

LEARNING MOBILITY IN PROFESSIONAL PRACTICE:
TRANSFORMING WORKPLACE LEARNING IN HIGHER
EDUCATION

A thesis submitted by

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Abstract

This study investigates how educators as adult learners learn within the higher education sector and how to design for effective professional learning, from the perspective of the educator. The researcher had observed, and the educational literature suggests, that professional development activities are often perceived by educators as frustrating, irrelevant and time consuming, resulting in resistance to taking part in such events and perpetuating the status quo of professional learning practice in higher education. To add new thinking and new evidence to create a shift in the perception of professional learning, the researcher targeted higher education teachers who may have found professional learning frustrating but had navigated a pathway through the complexities to grow and develop their professional practice in ways that are personally meaningful to them. Such educators demonstrated a *natural* motivation to engage in professional learning.

The central argument of this thesis is that designing for effective professional learning needs to take a bottom-up, inside-out approach. This approach recognises that personally meaningful professional learning that challenges and changes how educators learn needs to start from the inside by exploring the educator's inner belief system, ever-changing identity and developing sense of self. However, when investigating how educators learn, attention is also given to the complex, strongly connected relationship between the individual and the institution. Within this study, a way of making sense of the relational nature of the educator and the institution is by using the metaphor of the higher education *ecosystem* to represent the inextricably linked system of humans and their environment.

Four key concepts are introduced and developed as the thesis progresses and matures to the point that the concepts themselves evolve in an inter-connected, inter-related manner. First, the researcher introduces, builds and applies the concept of *learning mobility* to challenge the status quo of professional learning in higher education. The researcher's concept of learning mobility is the educator's choice to learn, work, communicate, collaborate and connect in any configuration, across learning contexts and boundaries for continuous professional learning and personal growth. Building on the idea of the educator's learning mobility is the second concept of the *wholeness of professional learning*, which is concerned with how educators come to the learning, how educators learn, and what educators do with the learning, to bring about personally meaningful change in professional practice.

The concepts of learning mobility and the wholeness of professional learning led to theorising the third concept of *professional learning mobility*. This concept provides an

alternative approach to the design of effective professional learning as it shifts the focus towards understanding how individuals experience learning continuously across and within their inner (internal, personal) and outer (external, professional) worlds. Exploring and maturing a deeper understanding of these three concepts throughout the thesis contributed to theory building about how educators learn.

Finally, this evidence-based theory building introduces the abstract concept of the *third space*, which was identified after considering the rationalities of the head space and the irrationalities of the heart space, and their powerful influences on the learning process. The third space of professional learning mobility represents the educator's own growth and development that transcends the complexities of institutional structures, conditions and policies that are outside the educator's control. The third space represents the educator's emotional and mental resilience to respond to the disruptive nature of being human as we become conscious of who we are on the inside. This space is conceived as a transformative space that offers a sense of wholeness, giving individuals the inner motivation and courage to connect to themselves and others. A united revelation emerges across the four concepts to discern that it is the mobility of the learner and the learning which becomes significant to address the educator as adult learner's natural human desire for growth, development and freedom.

From the study, the "7Cs" design principles were derived in order to foster the educator's professional learning mobility: context, control, connection, complexity, courage, continuity, and creativity. The "7Cs of professional learning mobility" are used to design dynamic learning environments that take into account the educator's inner and outer worlds and their need for choice, autonomy and freedom to authentically engage in their learning. The 7Cs, framed within a conceptual model that encompasses the head space, heart space, and third space provide an opportunity to theorise the educator's learning mobility in professional practice that could be used to transform professional learning in the higher education workplace. Overall, this study represents an evidence-based approach to contribute to theory in adult learning to support a shift in the practice status quo of professional learning in higher education.

Certification Page

This thesis is entirely the work of Maxine Mitchell except where otherwise acknowledged. The work is original and has not previously been submitted for any other award, except where acknowledged.

Student and supervisors' signatures of endorsement are held at USQ.

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Chapter 1 Introduction

1.1 Background to the Study

The genesis of this research study was grounded in my observations, as an adult educator and an adult learner, of how people learn, specifically where some people have a natural human desire for self-knowledge, growth and development.

I have worked in the higher education sector for 18 years across a number of central units responsible for the strategic direction, management, development, implementation and evaluation of learning and teaching. My personal and professional focus gravitated to technology enhanced learning (in its many evolving forms) and the associated institutional-level professional development initiatives to foster quality changes in teaching practices to enhance the student learning experience. Paralleling this 18 year period, I taught in a range of higher education contexts from large first year undergraduate foundational courses to professional learning courses and workshops for academic and academic support staff. My current role as an academic developer and adult educator responsible for planning, designing, facilitating, and evaluating professional learning events for academics has stimulated my curiosity, fascination, observations, and reflections on my lived experience of how people learn in adulthood.

A problem that I have pondered throughout my career as a university-based adult educator is that formal institutional level professional development often has a limiting rather than enabling influence on the educator's growth and development of their professional practice. While institutions invest funds into resourcing professional development programs to address strategic priorities and quality assurance requirements to advance the educator's capacity for innovative pedagogical approaches (Dede, Ketelhut, Whitehouse, Breit, & McCloskey, 2009; Fraser & Ryan, 2012), often educators' perceptions are that the programs do not meet their learning needs (Bates, 2015; Norton, 2009).

