational agency through which to reclaim control. Rather, feelings of guilt were attributed to behaviours that were within their control, such as effort and time spent on a task. The findings suggest that during times of uncertainty and fear it became easier for participants to express guilt rather than engage personal agency. The expression of guilt became a legitimate excuse because it expressed repentance and awareness for not performing, and consequently guilt served as a self-limiting excuse.

Over the Easter long weekend I met up with boyfriend in Honolulu, and so had a reprieve from this research-obsessed, self-centred existence. (AR, 5th April)

Thus far, this chapter has focused on participants' reported distractions and diversions and the emotional implications for their behaviour and actions. However, participants also reported feelings of guilt for focusing too much time and energy on their PhD at the exclusion of other commitments and responsibilities. Although the relational dimension will be discussed in greater detail in the relational Chapter 6: Family, Friends and Acquaintances: Becoming a Stranger in Their Midst, it is worth noting here that feelings of guilt were also related to time spent completely absorbed in their PhD without worrying about the needs of others, such as family, partners and friends. These feelings of guilt were expressed as indulging in self-absorbed selfish behaviour in relation to their PhD, which was sometimes alluded to as being unnatural or 'selfish' (Webb, 2010, p.408).

I love entering the state of flow that comes with writing; the experience of focusing all one's energies on a single task. In the modern world of constant internet access and smart phones, it feels rare and precious to concentrate with such ferocity. But I also feel a little disturbed by such obsession. I know from previous experience that it can lead me to neglect relationships, chores and other work tasks. My ability to put the PhD in perspective is thrown off balance, and nothing becomes more important than crystalizing the argument on page 13 of chapter two. In the past, when I wrote shorter pieces of work, this introverted state was manageable as it would last, at most, for several weeks at a time. But with twenty-four months to go until I plan to submit my thesis, I may need to develop some strategies to more effectively combine writing and life. I need my writing behaviours to become more sustainable, to avoid exhausting myself and testing the patience of friends and family. (AR, December)

Concluding with the theme of guilt, the findings indicate first that guilt-imposing behaviours were attributed to diversions, particularly those over which participants could have usurped some level of control. Second, guilt was experienced as a result of a misconception regarding the time and effort required to complete PhD challenges and tasks, and hence participants experienced guilt for not living up to these personal expectations. Third, feelings of guilt also related to perceived personal capacity to undertake the task and complete the challenge; in other words, participants questioned whether they had what it takes to succeed. This was particularly pertinent when they observed the behaviours of 'successful' others who demonstrated attributes 'highly divergent from their own' in which case the influence of role models (Pajares, 2002b) had a negative effect on self-efficacy. The latter was particularly relevant when participants were establishing their sense of belonging and validation as PhD researchers and developing self-efficacy in the early phases of their PhD. Finally, guilt could become pleasure and pain combined: pleasure at enjoying being fully absorbed in their research and guilt at neglecting other relational components of their lives. Expression of guilt was both the result of and reason for self-limiting behaviour, and expressing it legitimised the behaviour. For example, it was easier to feel guilty than to do something about it.

I've been sick this week – I got a really bad stomach bug and it's really insane but the guilt for being sick and having to stay at home when my mind's active but my body is very, very, sick and getting out of bed is really and – it was horrible. ... Procrastination – because I couldn't do any work ... I had to do something. I ended up creating a blog and a twitter account for I guess – that's productive procrastination for later ... (SH, 10th May)

5.7 Finding Balance

Participants were acutely aware of the effect that the PhD environment had not only on themselves but also on their relationships, and they attempted to find a balance. Finding balance involved finding a healthy balance between their PhD and their relational dimension

I am in the midst of a four month research trip to the United States, which means that the PhD experience feels particularly all consuming at the present. At home in Canberra it is generally quite easy to switch off from thinking about my PhD in the evenings and on the weekend, thanks to the presence of friends, families and other interests. Coming home to my boyfriend forces me to re-enter the 'real world' and prevents me from fixating upon my latest research problem. (AR, 5th April)

For many in this research, however, finding a 'healthy' balance was not easy to achieve. A couple of explanations could exist for this behaviour. The first is the influence of family

and culture. Some participants felt they could not fail and embarrass themselves and their family, which will be discussed in further detail in Chapter 6. Under these circumstances, participants felt additional pressure to work harder, which—although an incentive—could diminish their physiological state.

The second explanation is peer influence. The modelled behaviour of others has been found to be particularly 'influential for students who are uncertain about their performance capabilities, such as those lacking task familiarity and information to use in judging self-efficacy or those who have experienced difficulties and hold doubts' (Schunk & Pajares, 2002, p. 6). The latter is played out in the following narrative from a young South-East Asian participant who wanted to emulate the successful behaviour of peers but was attempting to base her performance on a *mastery* model, for example, on someone who performs 'flawlessly'. For vicarious reinforcement—or learning from others—to have a positive effect on self-efficacy, it should be based or modelled on a similar person. For example, for a PhD researcher in their early phases of learning, the ideal model would be a coping model—that is, someone with whom there is some similarity and who perhaps has experienced some initial difficulty but nevertheless is diligent and improving their performance (Pajares & Schunk, 2001). Vicarious reinforcement and comparison at this level would serve to normalise less-than-flawless performance at the start but model the effect of resilience on developing mastery.

5.7.1 It's Got to Be Perfect

Some people said to me that I was my worst enemy while others said I was a perfectionist. I have been asking myself very often why I am nearly 'enslaved' by study and work. Is it because my supervisor, I, or both of us are perfectionists? Subjectively, I do not want to be an overachiever who ends up losing the chance to enjoy life. At this stage, I just do not know how to balance work, study and life very well. I guess one facet of my personality makes life difficult for me: I always work very hard to meet the expectations of people who are important to me.

Overall, I would like to rate this week generally okay, with a score of 4. I want to use azure/bright blue to describe my week. I feel there is a

promising future in front though on-going efforts are needed. (EY, 5th April)

A third explanation for participants struggling to find a balance is perfectionist behaviours (Kearns, Forbes et al, 2008). Perfectionism is generally described as setting 'unreasonably high standards' or expectations of one's behaviour and performance (Kearns, Forbes et al, 2008, p.21). Perfectionism can be a positive or a negative construct. From a negative perspective, Kearns, Forbes et al, (2008) and Kearns, Gardner et al (2008) found a relationship between perfectionism and self-sabotaging behaviours in PhD students, such as overcommitting and procrastinating, although perfectionism may in some circumstances be a positive trait. The nature of the PhD requires mastery; it could be said even perfection. The 'master–apprentice' metaphor itself suggests the emulation or mimicking of a master. Nonetheless, the findings of this research suggest that perfectionism resulted in procrastinating behaviour because participants were rarely pleased with their performance and continually trying to emulate mastery models, irrespective of their own achievements, thereby procrastinating and iteratively putting off starting a task or completing it until they were sure it would be perfect.

5.7.2 It's Personal and I Can't Let It Go

Participants reported difficulty in separating their personal self from their research self and other PhD-related work. The very personal nature of the lived PhD experience affected participants' ability to find a balance. Critical, constructive or positive feedback received was experienced personally. This feedback or verbal persuasion was particularly powerful when it came from a source whose validation participants sought to authenticate their own research, capacity and sense of belonging. Participants reported difficulty separating their being from their PhD, which led to an attachment that some described as 'obsessive', and finding balance was a challenge.

He just goes like this, and I say to him what are you doing, and he says I am thinking about that thing. And I'm – stop it – stop it! Relax, don't do that anymore. Because you get really crazy if you think about one thing 24/7. But it's really what most people do – maybe I don't do 24/7, maybe 24/5, but it's basically all you, and when you get a rejection – they say don't feel it personally. But it is personally – it is me – it is my work – it is my life that I put in it. (SS, 21st March)

In terms of what became, for some participants, obsession around their PhD, one explanation is that participants in this research were primarily full-time students, without full-time professional roles to contribute to their identity or to provide balance. The other explanation is that the nature of the PhD experience is personal, and being in this liminal space and becoming required their full absorption.

5.8 An Emotional Insight on Finding Balance Post-Completion

The following reflection is from a participant who had recently completed her thesis. I have included this reflection as evidence of how the fragility and emotional rawness has departed in a post-lived-experience reflection versus the reflection of someone in the depths of their lived experience. Finding balance has now been established.

I've been sick with the flu as well, so I didn't get a whole lot of work done for about a week. Luckily I was already well ahead of my planned schedule so it hasn't impacted me too badly. But it's still stressful when I really want to be getting work done and I just can't. Every time I sat down to write I just stared blankly at the screen, or wrote a few terrible sentences and gave up. But all things considered it's been a really good and relatively productive fortnight. (BF, March)

The following narrative was received from the same participant two months later.

I chose a topic that I actually care about that was based on, you know, personal experiences, that was based on something that I feel it will make a difference. That definitely helped. I think, as well, letting myself have a break when I needed one and not burning myself out. You know if I – particularly in the second year and periods of time when I was just waiting to recruit people and there wasn't a lot going on. I just let myself have that time to take a break. I didn't force myself to do any work that I didn't strictly need to do at that time. You know, I've taken a few short holidays and that kind of thing. Definitely that's helped. And obviously working really hard when I needed to and had work due. You know, for example, I took two months off work to just focus on getting the draft of my thesis done. There's definitely been periods of intense activity, but there's also been breaks and that has definitely helped. Yeah, just sort of maintaining a

balance and not getting sick of my topic and that kind of thing. I think as well just wanting to finish so that I can actually get a job and earn proper money. (BF, 28th May)

5.9 The Literature

I now address what others have written about progress, forward momentum and stalling and procrastinating during the PhD experience relative to the findings revealed in this chapter. Here I discuss how these findings are supported, note the points of difference, and review the contribution of this research to the literature on the effect of things that get in the way. In contrast to the current literature this research identifies agentic behaviours to improve self-efficacy.

5.9.1 Things That Get in the Way, Other Commitments and Other Roles

Those other things that get in the way of being a PhD researcher, such as other life roles and commitments, have been explored in the literature—particularly in the context of role tension (Webb, 2010). In her PhD thesis examining the impact that doing a PhD has on the families of mid-career academics, Webb (2010) contextualised doing the PhD as a role undertaken at the same time as having an academic and a professional role as well as family roles and responsibilities. Webb (2010), p. 422) discusses how the additional role of being a PhD researcher had a significant impact on family life, and her participants felt that their existing already-established careers, other roles and family responsibilities 'detracted' from their performance as a PhD student as well as from their existing academic role. This research supports Webb's finding that the reciprocal effect of the PhD role on other existing roles was perceived as negative.

The literature consistently agrees that being a part-time PhD student and working full time can be a diversion (e.g., Bates & Goff, 2012; Gardner & Gopaul, 2012; Webb, 2010); however, developing a synergy between existing professional or academic roles supports the pursuit of the PhD. Gender differences have also been examined to establish whether social roles impact on the PhD experience, and in the literature reviewed there is some consensus that cultural role expectations impact on the PhD experience (e.g., Carter, Blumenstein & Cook, 2012; Elg & Jonnergård, 2003). In fact, societal role expectations problematise not only juggling multiple roles, a finding also made by Carter, et al. (2012,

p. 339), who suggested that being female problematises the 'identity transition' from student to independent researcher. In other words, there is a tension between the societal role expectations of being female and being academic. When roles do not support each other or when there is some perceived incompatibility with societal role expectations is discussed in the findings of this research in greater detail in Chapter 6. Participants reported experiencing feelings of guilt about the amount of time they spent working on their PhD that excluded their other societal expectations. However, this research found that cultural stereotypes also affected male participants. Although I could have examined these findings from a gender perspective, for this thesis I decided to pursue the personal experiences and to note that cultural stereotypes did affect personal experiences. Feelings of guilt were exacerbated when participants, male and female, enjoyed the time spent losing themselves in their PhD. This behaviour was perceived as being obsessive, rather than as the normal behaviour of a PhD student appreciating this time in their academic life. Work-life balance concern in academia is not new; in fact Winefield, Gillespie, Stough, Dua, Hapuarachchi & Boyd (2003) and Kinman and Jones (2008) are just two examples in the literature that has found when work encroaches on the personal it creates a work-life conflict that has contributed to compromised mood states, reduced job satisfaction and feelings of wanting to leave academia.

This suggests that the role tensions experienced by PhD researchers and work–life balance experienced by academics are not dissimilar. In fact, this research also found that when participants exercised personal agency to control their work–life balance, it increased their sense of wellbeing even to the extent that when long work hours encroached into personal life, many still found the work intrinsically satisfying. This research adds to a growing body of literature on academic identity, with the finding that there are tensions between PhD researchers' roles and the impact that perceptions of others and self have on behaviours and actions. These behaviours can either support or detract from the perception of who we are and what we are capable of.

The challenges and coping mechanisms associated with multiple roles and expectations has been reviewed extensively elsewhere (e.g., Byers, Smith, Hwang, Angrove, et al., 2014; Callary et al., 2012; Jazvac-Martek, 2009). In a study of 10 doctoral students in a US university, Byers et al. (2014) found that 'incorporating multiple roles and responsibilities into their lives appeared to be associated with negative emotions such as guilt, worry, rejection, and emotional crises' (p. 125), which threatened their physiological state and wellbeing. Coping mechanisms include inside and outside support systems to achieve accomplishments, such as academic writing that results in positive emotions, including happiness (Byers et al., 2014). These literature supports the findings of this research that there was a heightened emotional and physiological state and pleasure achieved when participants experienced a sense of forward momentum or progress, particularly with their writing (Lief et al., 2012; Nowicki, 2008; Phan, 2016). The literature clearly supports the findings of the present research project of the interdependency between physiological or emotional states, wellbeing and self-efficacy identified in this research as affecting the development of an academic identity and a sense of belonging.

In the existing experiential literature, there has been little focus on the financial constraints that doing a PhD places on the lived experience. Issues around financial concerns appear to be dealt with mainly in the US literature examining graduate persistence and resilience among students of low socioeconomic backgrounds (Rockinson-Szapkiw, Spaulding, Swezey & Wicks, 2014; Gardner & Holley, 2011). In a study of 20 first-generation higher education students enrolled in a doctoral degree, Gardner and Holley (2011) found that 'the pathway to graduate school . . . was littered with financial obstacles' (p. 87). As with Gardner and Holley's (2011) research, the present research found that worrying about financial resources could be both a distraction and a motivation because attaining the PhD should result in increased earning capacity, although financial constraints could also limit the exercise of personal agency (McAlpine & Amundsen, 2012). Although the present research contributes to the discussion in the literature that worrying about financial resources could serve as a distraction and thus affect the student's sense of forward momentum; in this research, financial concerns mainly served as a source of motivation for participants to get on and finish their PhD so that they could earn a decent salary.

The discussion around lack of access to other resources usually under the auspices of the institution, faculty or discipline includes access to such things as research funding, equipment, infrastructure, space and other resources has identified some discrepancies. The literature has also identified a lack of resources available for international students (Son & Park, 2014), which imposes constraints (McAlpine & Amundsen, 2012 and impacts on research (Cumming, 2010), and students rely on networks as conduits for resources (Sweitzer, 2009. Although the present research supports these findings, it also found that

dealing with the bureaucracy to gain access to resources resulted in annoyance, frustration and even anger and that these emotions prompted participants to act mindfully, engage in 'self-enabling' talk and exercise personal agency.

5.9.2 Negative Behaviours and Actions

The literature on the PhD experience has also examined a range of behaviour and actions that have a negative effect on goal achievement and progress, with the key negative behaviour being procrastination (Azar, 2013; Bates & Goff, 2012; Byers et al., 2014; Hovland, 2012; Kearns, Forbes et al., 2008; Kearns, Gardner et al., 2008; Martinsuo & Turkulainen, 2011; Morrison-Saunders et al., 2005; Wäschle et al., 2014). Topics and issues examined have included whether gender has an effect or is a predisposition (Azar, 2013); the effect of using weekly web-based self-monitoring protocols to establish self-regulated learning behaviours (Wäschle et al., 2014; overcommitting, procrastination and perfectionism (Kearns, Forbes et al., 2008; Kearns, Gardner et al., 2008; Martinsuo & Turkulainen, 2011); the effect of self-worth on motivation (Lai, 2011); critical incidents and diversions, such as the stress of academia and juggling multiple roles (Lee, Eppler, Kendal & Latty, 2001); academic identity diffusion (Was, Al-Harthy, Stack-Oden & Isaacson, 2009); and negative emotions (Morrison-Saunders et al., 2005). Interestingly none of the reviewed PhD experiential research discussed the effect of being in the PhD environment and the effect that its inherent uncertainty has on procrastinating behaviour.

This research has added to the body of literature that has found negative emotions, such as feeling confused, annoyed, worried and even fearful, are part of being in liminality (Trafford & Leshem, 2009; van Gennep, 1960), although very little of the literature has related these feelings to procrastinating behaviour. Generally, procrastinating behaviour has been attributed to negative feelings or doubt regarding academic writing (Cameron, Nairn & Higgins, 2009). These feelings are generally attributed to being stuck while trying to cross the next threshold (Meyer & Land, 2006, p. 22); the present research supports the findings that being stuck has a negative effect on self-efficacy and brings into question one's sense of belonging and purpose. It raises the question whether these negative feelings are only attributable to being stuck or whether these negative emotions become the reason for people not confronting threshold, such as academic writing. Negative emotions are perpetuated until the individual has a self-efficacy enabling experience. This research also adds to the body of literature on the importance of positive emotions and positive

feelings for self-efficacy, sense of belonging and wellbeing (Mantai, 2015; Stubb, Pyhältö & Lonka, 2012).

The present research also adds to the limited literature (e.g., Wäschle et al., 2014) that highlights how questioning task utility and even boredom can lead to stalling and procrastinating behaviour. Low perceived task utility, or task aversion, can lead to procrastinating behaviour (Wäschle et al., 2014) because it reduces the physiological state, which, over an extended period, may bring into question the sense of belonging. Although taking a break or resting from PhD work may appear to be procrastinating or stalling behaviour, it can be a necessary step in progressing the PhD research.

The finding that negative emotions can actually motivate positive behaviour has not been broadly discussed in the literature (e.g., Morrison-Saunders et al., 2005). However, there is a growing body of literature around the use of personal agency (Bandura, 2001) to develop strategies to deal with negative emotional experiences, in particular the use of relational agency (e.g., Edwards, 2005; Hopwood, 2010; McAlpine & Amundsen, 2009; Pyhältö & Keskinen, 2012).

In terms of wellbeing, this research supports Stubb et al.'s (2012) findings that negative emotions can lead to procrastinating behaviour and a decreased sense of wellbeing. In fact, the present research has further developed this knowledge in so far as the participants' keen focus on their wellbeing actually became a coping strategy. By focusing on maintaining their wellbeing they engaged personal agency and took the necessary steps to take care of their physical and mental wellbeing. Wellbeing is related to a positive attitude and resilience (Phan, 2016). Phan (2016, p. 27) found that a students' sense of wellbeing is multifaceted and that there is an interrelationship between wellbeing, motivation attributes and academic achievement in which self-efficacy plays a central mediating role. Controlling their wellbeing not only has a positive physiological effect but also, importantly, demonstrates to the student their own self-efficacy.

5.9.3 Stalling, Procrastinating or Resting and Taking a Break?

Although the consensus is that stalling and procrastinating should be avoided, taking periodic time out to rest or taking a break is in fact a coping strategy. Moreover, it can assist with the transition from the end of one challenge to the beginning of another and

creates a level of structure that many found missing. The present research reinforced how a break or a period of rest can assist in research breakthroughs and increase motivation. Nevertheless, taking time for a holiday tended to create some anxiety about getting back into it. However, the experiential literature reviewed revealed few investigations around the notion of taking a break from the PhD and its effects except for Morrison-Saunders et al. (2005) who, in their reflection on emotions in the PhD process, recommended the following:

Take breaks and holidays. It is important to make time for breaks from the PhD, so include them in the timetable. Holidays allow for relaxation and rejuvenation. A break from 'the grind' and standing back a little from the project may have the additional benefit of producing new ideas or inspirations. If the routine has lead [*sic*] to feelings of boredom, or there is a tendency to procrastinate over the PhD (as one of our participants noted 'cleaning the fridge, garden, office etc is much more appealing than writing') then set aside a specific time to do something different or rejuvenating, before returning to the more 'mundane'. (Morrsion-Saunders, et al., 2005, Strategies for managing emotions, para. 5)

5.10 Conclusion

This chapter has continued to highlight the participants' desire for forward momentum and progress and how personal perceptions and expectations could affect their experience. As PhD researchers, other things could get in the way, such as other roles, bureaucracy, worrying about their financial status, and general life concerns. At times, these other things were diversions and distractions. This chapter has identified that other roles, however, could have a positive effect on the participants' physiological state and sense of belonging. The majority of participants in this research were full-time students, and therefore an investigation into the effect that other roles have on participants' self-efficacy is an area for further research. Participants exercised forethought and engaged in behaviour to capture relational opportunities to improve self-efficacy. However, finding a balance between these other roles, work and academic activities to progress their PhD remained a challenge.

The existing literature has focused on the negative impact of financial worries, other roles and dealing with bureaucracy. This chapter has discussed the finding that participants deliberately set out to take control to address these issues in order to prevent them from becoming long-term distractions. The challenge of academic writing as a skill to be mastered is supported, although participants' narratives suggest there is a strong emotional and physiological component to academic writing beyond the task of writing. This suggests that to perform academic writing requires a confidence that comes once the emotional and physiological components of self-efficacy are established.

Positive feedback loops achieved through task mastery, engagement with others and verbal persuasion improved their physiological state. Improved emotional and physiological states heightened self-efficacy, which improved motivation and reduced stalling and procrastinating behaviours. The expression of guilt may have been used as an emotional confessional to legitimise stalling and procrastinating behaviours in situations they could have controlled. Self-efficacy had a central mediating role on participants' emotional and physical wellbeing. Therefore, managing their wellbeing became a coping strategy. Lastly, for the participants, finding balance was about more than finding balance between their PhD and other roles and commitments. For some, perfectionistic behaviour and personal attachment to their PhD, or what some described as 'obsessive behaviour', required strategies to find a balance.

Chapter 6: Family, Friends and Acquaintances: Becoming a Stranger in Their Midst

6.1 Introduction

The aim of this research was to illuminate the lived experience of doing a PhD in order to identify events, issues and entities that affect the PhD experience. The chapters on the environmental dimension revealed an ongoing theme: participants' desire for forward momentum and the progression of their PhD. Now, in the relational dimension, this theme continues. Uncertainty initially reduced self-efficacy. Diversions, real or perceived, could stall forward momentum, and participants were faced with choices that differed according to their physiological state. The relational dimension consists of three chapters: Chapter 6: 'Family, Friends and Acquaintances', Chapter 7: 'Supervision' and Chapter 8: 'Others on the Inside'. In their narratives, participants shared how other people, such as family, friends and acquaintances not directly engaged in the doctoral enterprise (Cumming, 2007, p. 92), had a direct effect on their lived PhD experience and vice versa (Webb, 2010). This chapter is the first of the three relational chapters where I present and discuss the reported lived experiences from the relational dimension through the lens of social cognitive learning theory, with particular emphasis on Bandura's (1978) theories of reciprocal determinism, self-efficacy and community belonging (McMillan & Chavis, 1986). The three themes identified in this relational chapter focus on participants' relationships with family, friends and acquaintances not associated with the PhD enterprise. These include the personal community's perceptions, others' expectations that can lead to tensions and, lastly, taking control. Before I present and discuss those themes, I contextualise participants' experiences of belonging and personal community.

6.2 Community and a Sense of Belonging

There is a personal side to doing a PhD (Wellington & Sikes, 2006). A lived PhD experience is situated within the intersection (or interaction) between the PhD researcher, their research, and the PhD environmental and relational dimensions. The relational dimensions can be broadly classified into three categories: 1) their research supervisors, 2) other people engaged with or peripheral to the PhD enterprise and 3) those not engaged with the PhD enterprise. The latter are located outside the PhD enterprise and include

family, friends and professionals as well as social circles—their personal community—the community the PhD researcher belonged to prior to entering a liminal space.

The significance of community is important for learning, development and wellbeing (Nowicki, 2008; Osterman, 2000). A sense of community is a feeling of belonging. This sense of belonging is a feeling that members matter to one another and to the group, that there is a shared faith and that members' needs will be met through their commitment to be together. All communities have social conventions that create a boundary and a distance between those who belong—who are members—and those who do not belong. To belong requires a way of being and behaving, and there can be a sense of isolation when you are no longer a full member of that community (McMillan & Chavis, 1986).

Doing their PhD, and entering a liminal space, affected participants' sense of belonging and acceptance within their personal community because the PhD took them on a liminal transformation that affected their being. In other words, their previous way of being was being challenged, which created a tension between their old way and their new way of knowing and being. At times, this new way also challenged the shared values and sense of belonging they had with their personal community.

6.3 Personal Community Perceptions

A sense of community means having a shared understanding, but when you are the first in your personal community to venture into a new domain, such as PhD research, there is noone in your personal community to pass on sometimes-critical knowledge. In this research, all except two participants were the first in their family to pursue a PhD. This meant that the majority were first-generation PhD researchers and experienced not only the challenge of entering the PhD environment but also of managing their personal community's perception of the PhD. The decision to undertake a PhD for many was a move away from what had been their habitus or way of doing things, which meant they now needed to learn a new way of being and doing that is frequently implicit (Meuleman, Garrett, Wrench & King, 2014).

I mean they are really delighted. (Laughter) My dad and my family are originally from XXXXXX. My dad is one of these, I guess, stereotypical XXXXXX people, who middleaged XXXXX men who you know – his dream

for me growing up was for me to be a doctor and of course he means a medical doctor. Hmm. But he – he's really pleased I'm doing a PhD. Hmm, because that's my way of becoming a doctor – whatever that means. So they really want me to do it, but I don't think they know what it involves and what it means actually. They just want me to have it – the PhD. Yeah. (SK, 13th March)

Participants did commence their PhD with some preconceived ideas and expectations that were based on previous academic achievements and on what they had read and heard from others. However, it was through their personal lived experience of doing and being that they developed their own understanding of what their individual PhD experienced entailed. Participants reported that their personal communities generally had little understanding of what a PhD entailed, although they were excited at the notion of them becoming a 'doctor'. Some reported on how others' preconceived ideas about what a PhD was, was based on the idea that a PhD entailed spending years focused on research to develop a theory rather than applied knowledge with little tangible outcome. For some, pursuing a Doctorate in Philosophy was viewed as having less value than practical academic pursuits such as studying to become a medical doctor, lawyer or engineer. Others reported that their families and communities felt they already possessed sufficient qualifications and could not understand their pursuit of another qualification. Based on this reported lack of understanding of the PhD process, it is perhaps of little surprise that others may have questioned the value of this long-term pursuit. What is significant, however, is that other people's perceptions could reduce participants' emotional and physiological state and become another challenge to be managed.

The findings suggest that on entering the liminal space, most participants held strong connections to their personal or professional communities, and these connections may initially have contested their sense of belonging in the PhD environment. Being a PhD researcher could challenge their sense of belonging within their personal community. One explanation is that their being, or ontological state, in both their personal community and their academic community was uncertain.

6.3.1 Feeling Supported

I came with my mum – my mum and I were like this. I think that is one of the reasons that I didn't feel homesick; I was really fresh doing my research from the start. I didn't have many problems that other people have. My mum was here – she was helping me – even though she doesn't speak English very well – she was still a big support. She went back home after about eight months, but she often visits. But now that I got married about three months ago – so now I have my husband as well. I think it is really important to have somebody to support you when you are doing a PhD. I am sure you know that because, yes – it is crazy. (SS, 21st March)

Participants generally reported that they received support from their personal community. The support they reported on was a continuum from 'they are happy that I'm happy' and 'they are encouraging and very proud' to 'they don't really get what I'm doing'. Support also came in the form of financial support, and sensitivity to participants' time constraints and busyness, and sometimes even participants' emotional volatility was indulged because personal community members were proud of what the participants were doing. This confirms the finding in the literature that support from family and friends can be important for progress and even completion (e.g., Park, 2005, p. 194; Leonard, Metcalfe, Becker & Evans, 2006, p. 35; Sayed et al., 1998, p. 283).

He's really supportive, really lovely – *I would not be able to do my PhD if he was not earning enough. He's extremely supportive. He's happy when I'm happy.* (RM, 28th March)

The emotional support received could reduce the social isolation. For those fortunate enough to have a supportive family or community network, it meant that the experience of the PhD process and academia as well as the emotions experienced were listened to and somewhat ameliorated. The ability to share their experiences within these private spaces meant that the participants felt less separation between their PhD and their personal lives; as a result, their sense of belonging continued unabated in their personal community while they developed their academic identity. The findings show that participants appreciated the encouragement of others and the happiness and joy expressed. The findings also suggest that while participants enjoyed time with their personal community, many compartmentalised their lives, which will be discussed later in this chapter in Section 6.6. Those participants whose personal networks were a long way away had to manage on their own.

6.3.2 Proud but They Don't Really Get What I'm Doing

All participants reported that their immediate family were proud of their PhD endeavours, although it was generally accepted that their personal community did not really understand what they were doing or what the PhD involved. Others' pride could reinforce participants' motivation to do well and continue making others proud, but for some participants, it also contributed to their concern about their efficacy to successfully undertake the task. Some started questioning whether they had the required ability or capacity; in other words, their self-efficacy was in doubt. None reported expressing this concern to their families, and I propose this may have worked to create a distance between them. The other issue was that participants felt they could not fail and essentially embarrass themselves and their family.

Most of my family seem proud that I'm following my interests and developing more skills. Some of them take the time to actually understand what it is I am doing (what a PhD involves) and others seem to have no idea of what it is or what I'm doing it for, and are probably just trying to be supportive. Either way, I'm glad to have their support and know that I will be able to depend on them when things inevitably get hard. (JC, 1st October)

'I think my other friends and acquaintances who aren't involved in the university, particularly. I think they kind of see me as kind of a bit of a sort of quaint intellectual or something. Someone a bit caught up in abstract ideas in a kind of harmless way, not that kind of connected with reality.' (AR, 23rd October)

Others' perceptions and lack of understanding worked to create a divide or a gap between the participants and their personal community. For some participants, this gap developed because they did not conform by getting a 'real' job. They engaged in practices that were foreign and which altered their worldview, and consequently they reported not being understood. For some, others' perceptions created concern about their personal efficacy to undertake this task. For the participants in this research, being in a liminal space meant that, although they still belonged to their personal community, their changes differentiated them, and some began to feel they were becoming strangers. Well, I think, I think people have always kind of respected my intellect – I suppose I can say. My friends and family, and things like that. And so they're kind of not terribly surprised to see me so involved and excited about something that makes no sense to them whatsoever. ... just talking about certain aspects of it. They're happy for me and quite excited and say 'yeah that sounds like ... but I don't know what the hell you're talking about'... and 'are you going to stop talking soon?' 'Yeah I'm going to stop talking soon.' So yeah, there's that. Yeah. It's hard to tell to be honest. A little bit like a stranger that no-one's ever seen before I guess – in a way. (RR, 25th November)

In summary, personal communities' perceptions could be a double-edged sword. They were proud and provided participants with moral, emotional and sometimes even financial support, which could motivate. However, this pride and support placed an added pressure on participants' sense of forward momentum and progress. Because what the participants were doing was not understood, and in some cases even questioned, being a PhD researcher created a divide between themselves and their personal community. Participants inhabited a space between communities; they no longer fitted in with their old community but felt they did not belong in the academic community either. This split the being between old and new, which created tensions not only for the PhD researchers but also for their personal communities.

6.4 Others' Expectations

A limited understanding of what participants were doing as PhD students meant that others expected them to continue engaging in activities and behaviours just as they always had. Three expectations caused frustration, feelings of annoyance and even guilt. The first concerned participants' availability or time to engage in activities other than their PhD; the second concerned the nature of their ongoing role and responsibilities; and third related to PhD progress and when it would all be finished.

For some, being a PhD researcher was perceived by others as not having a real job What they were doing as PhD researchers could sometimes be difficult to define for those not engaged in the PhD enterprise; as a result, some participants reported that others perceived they were not actually doing anything.

Now living with a friend in Melbourne brings more challenges. It's not like I'm here forever and it's not like we are in each other's pockets but, I find myself doing so much for her that I often forget why I'm here and what I'm supposed to be doing...For the past couple of months I must have spent hundreds of hours 'doing' things for her. How do you say no to a person who doesn't think you're actually doing anything?' (MA, 3rd April)

Many of my other friends and other people I meet don't seem interested one way or another, and most of them seem dismissive when I tell them what I do for a 'job'. I think most people think I'm just a lazy uni student that spends lunch times at the pub and sleeps allot [sic]! I don't feel like I can seek support or discuss how I'm feeling or how things are going with these people. (JC, 14th March)

To reduce potentially negative encounters, participants compartmentalised their lives and exercised a level of relational agency to avoid these experiences (Edwards, 2005; Pyhältö & Keskinen, 2012) and to support their PhD pursuit. People do not live in isolation, and human agency recognises that some things are best achieved through having the support of others through socially interdependent effort (Bandura, 2001, p. 13). Consequently, others' expectations sometimes needed to be negotiated.

I talk to them a lot and they understand why I am doing it, and they can see that there have been opportunities that have come from doing further study. But at the same time they also look at our – broader family relationships – I am not as available as I would be if I wasn't studying. They get along really well with my partner and they're aware when I'm going a bit batty that – that puts pressure on him. And they look at it and go, 'Just make sure that you keep perspective. If you're going to do all of this you're going to have to – you know – be a wife and a mum and all of those things as well.' (KL, 13^{th} September)

Devoting so much time to research and writing. It is all-consuming. • Forgot that I am part of a family. • Must do at least one of the jobs on the fridge list each day. • In the review / editing / proofreading stage. • Still paranoid about the style of the finished product. • I don't want it to be one of those academic pieces that has impenetrable prose. Or one of those that is only understood by a limited few. (KT, 1st April)

The third expectation that caused considerable frustration related to progress and completion dates. Innocent and well-intentioned questions about when 'it' would be finished caused considerable angst by acutely raising awareness of their forward momentum and progress and finite time. I propose that others' expectations became another challenge to be managed to prevent reductions in participants' confidence and motivation. In fact, one participant referred to these as the 'death questions' to be avoided at all costs.

It's also a huge jump to that from the workplace as well, I know, but the work place – everyone sort of gets the workplace – when you start a new job – everyone – you know your family and society understands what it means to get a new job – but the family and others don't understand what it means to start a PhD. Like one of the most stressful questions I have, you know, from non-academic people is, 'Ohh, so for how long have you been doing your PhD? When are you going to finish?' And these are the Death Questions! You just don't know what to say!? People say, 'Ohh! You're smart! But you're smart, just work harder – as long as you keep working you'll get it done. You can do it.' That kind of thing, and you feel like saying – NO – you don't understand! (SK, 13th March)

Some participants' personal community openly questioned the value of what they were doing. Others' perception that they were spending all this time 'indulging' in a pursuit without tangible outcomes isolated the participants from their personal community. This became another reason for participants to gravitate to others also engaged in the PhD enterprise—to validate what they were doing—and will be discussed in greater depth in the following chapter.

My relatives – my mum – my cousins – do not support me. They say 'this is good enough'. Just to stop by my master's degree and say 'you need to make a lot of money before you get to the age of 45 or 50'. And I'm already 40. They say I don't have much time to make more money if I come for education. So my wife and my dad supported me for education – but I guess many of the others and relatives do not support me. (BL, 18th April) Others reported being perceived as somewhat quaint for pursuing all this additional study for an outcome that is rather vague or difficult to define.

I think I show the characteristics of occasional craziness that every PhD student exhibits. People know that I am doing it. There are the people around me who get why I am doing it, and then there are the people who think it's just loopy. Why would you spend all that time on it, particularly when you don't have to do it. So there's – broadly people go 'that's amazing that you're doing that'. But I think a lot of people know I'm doing a PhD but don't know really what's involved in it other than – it's pretty busy. So there's people who work in academia and studied a lot themselves – get the intricacy of what this journey is. But most people go – 'yeah Tess* is doing uni, which is what she is always doing anyway'. (KL, 13th September)

I propose that, at times, these experiences tested participants' motivation and purpose to pursue the PhD because of they placed strain on personal relationships and reduced their self-efficacy. The participants in this research at times demonstrated high levels of personal agency to overcome these challenges, which were not a process of *doing* the PhD but rather because they *were* doing their PhD. Although these challenges related to their personal communities' perceptions and not the PhD itself, they were challenges and issues that nevertheless needed to be managed as part of the PhD experience.

6.5 Becoming Isolated

At times, participants described feeling isolated and even sad when others did not understand what they were trying to do. Some reported not wanting their PhD or doctorate to be perceived as being purely academic and as not lending itself to practical outcomes. Although they still belonged to their personal community, the experience was changing them. In other words, they were no longer who they were before they started their PhD but also not yet who they would be at the finish (Turner, 1995), and for some this could be an isolating experience.

Well it's – I do feel there's a distance between us then – I would like them to understand it better – they don't need to fully understand. It's a little bit frustrating and I'm a little bit sad about it. They don't know what I'm trying to do or achieve. You know, the academic world, it's not that complicated or high up in the air. There is a lot of practical kind of work ... You don't just want to do research that only academics can understand. (LC, 6th March)

For support sometimes I talk to my family but not very often. They support me emotionally. I also talk to some counsellors at this university – several sessions and talked to them about my concerns and my worries. So that – that helped a lot. Yeah. But I don't have many friends so that I didn't get a chance to talk to my friends. But basically my help from my family and my counsellors. For international students, there are these kinds of restrictions - if you want to study a PhD in a foreign country this is very important. Another advice is - maybe this is a bit personal - if they have choice, maybe they shouldn't go along to do everything him or herself. Sometimes you study here without family or friends' support – I feel a little bit lonely sometimes – helpless. So if they can't have that choice maybe – if they have family and come here to study – at least whenever they have support they can get support. I feel my situation – whenever I want support from my family in China they are not always available. So many times, when I feel very down – for whom I should talk to. Many times this happens to me. I really don't know who to talk to. So I tell myself just to stay strong – you need to solve this problem yourself – because no-one can help you. (EY, 28th August)

The literature is united: being a PhD researcher can be stressful (e.g., Baker & Pifer, 2011; Ward, 2013). However, when participants perceived that their close communities were not available, did not understand or did not appreciate what they were doing, this created further tensions (Leonard et al., 2006). For some participants, being a PhD researcher meant they were physically or geographically isolated. For others, long hours dedicated to PhD research meant they feared causing tensions with partners, spouses, other family members and personal friends relegated to less time and attention (Webb, 2010).

In summary, others' perceptions about the PhD process created frustration that could result in deliberate evasion. By avoiding or spending less time with these others who could have a negative impact on their self-efficacy, participants exercised agency to manage their PhD progress. The findings of this research indicate that others' perceptions or misconceptions caused participants to exercise relational agency to control their situation and position themselves in environments that fostered self-efficacy and contributed to their sense of belonging.

6.6 Taking Control or Coping Strategies

To be honest, the PhD thing is funny because the people who really understand what it means are the people doing a PhD. They're the people that really understood what it meant. You know, my family was really happy as well, and I don't think they quite understand, especially when it's not actually passed – it's still a process and things like that. (SK, 29th August)

This chapter has highlighted how the expectations and perceptions of others not engaged in the PhD enterprise increased participants' concerns about their personal capacity, their PhD progress, and even their time to completion—all of which affected participants' emotional and physiological states. To improve their ability to progress, the participants in this research at times exercised deliberate evasion and subsequently put a distance between themselves and their personal community. They engaged coping strategies, such as compartmentalising their lives and thereby reducing the level of engagement with those who had a negative emotional effect on their sense of self-efficacy. They sought out support from others, including their personal community, and others engaged in the PhD process who would support their self-efficacy. Again, this highlights the use of personal agency in an uncertain environment to identify others within the PhD enterprise in order to reduce their sense of isolation, develop a sense of belonging and support their self-efficacy.

6.7 The Literature

I now address what others have written about family, friends and acquaintances and how this affects the lived experiences of PhD students relative to the findings revealed in this chapter. Here I discuss how these findings are supported, note the points of difference, and review the contribution of this research to the literature on the effect of personal communities on the PhD experience.

6.7.1 A Social Undertaking

There is a personal and a social side to doing a PhD (Wellington & Sikes, 2006). The PhD experience is as a multidimensional construct consisting of an environmental dimension, a relational dimension, and an emotional and behavioural dimension, and all three are interdependent. The relational (or social) dimension includes PhD researchers' personal communities, because the PhD experience is not situated within a bubble away from, or outside, the PhD researchers' being. Webb (2010) also found that the lived PhD experience is affected by 'multiple and overlapping responsibilities and relationships' (p. xiii) in the PhD researcher's personal and professional communities. Hence 'affirmation' (Wellington & Sikes, 2006, p. 733), or at least some alignment of these multiple dimensions, will decrease the level of friction for PhD researchers on the way to completion. Although the literature has noted the importance of personal communities, relationships and peer support, it has not delineated it to the three relational categories identified in this thesis: 1) those on the outside, 2) supervision and 3) others on the inside or also engaged in the PhD enterprise.

6.7.2 Non-Traditional Students

The literature on the effect of personal communities on PhD students' lived experience is somewhat minimal. However, there has been considerable research on the effect that being a first-in-the-family or 'non-traditional' *higher* education student has on students' perceptions of belonging and their academic success in college or higher education (e.g., Bendix Petersen, 2014; Meuleman, Garrett, Wrench and King, 2015; Tate, Fouad, Marks, Young, et al., 2015). There is considerably less emphasis to date on first-in-the-family *doctoral* students (e.g., Gardner & Holley, 2011; Rockinson-Szapkiw et al., 2014). Although these were based in the US, they provide a benchmark against which to view the findings of this research.

In terms of community, Gardner and Holley (2011) suggest that first-generation students' personal community's goals may not include postgraduate pursuit. They argue that these doctoral students do not have access to the social capital or implicit knowledge required, such as knowledge of the rules of engagement, which may challenge their sense of belonging. In fact, they suggest that future research investigate, in particular, first-generation doctoral student experiences against self-efficacy and imposter syndrome (p. 89). The theme of non-traditional doctoral students' experiences is also pursued by 122

Rockinson-Szapkiw et al. (2014). Whereas Gardner and Holley (2011) investigated confounding factors, such as invisible barriers, Rockinson-Szapkiw et al. (2014) focused on individuals' persistence. Using a grounded theory approach, they proposed two 'new' constructs: familial integration and altruistic motivation. Rockinson-Szapkiw et al., (2014) also claimed that their research uncovered the 'phenomenon of familial integration, defined as the degree to which the candidate's sense of connectedness with family members is met while pursuing the doctorate, served to provide motivation to not only pursue a doctoral degree but also to persist' (p. 196). Their study found that students chose to pursue the doctorate to ensure their families were financially cared for and able to pursue opportunities that they had not been privy to. This implies that the doctorate or PhD was viewed as an external product to be traded (Brew, 2001, p.277) for an improved lifestyle rather than the PhD as a process for personal development. Mowbray and Halse (2010, p. 653) found that the view of the PhD as the 'summative product' is being pushed by external stakeholders, such as government and funding bodies, rather than the PhD as a 'formative development process'.

Although, in this research, the participants' purpose in commencing their PhD were multiple, including what Mowbray and Halse (2010. p. 653) referred to as the PhD as a 'summative product' and 'a formative development process', many reported commencing their PhD because they did not actually know what else to do. These findings nevertheless appear to support Stubb et al.'s (2012) findings that 'perceiving work on the thesis as a process was most advantageous in terms of experienced well-being and study engagement'(p. 439) and also viewing the thesis as a final product that evidences that the process of doctorateness (Kiley & Wisker, 2009) instead of focussing on the summative product alone.

From the perspective of Australian higher education, Meuleman et al. (2014) chronicled the lived experiences of non-traditional, rural and international higher education students, most of whom were the first in their family to transition to higher education. Although not specified, it is very likely that those participants were considerably younger than the participants in this research. Nevertheless, it highlights the importance of a sense of belonging and community, particularly during periods of transitioning. Meuleman et al. argue that a sense of not belonging results in feelings of loneliness and isolation, and they suggest that universities adapt to these new entrants.

6.7.3 Support

From the perspective of the Australian doctoral student experience, Janis Webb's (2010) PhD thesis, *The Interplay between the Experience of Doctoral Education and Familial Relationships for Mid and Late-career Academics Employed in Australian Universities,* examined the effect that doing a PhD had on academics' families. In her in-depth study, Webb found that there were benefits to 'having a close, interested confidante with whom they could share details of their experiences, in the form of a partner who understood the rewards and tribulations of doctoral studies from personal experience'(p. 342). The present research supports Webb's findings that the competing demands and responsibilities with other life roles resulted in participants feeling burdened, effectively shifting the perception of family or personal community from that of a support to that of a burden.

Family members have also been identified by Rockinson-Szapkiw et al. (2014) as cultivators of the motivation to undertake a doctoral degree because they 'verbally communicate support for the pursuance of the degree' but they too find that motivation may be 'thwarted if family members or the community communicate a disdain toward higher education institutions and degrees' (p. 182). The notion that families and communities who nurture 'psychological needs such as relatedness' are instrumental for not only motivating but also underscoring doctoral persistence, is supported in the findings of this research.

From the perspective of the international doctoral student experience, international students face a number of difficulties and challenges in the Australian higher education context. For example, Son and Park (2014) found difficulties with motivation, language proficiency, critical thinking, and the supervisory relationship. They also rated personal factors, such as family matters, as important to international student success, although they provided little explanation regarding how these family matters relate to outcomes. In her doctoral thesis, Cotterall (2011) highlighted the complexity of international students' lived experiences. However, her focus was primarily doctoral pedagogy and the quality of support received; there was little reference to the multidimensional relational aspects, such as personal community support, that hinder or support international PhD researchers.

The literature also points to the interdependency and interrelationship between different dimensions of PhD students' environment that can support or hinder their PhD progress.