A significant, personal transformative moment was re-reading Biggs and Tang's *Teaching for Quality Learning at University* (2007) while, in 2012, re-designing the Foundations of University Teaching curriculum, assessment and pedagogy to seamlessly integrate a blended learning focus. Reading "There is no

such thing as an unmotivated student: All students not in a coma want to do *something*” (Biggs & Tang, 2007, p. 32 [original emphasis]) was a personal awakening. As an adult educator and an adult learner, this statement triggered a powerful shift in my perspective. The way the higher education sector designs professional development that seems to overlook the fundamentals of a learning-centred approach took on new meaning for me. Professional development has tended to focus on teacher preparatory programs that place emphasis on the students’ learning experience with little thought for the needs of educators as adult learners (King, 2005; Weimer, 2012). The outcome has been a limited change in individual and institutional professional learning and teaching practices (Biggs & Tang, 2007; Boud & Brew, 2012; Webster-Wright, 2009).

Despite these tensions, I had observed that some educators exhibited a natural motivation to navigate their own pathways through the complexities inherent in institutional structures, policies and conditions. This enabled them to grow and develop their professional identity that sustained their personal learning needs whilst contributing to institutional expectations. Educators demonstrating these qualities took control of their learning, engaged in reflective practice to make informed choices, built a sense of personal efficacy, and were open to transforming their professional practice. Their inner belief system seemed resilient to the complexities of working in higher education.

This research study started with repurposing Biggs and Tang’s (2007) influential view of the learner and added new thinking to the literature by proposing that there is no such thing as an unmotivated educator, and all educators not in a coma want to do something. I took a bottom-up approach to investigate how educators learn from the perspective of the educator as adult learner within the broader context of higher education. A design-based research (DBR) methodological framework influenced the bottom-up approach as it supported the collaborative relationship between myself and educators as learners in this study. Such an approach acknowledged the synergistic, and often problematic, relationship between individual level and institutional level professional learning activity.

1.1.1 Personal Statement

My personal statement reflects the reciprocity of my roles as a learner and a teacher. The reciprocal nature of being a learner and being a teacher in any given moment in the social act of learning requires a pragmatic, open view to negotiate meaning, challenge perspectives and possibly transform our views of the world to become aware of a more authentic sense of self.

Transformative learning, at the most fundamental level, is becoming conscious of the inner sense of self (Cranton, 2006; Lawrence & Cranton, 2015; Mezirow, 2000). I continuously experience transformative learning as an adult learner, an adult educator, and as an educational researcher. In my practice of teaching about and fostering transformative learning experiences within professional learning contexts, I have deepened my understanding of the theory and practice by engaging in the transformative learning journey with my peers. As they challenge their meaning structures and perspectives of self, I “try on” (Mezirow, 2000, p. 12) their (moving) view of the world to challenge, affirm or re-calibrate my own world view. To be a transformative learning practitioner is to know that learning, like life, is a continuous journey of self-study. Therefore, learning, like life, is about reciprocity. Liberating our inner sense of self is being conscious that in any moment we are a learner and a teacher. Applying the idea of transformative learning to our ongoing growth and development suggests a *learning mobility* towards a deeper sense of self.

Learning mobility is central to this study. The researcher’s concept of learning mobility is the choice to learn, work, communicate, collaborate and connect in any configuration, across learning contexts and boundaries for continuous professional learning and personal growth. The idea of learning mobility is an abstract concept and is therefore best developed within the context and investigation of the literature in Chapter 2.

Travelling through the experience of my doctoral study was equivalent to harnessing everything I had come to know, think, feel, act and be in my life’s journey so far to navigate the amorphous nature of my doctoral *liminal space*. The concept of liminal space refers to a gateway where new understanding needs to be integrated and, significantly, prior conceptions surrendered (Land, 2012). Jung ([1921] 1971) terms this space as liminality – the boundary or threshold of emotional and behavioural fluctuation that manifests as uncertainty of identity and purpose of

life (Meyer & Land, 2013). Discerning who I am becoming whilst being in the perplexing liminal space of being a doctoral student was the essence of experiencing a PhD. Within the traditions of academe, completion of a doctorate is grounded in the apprenticeship model of research training within a specific discipline. In a transformative liminal space, this becomes secondary to becoming conscious of my inner dialogue, my subjective sense of self that served to enable or inhibit my growth and development to “forge new identities by embracing who [I am] along the way” (Lawrence & Cranton, 2015, p. 73). A liminal space is confronting, confusing and overwhelmingly personal. As humans we have two choices when finding ourselves in a liminal space: we can get stuck or we can move. Learning mobility is becoming conscious of our inner sense of self to move, even when the easier option may be to stay stuck.

1.2 Scope of the Study

The scope of the study includes the purpose, goals and the research context. The purpose of this study was to gain a deeper understanding of how educators as adult learners learn in order to add new thinking to the design of effective professional learning that makes provision for the educator’s learning mobility. The centrality of this study was investigating how educators learn, with a particular focus on their perspectives and their experiences of the activity of learning. However, due attention was given to the multi-faceted nature of the educator’s learning environment, both internal and external, that might enable or inhibit the educator’s motivation to engage in their professional practice.

To address the purpose of the study, the goals were to:

1. Seek a deeper understanding of how educators learn, from their perspective;
 2. Identify the conditions and characteristics that enable or inhibit the educator’s motivation to engage in their professional practice;
 3. Investigate perspectives of the design for effective professional learning as a function of professional practice;
 4. Investigate transformative learning processes as a practical approach to designing for effective professional learning that is personally meaningful to the educator;
- and

5. Present the idea of the educator's learning mobility as a new paradigm for workplace learning.

The research study is situated within the higher education sector. The research participants were practising educators who were intentionally identified based on their active engagement in their professional practice. This is not seen as a bias. Rather, to add new thinking and new evidence to revitalise professional learning that is personally meaningful to educators, the researcher needed to interrogate educators who take responsibility and control of their own learning as scholarly practitioners actively engaged in their professional practice. The rationale was that the educators who are actively engaged, self-directed, and self-determined in taking control of their professional learning to advance their professional practice are valuable sources of knowledge in rethinking the design for effective professional learning. Asking educators who did not actively engage in professional learning initiatives limited the researcher's ability to discover and understand the deeper tensions and practical issues of how educators learn as such educators had not navigated the complexities of taking control of their professional learning.

1.3 The Knowledge Gap, and Research Problem and Questions

An enduring educational paradigm is the focus on how people learn. An emerging knowledge gap was informed by scholarly evidence at the individual (educator) level that existing professional learning initiatives were often perceived by educators as not meaningful and as ineffective (Hart, 2014b; Norton, 2009). At the institution level, evidence from the literature indicated that the formal, structured, linear, didactic characteristics normally associated with institution-led professional development (Bates, 2015; Boud & Brew, 2012) resulted in educators' resistance to, rather than engagement in, professional learning opportunities (Holley & Oliver, 2010; Poole, 2009). The emerging gap in knowledge reflected the need to understand more about how educators continue to learn through their working lives in order to guide the design of effective, meaningful professional learning (Billett, 2010; Webster-Wright, 2009). The idea of learning continuously throughout life suggested it was the mobility of the learner and learning that was of significance to this research study.

Furthermore, from an educational research perspective, scholars (Billett, 2010; Boud & Brew, 2012; Kek & Hammer, 2015) claimed that irrespective of decades of research and theorising about how educators learn as part of their professional practice, the field of professional learning remained under-theorised, poorly understood and ambiguous to scholars and practitioners alike. The contribution of this research study to the gap in knowledge was to investigate the concept of the educator's learning mobility as a means to create a shift in the theory and practice of professional learning to bring about change in the design for effective professional learning.

The research problem of how educators are motivated to engage in their learning mobility to transform their professional practice was formulated from this knowledge gap. To address the research problem, the research questions were:

1. How do educators come to the learning?
2. How do educators learn?
3. What do educators do with the learning?

1.4 Research Design

The research study was primarily qualitative in nature which is appropriate in naturally occurring research settings that seek a richer, deeper understanding of the perspective of the person(s) being researched (Norton, 2009). The research design reflected a pragmatic paradigm of inquiry to enable the researcher to work in collaboration with research participants (educators) to resolve the real-world question of how educators as adult learners learn. Design-based research (DBR) was the methodological framework used as it offered a systematic but flexible structure to address the complexities of how educators learn within their real-world professional learning contexts. The iterative, generative nature of DBR guided the collaborative partnership between the researcher and research participants in the process of refining the problem, developing and testing solutions, and designing principles to resolve the research problem (Reeves, 2006; Wang & Hannafin, 2005).

Thematic analysis, a widely used qualitative analysis method, was employed to identify, analyse and report patterns (themes) across a dataset to address the research problem and research questions. Like design-based research, thematic analysis offered a theoretically flexible approach as it provided for a pragmatic yet systematic

framework for investigating the complexities inherent in the subjective realities of how educators learn. The data collection methods included a pre-interview questionnaire, structured interview, and researcher observations and reflections. These methods were used to gain a deeper, richer understanding of the research participants' perceptions, judgements, thoughts, feelings and views of self when investigating how educators come to the learning, how educators learn, and what educators do with the learning.

1.5 Significance of the Study

This research study was concerned with how educators learn and was based on the key tenet that educators are learners (Cranton, 1996, 2006). Positioning educators as adult learners applies a learning-centred theoretical approach to examine professional learning practices in higher education. Learning centred approaches, characterised as offering learners choice and freedom whilst making them more responsible for learning autonomously, cultivates a greater level of personal accountability in models of professional learning (King, 2003; Weimer, 2012).

Rethinking approaches to professional learning that are learning-centred and transformative in nature has significance at the individual and institutional levels. At the individual level, adult learning theory (Knowles, 1975, 1980) affirms that learning in adulthood is characterised by a readiness to learn, a responsiveness to learning-centred teaching and learning, and a developing self-concept that takes responsibility for self-directed learning. In practice, educators as adult learners can be resistant to learning-centred approaches that espouse transformative learning processes and, by the very nature of these theoretical orientations, it questions an educator's taken-for-granted assumptions embedded within their self-concept (Mezirow, 2000). This may be interpreted by educators as challenging their professional identity (Elliott, 2011). A challenge for institutions that do recognise the strategic importance of innovative pedagogies, and therefore offer institution-led professional development initiatives to advance innovative teaching, is those educators who often do not participate in learning opportunities available to them (Johnson, Adams Becker, Estrada, & Freeman, 2015; Poole, 2009).

This study adds new thinking to the educational research by taking a systematic, bottom-up, inside-out approach to examine beliefs about professional

learning in higher education. Within the context of this study, the significance of challenging current thinking and adding new thinking to designing for effective professional learning that is personally meaningful to the educator, is to harness the potential for learning mobility. The researcher's idea of learning mobility is that professional learning opportunities occur continuously within, between and outside institutional structures to meet the increasing need of educators for more personalised, pragmatic, self-directed and informal learning contexts (Bersin, 2012a; Boud & Brew, 2012; Garrison & Kanuka, 2004; King, 2003, 2005; Marsick & Watkins, 2001). The originality of this study offers new perspectives when designing for professional learning that is responsive to the educator's learning needs and informs new ways of thinking about professional learning initiatives at the institutional level.