For example, Martinsuo and Turkulainen (2011) examined the complementary effects of support and personal commitment on PhD progress. They found personal commitment, peer support, and supervision had complementary effects on progress but did not extend to those on the outside. This supports the finding in the present research that PhD researchers are selective regarding who they look to and engage with for support to progress their research. It also supports the notion that although personal communities can and do provide emotional and physical support, as well as financial support, it is incumbent on the PhD researcher to manage the progress of their PhD and to seek the support of peers and supervisors who are actually engaged in the PhD process.

Rockinson-Szapkiw et al. (2014, p. 182) examined the effect of a background of hardship and poverty on doctoral students' pursuit and persistence in a Doctor of Education program and found that personal connectedness and belonging support psychological wellbeing. Their participants' personal connections had motivated the pursuit of a doctorate for altruistic reasons, such as to improve family conditions. They also proposed that family integration supported doctoral persistence, but noted that because their research examined individuals from impoverished backgrounds, students' resilience may have been developed as a result of growing up with hardship. Nevertheless, their findings support the findings put forth in this thesis that having their personal community's emotional and financial support supported participants to commence and continue their research. It also supports the finding in this research that family members' expectations make it harder for participants to just give up, although, in the literature reviewed, there was no discussion about how these expectations may also have a negative effect. In summation, family expectations increase the pressure participants may feel, raise self-efficacy awareness and encourage forward momentum and progress.

Fear of failure to complete the PhD is not unusual (Carter et al., 2012; Morrison-Saunders, et al. 2005;). However, from a personal community perspective, the participants in this research feared not knowing what they would tell their family and social circle if they failed to complete. To disappoint those who had supported them would result in shame, especially for (Eastern) international students, and would make belonging difficult. There was also the personal shame of failure in the face of those who had questioned their purpose in doing the PhD. Failure to complete would result in the fulfilment of others' expectations , and consequently some felt trapped.

6.7.4 Not Understanding

A family member pursuing a PhD can be a source of pride. Although, when the PhD interferes with personal community expectations of 'normal' life progression, such as a job, a career, money, marriage and children, there may be limits to what are considered acceptable endeavours, particularly for women (e.g., Carter et al., 2012, p. 347). Gardner and Holley (2011) also found that a lack of understanding of the PhD resulted in a 'physical and intellectual distance from families' (p. 88) and of living in two worlds. One of the reasons identified in the present research is that some participants' personal community did not appreciate the value of what they are doing. Others not understanding or not seeing the value in doing a PhD had the potential to decrease self-efficacy and motivation or, at the very least, cause frustration and tension between the parties, particularly when it leads to expectations to continue participating in activities that get in the way of PhD progress. This finding suggests that PhD researchers may be forced to inhabit a space between communities, because they feel they no longer fully belong in their old community and do not yet belong in the new community. This splits the being between old and new, which creates tensions not only for the PhD researcher but also for their personal community. This supports Rockinson-Szapkiw et al.'s (2014) recommendation for a family orientation program prior to the commencement of a doctorate as a means of reducing the potential for tensions between the doctoral students and their families.

6.7.5 Roles and Expectations

The literature has examined gender roles and expectations and the effect these have on the PhD experience. From a gender perspective, Carter et al. (2012) found that doctoral challenges were different for women because of the cultural stereotypical roles attached to women. They list passiveness and nurturance and what they refer to as '(at least symbolic) subordination to male authority' in respect to women's social roles and academic roles and state that the latter requires levels of assertiveness and 'confident management of power relationships' (p.339). This is in contrast to the finding in this research, where female participants did share the lived experiences of being a family nurturer as well as a PhD researcher, but so did male participants. It meant they did not spend weekends working on their thesis and needed to go home early on specific days because of other roles or responsibilities—and not because of their gender. There was little reported discord about these multiple roles, and there was also no concern raised around difficulty managing

power relationships. Nevertheless, there was emphasis on the importance of maintaining happy personal relationships and avoiding becoming 'obsessive' about their PhD, which was discussed in Chapter 5. (Being obsessive, in particular is discussed in Sections 5.7.2 and 5.9.1). I propose that participants exercised their personal agency and focused on maintaining happy relationships to ensure ongoing support. They took premeditated action because dealing with unhappy relational situations (e.g., Byers et al., 2014, p. 125; Vekkaila, Pyhältö & Lonka, 2013) could result in increased strain that would have a negative effect on their progress and wellbeing. Webb (2010) also found in her research that participants engaged in 'strategic delegation of tasks related to their roles as an academic, a family member and a doctoral student did not typically result in a straightforward reduction in the number of prescribed activities for which they were responsible' (p. 331). This supports the findings of the present research that managing multidimensional relational challenges external to the PhD process is a part of the lived PhD experience. It also supports the findings that key challenges include multiple roles and others' expectations-including those of family members, social connections and work colleagues—result in negative emotions that 'threaten their emotional well-being' (Byers et al., 2014, p. 125). However, rather than treating this as negative, the participants engaged in coping strategies, such as compartmentalising their lives to balance the expectations or perceptions of others and identifying relational others who supported their self-efficacy and validated their sense of belonging in order to attain forward momentum and progress. This now leads the discussion to the next relational chapters on supervision and other people on the inside.

6.8 Conclusion

By focusing on their personal agency, participants adopted coping strategies such as compartmentalising their personal being and their PhD being, to support their forward momentum and progress. In this thesis, family, friends and acquaintances not engaged in the PhD enterprise are identified as one of the three relational groups that affect the lived PhD experience. Personal communities provide a sense of belonging and social conventions that for many participants were not compatible with being a PhD researcher. This research contributes to the existing literature on the importance of personal community, and emotional and financial support for PhD success. Community support and expectations make it more difficult to 'just give up'. Consequently, others' perceptions and expectations were another challenge to be managed. Participants often achieved this by

compartmentalising their activities and engagement. This included gravitating to others on the inside to support their progress and their sense of belonging, such as their supervisor and others engaged in the PhD enterprise, who understood what it was they were trying to do.

Chapter 7: Supervision

7.1 Introduction

This is the second chapter on the relational dimension, and it reports on the participants' supervision experiences. Here, the key theme of forward momentum and progress continues. The previous chapter highlighted the importance of support from personal communities, although in managing community perceptions and expectations, participants compartmentalised their lives as a coping strategy. Seeking out others engaged in the PhD enterprise also served to support their forward momentum and progress.

This research did not deliberately set out to research supervision experiences considering the volume of existing literature on supervisor-related research. However, given the number of times that supervision was mentioned in participants' narratives, it was decided that this thesis would be missing a significant element of the lived experience if it did not include a discussion on supervision.

This chapter commences with a discussion of the findings, which is followed by a review of the contemporary literature on higher degree research supervision. The specific themes identified in relation to reported supervision experiences are unpreparedness in setting expectations, the desire for the supervisor to be their guide, the importance of the relationship and, finally, shifting expectations. I present and discuss the reported lived experiences from a relational dimension through the lens of social cognitive learning theory, with particular emphasis on Bandura's (1978) reciprocal determinism and self-efficacy theory.

The participants' narratives revealed that supervision had a significant impact on participants' experience, actions and behaviour. This chapter informs how participants perceived that the role of their supervisor was to guide them so that they could successfully navigate the challenges in a liminal space. Most participants reported feeling lucky to have a good supervisor, but the narratives also revealed a contrast between their expectations and reality. As in the previous chapters, it highlights how perceptions and expectations, and existing ways of knowing, affected their lived experiences (Stubb, Pyhältö, & Lonka, 2012, p. 453). Irrespective of whether these expectations were met, participants were

committed to maintain a good relationship with their supervisor. They did not, however, rely on their supervisor for everything; the findings discussed in this chapter illustrate that participants exercised agency to develop relationships with others to validate their sense of belonging and to progress their PhD to completion. In particular, the findings add to the existing body of work on supervision by cautioning that although the supervisor is important, there are other dimensions that affect PhD researchers' forward momentum and progress, and, it is hoped, go some way to steer the focus from the supervisor alone to a broader view of the experience.

7.2 Appointing the Guide

For what is deemed an important relationship, this research found little if any investigation into the compatibility of the supervisory relationship, nor time taken to discuss research perceptions and expectations prior to agreeing to the supervisory arrangement. In fact, none of the participants shared that they or their supervisor had set about establishing the 'ground rules' for the relationship (Pyhältö et al., 2015).

Of the participants, three were assigned a supervisor by their institution. One was for a cross-disciplinary research project for which there was no single subject-matter expert available to act in the role of supervisor, and hence an experienced humanities supervisor was appointed instead. This relationship appeared to work well, although at times the participant did question the supervisor's understanding of the research topic but concluded that the advice he had received (and implemented) improved his research. It is worth noting that this participant successfully submitted his thesis a short time after participating in this research.

Submitted version two my concluding chapter. Devastated at my supervisor's comments. Why can't he see and agree with what I am trying to argue. I suspect that my argument is beyond his academic framework. That's what happens when a XXXXXX based XXXXXX is aligned with a humanities department. For the first time in 5 years of research, I considered stopping. After a few days I can see part of his argument. His suggestions will make for a better argument. Yet I will include my XXXXXX based argument in a different format. (KT, 6th August)

A couple of weeks later, the same participants reported:

Despite my initial reservations about my supervisors comments, the third version of my final chapter is starting [to] come together. (KT, 21st August)

Another participant reported being annoyed at having her more senior and experienced honours-year supervisor removed and the university appoint a more junior supervisor without any consultation but found that the relationship worked exceptionally well because the new supervisor provided timely feedback and showed interest in both her research and her professional development.

One of my supervisors I had for my honours year and she offered to take me on for my PhD because she liked my project and we got along really well. I really liked working with her. ... she was taken off my project because her workload was too high and at the time I wasn't particularly happy about the way that that was done or the process through which that was done because it was like – we're telling you who your supervisor is going to be and it's just bad luck if you don't want them sort of thing. But fortunately, the supervisor I was given is really excellent. She's been incredibly supportive. Feedback has been wonderful. She's an early-career academic, so I find that she is much closer to my age than my other supervisor. In that way, I find her, not easier to get along with because I get along well with both, really well. But I guess I can just relate to her a bit more. She's always really responsive to emails or if I just want to drop by and have a chat and that sort of thing. So yeah, even though I didn't have a lot or any choice in whether she was my supervisor at the time, it turned out really really well and she's been really fantastic. So yeah, perhaps just luck of the draw. (BF, 28th May)

The third appointment was for a young Chinese woman who on commencement was assigned a senior Chinese supervisor by the university, based on common ethnicity. The relationship failed, and following considerable fear and anxiety, with persuasion from a friendly neighbour and without institutional support, she sought the support of a senior mature-age academic, who accepted her as his PhD student. Although this arrangement resulted in a successful PhD outcome, the participant frequently reported uncertainty about cultural norms.

Six participants reported that they had contacted prospective supervisors via email. The selection of prospective supervisor was based on publications in their field of interest at their chosen high-ranking institution. This resulted in recruiting a senior high-ranking academic they had never met in person, who was supervising upwards of eight PhD students and engaged in multiple other projects, which paradoxically left them relatively little time to spend with their new arrivals and frequently resulted in a mismatch of expectations.

Others continued with the same supervisor from their honours, master's or other research projects. These engagements generally worked well as the relationship had been tested on a previous occasion and there was an established routine. Most participants in this category admitted being surprised at the difference between their previous academic research and their PhD with regard to their supervisor's expectations. Furthermore, these participants reported that they knew how their supervisor would react and the comments their writing would receive and therefore sought out others for a 'fresh look' at things.

I did a sort of summer research project with her – over the summer when I completed my honours, which was at the end of XXXXX. And you had this program to sort of lure students into doing a PhD at XXXXX and scholarships that were very generous. So I first worked with her then when I completed honours at the XXXX. I was really impressed by how much time she gave me because my honours supervisor had been very busy and hadn't had much time for me. Even though she was good and nice, she was very busy. So I was impressed that XXXXX, my current supervisor was so generous with her time. And I was also very impressed by her scholarship. I kind of first flagged for my PhD topic with her then, and she thought it was sort of a good idea. (AR, 23rd October)

This brief focus on participants' supervision appointments reveals, first, that for those participants who deliberately set out to identify and recruit a supervisor with subject-matter knowledge in their research field, they had someone with whom to discuss their research topic. This suggests a master–apprentice arrangement, where the supervisor provides craft-centred guidance, not emotional or other types of support; although, in master–apprentice arrangements where the supervisor did not guide the research process, the participant reported feeling lost.

Second, participants who were appointed a supervisor not necessarily in their field experienced some tensions around subject-matter knowledge, especially as the participants' self-efficacy developed. However, all participants reported that their process of completing the thesis was well supported. Third, for cross-cultural supervisory relationships to be productive and a positive experience, intercultural competencies were important for both the student and the supervisor; however, the assumption that PhD students and supervisors should be matched based on ethnicity was not supported. A finding from a study at the University of Hong Kong by Min Zeng in 2009 found that good supervision was perceived as having 'a comfortable personal relationship with supervisors ... smooth and comfortable communication with their supervisor' and on 'whether they perceived an effort of their supervisors to socializing them into their discipline community' (Zeng, as quoted in Zeng & Webster, 2010, p. 73). Although this finding does not represent all international students, for the Chinese participant in this research, communication remained a key issue.

Fourth, supervision appointments following a successful master's or honours degree or other projects meant that participants knew what to expect in terms of the supervisory style and compatibility. However, it also resulted in participants already knowing how the supervisor would react to aspects of the research, and thus they were likely to seek out others for 'fresh eyes'. Given that the Australian Government in its first consultation paper on higher degree research training found that the 'supervisor–student relationship is the foundation of research training' (Department of Innovation, Industry, Science and Research, 2011, p. 16), participants' reports of the vague way in which such important relationships were entered is somewhat concerning, especially given the amount of attention higher degree research has received in the higher education literature.

Participants reported feeling lucky with their supervision arrangement, and yet during their 3–15 months of participation in the present research, the majority of participants related at some point and to varying degrees concern or anxiety about their supervision arrangement. This suggests that reports of feeling lucky were based on comparisons with folklore or stories heard from other PhD researchers (Mewburn, 2011). Having a good supervisor was not taken for granted, but 'feeling lucky' raises the recurring theme about preconceived ideas of the PhD and about how 'good' supervision was conceptualised.

Participants conceptualised a 'good' supervisor as someone who knows, understands and 'gets' what you are doing and, importantly, is interested in your work. Supervision was described by one participant as one of the most rewarding parts of doing a PhD because she felt like her supervisors were engaged, 'on the ball', committed and supportive. Having a supervisor interested in their research meant there would be opportunities to discuss ideas, improve their sense of belonging and reduce the uncertainty of being in a liminal space. In summary, participants reported feeling lucky to have a 'good' supervisor who:

- knew and guided the way,
- freely gave time and was someone to talk to about research, and
- gave prompt feedback.

They also reported feeling lucky to have a supervisor who while not being particularly directive, which for some could be frustrating at times, made them feel 'really supported' because this non-directive style showed faith in the participant and their abilities. This had a positive impact on participants' self-efficacy and validated their sense of belonging. Moreover, they reported feeling lucky if their supervisor was good at supervising; in other words, they knew the way because that would support their forward momentum and progress.

I don't have supervisors who are working specifically in my field. I guess I'm trained to be the person that is the expert in my specific area. Sometimes I think that it would be lovely to run things by 10 or 12 people because you're going to get different perspectives, but I think I've done pretty well in terms of one supervisor – even though she's not so much in my area – she's excellent at supervising. (KL, 13th September)

I'm lucky in that my supervisors are good and supportive. My principal supervisor is very thorough as well – so when I get something back it would have a million comments all over it – so there were plenty of things to work on. So I never felt like there was nothing to do. I think it pushed me ahead when I needed to but it worked OK. My supervisor is really on the ball – she gets back to me. On email within a couple of days of receiving anything. So that is really helpful. I think it would be more challenging if you had a supervisor that was a little more relaxed and you had to chase things up via

email. It's not an issue for me because XXXXXX is really organised. (KL, 13th September)

7.3 Show Me the Way, Guide Me

This research identified that the critical role attributed to the supervisor was that of a guide to steer the participants through the process of doing their PhD so that they could maintain forward momentum and progress to successful PhD completion. This guidance included providing access to necessary resources or making introductions to other people for developing their research and writing skills, guiding participants to identify appropriate methodologies, and highlighting real or potential challenges that may impede their progress. Essentially, participants believed that their supervisor should share 'tacit knowledge' that was not readily accessible to them as newcomers. Sometimes these role expectations were realised, but in many instances, there were discrepancies or gaps between the expectations of the participant and the expectations of the supervisor, as well as gaps between the supervisor's expectations and the institution's expectations (McCormack, 2004). One explanation for these gaps is that perceptions and expectations were culturally grounded (Zeng, 2009), especially for international participants expected to work within a 'Western model' (Kiley 2010, p. 257). For example, the narrative below is from an international student; in the narrative, the participant challenges his previous statements about being happy that his supervisor does not treat him as a mere student but as a successful professional. Nonetheless, he laments:

Sometimes it's good, and sometimes I find it's a little bit frustrating because if I want a firm and clear guidance, like in terms of making use of his expertise and experience. What is exactly the methodology and methods that I can use – he wouldn't say it, he would just leave it to me as a researcher to explore. ... It's good but it's hard, right. Because when the supervisor is open or is too open you get a little bit lost. What is the clear pathway, or what's the – you know – how to get there. As a student you expect some sort of clear mentoring but that is not the way that my supervisor works. (BL, 24th June)

This narrative highlights the tensions that arose due to perceptions based on existing ways of knowing and being. This was a challenge, not only for international participants but also

for participants well versed in Western academic ways. Their unrealised expectation of being guided increased task uncertainty, the effect of which is clearly explained by Bandura's social cognitive and self-efficacy theories.

If obscure aims and performance ambiguity are perceived, sense of efficacy is of little use in predicting behavioral outcomes, for individuals do not have a clear idea of how much effort to expend, how long to sustain it, and how to correct missteps and misjudgments. . . . [This is] especially relevant in situations where an individual's 'accomplishment is socially judged by illdefined criteria so that one has to rely on others to find out how one is doing' (Bandura, 1986, p. 398). In such situations, people lack the experience to accurately assess their sense of efficacy and have no option but to gauge their abilities from knowledge of other experiences, often a very poor indicator and predictor of the required performance. This faulty self-knowledge can have unpredictable results. (Pajares, 2002, Section: 'How Self-Efficacy Beliefs Influence Human Functioning', para.7)

Participants were well aware of their faulty self-knowledge within this environment and were therefore reliant on their supervisor to be their guide. From a self-efficacy perspective, they initially relied on their supervisor to establish how they were performing (Bandura, 1986) in other words, to receive some feedback or acknowledgement of some form that what they were doing was correct and, if not correct, to point them in the right direction. For the participants, their supervisor's status also provided them with 'a significant model' (Pajares, 2002), whose verbal persuasion could be trusted; although, they also looked to others to be 'significant models' on which to base the required behaviour and actions to establish or re-establish self-efficacy, which will be discussed in greater detail in Chapter 8—the next, and final, relational chapter.

Participants expected their supervisor to have dedicated time for them—to discuss their research, and read and comment on their work. The feeling that their supervisor had dedicated time for them had a positive impact on their physiological state and validated their sense of belonging. Guidance requires time, and some participants in this research found that their supervisor did not have sufficient time to provide this guidance, whereas others were pleasantly surprised at the amount of time and attention they were given.

Well – coming here to Australia. I had an agreement here with a supervisor ... and I am very positively surprised that he has so much time for me and my project. I did not expect that. He is a very busy professor – has a lot of things going on. I expected to be pretty much left alone here – maybe not to get disappointed. We have weekly meetings. (LC, 6th March)

Those participants who had experienced low supervision time in the past reported how receiving dedicated supervision time improved their sense of forward momentum. The following narrative is from a participant who initially commenced her PhD because 'there was nothing else to do', and during the early phases was physically isolated from her supervisory team. Her narrative illustrates how having a supervisor willing to spend time with her had a positive effect on her self-efficacy . This dedicated supervision time essentially validated what she was doing and gave her a sense of belonging that spurred her from being in a state of procrastination to one of forward momentum and research progress.

I have had a couple of good meetings with my new(-ish) supervisor and this has really helped with the development of my work. I feel so grateful to finally have someone who engages with me on the details of my data: Yesterday 1.5 hours talking about the nitty gritty of my results and what they mean and how we can frame the work – what a privilege! I actually expect this is normal for PhD supervision, but I really missed out on that in the first 2.5 years of my PhD and now I really appreciate it. (MT, 19th April)

Her second narrative, approximately seven months later, reveals how with growing selfefficacy she became more resilient, and her need for dedicated supervision time changed as she navigated through the adventure park (Bandura, 2012; Zimmerman, 2002).

I have had a lot of, a lot more communication with my supervisors. Depending on which week. You know, some weeks I just put my head down and write and then but certainly over my – because it's getting close now because of my drafts – and I'm actually enjoying that. It's nice. Especially my coordinating supervisor, he is finally being a bit more involved because I've sent him things and he's written back and blah blah blah. So it's nice to be a bit more involved, and since my newer supervisor came on board – that was over a year ago – but that's been really great to have her involved because I feel that she's actually engaged with my data and what I can communicate with that and what it means. So I haven't felt so isolated since she came on board. Yeah. (MT, 26th November)

One month following the narrative above, this participant submitted her thesis for examination. Without dedicated supervision time and timely feedback, participants became frustrated and questioned whether their expectations of the supervisor were unrealistic or whether it was their fault because they lacked capacity. This could explain one of the reasons participants experienced uncertainty in the liminal space. Without their supervisor's guidance, some participants went into phases of stalling, or even procrastination, because

- they did not know how to proceed
- their self-efficacy was reduced
- they questioned their sense of belonging.

Notwithstanding, on a positive note in those circumstances, following a phase of stalling or even procrastination, participants exercised their personal agency and set out to look to others for the guidance they needed.