1.6 Boundaries, Assertions and Limitations

1.6.1 Boundaries

This research study is primarily located within the Australian higher education sector. However an international perspective has been taken as university educators, and higher education institutions, work in the global context. Furthermore, I believe the research study has application in western higher education sectors, and to some extent can be generalised to a global understanding of higher education. The reasons for this include:

- The evidence-based scholarly discourse informing the literature review drew on research beyond Australia to include the United Kingdom, the United States of America, Canada, and to a lesser extent, mainland Europe;
- The research participants informing the data collection were from the Australian and USA higher education sectors; and
- The research study explored the conditions, characteristics and practices of how educators learn that added evidence to inform rethinking professional learning in higher education.

Professional learning was investigated from the perspective of how educators learn as part of the activity of learning, that is, those conditions and characteristics that enabled or inhibited the educator's motivation to engage in their professional

practice. The research study did not extend to a critique of particular professional learning events or activities such as the range of professional development programs and initiatives often discussed in the higher education literature.

1.6.2 Assertions

Assertion 1: Learning mobility.

The researcher's concept of learning mobility as the educator's choice to learn, work, communicate, collaborate and connect in any configuration, across learning contexts and boundaries for continuous professional learning and personal growth had a deeper conceptual meaning when located within the educational discourse. The concept of learning mobility was a pragmatic approach to rethinking professional learning that was concerned with educators' ongoing growth and development as they come to learn, and possibly transform, who they are. In essence, the idea of learning mobility evolved as the research study developed and matured in the process of resolving the research problem.

Assertion 2: Professional development and academic development.

For the purpose of this research study, the terms *academic*, *professional* and *faculty development* are treated as synonymous as are the terms *academic*, *professional* and *faculty developer*. In this study, the term *professional development* and *academic developer* are used. Professional development refers to the organisation led developmental activities informed by the discipline of learning and teaching in higher education. The role of an academic developer typically involves working in dedicated professional development positions and engaging in professional development work (Ling, 2009).

Assertion 3: Professional development and professional learning.

For the purpose of this research study, institution-led professional development refers to centrally controlled, formal, structured activities to engage educators in the educational discourse for the purpose of enhancing the student learning experience (Bates, 2015; Boud & Brew, 2012; Marsick & Watkins, 2001; Reushle, 2005). Professional learning shifts the focus from purely formal, structured, periodic events to foster more authentic learning activities situated in the workplace to support

educators as they continue to learn through their working lives (Billett, 2010; Boud & Brew, 2012; Webster-Wright, 2009). Furthermore, when conceiving of alternative perspectives to how educators learn, the terms *continuing professional learning* and *continuous (professional) learning* are used interchangeably as a representation of the continuity of learning across boundaries of time, space, convention and activity.

Assertion 4: Learning-centred focus.

It is not the purpose of this research study to debate the meaning of the terms *learning-centred* and *learner-centred* as Weimer (2012) confirms the terms are used interchangeably in the educational discourse. Nor is it the purpose of this investigation to critique the evolutionary elements that underpin the discourse of teacher-centred and learner-centred. Therefore, in this research study, the term learning-centred is used as a pedagogical approach to rethinking professional learning that illuminates the activity of learning, where educators as adult learners feel empowered to take responsibility for their professional learning.

Assertion 5: The reciprocal nature of learning and teaching.

The word *pedagogy* embraces a crucial dialogue between teaching and learning. This is particularly important in the context of educational discourse where the two terms (teaching and learning) have come to be used in tension, and often, in opposition to one another (Beetham & Sharpe, 2008). At the same time, educational scholars have used the term *scholarship of teaching* (see Section 2.1.2) as a theoretical framework to unite the two terms. This is evidenced by Boyer's (1990) model of scholarship in which a key characteristic is the recognition that teachers are also learners, therefore emphasising the reciprocal nature of being a learner and a teacher in any learning context (Morgan, 2014). This research study takes the scholarly position of the reciprocal nature of learning and teaching, and therefore uses the terms *teaching and learning*, and *learning and teaching* interchangeably.

Assertion 6: self and the Self.

The terms *self* and *the Self* are relational in nature rather than interchangeable. In this study, the term the Self is used from the Jungian perspective of transformative learning referred to as individuation – our very nature is one's uniqueness expressed

inwardly as the Self and outwardly to the world as ways of knowing, acting and being (Boyd, 1991; Cranton, 2006; Dirkx, 2012; Palmer, 1998). The term *self* is used in relation to emancipatory knowledge for transformative learning, such as self-determined, self-reflective, self-regulated, self-directed, and self-aware (Cranton, 2006; Habermas, 1984; King, 2003; Mezirow, 2000). Developing a sense of self within the context of this study relates to developing a deeper understanding of how educators learn as part their developing self-concept; their ways of feeling and acting in adulthood that act as filters for interpreting meaning of the learning experience, making judgement on those experiences and taking action. The educator's inner journey towards their self-concept (sense of self) is a manifestation of the Self.

1.6.3 Limitations

Targeting those educators who have a natural motivation to engage in professional learning activities is a limitation of the study. However, the educational research also suggests that professional development activities are often perceived as frustrating, irrelevant and time consuming, creating resistance to attending such events. Asking those educators who do not attend creates a circular argument. Educators who do not participate in professional learning would provide a narrow view of the world as their judgements are based on limited experience. To ask educators who may have found professional learning frustrating but also navigated a pathway through the complexities of professional learning to continuously grow and develop their professional practice in ways that are personally meaningful to them may add new thinking and new evidence to the body of knowledge.

A criticism of design-based research (DBR) relates to the researcher's intimate involvement in the conceptualisation, design, development and implementation of the pedagogical approach or intervention. Ensuring the researcher can make credible, unbiased, and trustworthy assertions is a challenge (T. Anderson & Shattuck, 2012). However, this challenge is common to many forms of qualitative research where none of the methods can or do make claim that researcher bias is completely removed from the research process (T. Anderson & Shattuck, 2012; Creswell, 2012). The researcher employed triangulation as a way of strengthening the validity of findings and conclusions. Triangulation enabled the researcher to determine the accuracy and credibility of findings through multiple sources of data to validate

qualitative, subjective measurements (Creswell, 2012; Phillips, McNaught, & Kennedy, 2011). Furthermore, the social science researcher Kothari (2009) emphasises that the aim of qualitative research is to acknowledge that the assessment of perceptions, attitudes, opinions and behaviours of research participants is the function of the researcher's insights and impressions.

In Chapter 4, the category of scholarly leadership activities was used to gain insight into the research participants' backgrounds and experiences. The category served as evidence to address Research Question 1, How do educators come to the learning? The educational literature has a wealth of research on academic leadership. A possible limitation of this study is that discussion of scholarly leadership was identified based on the core fields of knowledge informing this study, which included contemporary theories of learning, adult education, transformative learning theory and professional learning in higher education. The breadth of literature on contemporary theories of leadership inclusive of theories, models, principles and styles used and applied within the higher education context was not investigated. Therefore discussion on scholarly leadership does not fully represent the broader body of knowledge on academic leadership.

The scholarly communities identified within the sample of research participants were discipline-based in recognition that educators often feel a sense of academic connection and belonging, and an established professional identity and values within their disciplinary homes. There is a body of literature that contends the disciplines develop discipline-specific teaching practices, norms and tacit, often unspoken practices that can limit pedagogical innovations. It was outside the scope of this research study to profile the possible homogeneity and epistemology of the discipline-based scholarly communities.

Another limitation could be the degree of granularity of data analysis. However, it was outside the scope of the research goals and outcomes to investigate possible relationships between such variables as career stage and inner belief system, academic position and inner belief system, and discipline and inner belief system, or to conduct a comparison across institutions and/or countries (Australia and United States of America).

1. 7 Arrangement of Chapters

In this study, where design-based research (DBR) provided an iterative, pragmatic methodological framework to address the research problem, I worked in collaboration with educators (higher education teachers) to gain insight into how educators learn, from their perspective, in order to rethink the design for effective professional learning. There are four chapters to follow this introductory chapter.

In Chapter 2, literature appropriate for this study is reviewed. An overview of the changing nature of the higher education system provides insight into the challenges and complexities facing the university sector and university educators. With a specific focus of educators as adult learners, the fields of knowledge critiqued include contemporary theories of learning, adult learning, transformative learning and professional learning in higher education.

In Chapter 3, the research design, methodological framework, methods and procedures are discussed. The rationale for the methodological framework is provided, followed by how research participants were selected. This chapter presents the pragmatic paradigm of inquiry including the appropriateness of the approach taken and the rationale for the data collection methods (pre-interview questionnaire and structured interview). The chapter includes the researcher's statement on being a reflective transformative learning practitioner within the research context of this study. The chapter concludes with the data analysis procedures including the rationale for thematic analysis.

The data analysis and findings across the four phases of design in this study: Phase 1 Design for Understanding, Phase 2 Design for Engagement, Phase 3 Design for Change, and Phase 4 Design for Transformation are described in Chapter 4. Themes (patterns in the data) were generated based on an exploration of the research participants' backgrounds and experiences collected in the pre-interview questionnaire, and on their rich narrative descriptions and personal constructs elicited from the structured interview. The qualitative data collected from the interview process meant that developing themes could be explored, interrogated and refined across the cycle of interviews supporting the generative nature of design-based research.

Chapter 5 articulates the design principles for effective professional learning mobility. As the final chapter, a conceptual model for theory building is presented that is responsive to the educator's learning needs whilst informing new ways of thinking about professional learning initiatives at the institutional level. A new perspective on professional learning practices that cultivates transformative learning processes as a pathway for the educator's learning mobility is given. Future considerations, applications and contexts relating to the idea of the educator's learning mobility in professional practice and opportunities for further research are also proposed in Chapter 5.

Chapter 2 Literature Review

My original contribution to the field of professional learning in higher education is concerned with how educators, as adult learners, learn in the evolving educational landscape. This landscape is being challenged by the disruptive and transformative nature of digital technologies and pressure for innovative approaches to pedagogy. It is also challenged by globalisation, greater social mobility for growing segments of the population, and the widening participation agenda, coupled with deregulation of higher education (Altbach, Reisberg, & Rumbley, 2009; Barber, Donnelly, & Rizvi, 2013; Marginson, 2013).

Within these external forces of change, I investigate the higher education sector from the perspective of the inherent complexities of human nature that enable or inhibit an individual educator's motivation to engage in their professional learning. I take a bottom-up approach to add new thinking to the body of knowledge and educational discourse on the design for effective professional learning. A bottom-up approach investigates the research problem from the individual educator's perspective within the broader context of higher education. Such an approach recognises the synergistic, often problematic, relationship between individual and organisational learning.

The purpose of this study was to gain a deeper understanding of how educators as adult learners learn in order to add new thinking to the design of effective professional learning that is meaningful to the educator. The literature which informs this research is firmly located within the theories and practices of adult learning, transformative learning, professional learning, and learning and teaching in higher education, as illustrated in Figure 2.1. An overview of the changing nature of higher education from the contributing disciplines is presented first in this chapter, followed by a review of contemporary theories of learning through a social constructivist lens and a learning-centred theoretical approach. With the focus on educators as adult learners, a review of the theoretical concepts and practical applications of adult education and transformative learning are progressed. Next, the nature of professional learning in higher education is critically investigated, with a particular focus on rethinking professional development as professional learning.