The second challenge is my expectation that my supervisor will have a lot of time for me and he can read my paper before coming to discussions with him. ... When I arrive I change my expectation because supervisors are not only supervising eight or 10 students but also he has his own projects and often he would not read my paper before I came to the discussion with him – so I need to brief him and sometimes there is some missing information there and I could not find the second supervisor that I expected. But I think I had an ambitious expectation. (BL, 18th April)

They have so much teaching load. ... sometimes I don't get even an hour a week to see them. And they have to look at this because it is totally technical and nobody else is going to get this. Only one of my supervisors gets what is in there. And he has to read it, and he has to let me know if it's telling the reader what I'm thinking it's going to tell. If it's clear or not. I need him to put [in] time and read it. That's the main thing. I need their time. (SS, 1st August)

Some participants reported receiving little dedicated supervision time, or vague feedback and little direction. There are two possible explanations for this. One is that the supervisory support they received was PhD inadequate; the other is that there was a misalignment between the supervisor's and the PhD researcher's perceptions of PhD research. Earlier in this chapter, I discussed how most participants expressed their wish that their supervisor would guide them, and for some it came as a disappointment when this did not occur. However, it is important to note that this was not the expectation of all; in fact, some participants were pleased that their supervisor had faith in them and did not direct them on what to do. This supports the finding that existing ways of knowing and being are challenged through the PhD and require an ontological shift in being in order to learn (or relearn). Still, ambiguity about the role of supervision exacerbated participants' 'faulty self-knowledge' (Bandura, 1986). These participants found themselves in an ambiguous relationship with their supervisor and in an uncertain environment that initially reduced their self-efficacy and sense of belonging. Even so, participants in this research exhibited considerable personal agency. For example, one participant's frustration at not receiving the direct feedback he was looking for from his supervisor resulted in him developing his own support network to validate what he was doing, as shown in the following narrative.

when I talk to other PhD students I found out that this is not good – this is not the right way, so I need to rewrite it myself. So I need to spend extra effort to cross check that what I'm doing is at a PhD level. ... so I learn more from other PhD friends there. (BL, 24th June)

In concluding this discussion on participants' expectations of their supervisor to show the way and guide them, it is apparent that being in a liminal space highlighted their faulty knowledge. Subsequently, most looked to their supervisor for guidance and knowledge support until they could establish their ways of knowing. For some, these expectations were not realised. It could be that their expectations were unrealistic. It could be that they were not receiving the guidance that should have been forthcoming. It could also be that some of the challenges included establishing relevant guidance. Irrespective, the participants exercised personal agency to find alternative sources, such as other PhD researchers and the like, for forward momentum.

7.3.1 Critical Feedback, not Criticism

At times, receiving direct feedback was experienced by participants as personal criticism. This may have been because of the way the feedback was delivered or because the feedback highlighted their lack of capacity. It could also have been partly due to the emotional intelligence of the supervisor as well as the participant, although there is no data to support such an observation. Conversely, if participants were unsure about why they were receiving praise or positive feedback, it could reduce self-efficacy because it added uncertainty.

I think I'm getting better at it. It depends on how it's delivered...I think sometimes talking to other students, I think sometimes it is the way the feedback is delivered can be a bit harsh, or maybe it's just me. And I kinda need to move to not taking it personally. Everyone's kind of under that pressure, it heightens the sense that you're not good enough that you're not on track. Positive reinforcement works well. (RM, 28th March)

Emotional reactions could also arise when feedback was delivered sympathetically, particularly feedback on writing.

I can't write and having that reinforced by them that it's a skill I need to work. ... it was done in a very productive sympathetic understanding way – where they want to help me get better. They want to give me skills and they don't want to pander to me. I find that reassuring and was never done in a bad way but it's a blow. To my ego maybe, I don't know if that's the right word for it. It's my ability to be good enough I'm second guessing everything I do therefore it means no productivity (SH, 19th April)

Regardless of these negative emotions, participants acknowledged it was essential to receive critical, timely feedback because it enabled them to make judgements (Schunk & Pajares, 2002) about their capabilities and accurately inform their self-efficacy. Feedback was a marker that enabled them to make informed decisions in what was an otherwise unstructured and uncertain environment. The process of receiving and interpreting feedback involved learning to handle the 'red pen marks' and was the guidance and direction they were seeking but also finding difficult to accept.

I think that one thing I'm really enjoying at the moment is just that review process and getting feedback from my supervisors. Oh, and yesterday I got one from my supervisor, and a while ago it might have affected me a bit more, but it's just like red pen throughout the whole – well it's tracked changes and it looks all red. Depending on the bit you look at. Sometimes I just find that so daunting – I get that feeling of OHH MY GOD SO MUCH WORK – but you know I read through her comments and it's just helpful to have someone else give you feedback on your work. (MT, 26th November)

For others, unrealised expectations for guidance was difficult and initially isolating, and a key reason for actively seeking alternative solutions or others for support.

But what is working? My new supervisor is helpful, understanding and encouraging. He responds when I send him stuff, sees me when I ask and doesn't get mad at me when it seems to me that my progress is pitiful. But he doesn't have a lot of suggestions to help either. Oh well...it is a step forward.

At least the sense that I can get some thoughtful response from him has helped me to get more 'on the horse' rather than thinking that it is all a waste and nobody cares. ... It's funny that supervisors don't really help you with 'how' either! But this book has given me lots of ideas and has helped me to focus more on what I really want to know, rather than getting bogged down in writing about literature that is important in the field but may be only peripheral in my work. (TM, 4th October)

Critical feedback, not criticism, was an essential component of the guidance that participants sought. It does highlight that learning to manage critical feedback was a challenge to be managed. This could be because the personal nature of the PhD made separating the personal from the thesis difficult, and some reported finding it difficult to balance the PhD and the personal (see Section 5.7). Critical feedback was a marker that enabled participants to make informed decisions in what was an otherwise unstructured and uncertain environment. However, receiving praise could exacerbate confusion if the reason for the praise was unclear.

Finally, it is worth noting the importance of feedback on writing, especially as the 'I can't write' experience was prevalent. I propose that most participants anticipated the need to write a doctoral thesis but few were prepared for the level of writing required to undertake

this task. Consequently, the PhD experience for these participants was also about becoming a writer.

7.4 The Importance of the Relationship

Supervisors played a critical role in the provision of structure and guidance in what was perceived as an unstructured environment (Baker & Pfifer, 2011); therefore, having and maintaining such a relationship was very important. Although discussed in greater detail in Chapter 8, the next relational chapter, it is worth noting here that participants, when they could, developed relationships with other people for support, knowledge and effective behavioural strategies (cf. Baker & Pfifer, 2011). This was not because they were necessarily unhappy with their supervisory relationship but because they innately recognised the socia-cognitive nature of PhD learning. The supervisor was perceived as the guide and gatekeeper (Lee, 2009) that provided the final sign-off to the discipline and the PhD. The supervisor also held institutional responsibility for the results of the PhD research. Hence, I propose that the relationship was underpinned by power that could work both ways (Hemer, 2012, p. 833; Pack, 2009). For example, as the guide, the supervisors controlled the process that needed to be followed and determined the successful outcome, whether the relationship was a traditional relationship (master-apprentice model) or a lessformal collaborative mentoring relationship (Hemer, 2012). The participants, however, controlled the process of creating the drafts that the supervisors would need to check and provide feedback on, and they would ultimately need to sign off on research for which they were responsible to the institution.

I am not sure to what extent these events happening this week will impact on the progress of my study. What really impressed me was that my supervisor sent me an email when he was in hospital, telling me that he was feeling well, and would be able to work quietly from home during his sick leave. I was glad to hear that, but also worried about his health. I did not know how serious his situation was, but I thought he should get rid of work for some time. What I should do now? I should do my best to give him more polished work in the future so that he does not need to comment on it again and again before he passes it. (EY, 26th April)

The narrative above emphasises how a participant exercised personal agency to take control of what had become a difficult situation for her supervisor. By assuming control for her own work, she could ensure it would require less work for her supervisor and thereby ensure progress. It demonstrates an exercise of agency to control a situation over which she previously felt she had relatively little control, and it demonstrates how participants were prepared, and able, to negotiate their role to progress their research. It also implies that, if necessary, participants would have exercised personal agency to take control through their own actions over a situation for which they had previously attributed control or power to their supervisor.

I'm not sure if I mentioned before but I had this difficulty with my main supervisor. I was going through turmoil during the second year. So I wasn't really progressing. I wasn't getting any feedback from my supervisors – especially because he was also away and I wasn't feeling like doing anything. Because I went sad and I was really down. So yeah, I always tell everybody that I think my second year is a total waste and yeah – I mean basically I mean I am in my $3 \frac{1}{2}$ year right now because I didn't do anything in my second year. My third year was better but I think I could have done more, but because I did so much collaboration with new people, made new project and so on, that's still a little bit better than second year. The second year was a total waste. (SS, 1st August)

The perception of little supervisory support or engagement resulted in reduced forward momentum and even stalling until the participant was able to exercise personal agency. Essentially, little or no support led to a decreased sense of belonging and even isolation, particularly if the participant perceived their supervisor was not providing them with the support that others were receiving (Baker & Pfifer, 2011, p. 11). This research found that in the absence of supervisory support, many participants engaged with others to acquire enough self-efficacy and confidence to identify and engage another supervisor when managing the supervisory relationship became too difficult. However, this does raise the question: what happens to those who have limited access to others on the inside for support, learning and practising, and belonging validation? This question was not answered in this research but is an area for further investigation.

Participants respected their supervisor's knowledge, status and work ethos. Sometimes participants were in awe of their supervisor to the extent that in the early phases, some experienced difficulty in relaxing sufficiently to engage with their supervisor because they

feared being exposed (Pack, 2009) and perceived as unworthy (Woolderink, Putnik, van der Boom & Klabbers, 2015). For some, the desire to appear worthy meant they wanted everything to be perfect before showing it to their supervisor, and this could result in stalling behaviour. Low self-efficacy could deter some participants from seeking supervisor support or showing work they perceived as not of a sufficient standard for fear of 'being found out'. Subsequently, it became easier to seek the support of others; however, this meant they did not make full use of the guidance their supervisor could have offered them.

As I kind of predicted she has a lot of time for me. She's very prompt with reading my work. She gives good feedback. But – I suppose she's not – [pause] – she's not the warmest sort of person in terms of kind of face-toface interaction. So while she's very generous with her comments about my written work and so on, she's not somebody I feel personally close to, and she's sort of well known in the department for being a bit severe in her personal style, and a lot of people are very intimidated by her, and I am intimidated by her to be honest. So while she's always very nice to me and I respect her a lot, I don't find our interactions always relaxing. I don't really look forward to our meetings in a way because of that. I think because I really value her high opinion of me, I am perhaps too reluctant to expose myself to her and sort of bring up ideas which I haven't fully developed. Or show her pieces of work that are not incredibly polished. I feel like that is perhaps what is holding back my learning in a way. In a sense that everything I show her has to be perfect. Which means that I am not getting as much feedback from her as I potentially could. So I think I am trying to get better at showing her – at kind of being more vulnerable – but in a sense *it is a bit challenging*. (AR, 23rd October)

Another possible explanation is that participants wanted to model their behaviour on their supervisor, which Schunk and Pajares (2002) defined as vicarious learning or vicarious experiences. However, when there is a great cognitive difference between the learner and the model, this can have a negative effect because individuals judge their own competencies in comparison to the competencies of others. For the participants, the superior cognitive abilities of their supervisor highlighted their perceived lack of cognitive ability. I propose that, at times, participants struggled to see themselves ever living up to

their supervisor's capacity and hence preferred to surround themselves with others on the inside, such as other PhD students, because as Schunk (1986) clearly stated, 'Although students often learn cognitive skills by observing their teachers, observation of a peer (student) model may exert more beneficial effects on self-efficacy' (p. 318).

As Pajares (2002) pointed out, 'it is not simply a matter of how capable one is, but of how capable one believes oneself to be' and, consequently, what one believes is how one behaves. This research clearly demonstrates that as self-efficacy improved, participants felt more secure about their cognitive abilities. Consequently, the PhD researcher–supervisor relationship could shift between the PhD researcher feeling intimidated by the supervisor, and the supervisor being seen as someone to engage with and to strive to emulate.

I think, I like both my supervisors. I think there are certain expectations I really struggled with what was expected of me as a PhD student and what they wanted. I'm sort of getting it. There's definitely a power structure there ... one is the director of the centre ... and the other is the senior research fellow. So there's definitely a power structure there. Sometimes trying to convey your ideas or feelings, conveying your ideas, trying to feel comfortable voicing your ideas is challenging. But I've gotten a lot better at it. I think I feel that being so junior, I felt that I didn't know anything and that my ideas weren't valid. I was waiting for them. But maybe they were waiting for me to step up to the mark. (RM, 28th March)

Nevertheless, having a high-ranking senior supervisor did not always result in feeling powerless, and the findings indicate that the reputation of the supervisor brought benefits. Getting ahead in academia in some disciplines is in part based on the prestige of the institution and the supervisors' status (Becher & Trowler, 2001, p. 79). This is a plausible explanation for why some of the participants actively sought out high-ranking academics as their supervisors—although they had relatively little time to spend with their PhD researchers—because being in their camp meant that the participants inherited some of that reputation through their relationship. In fact, a supervisor's status could provide kudos.

It really helps that my supervisor is the most feared, feared supervisor in the school. [Laughter] Because he's on a number of reading committees and things for other students so they always get really harsh feedback from him so they're kind of scared of him and I've kind of had that since the beginning so I think he gives me a bit of kudos. I share in his reputation because I'm his student, and if I can cop his feedback then I must be tough – it says something about me. (AM, 10th December)

This has been really bothering me and I don't want to write/talk about it anymore, just to say that I became very frustrated last week in a meeting with my supervisor, which I wish I hadn't. And I am now trying to take steps to resolve the situation. Namely, I want to show I had made every effort with the project and then resign from it. A key thing I am worried about is my relationship with my supervisor, who is somewhat stuck in the middle here (between me and the lead researcher) but at the same time refuses to do anything about it. I think the best thing will be to resign from the work (I'm hardly doing anything anyway) and get back to my calm and happy supervision arrangements. (AM, 4th March Y2)

The other consideration here is that being a successful academic researcher does not necessarily equate to being a great supervisor. However, that discussion is outside the parameters of this research, which did not investigate the supervision practices but investigated the experiences that the participants chose to report on. Maintaining these relationships could drive some to be very accommodating and willing to forego other opportunities in order to retain a good supervisory relationship, because to get on the wrong side of their supervisor, who was effectively their gatekeeper to the academic rituals and process (Becher & Trowler, 2001), could be deleterious to their forward momentum and progress. Hence, managing the relationship could be another challenge. However, worse than getting on the wrong side of a 'good' supervisor was losing a supervisor.

7.4.1 Orphaned

supervisor is very experienced ... and very busy and she's just taken on a new role and she's let me know that – it's possible that she won't be able to continue and if that's the one thing – the prospect of her not being the supervisor has come up twice, at the beginning and just a couple of weeks ago and that's the thing that has caused me the greatest concern throughout this whole process. Because if she drops out then I'm left with barely – not inexperienced but less experienced supervisors and who aren't. She's got specific experience in working across knowledge systems, which is what I'm

doing – so I'd be pretty upset if she leaves, but there's not much I can do about it. (MW, 25th November)

The likelihood of being 'orphaned' (Wisker & Robinson, 2012) —that is, left without a supervisor—caused concern. For some participants, the possibility of losing a good supervisor resulted in a willingness to forego regular supervisory contact and support in order to avoid being a burden. During this research, four participants reported a change of supervision. Surprisingly, for all except one this resulted in an improved situation. Two of the supervision changes were instigated by the participants; of the remaining two, one participant's supervisor retired and the other's supervisor left the institution. It was the latter participant who experienced challenges with her new supervisor, but nevertheless she successfully submitted her thesis during her participation in this research.

These findings suggest that fear of becoming 'orphaned' may have been based on a sense of powerlessness and low self-efficacy. When their supervision arrangement changed, they continued to achieve forward momentum and successful completions. Nevertheless, being 'orphaned' initially had detrimental effects on participants' sense of belonging and self-efficacy and resulted in a considerably more stressful PhD experience and even the potential for withdrawal. In fact, Wisker and Robinson (2012) also found that 'becoming "orphaned" has an effect on 'ontological security, confidence, and the relationship to epistemology, knowledge challenge and creation, where becoming "orphaned" could limit students' doctoral level work, their conceptual threshold crossings, research progress and achievement' (p. 12). This supports the finding in this research that the lived PhD experience challenges PhD researchers' ways of knowing and being, which forces a re-evaluation of knowing. Another explanation is that fear stems from the concern to find another supervisor with whom to continue work already established rather than a supervisor who may challenge them from the start again.

7.5 Supportive or Directive and Shifting Expectations

Over time, the nature of the supervisory relationship could shift as participants' selfefficacy developed and their sense of belonging became more established. Participants' reports of managing this shift highlight their awareness of the importance of the relationship and that their supervisor remains their guide, but the reliance has become more diffused. For example, in the following narrative, the participant has been engaging with other subject-matter experts but remains sensitive to her reliance on her supervisor for forward momentum and progress.

I've started to think a little more independently of him. I still think that as far as guiding me through the process and taking his direction. Not really direction – taking his suggestions on board – is still a good tactic. But actually yesterday, for the first time he suggested one thing – and I said well 'no I would really like to try this out first'. And I don't think I've ever said – 'No' – to him about what he's suggested. His suggestions have always proven to be excellent but I got another perspective from working with my mentor and I don't want to forget what I learned from her. Now that's on me to make sure that what I learned there comes through in my PhD because what was the point of going? And he's supportive of that. He's very confident in her suggestions and he's not - he's not going to fight me on that. As long as it works; if I can produce something where it seems to him what I've done is logical and good work then he's not going to say – well you've got to do it this way just because it's what I said. So not quite ready to cut the umbilical cord yet. I need his guidance. Like it's a really complex project and I've just got to get it through and done. And I don't want to – and I don't want to go on some road, tangent, and waste six months. (AM, 10th December)

The opposite of having a supervisor who guided and supported their autonomy was having a supervisor who managed the process and fulfilled some participants' expectations to guide or direct them. The latter type of supervisor spent considerable time providing indepth and direct feedback. Some possible explanations are that these supervisors wanted their PhD researchers to succeed and not make unnecessary mistakes; or they wanted to fulfil the role their PhD researcher expected of them; or they did not believe their PhD researcher had the capacity yet and therefore invested considerable effort to ensure productive outcomes. Irrespective of the supervisors' reasons—which, in this research, can only be speculated upon—this supervisory support met the expectations that some participants held. However, some participants who experienced directive supervision over an extended period reported feeling stifled, disabled, intimidated and even fearful. So why is it that having these expectations fulfilled did not result in the experience that participants had sought? In the following narrative, a participant explains how she is grateful for her supervisor but also that she had feelings of helplessness.

My supervisor (as wonderful as she is) is an extreme perfectionist. She is hypercritical and goes to town with the track changes function. I cannot remember receiving one compliment regarding my writing from her. This has left me feeling disempowered and almost paralysed in my thought processes as it seems that any idea I have is wrong or needs substantial changes. On top of this, all my thesis-related thinking occurs during my evenings and weekends when my brain just wants to rest. As a result of these ongoing issues, I have strongly considered quitting. It is upsetting and disheartening constantly dealing with intense criticism. (MP, 27th February)

During an interview, seven months later, this participant referred to the effect of the 'umbilical cord' on her independence and how she could not wait to gain her freedom.

My supervisor, you know, is very nurturing but almost like an umbilical. So because of the way she micromanaged that was also nurtured and mentored and all that – the relationship was so close and we were working so closely together that it's – it's like this team but it's only a team. But there are no two independent researchers – so I just, yeah – if you look at my CV, it is – everything has her name on it. I have not done one thing without her. ... I mean it's just so – and seeing so much work gets changed by her – you sort of – the line is blurred between what's mine, what's my work and what's her work. And also because I didn't even feel the power to say I disagree with that comment you made. I don't want to take that on board. I took on all of her feedback and adhered to everything that she said. Instead of feeling that I could say – No actually I'm not going to do that suggestion that you've made.' (MP, 1st August)

For the participants in this research, there are several possible explanations for these shifting expectations. The first relates to participants initially deliberately handing over control to their supervisor because participants were faced with uncertainty and their way of knowing was being challenged. By assigning the supervisor responsibility to guide and

direct, participants were essentially handing over not only control but also some responsibility for their forward momentum. Second, through the process of 'doing' the PhD and moving through liminal challenges, many increasingly drew on others engaged in the PhD enterprise rather than their supervisor alone (Pack, 2009) and consequently their self-efficacy and sense of belonging became validated. The findings indicate that in later phases this could contribute to tensions in the supervisory relationship for some participants, essentially because they no longer followed directions as they had done at the start. This transition to becoming independent from their guide meant experiencing tensions. For example, two participants described becoming independent in a directive supervision arrangement as 'cutting the umbilical cord'. Sometimes it was the participant who wanted to let go; at other times it was the supervisor. Consequently, this proved to be another challenge, that of developing authenticity during their final phases.

7.6 The Literature

The following is a contemporary review of the literature on supervision and PhD student experiences and outcomes. Here I discuss what others have found and how this research contributes to the discussion in this chapter. The supervisor and the supervisory relationship are omnipresent in higher degree research and PhD literature.

Good supervision practice is associated with successful PhD completions (Gardner, 2009; McAlpine & Amundsen, 2009), and overall a good relationship with the supervisor is deemed important (Guthrie, 2007). The key themes identified in the literature are what constitutes good supervision, the role of the supervisor and what conceptualises PhD research. In terms of what constitutes good supervision, there appears to be no unanimous agreement on best practice, although there are a number of factors that are recognised as contributing to good practice. One of these factors is time spent with the supervisor—that is, blatant neglect does not come under the heading of best practice (Holbrook et al., 2014, p. 337). The role of the supervisor is to socialise and induct the student into the academy (Grant, 2005; Jazvac-Martek, 2009a). Although there is ongoing debate about the purpose of a PhD in terms of the desired skills and outcomes (Group of Eight, 2013; Mowbray & Halse, 2010; Park, 2005), there is agreement that the supervisor is there to model and guide academic practice (Nutov & Hazzan, 2011).

The supervision literature also explores the concept of research and of starting to address the supervisor's varying expectations and perceptions of research—that is, their 'academic disciplinary traditions, customs, and practices based on their ontological, political, epistemological, and ideological background' (Grant, Hackney & Edgar, 2014, p. 44) and, of course, the PhD researcher's (Holbrook, et al., 2014). While much of this literature investigates what constitutes good supervision practice and recognises that the supervisor assists in the 'birth of ideas' (Haynes, 2009, p. 32), it is ultimately up to the PhD candidate to deliver the thesis. It is worth noting that doctoral or PhD supervision means different things to different people, and the challenge lies in defining the praxis and the varying perceptions and expectations around supervision.

7.6.1 Supervision Praxis

Supervision practice is based on the institution-, discipline- and project-specific requirements and on the expectations and perceptions of the supervisor (Becher & Trowler, 2001; Grant, et al., 2014). When the literature speaks of supervision, it is not referring only to a dyadic relationship; increasingly, multiple models of supervision are being discussed (e.g., Hemer, 2012; Neumann, 2003). Contexts such as supervision spaces can affect the supervision practice; for example, supervision in 'neutral spaces', such as cafés, can shift the praxis from a traditional model to a more informal mentoring or collaborative approach. Existing research (e.g., Hemer, 2012) has found that a less-formal mentoring or collaborative approach recognises student diversity and the increasing number of mature-age professionals.

Based on the findings of the present research, however, not all PhD researchers are comfortable with a less-formal approach, and for some, this had a negative impact on their experience. Participants came into the supervision arrangement with varying perceptions of the role of the supervisor and what PhD research involves, which supports Pyhältö et al.'s (2012) finding that supervisors' and students' personal beliefs about research affect their experience. A survey of 1184 students and 431 supervisors by Pyhältö et al. (2015) revealed significant differences between the perceptions of the supervisors and PhD students, hich has also been noted by others (e.g., Grant et al., 2014; Kiley & Mullins, 2002; Platow, 2012). Although Trafford and Leshem (2009) found some consensus, in that 'examiners, supervisors and candidates offer similar perspectives into what constitutes doctoral research' (p. 310), this was rarely the situation in this research. Ward (2013) and

Cotterall (2011) found a general lack of agreement around doctoral research between supervisor and student, and their view that there is a general lack of agreement on what PhD pedagogy should be is supported by this research.