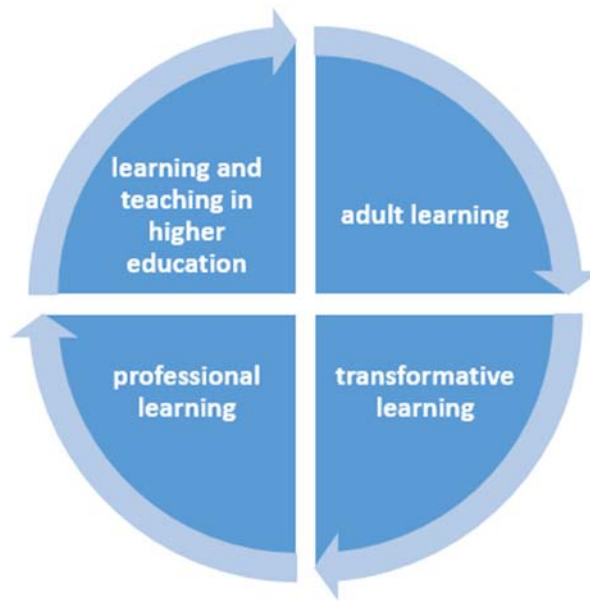


Figure 2.1. Conceptual map of the bodies of literature.

This figure illustrates the literature base informing the research study.

The chapter concludes with a synthesis of key themes from the literature and emerging issues which reveals knowledge gaps (outlined in Section 2.5.1) and particular challenges for the researcher relating to the design for effective professional learning that addresses the learning needs of educators. A wholeness of professional learning conceptual framework is presented towards the end of Chapter 2 that consolidates and integrates the relevant research literature, the key theories, concepts and assumptions investigated in the chapter. The conceptual framework also serves to address the research problem, supports the research questions, and informs the research design presented in Chapter 3.

Using metaphors.

To help make sense of the relationship between the individual and the organisation when investigating how educators learn, I have used the metaphors of the higher education *ecosystem* and the educator's *learning ecology*. These terms are used in Section 2.1 to provide order and structure to the investigation within the complex landscape of higher education. Furthermore, the use of these terms reflects a frame of reference used by other educational researchers to conceptualise the effects rapid social and technological change may have on models of learning (Cobo

& Moravec, 2011; Facer, 2011; Jewitt, 2009; Luckin, 2010; Monti, 2011; Siemens, 2006; Staley & Trinkle, 2011; Weller & Anderson, 2013).

An organisational ecosystem in its biological sense is about systems thinking, and is a complex, adaptive, strongly connected system of humans and their environment (Walker & Salt, 2006). Reid (2006) characterises an ecosystem as being extremely dynamic, and constantly confronted with “surprise” events. When applied to academic institutions, Walker and Salt (2006) warn that resilience thinking, “the capacity of a system to absorb disturbance and still retain its basic function and structure” (2006, p. 1), is virtually absent from higher education management practices.

When considering the complexities of the higher education ecosystem, the educator’s learning ecology refers to the ways the educator acts and interacts with their experiences, from their perspective, within a multi-faceted, dynamic learning and teaching environment. In Section 2.1, the current issues relating to teacher professional identity and the changing nature of scholarly teaching is explored. In Section 2.2, Section 2.3, and Section 2.4, the focus is on the investigation on how educators learn within the body of knowledge and discourse on contemporary theories of learning, adult education, transformative learning, and professional learning in higher education respectively.

Therefore, examining the educator’s capacity to grow, develop, and potentially change, regarded as the milestones of lifelong learning (Bates, 2015; Beetham & Sharpe, 2008), in a complex system that is non-linear and unpredictable in nature, requires systems thinking. A systems thinking approach, employing a micro-, meso- and macro-level framework (Fanghanel, 2007; Norton, 2009), is used to conceptualise the elements within each level of the higher education ecosystem (as illustrated in Figure 2.2). Furthermore, social science researchers such as Blackstone (2015) and educational researchers (Bryant, Coombs, & Pazio, 2014; Fanghanel, 2007; Norton, 2009; Vavoula & Sharples, 2009) find value in the three-level unit of analysis framework as a mechanism to express the relational nature of the elements at play. This research study is essentially concerned with the micro-level, that is, the educator’s inner world that enables or inhibits their motivation to engage in their professional learning. However, systems thinking recognises that we all live and operate in social systems that are inextricably linked within the ecosystem (Walker

& Salt, 2006). For this reason, attention needs to be given to the educator's outer world existing in the meso- and macro-levels that interact, influence and impact their inner world (micro-level). As illustrated in Figure 2.2, the meso-level has such external filters as discipline, faculty, and community, whereas the macro-level consists of such external filters as institutional, sectoral and global forces (Fanghanel, 2007; Norton, 2009). Furthermore, educational researchers (Fanghanel, 2007; Norton, 2009) recognise that the meso-level is often discussed in conjunction with the macro-level, as both levels are external to the educator's inner world.