The finding that most participants entered their supervision arrangement with little or no prior consultation to clarify expectations and set the rules of engagement is not prominent at all in the literature. For example, Grant, et al. (2014) found that successful supervisors 'draw on a range of approaches to suit the students' individual circumstances' (p. 57), which is important, although there is no mention about aligning expectations and the recruitment process. Exceptions are Pyhältö et al. (2015), who set out to establish the 'fit' between supervisor and student expectations. The present research supports their argument that a poor relationship because of not receiving sufficient supervisor support, a lack of interest and 'destructive' feedback could result in disengagement from doctoral studies and that much of this could be avoided if the supervisor and the student align their expectations early in the relationship. Moreover, Green and Bowden (2012, p. 67) argue that 'effective supervision is a significant ingredient in the push towards successful and timely completion' and requires a completion mindset to be the goal for both parties. This requires establishing expectations early in the relationship for clarity around understanding what timely completion is and putting in place the appropriate strategies and plans to achieve this goal.

The present research builds on and contributes to this existing knowledge about perceptions and expectations of PhD supervision. However, there has not been an extended discussion around how the relationships between supervisors and PhD students form, develop and change over time. The PhD researcher extends personal agency for forward momentum and progress but nevertheless manages their professional relationship with the supervisor. Here, too, there is the finding that the relationship needs to change over time, with early phases focused on guiding the process, and in the later phases the PhD researcher becoming the subject-matter expert that the supervisor will need to release.

There is no discourse around the following areas:

- supervision arrangements, how these are formed and how these relationships develop over time
- an apparent lack of rules of engagement and accountability.

7.6.2 Role of the Supervisor

The role of the supervisor has been receiving considerable attention in the literature. This is especially the case since attention has shifted to the skills that postgraduate research funding should provide. Supervisors can play a critical role in producing appropriate postgraduate outcomes for the student, such as graduate attributes and skills (Platow, 2012). High levels of perceived supervisor support are related to high levels of postgraduate productivity, according to Platow (2012, p. 104), who also found that high levels of graduate attributes, such as independence, were the result of lower levels of supervisor support (p. 113). This supports the finding in the present research, where perceived lower quality supervision resulted in participants exercising their personal and relational agency to socialise collegially to gain practice and support, improve self-efficacy and validate their sense of belonging. Whereas, some with high supervisory support during their PhD experienced a tension when moving from dependence to independence. This clearly calls for a balance between too much and not enough support.

Generally, the role of the supervisor is to support the PhD researcher to become an independent researcher and complete their thesis (Kiley, 2009). Supervision is described as a 'complex' practice (Lee & Green, 2009) that is situated in space and time and as such is not something that occurs in isolation of our social and academic context. However, numerous authors (e.g., Baker & Pfifer, 2011; Kiley, 2009; Sweitzer, 2009) argue that it is the supervisor who is responsible for providing the support and guidance into this social context for development, in order to develop the PhD researcher's academic identity and to make them feel part of this community. Jazvac-Martek (2009b, p. 260) calls this socialisation process 'role-identity confirming interactions' necessary for students to feel 'academic' and let go of their student identity. Socialisation processes are supported by Crane et al. (2016 p. 11) in their recommendations for actions call for improved institutional policies and practices to facilitate the students' transition to becoming academic. In the present research, however, there was little evidence of supervisors being a conduit for this socialising to occur, and it tended to be participant-driven. Interestingly, Jazvac-Martek (2009) also found that the 'confirmer' of academic identity was rarely the supervisor but rather others engaged in the PhD enterprise. I propose that socialisation is a critical component of the PhD experience that should be encouraged, and opportunities for socialisation should be facilitated by the supervisor. These findings clearly support that engagement with others not only 'confirmed' but also authenticated participants' sense of belonging and self-efficacy, which are a prerequisite to *being confirmed* as academic.

7.6.3 Guide and Model

In the current research, the role of supervision from the participants' perspective was one of master guide, and this supports Jazvak-Martek et al.'s (2011) finding that students assign the supervisor the role of 'institutional gatekeeper', who will direct them to 'successful completion of the dissertation or institutional requirements' (p. 23) and advise on administrative procedures. There was clearly a difference between the levels of guidance sought, with some participants really appreciating having a supervisor who encouraged their independence and, as Harman (2002) found, some participants, particularly international students, expected more direction and structure.

Likewise, others have identified supervisors as the gatekeeper (Jazvak-Martek, et al. 2011; Pyhältö et al., 2015), who determines when the PhD researcher is ready to enter the academy and when the thesis is ready for examination (Monfries & Morrison, 2003; Ward, 2013). Although Satariyan, Getenet, Gube & Muhammad's (2015) research into doctoral student supervision expectations at an Australian university found that research participants 'stressed the importance of alignment between supervisors' area of expertise and their area of research' (p. 10), the present research found that to have a supervisor who was a subject-matter expert was a bonus, because most participants defined their own role as a PhD researcher was to develop as a knowledge expert while the supervisor guided their navigation through the process—a process that also involved navigating the academic system to ensure their research met their academic tribe's and institution's requirements (Becher & Trowler, 2001).

The literature identifies the supervisor as the guide who models the requisite behaviours for the student's transition into the academy (e.g., Grant, et al., 2014). This includes identifying opportunities for further learning and development (Baker & Pfifer, 2011, p. 10) and explicitly modelling positive agency (McAlpine & Amundsen, 2009, p. 112). Trafford and Leshem (2009) also acknowledge 'how supervisors approach, handle and resolve' their candidates' difficulties 'reflects on a candidate's doctoral learning journey' (p. 305). This was the expectation that many participants in the present research held, only to be disappointed; therefore, like Juniper, Walsh, Richardson and Morley (2012, p. 572) I too propose that other members of the research community are 'crucial' to the PhD

experience. This view is shared by Kiley (2009, p. 302) who while acknowledging the role of the supervisor to identify strategies to 'assist candidates to recognise when they are "stuck", also argues the importance of peer learning. In fact, there is now a growing body of knowledge acknowledging the importance of peer learning to authenticate the PhD researcher (e.g., Vekkaila et al., 2013), and shifting the focus from the supervisor alone.

7.6.4 Support

Definitions of PhD researcher support are somewhat less certain. Platow (2012) suggests that supervisors provide 'appropriate' support, although there is little explanation of or definition of 'appropriate'. Others propose structure and support (Baker & Pfifer, 2011; Green & Bowden, 2012) in navigating the bureaucracy and legitimising feelings and emotions (Green & Bowden, 2012). The participants in this research wanted their supervisors have time, provide timely 'content-related' feedback; otherwise, participants felt they were left without traction is supported in the existing literature (Harman 2002; Satariyan et al. 2015, p. 6; Kiley 2011). Satariyan et al. (2015) found that the students in their study wanted their supervisors to be subject-matter experts; but this was less of a requirement for participants in the current research. This research contributes to the discussion that participants do seek support; however, the nature of the support sought depended first on their perceptions and expectations and second on the particular phase they were in.

In this research, there was an expectation of a professional relationship, although the experience for some participants was of supervisors who were too busy or even absent (Mowbray & Halse, 2010, p. 659). Some of the literature identifies that the ability of supervisors to meet the needs of their students due to their other workloads is questionable (Harman, 2002), and although the participants in this research valued their supervisors, many found that 'the potential for in-depth, intellectual and vigorous academic exchange, so highly prized by students, was lost' (Neumann, 2003, p. 57). This is particularly worrisome, as a higher level of supervisory support is related to progress and to less time taken to complete the PhD (Green & Bowden, 2012, p. 67; Martinsuo & Turkulainen, 2011, p. 105; Platow, 2012, p. 112).

7.6.5 Supervisor–Candidate Relationship

The consensus in the literature appears to be that the PhD experience is considerably more difficult when the candidate has a poor relationship with the supervisor (Jazvac-Martek et al., 2011; Kearns, Gardner, et al., 2008; Kiley, 2011), which is supported by the findings of the present research. Consequently, there has been an increase in research examining the supervisory relationship (Neumann, 2003, p. 120; Grant, et al., 2014), much of which appears to attribute the responsibility for ensuring the effectiveness of the professional relationship to the supervisor (Grant, et al., 2014; Kearns, Gardner, et al., 2008).

The importance of a good relationship is not under question. This may be a matter of negotiating a workable professional relationship and outlining what that entails for both parties, given the potential for mismatches. There is a possibility for mismatches due to social class, ethnicity, age and gender (Carter et al., 2012). The findings of this research indicate that mismatches can be as basic as candidates concerned about bothering their supervisor because of cultural norms or a perceived power imbalance. Others, such as Jazvak-Martek, et al. (2011), found that students feared retribution for disclosing events around supervision (p. 30) and perceived a power imbalance that left them often incapable of reporting difficulties because they felt inferior. However, in Brown's (2009), *Stories of Knowledge, Power and Becoming*, power in the supervisory relationship is also explored as part of the process of becoming:

The doctoral process, from initial plans, through the long period of study, the articulation of a thesis, through to 'writing up', to defence of the thesis by examination and subsequent conferral, can be read in terms of the interplay of complex relational forces where power shifts create the identity of the person becoming. (p. 6)

None of the literature reviewed discussed how low self-efficacy and questioning their sense of belonging reduces PhD researchers' ability to engage with their supervisor for 'fear' of being found lacking.

7.6.6 Becoming Orphaned

Finally, I discuss the fear of losing a supervisor and becoming 'orphaned', which is not widely discussed in the literature. The present research brought to light how fear of losing their supervisor meant some participants were willing to tolerate a lack of supervision to avoid needing to start again with another supervisor. However, when faced with the reality,

and reallocated a supervisor, many did not find it as problematic as they had expected. In fact, I propose it served to make them more independent by shifting the control over their forward momentum and progress from the supervisor to themselves, a finding supported by Wisker and Robinson's (2012) research into the effects of losing a supervisor.

Successful ex-orphaned postgraduates overcome the problems presented by supervisor loss in a number of ways. They report support from friends, family and their community of peers. They also indicate that they developed resilience, dedication to achievement, independent research learning skills, ownership of their project, and a sense of developing their learning at key points, which we define as conceptual threshold crossing, all of which will be immensely useful to them in their research careers. (p. 13)

Fear of becoming 'orphaned' may have been based on perceptions of being powerless and on low self-efficacy, because when their supervision arrangement changed, participants exercised considerable agency to achieve forward momentum, frequently through engagement with others. Nevertheless, being 'orphaned' had detrimental effects on participants' sense of belonging and self-efficacy and result in a considerably more stressful PhD experience and even potential withdrawal. In fact, Wisker and Robinson (2012) also found that 'becoming '''orphaned''' has an effect on 'ontological security, confidence, and the relationship to epistemology, knowledge challenge and creation, where becoming ''orphaned'' could limit students' doctoral level work, their conceptual threshold crossings, research progress and achievement' (p. 12). This supports the finding in this research that the lived PhD experience challenges PhD researchers' ways of knowing and being, which forces a re-evaluation of knowing. In terms of the supervision arrangement, there is little that discusses the impact that a high-ranking established academic has on PhD researchers' self-efficacy.

7.6.7 Complementary Support and Self-Efficacy

The literature converges on the premise that supervisory relationship and support clearly affect the PhD experience; however, just like Juniper et al.'s (2012) research, the present research contributes to the literature clear findings that other dimensions of the lived PhD experience play a significant part in the quality of the experience and the outcomes. This is not to say that the importance of competent supervision to guide the student to navigate their way through the process, provide timely critical and constructive feedback and induct

the student into the academic community is not vital. I propose that the PhD experience is much too multidimensional to concentrate only on the role of supervision and the student.

Clearly, supervision is important to the overall research student experience, but the evidence presented herein suggests that other factors threaten their well-being more. It is possible that the emphasis attached to the influence of supervision in earlier studies (e.g., Marsh, Rowe and Martin 2002) masked other issues experienced by the PhD population. These findings highlight the value of seeking data directly from the cohort under observation to aid item selection. In this present study, the decision on which items to include initially was guided mainly by direct input from research students themselves. (Juniper et al., 2012, p. 571)

John and Denicolo (2013) also deduce that 'while the supervisory relationship is important . . . students are actively cultivating many other significant relationships beyond the supervisor. Nevertheless, neglect by the supervisor can have detrimental results.' (p. 46). Clearly, students are taking matters into their own hands by branching out to others for support.

7.7 Conclusion

There is a shift in the supervision literature, from the supervisor being the omnipresent force within the relationship, responsible for successful PhD outcomes, to a dialogue that includes the students' agentic behaviour, a reduced reliance on the supervisor and an increased engagement with a wider academic community (John & Denicolo, 2013, p. 46). This community includes other academics, faculty members and communities of doctoral researchers in physical as well as virtual spaces. It is accepted that knowledge creation is increasingly becoming a collaborative practice (Jazvac-Martek, 2009; John & Denicolo, 2013). Nevertheless, it is up to the individual PhD researcher to complete their own PhD, although negligence and over-dependence (Grant, 2005) can result in a negative experience and even withdrawal by the PhD student.

This research has contributed to the literature on the importance of the supervisor in guiding and supporting the development of skills and learning experiences to support the student's self-efficacy to enable them to become independent researchers. It is has added to a small body of literature that has examined the importance of setting expectations early in

the supervisory relationship (Holbrook, et al., 2014; Pyhältö et al., 2015). This would go some way to aligning perceptions and expectations early and remove a considerable amount of ambiguity faced by both the PhD researcher and the supervisor.

The process of recruiting or matching supervisors to students has received little attention in the literature. The present research has clearly pointed to the practice of appointing supervisors to students with little or no consultation around compatibility. It highlights the need for a more robust approach, not only in setting expectations early in the relationship but also in how supervisors and students are matched in the first place. Clearly the assumption that the supervisor is a subject-matter expert does not result in alignment, nor does matching based on ethnic culture result in an egalitarian outcome.

The findings of this research contributes to the discussion on what PhD researchers look for in their supervisor; the participants in this research looked for guidance and time as well as regular and appropriate feedback. It also adds to the discussion around potential power imbalances in the supervisory relationship. In the literature, power has been mostly viewed as skewed to the supervisor. However, this research has confirmed that there is a power relationship, and participants identified their supervisor as the gatekeeper. Notwithstanding the supervisor's power, the findings also indicate that students can or will assume that control—as and when they have to—for their own forward momentum and progress. In fact, the findings have raised the suggestion that in many instances it is the student who assigns the supervisor that power. By doing so, the student is essentially handing over control and responsibility to their supervisor to guide them through liminality. In terms of the supervisor's power, the current research has pointed to other benefits not discussed in the reviewed literature, such as students using their supervisor's reputation for their own personal kudos and reputation. For the participants, the loss of a supervisor was only welcomed in extenuating circumstances, and this research supports Wisker and Robinson's (2012) finding that fear of becoming 'orphaned' is often based on a perception of powerlessness and low self-efficacy belief and that fear of being orphaned could affect students' 'ontological security, confidence . . . and becoming 'orphaned' could limit doctoral level work, their conceptual crossings, research progress and achievement' (p. 12).

It is acknowledged that the nature of the supervisor-student relationship changes over time. At first, there is a greater need for direction and guidance, which gradually decreases as the researcher develops their independence. This research confirms this shifting expectation and the tension experienced by PhD researchers when they feel that their growing independence is not allowed to flourish, or when they feel they are being pushed towards independence before they feel ready. It also highlights the need to review current research practices and explore models of supervision that allow for this shifting expectation or requirement.

Finally, the finding that participants reported feeling lucky with their supervision arrangement contradicts much of the literature, especially the Australian literature that points to a high proportion of the PhD student population being dissatisfied with their supervision. There should now be a shift from thinking of supervision as the panacea to considering the role of others engaged in the PhD enterprise to support higher degree research candidates' forward momentum and progress. While this research acknowledges that the supervisor affects the experience, and possibly even the outcomes, the findings of this research support a small but growing literature on the complementarity and importance of other dimensions of the PhD experience on successful outcomes. This supports the reciprocal and bidirectional influence between the environmental and relational dimensions and behaviour and actions.

Chapter 8: Other People on the Inside

8.1 Introduction

The ongoing theme in this thesis is the participants' desire for forward momentum to progress their PhD research. Their progress vis-a-vis the relational dimension—which included family, friends and acquaintances not engaged in the PhD enterprise, their supervisors and, in this chapter, other people on the inside—led to actions and behaviours that affected their sense of forward momentum and progress. This is the third and final chapter in the relational dimension. In the previous chapter, I presented participants' perceptions and expectations of supervision versus their reality. I highlighted participants' desire for their supervisor to guide them through the liminal space; although, as their efficacy developed, so did their need for guidance, shifting their expectations to the complementarity of others.

In this chapter, I present and discuss the social, professional and research engagement that participants reported on with 'other people on the inside', those who were also engaged in the PhD enterprise (Cumming, 2010) or academic landscape (Becher & Trowler, 2001). These other people on the inside included other PhD researchers, faculty members, higher education staff, and the broader academic community. The themes that will be discussed are the importance of others; networking and collaborating; opting in or opting out; and finally, communitas. However, before I present these findings and discuss their impact through a socio-cognitive lens, I recapture briefly the findings discussed in previous chapters and their emphasis on the importance of others. This chapter finishes with a brief discussion of contemporary literature on other people and their effect on the lived PhD experience, and how this research complements the existing literature.

8.2 The Experience Thus Far

you talk to your supervisors regularly about any problems that you might be having. I would say as well to seek out friendships and or mentorships with other people that are doing or have done their PhDs because I think that sort of support has been invaluable and I think it's important to have other people that understand and know what you're going through and can support in that respect. (BF, 28th May) Before I proceed on to how participants reported on their engagements with others on the inside, I briefly revisit reported challenges highlighted in previous chapters, because these signal some of the reasons for their engagement with others on the inside, and then I examine why some opted not to engage with others. I categorise the different types of engagements or 'who' they engaged with as 1) the importance of others, 2) networking and collaborating and 3) communitas. I then discuss the effects and outcomes of these relational experiences and how they could reinforce self-efficacy and sense of forward momentum and progress, and validate sense of belonging.

8.2.1 A Recap: Chapter 4. A Phase of Being in a Liminal Space

On entering the liminal space, participants reported being taken aback by the lack of perceived structure and the uncertainty about how to proceed. Many entered this space believing they would be challenged based on their old ways of knowing and being, but the environment's uncertainty affected their ability to self-regulate and reduced their self-efficacy and sense of belonging, because it challenged their existing ways of knowing and being. Participants' perception of belonging was closely related to their self-efficacy, with the added element of questioning whether this was where they wanted to be and whether this was what they wanted to do. In other words, their being (or identity) was in a liminal flux, which proved to be an uncomfortable experience for many (Preston, Ogenchuk & Nsiah, 2014). Vicarious experiences of observing the behaviour modelled by others normalised their own experience and the way to adept and learn.

'I don't think it's the distractions that cause my dip in motivation; it's just the lack of structure in this world. If I have a deadline to meet I'll do it, but if I don't then I'll just faff around. I thought I was pretty self-disciplined but I don't know if I am. Just someone or something to be accountable to.' (AM, 10th December)

8.2.2 A Recap: Chapter 5. Forward Momentum, Stalling and Procrastinating in a Liminal Space

In Chapter 5, I discussed how, in the liminal space, participants were often challenged by a perceived lack of forward momentum and progress. They reported on how things got in the way of their forward momentum. Some of these things included worrying, other roles and other commitments—all of which could reduce their self-efficacy. On a positive note,

however, this research generally found that participants exercised sufficient personal agency to find a balance between diversions, other demands and their PhD. Although, in the face of uncertainty, and at times the daunting nature of the tasks—in particular, writing—self-regulating their behaviour for forward momentum, and not stalling and procrastinating, became a physiological and emotional (Morrison-Saunders et al., 2005) exercise for control. The relational engagement with and support of other people, such as study buddy groups, social and peer support (Brown, 2009; Mantai, 2015), networks and collaborative projects provided them with some structure, others to be accountable to, to clarify outcomes, to learn from and to improve their motivation. These others could reduce some of the uncertainty and even normalise their experience; as such, these others could also improve participants' wellbeing (Preston et al., 2014; Pyhältö et al. 2012). Engagement with others and develop their mastery performance and establish forward momentum and progress.

8.2.3 A Recap: Chapter 6. Family, Friends and Acquaintances: Becoming a Stranger in Their Midst

In Chapter 6, the first relational chapter, I discussed how doing their PhD affected participants' sense of belonging and acceptance in their personal community because the PhD took them on a liminal transformation that affected their being. Their previous way of being was being challenged, and this created a tension with their new way of being. This new way challenged the shared values and sense of belonging they had with their personal community. Effectively, participants were 'betwixt and between' (Turner, 1969, p.95). Although they still belonged to personal communities, there was a perceived divide, and yet they were also not fully a part of the PhD community. Consequently, many were still questioning where they wanted to be and where their values were aligned. Social communities and a sense of belonging (Osterman, 2000) are essential for learning and development. A sense of 'belongingness is an extremely important concept' and those 'who experience acceptance are more highly motivated and engaged in learning', which has far reaching impact on human motivation and behaviour, therefore learning and development cannot be separated from the social and relational environment in which it is embedded (Osterman, 2000, p. 359). Participants therefore looked to these others on the inside for a sense of belonging and to reduce their physiological isolation, which would improve their self-efficacy belief and motivation.

8.2.4 A Recap: Chapter 7. Supervision

In Chapter 7, the second relational chapter, I discussed supervision. The finding was that participants' relationship with their supervisors varied because the relationships were based on the perceptions and expectations that the participant and the supervisor brought with them regarding the nature of supervision and PhD research. The majority of participants perceived that the role of their supervisor was to guide the research process so that they could successfully navigate the appropriate challenges and progress to a successful PhD completion. A smaller number relished that their supervisors did not direct but held faith in their ability to navigate their forward momentum. Nevertheless, they looked to their supervisor to ensure they remained on track for progress and completion by providing them with their time, support and feedback. These role expectations, however, were not always realised.

set up a meeting with my supervisor – didn't work as I only got about 15 mins of her attention, she hadn't looked at the agenda I prepared or read the material I sent and I haven't been able to snare her since.' (TM, 12th May)

Over time, expectations of the supervisor shifted as the participants gained self-efficacy and progressed their PhD. For many, this involved engaging with others engaged in the PhD enterprise. Nevertheless, the participants appreciated their supervisor and did not want to endanger what was to them an important relationship. These findings do not diminish the role of the supervisor and their guidance, or the importance of the relationship. What they do indicate is that PhD researchers can and will use their personal agency to progress their PhD and feel part of a community; they engaged and sought out the support of others to become validated as independent researchers.