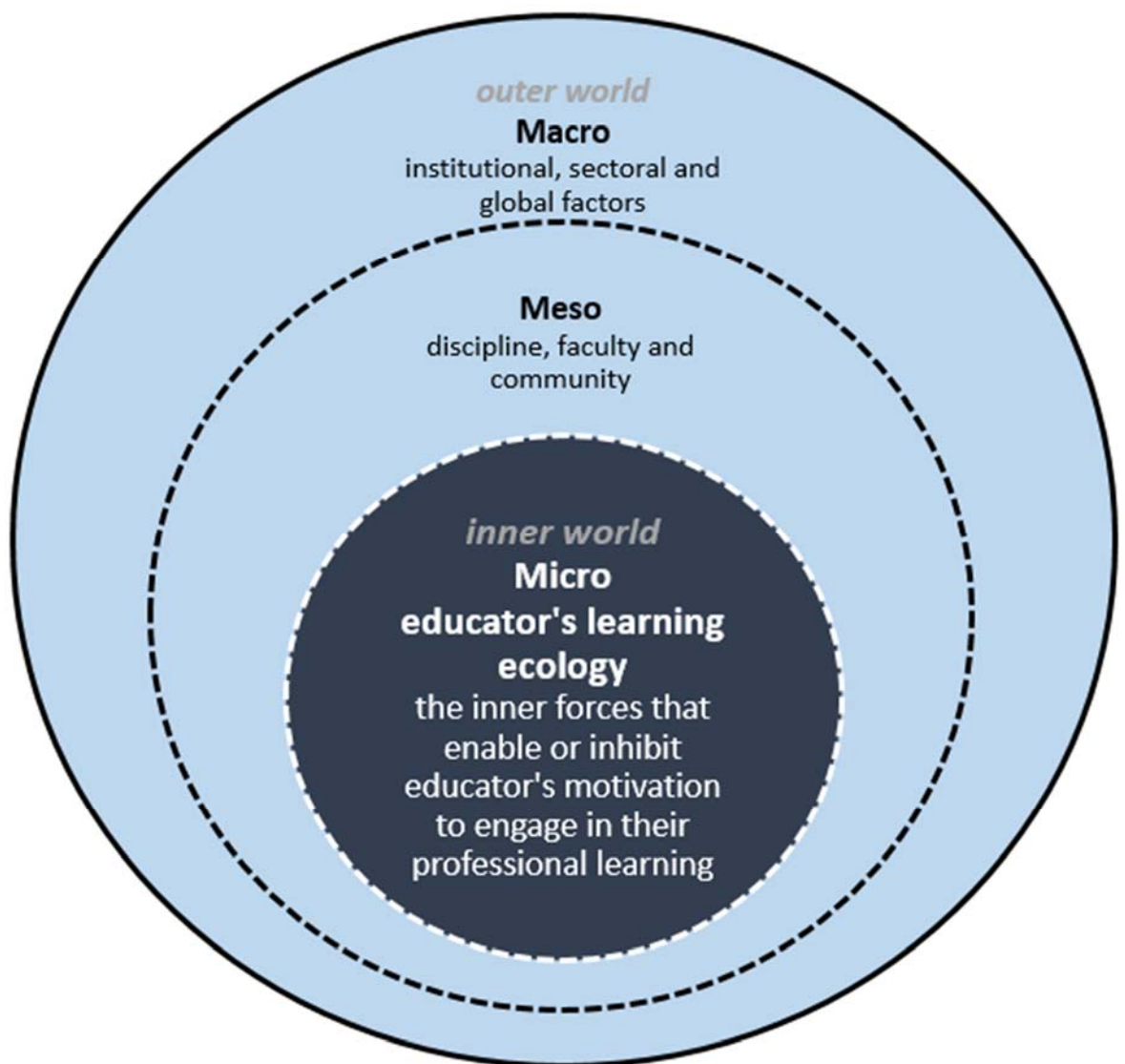


Figure 2.2. The higher education ecosystem.

This figure illustrates a holistic view of the educator's inner and outer worlds.

2.1 The Higher Education Ecosystem

One fundamental purpose of educational research is to explore how people learn. From the seminal work of Dewey's *Democracy and Education* (1916) to contemporary theories of learning, to educationalists concerned with contributing to advancing the discourse of learning and teaching in higher education (Bates, 2015; Biggs & Tang, 2007; Dirkx, 2012; Garrison & Vaughan, 2011; King, 2005; Laurillard, 1993; Mezirow, 2000; Phillips et al., 2011; Ramsden, 2003; Siemens, 2004 to name a few within the context of this study), the conception of how people learn is the enduring paradigm through the ages.

The higher education ecosystem on a global scale is endeavouring to address the fast paced innovation for learning and teaching whilst trying to accommodate new ways of learning that challenge traditional ways of thinking and doing (Salmon, 2014). Policy makers, administrators, and educators are being told that they need to transform models of education to adapt to the learners' needs for a global knowledge economy (Facer, 2011). Siemens (2012) warns that socio-technical change will continue to exert pressure on the sector, challenging the capacity of higher education to be resilient, responsive, and adaptive to sustain the well-being of the linked system of people and nature, referred to by Walker and Salt (2006) as the ecology of society.

2.1.1 Changing Nature of Higher Education

Digital technologies continue to transform much of society and are becoming the defining transformative and disruptive innovation for higher education in the 21st Century (Christensen, 2006; Garrison, 2011; Garrison & Kanuka, 2004; Laurillard, 2008). In this review of the literature, the complexities of the changing nature of higher education are explored at the macro-, meso- and micro-levels. As noted by Fanghanel (2007), the meso-level (faculty/discipline) is often subsumed into the macro-level (institution). At this point in the review, the meso- and macro-levels have been combined in order to consider the structures, conditions and functions at play outside the educator's (micro) control.

Higher education challenges.

Macro-level and meso-level.