8.3 The Importance of Others

This research found that participants actively engaged with others outside the supervisory relationship (John & Denicolo, 2013) and across the academic landscape for support, learning and progression, and to develop a sense of belonging. This engagement provided participants with insights and knowledge they perceived their supervisor was unable to provide or was too busy or unavailable to provide. Sometimes it was because they did not want to bother their supervisor and sometimes it was in lieu of perceived supervision disengagement. Sometimes participants sought out professional development courses,

workshops or seminars to support their knowledge development and progress. At other times, participants experienced this informal support from other academics who took a personal interest.

I think moments in which I have been mentored by other academics who are not my supervisor. I think in particular they have sort of provided rich kinds of fresh insights. I had an experience last year where a piece of my work was kind of worked over with another academic whose research interest is very close to my own, and after that this particular piece of writing had a lot of positive feedback from my supervisor, and I felt quite good about it. I approached this other academic and he was also quite positive about it. Then I showed it to another academic and he was also positive about it but he really kind of identified how it could be significantly improved. He just kind of looked at it with fresh eyes. I really love his work so was really grateful to receive his insights and I think – I feel – like that kind of mentoring experience really pushed that piece of work to the next level and it's since been published in quite a good journal and that was largely due to his influence. (AR, 23^{rd} October)

For many, mentoring by others provided different perspectives that led to improvement. Having someone else take an interest in their work was validating. It validated that what they were doing was worthwhile and validated their sense of belonging. This held particularly true if their mentor was someone who was proven successful but less so if the mentor was 'just another PhD researcher', even if slightly more advanced than they were. This finding supports Bandura's self-efficacy theory that verbal persuasion has a positive effect on developing self-efficacy, particularly when the source of the verbal persuasion is someone of power or high standing. Consultation with other experts enabled participants to clarify and develop their own ideas and to decrease uncertainty. Learning away from supervision gave participants a sense of autonomy especially when someone else endorsed their ideas (Schunk & Pajares, 2002).

I did not make substantial progress with my PhD study. But there were some small achievements: First, I became clearer of the qualitative research method through extensive reading; second, a statistician I consulted supported my idea, which would help me to convince my supervisor. (EY, 15th March) Frequently the outcomes of this support gave participants the necessary confidence to support research arguments they wished to put forward to their supervisor or even research arguments that had previously been refuted by their supervisor. Their improved confidence meant they experienced a positive feedback loop: a general improvement to their physiological state and wellbeing and self-efficacy that boosted their resilience and willingness to take on further challenges.

All participants, even those with successful academic and research backgrounds, found gaps in their knowledge that could hold up their progress. Consequently, many reported attending additional courses, workshops and seminars to support their learning and skills development. Overall, these experiences supported their self-efficacy to tackle their next challenge, get to know others and use these forums to refine and debate their new ways of knowing.

I would say that the course was very helpful. It has equipped me with the knowledge and ability to justify the methodology, the methods, especially the high level theoretical foundations in terms of the epistemology... It's still very abstract but at this stage I feel that I can debate, I can discuss that with other students during coffee or lunch talk. (BL, 24th June)

In summary, the importance of others or other forms of support and guidance should not be underestimated. It is important to note, however, that this does not negate the role of the supervisor; what it does illustrate is participants' developing their self-efficacy and sense of belonging. It could also be argued that this supported the supervisory relationship, because participants were less needy and could engage their supervisor for knowledge development. In addition, as the following discussion demonstrates, there is an increasing emphasis on collaboration for knowledge development.

8.4 Networking and Collaborating

PhD students are required to collaborate and network with others in order to be accepted into the academic fold, stake their knowledge mark and secure one of a paucity of permanent ongoing research roles (Jazvac-Martek, 2009; Pyhältö and Keskinen, 2012). Historically, researchers-in-the-making have been required to show off their wares at presentations to faculty and conferences, both locally and internationally. These are opportunities for PhD students to practice being academic and practice their knowledge and skills with a broader audience. Importantly, these forums are opportunities for PhD researchers to meet others. The present research found that collaboration and networking engagements developed participants' research skills and validated self-efficacy, while the collegiality validated their sense of belonging. The support and guidance received and exchanged with others was not only a key learning experience but it also drove their motivation and research progress. Networking and collaboration imparted a sense of belonging and supports McAlpine and Amundsen's (2009, p. 122) conclusion that collaboration with others not only develops a collective academic identity but is also a pleasurable experience. Therefore, collaborations positively enforced a sense of progress and capacity to undertake the PhD.

Certainly the process of revising, responding (and also reviewing for another journal) have provided great opportunities for learning. The first occasion to present findings at a conference is an ongoing and highly beneficial learning process. Opportunities to present research in multidisciplinary settings outside academia have also arisen. This has demonstrated the importance of establishing linkages and liaison 'on the ground' with service providers and policy developers during a PhD – in terms of the prospect to disseminate and translate research findings in XXXXXX into, ultimately one hopes, better outcomes for affected people. (MC, 19th September)

Presenting at and attending academic, government and professional conferences and seminars, and even reviewing papers, were networking and collaborating forums that participants used to expand and test their new knowledge and ideas. These forums also provided access to other like-minded researchers with whom to collaborate now or in the future. Although some collaboration may not have directly advanced their own research, these collaborations were not perceived as taking participants away from their own research but as positive diversions and opportunities for learning and practising. For one participant, following a considerable period of languishing forward momentum and progress, engagement in a collaborative project with peers from across faculties resulted in her developing sufficient self-efficacy and sense of belonging to have the confidence to establish a new supervisory team, which resulted in her successful timely PhD completion.

Probably the most important thing that I have learned over the last month is the importance of networking with other people in my field and further abroad. Already I'm seeing the benefit to forming and strengthening these relationships, as it is now helping me with my actual research. I guess something I didn't really realise before is that a large part of doing good or effective research is talking to people and ensuring your work fits well in the broader scheme of things. Also, I am recognising the value of other perspectives of my own work, which has given me a better idea of how I can make my work relevant to the wider community. (JC, 1st October)

Networking and collaborating with others was also a vehicle that some participants used for their research to be heard, to build on what they or others were doing in a similar field and to augment their research outcome. Although this research offers little evidence on participants' research outcomes, it was clear that for the participants, networking and collaborating opportunities reinforced and validated the potential value of their research to society.

8.5 Opting In or Opting Out

There are numerous reasons participants in this research sought out engagement with others. First, they were in an environment that challenged their existing way of being and knowing, and they looked to others for structure and support. Second, sense of belonging for many remained under question, and they were looking for belonging. Third, they sought support and learning with safe others who understood their situation. However, there is another dimension to this engagement—what Crawford (2003) found to be the non-technical or the emotional experience that these communities offered. Peer-to-peer interactions could normalise participants' PhD experience and the emotions they were experiencing. Social, peer and mentoring support could reduce distress and increase participants' self-efficacy and these others provided social spaces (Mewburn, 2011, p. 326) where talk formed part of developing an academic identity.

Despite the benefits of opting in to engage with others, participants did not always opt in, but opted out. This research found that a small number of participants chose not to engage with others.

My landlord said I should believe something so as to get over these difficult times. His experience was his situation turned better after visiting the Thai temple here. I tried to smile and (he) said 'I do believe "you can do it!" Anyhow, this is what my supervisors have been saying to me. Maybe, I should join some church organization and establish my belief. I just suspect how it will help. Another matter is I cannot be as religious as many people who go to their church every weekend – I always work on weekends. (EY, May)

For these participants, it appears that engagement with others was challenging, and I offer a few possible explanations for this. The first is cultural, which was also found by Baker and Lattuca (2010) to affect inclusion or exclusion. For example, two participants exhibited some cultural reservations about how to engage with others-that is, they reported uncertainty about contacting people directly, the types of conversations you can have with the opposite sex or someone in a more senior role, et cetera. After a short period, one participant had made a number of acquaintances on campus and reported how much he was enjoying learning with his peers through their discussions. Although he had a long commute to campus, which was expensive, he would undertake this commute two or three times per week to visit the library but also, importantly, to catch up with his peers. However, the second participant, who was already in her third year when she engaged in this research, reported only limited contact with peers and other academic community members. Her narratives tended to be melancholic, and one possibility is that as she was living here (in Australia) on her own, she was lonely and homesick. She reported difficulty acculturating in terms of how to behave in Australia versus what was accepted behaviour in her home country. I propose the latter was exacerbated because she had limited contact with peers and reported being too busy with her PhD to make new friends. Her reported experiences reflected isolation, stress and anxiety, with relatively few reports of 'happy' events except when she had a paper accepted. Although I am very pleased to note that this participant did successfully complete her PhD.

Most PhD students are really hungry to engage with each other and there seem to be many reasons why they don't. There does seem to be a bit of a pattern that the younger, perhaps more cash strapped, ones base themselves on campus, make connections with others better and that the older ones, possibly juggling family, children and/or jobs do not and therefore struggle with those connections. (TM, 8th March)

Participants' ability to access and take up opportunities to participate with scholarly communities, peer and social support, mentoring, other PhD researchers, and networking

and collaborative opportunities varied (Pyhältö & Keskinen, 2012). This research found that engagement with others was only minimally affected by the ease of access and depended on a number of factors. These included but were not limited to the higher education institution at which they were enrolled; the faculty and the infrastructure available; their research discipline and field of research; the physical location of the participant in relation to their institution or supervisory team, such as the distance that would need to be travelled; their mode of enrolment; and the individual participant's other life roles and commitments.

I live more than XXXXX km from a capital city and more than XXXXX km from my own University. I don't see other students very often and I don't know many people studying a similar topic. I reach out to my supervisors regularly, but I understand that they are busy people and can't satisfy my need for feedback from the world beyond my home office. Slowly, I have discovered a new community that offers no barriers to membership, disregards distance, is always available and expects only a little in return.

This year I joined Twitter with a personal profile. ... Lately I have been seeking out professionals in my field. Sometimes I'm privy to twitter conversations between professionals as they engage in academic banter; it feels as though I'm lurking beside a half open door in a long University corridor. Yet these snippets are offered to the public, to anyone who cares to listen, and I'm encouraged by the openness, the quick flow of ideas, and the to-the-point (140 characters) expressions. My next step is to get more familiar with giving back to the twitter community, like responding to other PhD students who tweet #phdchat.

I guess it's nerdy, but I'm comforted and not a little lonely knowing that I can turn to my twitter community at any time, ask a question, ponder, encourage, promote ideas, seek consolation ... from complete yet kind and enthusiastic strangers.' (MW, 2nd December)

A few of the participants were physically isolated from their institution, supervisor and other PhD researchers. In fact, two participants were physically located great distances from anything to do with higher education and relied solely on Skype or other videoconferencing technology to communicate with their supervisory teams; nevertheless, these two participants engaged extensively with PhD groups through social media. Others lived long distances from their institution and reported that in the early phases they commuted daily but after some time reduced this to a few days a fortnight to meet with supervisors and catch up with peers.

In a study to examine access to learning cultures, Deem and Brehony (2000) found that part-time and international students had difficulty accessing peer cultures and academic cultures. A number of other research studies have also found that part-time students are more likely to be isolated and have less opportunities to mix with others (Baker and Pifer, 2013; Meuleman, Garrett, Wrench and King, 2014; Neumann, 2003). Of the three participants who were enrolled part time, one stopped her PhD due to a change in life direction, another changed her enrolment to full time and the third successfully completed his PhD a short time after participating in this research. The participants who were enrolled part time engaged regularly with their PhD colleagues. The third participant in particular frequently reported how regular weekly catch-ups with a group of PhD peers meant he did not turn into a hermit; in fact, he had initiated establishing the group. Of the four international participants, only one had limited engagement with peers and her institutions' research community generally, and this could be attributed to cultural uncertainty. The remaining three international participants appeared to have little difficulty in accessing their peer or academic cultures. Although this research did not set out to examine access to peer and academic cultures, these findings do not support Deem and Brehony's (2000) findings. For the participants in this research, their access and engagement depended on their use of agency, their self-efficacy and their belonging validation. In other words, participants deliberately chose whom to engage with to support their desired outcomes, but with whom they engaged depended on their level of self-efficacy and their belonging validation.

I have decided that other PhD students can be both a source of comfort, and also scarily competitive. I sometimes feel really anxious and inadequate around other new PhDs, as if I can't breathe properly. Some are fine and really nice, but others (and I don't think it is intentional) can really freak me out. I have good friends though, and it is important to me to spend time with those who make me feel ok about myself. (IM, 29th March) For some participants, the ongoing stress and fear about being 'good enough' to belong and to be accepted adversely affected their physiological state to such an extent that some lost their confidence to engage with others on the inside. Low self-efficacy and low sense of belonging vis-à-vis others had a powerful effect on their behaviour and actions and with whom they engaged. This research found that these experiences were not uncommon in early phases of the PhD, but as self-efficacy increased and their belonging was validated so too did their sense of comfort with others on the inside. However, an element of competitiveness remained, particularly for those in faculties where they would need to compete for future funding or scarce academic posts.

When I first commenced my PhD, I generally found it boring and stressful to spend time with other XXXXX PhD students outside work hours. The experience of the PhD was all we appeared to have in common, so that was all we talked about. This not only seemed rather dull, but also made me anxious about the PhD work I should be doing and prompted comparisons between my progress and that of other students. Now, the situation has completely changed ... Throughout the evening, I found myself drawn to the fellow postgrads in preference to my other friends (many of whom I am much closer to and have known for much longer). This trend has also been replicated in other recent social events. Those doing a PhD seem to intuitively understand my lifestyle and speak the same language, and as a result I feel much more relaxed in their presence. By contrast, I feel that friends who are working or doing coursework study are bemused by my daily activities and the pressures I experience – in short, a gap has opened up between us. I think this change is most likely a result of having gone further into the PhD 'journey', meaning that the PhD has become a more significant and more comfortable part of my identity. (AR, September)

I propose this 'competitive' element is one explanation for why participants established their own communitas. As the participants themselves enabled these communitas, they were self-selecting, usually with a small but diverse membership (i.e., at varying phases of their PhD and potentially from across disciplines). Diversity allowed for a range of ideas and discussion topics and was perceived as safer because there was less likelihood of an intra-faculty competitive element.

8.6 Communitas

I use the term *communitas* as a place where people are equal, based on Turner's (1995, 1969) description of communitas as a figurate space. Communitas are a coming together of people who share an experience and who gather temporarily or spontaneously. Communitas is a figurative, socially constructed phenomenon that exists only for those within that experience and who choose to connect within a given time and space.

Again I'm extremely lucky to have a room and a lab full of fantastic PhD students all at different levels and I'm making more friends. We all – all on this journey together. All taking different steps and doing it differently but frustrations that are so similar with supervisors dictating and time and funding and, and trying to be let to do what you have to do and finding a work–life balance. Some people are working full time, some people have personal things, XXXXX has just gone on maternity leave – about to have a beautiful baby boy. Life still goes on and it's a community – the PhD students are a community of people who love what we do. But to do it is not an easy process. (SH, 26th April)

A key feature of communitas in this research was their informal and organic nature. The seed for a communitas may have been laid by the institution, such as a research lab, but membership was based on individual intent. In other words, they were organic, bottom-up communities that appeared to thrive on diversity, informality and small numbers (Preston et al., 2014). They were student-driven, and opposed hierarchical boundaries. Engagement in a communitas differed from support beyond the supervisor, which often involved an experienced academic or subject-matter expert; rather, a communitas consisted of other PhD researchers with varying levels of experience and knowledge expertise. Communitas also differed from networking and collaborating with others, which is driven for the purpose of knowledge creation, research and even career advancement.

Communitas is egalitarian and may extend to ongoing friendship for some. This research suggests that because of their diverse membership, a communitas was perceived as safe and non-competitive with regard to future roles in academe. Hence, participants who may have lacked self-efficacy were less likely to feel isolated. Finally, for some, communitas provided them with a sense of belonging no longer offered by their personal community now that they were doing their PhD and were trying to develop their sense of belonging in the academic space.

Looking at it, it's not a total disaster, but I feel pretty unmotivated. I am looking forward to Study Buddy on Monday morning for some human contact and motivation and cake (hopefully). (AM, 22nd February)

Being part of the lab group that I'm in is a really great group to be involved in. In a short space of time – you wouldn't realise it I guess but having been there for a couple of years. We have weekly meetings and it's just so valuable to be, to feel part of a group, and they're not even researching exactly the same sorts of things but just to see new students come in and make progress and to hear about other people's work – it's really important and occasionally we'll have a speaker from somewhere else and – but it's a really nice set-up in that it's not – it's quite informal and there can be anything from four to 20 people. Well probably not 20, but 15 or something or other and the room can get very crowded. But it's very informal – whoever puts their name down can present. If people don't put their names down, the chair person which is a rotating roster has to invent something to present – some activity or something and it's a range of things. A lot of it is - might be practice presentations for a conference or something and everybody will give their feedback which is a really awesome way to improve a presentation because it is - and that has been a really awesome thing about being part of the group. But I guess you know – it took me about a year and a half to feel how valuable that was because when you first come in you're a bit nervous about saying very much in the meeting. It's more just a build-up over time. You can see how valuable it is. (MT, 26th November)

Through the informality of communitas, participants could practise performing being academic within a space that supported becoming, rather than in a space that judged their being. During phases when the environment's uncertainty challenged their self-efficacy and sense of belonging, communitas served as a space for vicarious learning, which that improved their physiological state. A finding supported by Pyhältö et al.'s (2012) finding of the importance of others to PhD researchers' sense of wellbeing and the importance of spaces in which to debate and develop new knowledge (Preston et al., 2014).

I have found that hanging out with other PhD students (in different fields or not) has been a good thing for me, as we help each other develop strategies to overcome our challenges. There is a pretty strong sense of community in some of the groups I'm interacting with now. (JC, 1st May)

A key finding in this research has been that irrespective of self-efficacy, if the participant could not establish a sense of belonging, they questioned their outcome belief and their purpose in doing their PhD. Being in the PhD liminal space challenged what McMillan and Chavis (1986) defined as the four elements of community: 1) a feeling of belonging, 2) members matter to one another and to the group, 3) a shared faith and 4) members needs are met through their commitment to get together. For the participants, their sense of belonging in their personal community was challenged because they were no longer behaving in the ways of their community. For many, being first in the family to have a higher, postgraduate or PhD education constituted stepping outside their personal community's boundaries creating a differentness or nonconformity. This does not suggest that the emotional connection to their personal community was diminished, but as PhD researchers, they now shared an emotional connection with peers experiencing similar experiences and challenges. To that end, communitas provided a sense of belonging while they navigated their way through the liminal space.

A sense of community is a feeling of belonging. This sense of belonging is a feeling that members matter to one another and to the group, that there is a shared faith, and that members' needs will be met through their commitment to be together. All communities have social conventions that create a boundary and a distance between those who belong—are members—and those who do not belong. To belong requires a way of being and behaving, and there can be a sense of isolation when you are no longer a full member of that community (McMillan & Chavis, 1986).

My friends and colleagues that are working in science all understand what I'm doing and why, and these are the people I feel I can really talk to about my challenges and successes with the project. I also feel like people (professionally) give me and my opinions allot [sic] more time and consideration than before I started, even though I have not really gained all that much technically as of yet. I guess it makes me seem more legitimate as a scientist. (JC, 14th March)

Others' perceptions of them affected participants' perception of self. Others' perceptions of their research and their abilities could be a tipping point for self-efficacy . Establishing that others perceived them as worthy and capable could boost participants' sometimes fragile self-efficacy and sense of belonging. Verbal persuasion, especially from those more experienced, had a positive effect on their self-efficacy. This research found that most participants exercised personal relational agency to engage with others in a particular communitas where the perception of them would be supportive and favourable. Communitas did not have a direct impact on PhD progress; nonetheless, it did support efficacy belief and provide a sense of belonging that reduced isolation and supported their sense of belonging within the PhD space. Others' perceptions had a strong impact on how participants felt about themselves. Finally, for those fortunate enough to have communitas, they were provided with a supportive environment in which their becoming was authenticated.

8.7 The Literature

I now turn to the contemporary literature on the social nature of the PhD experience. A review of the literature identified that the theme of engagement with others during the PhD has already been explored in the academic literature. In the literature reviewed, many referred to levels of PhD students' engagement with—or support from—academic or scholarly communities. As an indication of the voluminous amount of discussion, this review found that sociocultural learning was discussed in 13 papers, peer learning in 57 and collaboration with others in 33. Nevertheless, the PhD experience is also described as a journey that can be a lonely (Meuleman et al., 2014), emotionally (Crawford, 2003) isolating (Keefer, 2015; Keefer et al., 2015) experience. This research supports the literature, in that social interactions engaged with during the PhD phase can have a profound effect on the quality of the experience and potentially the outcome.

8.7.1 Learning Beyond the Supervisor

It is generally accepted that students' need for support goes beyond dependence on the supervisor (e.g., Neumann, 2003), with much of what Haynes (2009, p. 28) described as 'real' supervision being in the form of ongoing dialogues with colleagues and others, who are critical for support and understanding. This is highlighting a growing movement away from considering the supervisor as responsible for the PhD students' learning and

development to considering PhD students' learning and development as a 'shared responsibility' (Lee & Green, 2009, p. 616) with other members of the academic community as well as the student. John and Denicolo (2013, p.46) also deduced that 'while the supervisory relationship is important . . . students are actively cultivating many other significant relationships beyond the supervisor'. This research supports Hopwood's (2010, p.103) assertion that there are 'constellations of others in the doctoral experience' with whom PhD students have opportunities to engage. It also supports McAlpine and Amundsen (2009, p. 122), who found that PhD students who practise with others are more likely to exhibit agentic behaviours and experience 'pleasure' through a sense of collective academic identity. Who are these others that provide such support beyond the supervisor?

PhD learning is situated within a sociocultural context and therefore relationships with others, such as their personal communities (Wright, 2003) and other PhD researchers, their scholarly community or the wider academic community; in fact, anyone associated with the PhD enterprise (Cumming, 2007) can and does affect the PhD experience because 'becoming a researcher does not happen in social isolation' (Mantai, 2015, p.1). However, these communities are complex and multilayered, and have their own cultures and ways of being. Becher and Trowler (2001) identified that the issue for new members is how to gain access to what they defined as 'folkloric discourses and codes of practice and convention that condition the way they see the world' (p. 48) as well as something they refer to the 'hidden curriculum', for which another term could perhaps be *expected practice*. This suggests that the PhD is as much about learning 'tacit knowledge' about how to fit in as it is about developing technical knowledge and skills, such as academic writing.

There is general consensus about the importance of integrating into scholarly communities early (Pyhältö & Keskinen, 2012) because doing so will support the PhD researcher's wellbeing (Preston et al., 2014; Stubb, Pyhältö & Lonka, 2011) reduce their isolation (Shacham and Od-Cohen, 2009) and support their learning and development, whereas a lack of integration with scholarly communities has a negative effect on PhD completions (Gardner, 2009). PhD researchers engage in a wide variety of activities and roles that expose them to engagement in different communities (Beauchamp et al., 2009) because doctoral activities are not carried out in isolation, and while 'individual activities can be seen to involve high levels of personal agency, they can also be viewed as being part of a broader social, cultural and historical context' (Cumming, 2007, p. 87). For example, it

could be said that every activity and action undertaken by the participants in this research involved some form of relationship with others, whether attending a conference or networking event, or working on their own thesis that took into account the work of others.

8.7.2 Social Networks and Communities

Scholarly communities are places for learning (Brew, 2001; Hopwood, 2010). In their review of the literature on the doctoral student experience, John and Denicolo (2013, p. 44) found that a third of all studies focused on peer support. In terms of social learning, Bandura's socio-cognitive theory holds that perception and reasoning occur from watching and engaging with others (Tudge and Winterhoff, 1993). Others (e.g., Preston, Ogenchuk and Nsiah, 2014) have also reported that peer support reduces isolation and that both parties benefit from this engagement, although Phan (2016) also found an element of peer pressure to conform, which this research did not identify. In terms of viewing this from a personal PhD experience, Crawford's (2003) personal reflection and case studies found that scholarly communities enabled 'formal and informal exchange of ideas and intellectual experiences' to discuss not only 'their dissertations, but the highs and lows, the pitfalls and the inconsistencies' (p. 12). Thus, sharing of technical, emotional and intellectual experiences allows the student to develop as a whole person, not just their research. Recent research by Mantai (2015) into the instances and practices that enable a PhD researcher to feel like a researcher sums up the value of social networks:

Researcher development in the PhD is underpinned by practices that range from social to individual, from informal to formal settings. Formal events often involve people whom PhD candidates usually regard as superior and more knowledgeable, often simply by virtue of having mastered PhD challenges. Regarding social connections associated with researcher identification, we find a wide range of individuals often simply by virtue of having mastered PhD challenges. Regarding social connections associated with researcher identification, we find a wide range of individuals are mentioned, from academic members at the department, supervisors, postdoctorates, friends, and peers at the university of study or at home and overseas, to external researchers from other universities. Individuals are not necessarily all related to either the PhD or the general research environment. Informal settings, in particular, involve peers and colleagues. (Mantai, 2015, p. 3) The finding in this research that participants sought out others to develop their self-efficacy and give them a sense of belonging is supported by Sweitzer's (2009, p. 2) research that identified how students engage in a variety of relationships and roles during their PhD to socialise. She explains that 'academic community relationships' or those communities that the students themselves develop 'may be more important than program-level socialization' (Sweitzer, 2009 p. 28). This essentially supports the evolution of communitas, because these less-formal learning opportunities develop a sense of feeling academic. Less-formal or peer learning involves learning among equals, whereas supervisor–student learning is about a 'peer-in-the-making' (Ward, 2013, p. 120). This does not lessen the importance of the supervisor or the peer-in-the-making learning. Peer-in-the-making and peer-learning both contribute to becoming independent, which is a key purpose of the PhD experience.

In addition, when learning vicariously within peer-to-peer environments, a student is less susceptible to imposter syndrome than when vicariously learning with an experienced role model. Again, this does not diminish the importance of expert role models, such as the supervisor, but suggests that development can and does take place with both. An egalitarian peer environment provides a space for learning and safe practising, whereas an expert role model, such as the supervisor or other senior academic, provides a space to observe and learn the tacit rules of the environment. McAlpine et al. (2009, p. 100) too described how students' conversations with others contributed to assisting participants feel a part of their academic community and gave them a sense of belonging, and they argue that this interaction is important to the development of academic identity. Shacham and Od-Cohen (2009, p. 286) also found that students were empowered as a result of communities of practice and peer learning, which resulted in quality of learning and support, while Humphrey and Simpson (2012, p. 744) found that 'focused time' on a writing workshop spent with 'their peers and other travellers' away from institutional confines had pedagogical benefits.

The findings of the present research reinforce the importance of less-formal learning communities to provide opportunities for learning give a sense of belonging and provide a space in which to practice being academic. The findings also reinforce that beyond the intellectual there is another dimension to this engagement, and that dimension is the opportunity for what Crawford (2003) defined as the '*non*-technical aspects', such as the 'emotional and intellectual experiences' (p. 11). Peer-to-peer interactions normalise the

PhD experience and provide a place to situate the individual's different identities together (Mewburn, 2011, p. 330). Lastly, engaging with peers and providing support to others is pleasurable (McAlpine & Amundsen, 2009), all of which returns us to the notion that these personal communities and peers can offer a sense of belonging and pleasure.

Repeated throughout much of the reflective PhD journey writings is the theme of the important others or critical friend. PhD reflections in the literature discuss the frustration with the process and that individual challenges can be clarified when you have others to share ideas with in order to refine them (Guthrie, 2007), someone who understands and empathises (Segal, 2009). This research too has highlighted the significance of these 'important others'-such as another student, a friend or a colleague-who will read work and provide valuable feedback, resulting in clarification of ideas and progress (Dovona-Ope, 2008). In his reflection on his PhD experiences, Haysom (2010, p.148) found that the 'use of a critical friend' was invaluable in helping him to critically evaluate his work and prepare to deliver a succinct account of his findings at a colloquium. Conversely, Chapman-Hoult (2009, p. 20) wrote about the trials of finding safe readers with whom to share her work and found that some readers were 'dangerous', as they either wanted to master it or dismiss it. This research also found that it could be difficult for some participants to engage and seek out others for support, although this was due to cultural reservations and self-efficacy. Ultimately, however, this research confirms Jazvac-Martek's et al. (2011) result that the students find themselves to be the most 'important individual in the time period in advancing doctoral work' and that there is 'an awareness by the individual of his/her own resourcefulness and agency' (p. 25). Participants understood that it was up to them to complete their PhD and become independent. Hence, most actively sought out the company, friendship and support of others for feedback and motivation, or to engage in 'collective efforts to achieve goals' (Jazvac-Martek's et al. 2011, p. 24) and 'a sense of being valued within the academic community' (Baker & Pfifer, 2011, pp. 9, 10).

8.7.3 Conflict and Exclusion

Although there is considerable discussion around sociocultural and peer-to-peer learning and support and the importance of others, there is less discussion around conflict and exclusion. For example, what happens when there is a mismatch between the PhD researcher and their scholarly community? Using social network theory, Baker and Lattuca (2010) found that sociocultural learning 'can either support or hinder learning and identity development' because of 'conflicting network goals, values and norms' (p. 820). Vekkaila et al. (2013, p. 74) found that a 'misfit' between the PhD researcher and their scholarly community leads to disengagement from the doctoral process, reduces motivation and results in negative experiences. However, Vekkaila et al. (2013) also found that the nature of the disengagement varies. A sense of *misfit* is not only the result of, for example, personality incompatibility but may occur because the PhD researcher does not feel they are a good researcher or they are questioning the value or significance of their research. In other words, their perception of self is at odds with what they perceive a good researcher or research to be. How they perceive their sense of belonging will affect disengagement, conflict and exclusion. To that end, Pyhältö et al. (2012) recommended that 'more intensive and guided collaboration with peers would promote doctoral students' integration into the scholarly community' (p. 6).

The findings of this research confirm that those who are active relational agents, rather than passive, within their scholarly community are less likely to suffer 'negative emotions' and less inclined to think about giving up on their PhD (Pyhältö & Keskinen, 2012). Nevertheless, Baker and Lattuca (2010) conclude that even successful participation will not necessarily lead to the individual accepting their academic identity. They suggest that culture, ethnicity and gender bring sociocultural meanings that 'influence how the individual is viewed and treated (as well as the personal beliefs and biases she or he develops), and how these result in inclusion or exclusion from particular communities' (p. 822). The latter confirms the findings, of this research, that a sense of belonging was critical for ongoing engagement.

The literature has found that access to scholarly communities may differ. Deem and Brehony (2000) determined that access for some part-time, remote and international students, and in some cases for women, was unequal. They argued that scholarly communities can be elitist, which may make it challenging for students not interested in pursuing an ongoing career in academia. Then there are first-in-the-family higher education students who may find navigating the higher education system (Gardner & Holley, 2011) difficult, either because of a lack of social capital or family support or because of academic prejudices. The present research found that difficulties in accessing and engaging with peers and scholarly communities, however, are not limited to ease of

access alone. The findings of the present research support Baker and Lattuca's (2010) conclusion that how the individual engages with this community depends on perceptions and beliefs.

Feeling a sense of belonging in their scholarly community (Pyhältö & Keskinen, 2012) is related to 'socio-psychological wellbeing' (Pyhältö et al., 2012, p.2). Stubb et al. (2011, p. 33) This is support by Stubb et al (2011, p.34) who conclude that students perceptions of themselves as 'valued members' of their research communities is positively related to feelings of inspiration or feelings of exclusion (p. 40). Feelings of fitting into their academic community were found to be related to feelings of empowerment and study engagement; and negatively related to stress, exhaustion, and anxiety (Pyhältö & Keskinen, 2012; Pyhältö et al., 2012; Stubb et al., 2011).

8.8 Conclusion

Engagement with others in the PhD enterprise did have significant impact on how participants navigated through their PhD experience. This chapter has identified the importance of peers and others engaged in the PhD enterprise to supporting learning and progress. These engagements brought other perspectives to the participants' research and for many validated what they were doing. Most participants sought out opportunities to network, normalise their experience, learn, and practice being academic with peers. Many deliberately sought out others and collaborated on projects outside their own research to validate their belonging and support their self-efficacy. The contribution of this research to the existing literature is that engagement with others does not diminish the role or importance of the supervisor, but is complementary to the support of the supervisor. Engagement with others is a necessary part in becoming an independent researcher. It also adds to the limited literature on why some participants will exclude themselves from or opt out of engaging with others, despite the benefits. There was some indication that cultural perceptions identified by Baker and Lattuca (2010) could affect engagement. There was little if any support in the findings that part-time, female and international students had difficulty accessing peers or academic cultures. Whereas it demonstrated that low selfefficacy and a low sense of belonging could inhibit engagement with role models. Access and engagement appeared dependent on participants' use of agency, self-efficacy and belonging validation. Finally, this research has also introduced the notion of Turner's

(1995) communitas as a place for safe learning and belonging during their phase in a liminal space.

Chapter 9: Conclusion and Significance of Findings

9.1 Introduction

This chapter concludes the presentation of this thesis. The chapter commences with a an overview of where this research all began and briefly revisit the research problem, the conceptual framework of the Adventure Park introduced at the start and provide a summary of the approach used to address the research problem. This is followed by the acknowledgement of a number of limitations of the research, which I list, and move on to propose some topics and issues this research raised for further investigation and research. I then turn to addressing the research question but before I address the research question: 'What is the lived experience of a PhD student in Australia?' I address the constituent questions, in turn

- 1. How would a diverse cohort of current PhD researchers choose to report on their lived experience?
- 2. Are there critical incidents that the participant encounters?
- 3. What impacts do these experiences and critical incidents have on the participant's ability to successfully complete their PhD in a timely manner?
- 4. How do these experiences and critical incidents affect the participant's being?

The significance of findings and a number of contributions to knowledge this makes are presented. This chapter concludes with a final statement that questions if the PhD in its current academic manifestation is the optimal approach to develop knowledge creators of the 21st century – many of whom may never be engaged in the academe.

9.2 Where it All Began

I started this thesis with a discussion of the nature of 21st-century knowledge creation in Australian universities focusing on a discussion paper released by the Group of Eight (2013) on the changing nature of the PhD. Over the past decade, there has been a growing interest in and an ongoing debate about the nature of the PhD, its outcomes, high attrition rates and long completion times in a changing knowledge economy. Since its inception in Australian universities in the late 1940s, the PhD has been deemed necessary training for a career in academia. In the 21st century, we have a high and growing number of PhD researchers and graduates, coupled with a decrease in permanent or tenured academic roles

(Norton & Cherastidtham, 2014). Many PhD graduates are now flowing out of academia and into the public and private sector, prompting discussion about whether there should be revision of our understanding of what the PhD is a preparation for (Mowbray and Halse, 2010; Park, 2005) and of the skills and knowledge that the broader knowledge economy is calling for (Group of Eight, 2013; Pearson, Cumming, Evans, et al., 2011).

The purpose of the PhD is original knowledge creation, usually relatively narrow in focus, detailed and specialised. In a 21st-century knowledge-creation economy, the speed at which knowledge is created means that new knowledge is quickly surpassed. The focus away from the creation of new knowledge and content and onto developing and training future independent researchers has contributed to the debate around the purpose of the PhD, in terms of the transferable skills and knowledge that being a PhD researcher does, or should, develop (Mowbray & Halse, 2010). Added to the mix is the changing nature of the PhD researcher population. Universities are readily recruiting PhD researchers and adapting PhD programs, such as the professional doctorate, to contribute to their research output (Group of Eight, 2013) and support an increasingly casualised academic workforce. The growing numbers of PhD researchers and improved accessibility to this elite and ultimate academic qualification have led to a diverse range of expectations and perceptions of what the PhD is for (Park, 2005). Discourse in the literature has focused on the PhD from an institutional perspective (McAlpine & Norton, 2006) and on discrete aspects of the student, such as mode of enrolment, research discipline, completion and supervision (Jiranek, 2010; Seagram, Gould and Pyke 1998;). Consequently, this research aimed to explore the nature of the PhD experience for the PhD student from the PhD student's perspective. This thesis was structured to take the reader through the process I undertook and my experience of doing and writing up this research. Although somewhat nontraditional, it reflects the nature of the participants' narratives and places the participants' voices at the forefront.

9.2.1 The Adventure Park: The Conceptual Framework

In Chapter 2, I introduced the metaphor of an adventure park to conceptualise the nature of the experiences and challenges from the participants' perspective. In this space, each participant had their own individualised challenge course to complete within a period of time. However, once in this space, their principal aim became their forward momentum and progress to move through and complete their personal challenge course, the nature of

which they were not aware of at the start. How they completed their personal challenges was up to them, although they could call on their guide for support and connect with others also engaged in the PhD enterprise. During their time in this adventure park, a low rickety fence separated the participants from their family, friends and acquaintances not engaged in the PhD enterprise. This separation brought into question their sense of belonging both within and outside their being in a liminal space. To successfully exist, they would need to complete their personal challenge course and gain the approval of the gatekeepers. It was a space that challenged their existing ways of being and knowing. This chapter concluded each participant is on their own challenge course nevertheless there is an interdependency with others on the inside, their guide and those on the outside. Each is in this environment until they have one, completed their own challenge course: an expanding and shifting focus or ontological change; or two, decide not to complete their challenge course and leave.

9.2.2 How I Conducted this Research – Methodology and Data Analysis

Narrated in the first person, the methodology and data analysis (Chapter 3) drew on my experiences as a PhD researcher accounting for how I conceptualised, tested and implemented the methodology and data analysis process. I concede that the reflexivity used in Chapter 3 does differ from the traditional PhD thesis structure, although in its defence, this is a PhD on the lived experience of the PhD.

Based on the approaches used in the existing research into the PhD experience, I set out to develop a participant-driven theory of the lived experiences rather than a theory driven by stakeholders external to the PhD experience (Mowbray & Halse, 2010). I therefore chose to focus on how and what the participants would prioritise to report on. Because the passage of time changes our sense of an experience I also chose to adopt a methodology that enabled participants to report on not only incidents but also their experiences, feelings, and emotions as and when they were occurring rather than reflectively share something that happened in the past. What I aimed to capture was the fresh experience, not a past-tense version, now made sense of.

I decided to adopt an inductive and exploratory qualitative approach and to collect experiential data from a diverse cohort of PhD researchers in Australian universities over a period of three to 12 months. To test my methodology, I conducted a methodology exploration pilot study. Based on the findings of the pilot study, I expanded the range of qualitative introspective methods that participants could use, increased the flexibility around how they could choose to report, and provided guiding questions to support their reporting. The iterative narratives collected over the study period provided rich experiential data. Following 3-12 months of data collection, 17 final interviews were conducted face-to-face or via Skype, recorded and transcribed by me.

The inductive and exploratory nature of this research meant that I was not setting out to test a hypothesis, theory or framework. The data analysis phase thus also took on an exploratory and iterative cycle of reading and analysing—a lengthy process of discovering initial categories and themes, which gradually distilled to form what is now the conceptual model. It is worth noting that in terms of analysing the data, the participants themselves—in their act of sharing their experiences—reported their own interpretations, and I could therefore report what and how they reported rather than attempting to interpret everything they were saying. I finally settled on a thematic qualitative analysis, and a deconstruction of the themes, issues and events indicated the interconnectivity between being a PhD student and their other identities, discussed in greater detail in addressing the research question (see Section 9.4).

In this inductive vein, the nature of themes identified led me to investigate constructivist and sociocultural theories of learning and development of a framework for further analysing the themes identified. In this process of identifying a theoretical framework with which to analyse the data, I found that sociocultural theories explained the relational effects on learning and development but did not address the perceptions of self and the deliberate actions for forward momentum and progress. A reading of Bandura's (2001) 'Social Cognitive Theory: An Agentic Perspective' explained the nature of reported experiences and provided a framework with which to discuss the individual and interdependent nature of the reported experiences. Bandura's reciprocal determinism theory and self-efficacy theory (Bandura, 1986, 1997) provided a theoretical framework with which to present and discuss in this thesis the individual and interdependent nature of the reported experiences. However, in using Bandura's self-efficacy theory, I am not testing for self-efficacy but rather using the theory to discuss the participants' reported experiences.

9.3 Limitations of this Research

I acknowledge that there are some limitations to this study. First, although I planned to recruit a diverse cohort of current PhD researchers in Australian universities:

- there was a gender imbalance more females than males
- most participants were enrolled on a full-time basis
- international students were underrepresented

Second, the participants were given the freedom to choose which experiences they would report on, and the participants interpretations of those experiences form the basis of the research. Nevertheless, the key themes identified in individual participant's reports were repeated in other participants' narratives. In terms of validity, I could use only what participants reported and how they reported; therefore, I used narratives verbatim wherever possible. The relationship between the participants and me, the researcher, resulted in at best an 'understanding [that] is participative, conversational and dialogic', that is produced through that engagement and 'not something reproduced by an interpreter through an analysis of which he or she seeks to understand' (Schwandt, 2000, p. 196). These representations were made during the participants' period of participation and thus constituted their socially constructed lived experience during and at that time of their lived experience. Third, three to 12 months of reported experiences represent a relatively short phase of the experience of being PhD researcher, and this research did not track participants from start to finish. Fourth, on analysing the data at different points during the final writing phase of this thesis, I saw the potential for additional or outlying themes to be pursued. These include a more in-depth analysis of the opportunity costs associated with being a PhD researcher, perception differences between part-time and full-time participants, the range of external relationships and roles and the quality of supervisory relationships. Although I do touch on all these themes, the aim of this research was to report on the lived experience, and this thesis thus provides an overview and introduction for future research in these areas.

9.4 Future Research Directions

I recommend that future research on the PhD experience investigate the lived experiences of part-time PhD researchers, using a non-prescriptive approach as used in this research project. The acutely personal and affective nature of being in a liminal space may be 188

reduced for part-time PhD researchers who are engaged in full-time roles and careers, who have established self-efficacy based on their ongoing successes in their other roles. Given the growing number of part-time PhD students exploring:

- how they would choose to report on their experiences
- their perceptions and expectations of the PhD, outcomes and supervision
- the impact of the experience on their self-efficacy
- how they manage critical incidents and experiences for timely completions

This will identify how part-time PhD student's self-efficacy and sense of belonging can be supported. Inform supervision development programs and universities about part-time PhD student perceptions and expectations.

The aim of this research was to report on the lived experience. It has provided an overview and an introduction for future research in these areas. On analysing the data at different points and during the final writing phase of this thesis, additional or outlying themes were identified that could be pursued but not pursued due to the number of existing themes identified. Additional and outlying themes include a more in-depth analysis of:

- the opportunity costs and financial burdens associated with being a PhD researcher
- perception and expectation differences between part-time and full-time participants
- coping strategies
- the changing nature of the supervisor student relationship
- the range of external relationships and roles and their impact
- reported gender-based experience differences, and last but not least
- a greater understanding of cultural diversity on the nature of the lived PhD experience.

9.5 Addressing the Research Question

I now turn to addressing the research question: 'What is the lived experience of a PhD student in Australia?' This statement was supported by constituent questions to flesh out the detail:

1. How would a diverse cohort of current PhD researchers choose to report on their lived experience?

- 2. Are there critical incidents that the participant encounters?
- 3. What impacts do these experiences and critical incidents have on the participant's ability to successfully complete their PhD in a timely manner?
- 4. How do these experiences and critical incidents affect the participant's being?

I start by addressing the constituent questions in turn, and then I will address the research question.

1. How would a diverse cohort of current PhD researchers choose to report on their lived experience?

The participants chose to report on the process of being a PhD researcher doing their research. Reports were on the experience of doing and being a researcher, not their research. These experiences related to the environmental, relational and behavioural dimensions of doing a PhD and of being a PhD student. Participants' narratives consistently referred to their actual or desired actions and behaviour to achieve forward momentum, progress their PhD and exit being in a liminal space. These reports consistently indicated that participants perceived being in a liminal space as temporary, for a period of time only. A key finding is that participants rarely, if ever, reported on the nature of their research project or on the original knowledge their PhD was establishing unless I specifically enquired about the nature of their research during follow-up interviews. The conclusion that I draw from this is that the PhD experience is not about their research or the new knowledge they are creating. The experience is of being a PhD student, developing self-efficacy and sense of belonging to become a knowledge creator.

In terms of the volume and frequency of how participants reported, this related to what was occurring around their PhD that was either supporting or detracting from their forward momentum, their self-efficacy and their sense of belonging. If participants were experiencing challenges or critical incidents— positive or negative—most chose to report on these immediately. There were some exceptions, if the nature of the critical incident was significant and of a personal nature. For example, one participant experienced the breakdown of a personal relationship, and another participant's mother passed away. During these incidents, those participants chose not to engage. There are a couple of possible explanations for this:

• Their focus was not on their PhD.

• The experience was of a personal nature and of such magnitude that although it had an impact on their PhD, it precluded them from wishing to share the experience with this research.

However after a period of time when they could reflect back to their PhD, or if they made a significant breakthrough they celebrated this experience by sharing volumes of information.

2. Are there critical incidents that the participant encounters?

The critical incidents reported were more closely related to overarching events related to being in a liminal space rather than singular critical events. The reported experiences were filled with positive and negative critical incidents. These incidents were related to being in a liminal space, their PhD and personal environment, their relationships with others inside and outside the PhD enterprise, and their behaviour or actions. Many incidents were non-PhD related. As indicated for the second research question, some negative personal critical incidents included the death of a family member and a personal relationship breakdown. Within the personal realm, numerous participants moved from their place of residence, some moved interstate, one moved temporarily to another country, and some changed jobs. Reported critical incidents and experiences related to being a PhD researcher and, to a lesser extent, to doing their PhD.

From the perspective of being a PhD researcher, there were numerous overarching and some singular critical incidents. Being in liminal space for a time phase (see Chapter 4) highlighted the impact of being in this environment on participants' self-efficacy and sense of belonging. The uncertainty, lack of perceived structure, time as a measure for forward momentum and progress, feeling stuck, and opportunity costs associated with being in a liminal space, were all critical incidents. Other critical incidents included dealing with institutional bureaucracy, financial concerns, other roles and responsibilities (see Chapter 5) diversions and distractions—real or perceived—and, for some, their health and wellbeing. The need to write or inability to write was also a critical incident.

In the relational dimension, participants reported on a range of positive and some negative critical incidents. Their personal community's support and pride, others' perceptions and expectations (see Chapter 6) and competing personal roles and personal community commitments were critical incidents. Perceptions and expectations of the supervisor (see Chapter 7), the quality and shifting nature of the supervisory relationship, and a change in

supervision arrangements were critical incidents to be dealt with. The level of engagement with others engaged in the PhD enterprise (see Chapter 8) also proved to be another critical incident.

Negative critical incidents had a detrimental effect on participants' sense of forward momentum that affected their self-efficacy and sense of belonging. There were also incidents that were positive and contributed to self-efficacy and sense of belonging. Having a paper published, engaging with others, receiving their supervisor's attention and support, learning a new skill, engaging and collaborating with others, achieving a milestone—anything that contributed to their forward momentum or progress was a positive critical incident.

The nature of the reported critical incidents was rarely if ever about the PhD and their research. Critical incidents were personal, and they affected how they felt about themselves – their self-efficacy and sense of belonging. How individuals reacted to these experiences could differ but nevertheless critical incidents contributed to participants becoming independent and engaging in agentic behaviour to overcome obstacles and achieve progress.

In conclusion, critical incidents could have a positive or negative impact on participants' sense of forward momentum and progress and on their self-efficacy and sense of belonging. Critical incidents were also tipping points for enacting behaviour and actions to achieve forward momentum and progress as well as for enhancing self-efficacy and sense of belonging.

3. What impact do these experiences and critical incidents have on the participant's ability to successfully complete their PhD in a timely manner?

I am not able to answer conclusively on the impact these experiences and critical incidents had on participants' timely completion as I did not track participants from the start to the finish of their PhD, and consequently I do not have the data to discuss all participants' completion. However, I am able to discuss how these critical incidents and challenges affected participants' progress, particularly as participants' narratives focused on their sense of forward momentum, the progress of their PhD, and their experience of being in a liminal space.

As mentioned earlier, some critical incidents or events supported self-efficacy, which resulted in forward momentum and progress. Self-efficacy reinforced their belief that they could undertake tasks and remain motivated to successfully complete their PhD in a timely manner. Other critical incidents, however, had a negative impact on their self-efficacy and sense of belonging, which initially reduced their forward momentum and progress until they could (re)establish their ways of knowing and being. For example, the uncertainty and perceived lack of structure in the liminal space initially reduced participants' self-efficacy and sense of belonging (see Chapters 4 and 5). Time, as a linear measurement for their forward momentum and progress in this liminal space, also had a negative impact on selfefficacy because their forward momentum or progress was rarely, if ever, linear; in fact, it was messy (Bansel, 2011; McCormack, 2004). This contributes to the existing discussions in the literature around doctoral thresholds and that this space is inhabited until the final threshold is crossed (Ward, 2013). Nevertheless, for the participants, feeling stuck in this space reduced self-efficacy, and this could become a vicious circle of procrastinating behaviour (Wäschle et al., 2014). Participants looked for verification of their way of knowing (epistemology), which they could not have in their existing way of being (ontology) because they had to 'be' in this liminal space longer to 'know'. There is a need to move the existing dialogue from the time to completion to a dialogue that acknowledges being stuck in this weird existence, may be until the individual (re)establishes sufficient self-efficacy to become unstuck.

The opportunity costs associated with being in a liminal space had a negative impact on self-efficacy because it reduced participants' physiological state and tested their sense of belonging. However, rather than these opportunity costs reducing participants' ability to progress their PhD in a timely manner, this research found that participants engaged personal agency to reduce their impact. Participant' were frustrated with what they perceived as the quick and easy successes of others not engaged in the PhD enterprise as a linear sense of time was not an effective measurement for forward momentum and progress in a liminal space. This is a finding that has not been widely discussed in the literature on the PhD experience and has been noted under 9.4 Future Research Directions.

This research did not deliberately set out to research participants' supervision experiences, however, given the high volume of reported experiences related to supervision I dedicated

a chapter (see Chapter 7) to supervision experiences. Reported supervision critical incidents related to:

- unpreparedness and not setting expectations that reduced self-efficacy and sense of belonging
- they were looking for a guide to show them the way, have the time and show interest
- changing expectations and the shifting nature of the relationship.

The findings demonstrate participants actively working to support what is, for them, an important relationship. Nevertheless looking to others and taking control over their own progress. Low self-efficacy affected the supervision relationship for fear of being found lacking that led participants to seek out others. For some, initial low self-efficacy resulted in handing control over to the supervisor. Over time and with improved self-efficacy participants' expectations of the supervisor shifted, and for some this was a critical incident or challenge to be overcome.

These findings support a shift from looking at supervision as the panacea for guiding PhD students toward a discourse about critical incidents that have a positive effect on self-efficacy and also sense of belonging. There is clearly a critical role for others engaged in the PhD enterprise that support self-efficacy enabling experiences. While this research acknowledges that the supervisor has an important impact on the lived PhD experience and even possibly outcomes the findings support a small but growing literature on the complementarity and importance of other dimensions – environmental, relational, behavioural - on the PhD experience for successful outcomes. The reciprocal and bidirectional nature of the experience support the need to review the current system of PhD student supervision, that dates back to the 1940's, to support the knowledge creators of the 21st Century.

This research also adds another dimension to the existing literature on the PhD experience. Frustration and annoyance, while a negative physiological emotion, increased participants' propensity to plan courses of action through self-observation and reflection and alter their current actions and behaviours to achieve outcomes. Critical incidents and challenges served as catalysts for exercising personal agency to take control over their situation. In conclusion, there has been considerable discussion around the negative impacts associated with being in a liminal space for a phase of time and the associated uncertainty and feeling 194 of being stuck. However, little of the PhD experience literature reviewed discusses the behaviours and actions that PhD researchers adopt to overcome these environmental challenges.

Participants used coping strategies to ensure that incidents related to the perceptions or expectations of others not engaged in the PhD enterprise did not affect their forward momentum, self-efficacy and sense of belonging. To reduce the likelihood of negative relational experiences, participants compartmentalised relational engagements and preferred engaging with other PhD researchers for understanding and support. To ensure poor health or reduced wellbeing would not detract from their forward momentum or progress, they paid attention to their health and wellbeing.

Thus far, my discussion in response to this research question has pointed to participants exercising their personal agency to overcome critical incidents. However for some participants, at some points of their experience, the ability to exercise personal agency and to self-regulate their behaviour was not possible. A key finding in this research is that low achievement reinforced procrastinating behaviour, particularly for those with few efficacy-reinforcing experiences who found themselves in what Wäschle et al. (2014) refer to as a vicious circle of procrastinating. In such conditions, expressions of guilt legitimised their lack of forward momentum. I propose that at times it may have been easier to feel guilt about their lack of progress and forward momentum than enact their personal agency.

However, as mentioned earlier, critical incidents were not necessarily negative. Many of the reported experiences contributed to participants' self-efficacy and sense of belonging. These incidents spurred forward momentum and progress, and achievements. These included simple incidents, for example, receiving timely feedback, completing a piece of work, establishing synergy between roles, achieving a milestone, or engaging or collaborating with others also in the PhD enterprise—all could result in positive feedback loops that enhanced their belonging, motivation and ability to progress their PhD in a timely manner. Self-efficacy spurred forward momentum and progress, increased goal-achievement orientation (Wäschle et al., 2014) and enhanced the likelihood of timely completion.

The findings of this research indicate that critical incidents related to the environmental dimension decreased self-efficacy and sense of belonging, whereas critical incidents related to the relational dimension were more likely to improve self-efficacy and sense of belonging. Through their actions and behaviours, participants could exercise personal agency and coping strategies to support their self-efficacy; however, their actions and behaviours could also involve procrastination and stalling.

4. How do these experiences and critical incidents affect the participant's being?

The environmental experiences and critical incidents initially reduced participants' selfefficacy and sense of belonging. I propose this was due to:

- the unpreparedness of the participants for their experience,
- perceptions and expectations versus the reality, and
- their existing way of knowing and being was challenged.

Notwithstanding the points above, relational experiences and critical incidents generally supported participants' self-efficacy and sense of belonging. In fact participants exercised relational agency to restrict their engagements with those who did not support their self-efficacy and to engage with others whom they felt understood what it was to be a PhD student. This finding suggests that participant's became increasingly conscious of their self-efficacy, their own way of being and knowing; that made them more open to a new way of being and knowing.

With this information covered, I now address my primary research question:

What is the lived experience of a PhD student in Australia?

• It is the process of being a PhD student and doing the research. It is not about the thesis or the knowledge they are creating. It is the process.

This research has highlighted that being in a liminal space is a process of moving through an unknown and of developing self-efficacy to overcome the challenges and critical incidents, or threshold concepts, in a timely manner. In a liminal space, existing ways of knowing, or epistemology, based on prior academic achievements are challenged, and planned actions and behaviours did not result in actioned behaviours or outcomes desired. This had a negative effect on self-efficacy and sense of belonging. Being in a liminal space meant participants were no longer who they were before they started the PhD but also not yet who they would be at the finish (Turner, 1995, 1969), and for some this could be an isolating experience. Relational experiences could support self-efficacy and sense of belonging, but could also detract.

This thesis has presented the PhD experience as an initiation process that requires socialisation and relational experiences to develop knowledge and skills and to legitimise and authenticate sense of belonging (Araújo, 2005). Learning to adopt the correct discourse and becoming familiar with the 'rules of conduct' (Becher & Trowler, 2001, p. 50) occurs through practising with others–essentially, learning from others about the rules of engagement. It is challenging for the individual PhD researcher to alter the academic environment, which is rooted in tribal and territorial tradition (Becher & Trowler, 2001). This research has highlighted that PhD researchers are proactive and will use their relational and environmental dimensions to achieve their desired outcomes if they have self-efficacy, because participants' actions and behaviours were based on the extent to which they perceived themselves as capable (Pajares, 2002).

9.6 My Contribution to Knowledge

As a result of this research there are a number of contributions to knowledge. The findings evidenced by participants' reports indicate firstly that the PhD experience is about the process of being a PhD student and not about their research. The second contribution is the methodology, from its development, testing and adoption of a somewhat non-traditional approach to iteratively capture the lived experiences, in the here and now, of a diverse cohort of PhD students in Australian universities over a period of three to 12 months. The adoption of self-efficacy and reciprocal determinism theory, which to my knowledge has not previously been used to examine the lived experiences of PhD students in Australian universities, as a lens to analyse the lived experiences is the third contribution. The fourth contribution are questions this research raises about the nature of the PhD in its current academic manifestation to deliver the knowledge creators of the 21st century. The final contribution is of a personal nature. It is the lived experience of doing and being the PhD student researching the lived experiences of PhD students. An experience that resulted in the creation of a knowledge creator.

9.6.1 The PhD is a Process

The PhD experience is individual, based on the perceptions of PhD research and the expectations the individual brings with them. This research found these existing perceptions and expectations to contribute to the critical incidents and difficulty of the challenges encountered. The Telescopic Lens (see Figure 9.1 Telescopic Lens for a changing ontology) is an illustration to examine the reported experiences being in the metaphorical Adventure Park (Chapter 2) had on participants. The telescopic lens diagram provides the lens to view the lived PhD experience as an expanding and shifting focus and ontological change that occurs.

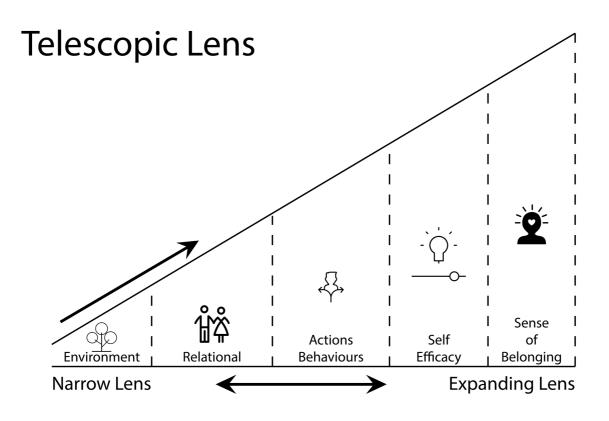


Figure 9.1 Telescopic Lens for a changing ontology

The adventure park is the conceptual framework for the participants' reported experiences of navigating the challenges encountered, which tested participants' self-efficacy and sense of belonging, towards completion and their ontological shift.

The telescopic lens illustrates participants' entry into the Adventure Park PhD with a narrow lens, of expectations and perceptions based on an existing way of knowing and being. Over a period of time, the PhD student shifts back and forth bi-directionally 198

between the environmental, relational, behavioural dimensions, completing their individual challenges, toward increasing self-efficacy and sense of belonging. This research found that a sense of belonging is the most difficult to achieve and I have therefore placed it at the most expanded spectrum of the telescopic lens. A sense of belonging requires participants to feel comfortable in their new way of knowing and being. The telescopic lens demonstrates the lived PhD experience as a way of being in permeable dimensions in the Adventure Park until their way of knowing is (re)established. The PhD is a process that required participants' to change their way of being in order to learn and know.

Participants looked for verification of their way of knowing (epistemology), which they could not have in their existing way of being (ontology) because they had to 'be' in this liminal space longer in order to 'know'. This finding signifies for a move from a focus on time to completion to one of acknowledging being stuck in this weird existence until the individual (re)establishes sufficient self-efficacy to become unstuck. For supervisors, this knowledge should be used to reflect on their own supervision practice and to consider the strategies they can put into place to reduce misconceptions and uncertainty, both in their relationship with the student and the student's research. This may involve identifying others to assist guiding the student or with whom the student can collaborate or network to validate self-efficacy to undertake and complete a challenge. This would go some way to shift the dependency away from only the supervisor, especially early in the PhD experience and during periods when the supervisor's time and guidance is in high demand. This knowledge should also guide experienced academics and supervisors to discuss with their prospective PhD researchers the nature of the PhD experience. The Adventure Park conceptual framework and telescopic lens provide a means for having this discussion.

In this 21st century with ever increasing speed of knowledge creation, the narrow focussed nature and shelf life of PhD knowledge is brief. The purpose of the PhD the new knowledge creation per se, it is about the experience of being and becoming a knowledge creator. The lived PhD experience is the value creation. It should be thought of not in terms of the knowledge that is created but the knowledge makers it creates. (Mowbray & Halse, 2010; Lieff, Baker, Mori, Egan-Lee, Chin and Reeves 2012; The Group of Eight 2013; Park 2015; Platow, 2012) With that noted, I propose it is time to review whether the PhD, in its current academic format, is the only way to develop knowledge creators for the 21st Century.

9.6.2 Methodology

I don't mind sharing this stuff with you because I don't know you and you're a synthetic sympathetic listener (RR, Interview, November 2013)

The methodology adopted in this research was non-prescriptive and had no set protocol. Enabling the participants to choose how to report on their experiences resulted in an abundance of data. Some of the themes identified have been discussed in the literature, but this thesis also reports on dimensions that have not been explored in depth in the existing literature. These include:

- opportunity Costs
- perceptions and expectations of the PhD experience
- shifting expectations in the supervisory relationship
- coping strategies

The methodology developed and adopted in this research is one of the contributions to knowledge. One of the values of this methodology lies in how a cohort of PhD researchers perceived their experiences and how the research methodology adopted enabled them to choose how to report on their experiences. By not focusing on predetermined elements of the experience, this research enabled the participants to choose how and what elements of their experiences they wished to discuss freely and without constraint. The validity in the approach lies in the:

- iterative reporting
- diverse cohort of current PhD researchers.

The research has also addressed Furlong and Oancea's (2005) quality framework for assessing applied and practice-based research (See Appendix 3)

Another value of this methodology is that it brought benefits to the participants.

I think it forces you to think about – it forces me to think about what I'm feeling. And in some instances putting it down on paper helps because in a sense I'm not a great one at delving into the depths of my feelings and stuff like that. I just accept what's happening and go with the flow or do whatever is required. The exercise has been good to say well do I like what's happening today and how can I make it better. Or why are things

going so well. Where in the rollercoaster am I today? So in that respect it's been a good exercise. (KT, 26thNovember)

It's been great. I've been late in some of my posts lately. But you know just having you as a - having this experience to reflect in a structured way to reflect has been great and it's been a motivation to the blog posts that I have done and you know if – if you could keep doing this throughout the life of it, it would be awesome. (MW, 25th November)

At the start of this research, I was concerned about how to keep participants engaged over an extended period of three to 12 months and reporting on their lived experiences. However, this methodology contributed to participants' sense of feeling valued through sharing their experiences. At the end of the research project, several asked if they could continue reporting in to me, and others said they would continue a process of reflecting on their experiences because they found the process so useful. It provided them with an opportunity to reflect on their own learning and development; a chance to vent their feelings and emotions; and an opportunity to create labels to make sense of their situation, adapt and move on. The participants were concerned with being of value to me and my research. They wished to provide the 'right' information that I may have been looking for. The fact that I was not actually looking for anything in particular, other than their experiences, gave them a sense of control in what was often an uncertain environment.

And a lot of what I sent through to you is actually just the crystallisation of thoughts that I have been having for myself anyway. And then I think oh well I realise that so I'll send that through. But you know, the thing that's probably kept me most engaged is the – is the thought of being helpful to you. Not you personally necessarily but somebody else who's engaged in this same kind of work. It's important in its own field that I don't necessarily understand but just to be a part of something like that. To be helpful in something like that, even if only potentially, probably that's the thing that has kept me engaged, and a lot of the time when I haven't, when I've been missing weeks or fortnights or whatever it's not because – it's not because I've forgotten about the project or rejected the project. (RR, 25th November) Another key value of the methodology adopted in this research is that it has highlighted how an inductive and exploratory approach can and does contribute to researching lived experiences. The use of a non-traditional approach highlights that contributions to new knowledge and research training can be made via less traditional research approaches.

9.6.3 Self-Efficacy Theory

Self-efficacy theory provided a theoretical framework with which to analyse the development of academic self-efficacy. Self-efficacy theory and reciprocal determinism theory to examine the PhD experience introduces a new approach to interpreting the nature of the PhD experience that has not previously been explored.

Due to the inductive and exploratory nature of this research, I did not set out with a predetermined hypothesis or theory. As discussed in the data analysis in Section 3.12 once I had started analysing the data, it led me to review learning theories to understand what participants were experiencing and reporting on. During a review of Piagetian and Vygotskian theories of learning and development, I was introduced to Bandura's (2001) agency theory, which went some way to explain participants' behaviour as deliberate, proactive and reflective and not merely reactive to their sociocultural environment. It also enabled me to frame the findings that explained the bidirectional force of the environmental and the relational dimensions on participants' perceptions of self and their self-efficacy to undertake their PhD and their sense of belonging (Pajares & Schunk, 2002; Phan, 2016; Schunk & Pajares, 2002). In this thesis, I adapted Bandura's reciprocal determinism theory to analyse and present the PhD experience from the participants' perspective, and did not set out to test self-efficacy.

To my knowledge, self-efficacy theory or reciprocal determinism has not been used in the literature to explore the PhD experience, and I was not able to locate any existing research investigating PhD researchers' engagement of personal agency to facilitate forward momentum and progress—their desired PhD outcomes. By using self-efficacy theory, I was able to explain how participants' belief in their ability to undertake a task was bi-directionally affected by the environmental and relational dimensions.

The literature is in agreement that self-efficacy contributes to academic achievement. This includes research on the impact of self-efficacy on undergraduate and adolescents'

academic achievement (Nowicki 2008). Self-efficacy has been found to support motivation, wellbeing, academic identity, learning goals and perception of self (Jazvac-Martek, 2009; Komarraju & Nadler, 2013; Lambie, Hayes, Griffith, Limberg & Mullen, 2014; Lieff et al, 2012; Nowicki, 2008; Phan, 2016; Schunk, 1984; Sweitzer, 2009 Valentine et al., 2004; Vekkaila et al., 2013; Wäschle et al., 2014; Zimmerman, 2002). However, a review of the literature identified that only one recent research project— Lambie et al. (2014), who measured levels of self-efficacy with research output supported that high efficacy scores in research were a predictor of high levels of interest in research and that PhD students who published had a higher research self-efficacy score. No-one appears to have used self-efficacy theory to conceptualise the PhD experience, and no-one to my knowledge has used reciprocal determinism theory to explore the bidirectional impact of the environmental dimension, the relational dimension and actions and behaviours on the quality of the PhD experience and the impact reciprocal determinism and self-efficacy has on the PhD student. Therefore this research has both commenced and contributed to an area of research that is underdeveloped.

Using self-efficacy theory and reciprocal determinism theory has identified experiences and critical incidents that detract and support self-efficacy and PhD researchers' forward momentum and progress. Identifying critical incidents and experiences that detract from or support self-efficacy will enable those engaged in the PhD enterprise to implement processes that support efficacy-enabling experiences for PhD students.

The other contribution and importance of this finding is how participants made choices based on their self-efficacy, and their self-efficacy is reciprocally determined based on their environmental, relational and behavioural experiences. 'People are neither driven by inner forces nor automatically shaped and controlled by external stimuli'(Bandura, 1986, p.18) their perception of efficacy will influence their behaviour and actions. This finding contributes new knowledge and the telescopic lens to understand the nature of the PhD student experience as an ontological shift.

9.6.4 Becoming a Knowledge Creator

The final contribution is of a personal nature. As a PhD student researching the lived experiences of the PhD, the experience has contributed to becoming a knowledge creator. Some personal insights on what I have gained from the experience include:

- an introduction to the complexity of knowing and the multiple angles with which to view the world.
- The experience has highlighted just how little I know.
- I have developed an intrigue with problematising situations in order to know or at least gain some insight to understand more.
- At times an impatience with those who cannot or wish not to appreciate the multiple dimensions and aspects to view the world, or unwillingness to change or adapt.

The contribution is the lived experience of doing and being a PhD student researching the lived experiences of PhD students - an experience of becoming a knowledge creator.

9.7 A Final Statement

The PhD experience is bespoke (Group of Eight, 2013) and individual. This research finds that the PhD is about the process of learning and development itself. The end -product is the capacity to create knowledge. The PhD experience is about the *process* of knowledge creation, not the specific knowledge created. The PhD process can be likened to the experience of entering an adventure park where each participant is required to overcome challenges to contribute new knowledge. It is the experience that is differentiated because of:

- the personal nature of the student
- their purpose and perceptions
- their supervisor
- their research environment, the university, the research discipline and expectations
- their other roles and responsibilities
- other people they engage with
- their personal communities.

Hence, the outcome is a highly personalised and individual experience that shifts the individual's ontology.

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Appendices

APPENDIX 1. Swinburne University of Technology. Swinburne Research Human Research Final Report Form: Critical Points in the PhD Journey: A year in the life a of a PhD Student – Methodology Exploration Pilot Study: HREC Project No. 2012/203

APPENDIX 2. Swinburne University of Technology. Swinburne Research Human Research Final Report Form: Lived Experiences in the PhD Journey: Critical Reflections from the Students' Point of View. HREC Project No. 2012/300

APPENDIX 3. Dimensions of Quality

APPENDIX 4. Participant List