Four broad challenges that relate to the changing nature of higher education at the macro- and meso- levels include:

1. Consumerisation of learning

The Internet provides access to free or low-cost, high-quality content offering widespread opportunities for formal and informal learning, raising fears this may reduce the appeal of traditional higher education degrees and institutions (Johnson, Adams Becker, Estrada, et al., 2015). MOOCs (Massive Open Online Courses) are a case in point, disrupting traditional models of education. Hart (2014a) refers to this learning trend as the consumerisation of learning, as it enables individuals to customise and personalise their learning (Conway, 2011). Individuals and teams are self-provisioning their learning, increasingly using digital tools and social networks to build trusted personal learning networks of like-minded people to solve their problems, and address their own learning and performance needs (Bexley, James, & Arkoudis, 2011; Bozarth, 2011);

2. Democracy of education

The rising costs of private and public university tuition coupled with the diversification of student cohorts is compounding the challenges facing the higher education ecosystem. The emergence of new models of education that offer students the opportunity to save money and progress faster through degree programs is resulting in students, across the globe, rethinking the value of a traditional university education (Johnson, Adams Becker, Estrada, et al., 2015). Digital technologies provide promise for greater reach, and more and easier access to education outside formal learning contexts (Pachler, Bachmair, & Cook, 2010). Democratisation not only invests in education as a commodity but changes social and behavioural patterns. Learners are challenging the idea that educators are in charge of designing learning by expecting to learn (and work), and study whenever and wherever they want, increasingly in collaborative ways (Garrison, 2011). This suggests learners are becoming more discerning of their own *learning mobility*;

3. Pace of change

The pervasiveness of digital technologies through many aspects of society has resulted in a two-speed pace of change between the higher education system and its surrounding environment (Barber et al., 2013). The pace of change and learning cycles of the higher education ecosystem have traditionally been long and slow to react. In contrast, the learning cycles of the immediate environment, consisting of youth culture, digital technology, knowledge generation, employment demands and the changing nature of work, are short and changing more rapidly (Barber et al., 2013; Bates, 2015; Bryant et al., 2014; Laurillard, 2008). The higher education sector's slowness to react is particularly evident when capitalising on the integration of new technologies to design innovative educational experiences (Johnson et al., 2013; Johnson, Adams Becker, Estrada, et al., 2015); and

4. Globalised workforce

The workforce demands skills from university graduates that are more often acquired from digitally mediated informal learning experiences, yet our university organisational structures are not set up to promote innovations in teaching (Johnson, Adams Becker, Estrada, et al., 2015). Factors contributing to this include:

- The long-held belief that organisational promotion structures reward research rather than innovation and improvements in learning and teaching, resulting in a fear of risks associated with the possible failure of teaching innovations. This leaves little room for experimentation and creativity in innovative teaching practices (Bates, 2015; Johnson, Adams Becker, Estrada, et al., 2015); and
- Despite the widespread importance of digital literacy (for teachers and learners in a knowledge society), training in supporting these skills and techniques is rare to non-existent in the preparation of educators (King, 2003, 2005; Weller & Anderson, 2013). Digital literacy is defined as one's ability to locate, organise, understand, evaluate, analyse, and create information using technology (iNACOL, 2011).

The challenge to institutions that recognise the strategic importance of innovative teaching practices, and therefore offer institution-led professional

development initiatives to advance innovative teaching, is that they are often faced with educators who do not participate in the learning opportunities available to them (Johnson, Adams Becker, Estrada, et al., 2015; Poole, 2009).

Micro-level.

A number of factors contribute to an educator's resistance to institutional level initiatives to foster pedagogical change including a lack of time and a lack of expectation that they should participate, apprehensiveness about working with new technologies, and fear that tools and devices have diluted the focus on teaching. However, much resistance to change is simply due to comfort with the status quo, presenting a much more challenging and complex landscape as it requires an institutional cultural shift to mainstream innovative organisational technology and pedagogy. This requires major shifts in the attitudes of educators as much as it does institutional structures and policies (Bryant et al., 2014; Johnson et al., 2013; Johnson, Adams Becker, Estrada, et al., 2015).

Changing nature of academic work.

The essence of higher education academic work has been captured by Debowski (2012) as "one of the most rewarding yet frustrating and challenging roles anyone could undertake. It is complex, dynamic and rapidly evolving to accommodate the expectations of its many stakeholders" (p. 3). However, Debowski (2012) and Coates (2014) concur that there is much still not known about higher education academic work. Bexley (2013) believes that globalisation and casualisation of the academic workforce, amongst other macro-level forces, is fragmenting the sector to the point that it is inhibiting sustainable growth. As academic work gets more complex and informal learning emerges as an essential part of work, Boud and Brew (2012) emphasise a pragmatic approach where academic work is viewed as a social process occurring within the context of professional practice.

The changing nature of academic work is now investigated at the institutional (macro), faculty (meso) and individual (micro) levels.

Macro-level.

Not only is the higher education ecosystem being challenged by the disruptive forces of the 21st Century, Altbach et al. (2009) report that the academic workforce is

undergoing its own challenges unprecedented in scope and diversity, resulting in claims that the Australian academic profession is in transition (Bexley et al., 2011). The impact of globalisation coupled with the casualisation of the academic workforce has resulted in a mobility within the academic profession (Coates, 2014). Mobility, in this context, is reported by Bexley et al. (2011) as the academics feeling the need to move cross-institutionally (domestically and abroad) seeking academic identity, higher salaries and job security. Furthermore, the profession has lost much of its academic autonomy with accountability and authority in higher education swinging from academics to managers and policy makers (Altbach et al., 2009). Therefore, educational scholars suggest that at the macro-level of the higher education ecosystem, the complex, dynamic and rapidly evolving expectations of the university's many stakeholders is resulting in new tasks, new technologies, new accountabilities and bureaucratic procedures added to the traditional academic responsibilities (Altbach et al., 2009; D. Anderson, Johnson, & Saha, 2002).

Meso-level.

Matthew and Pritchard (2009) claim it would be hard to imagine a university today that was not organised by disciplines and some arrangement of schools, faculties and departments. In the context of the higher education ecosystem, the meso-level is situated at the level of discipline, department, school, and community. Poole (2009) suggests that academics refer to this level as their “academic home”. Furthermore, most academics enter higher education because they are motivated by interest in their discipline (Land, 2012), with a deep commitment to the professional values and scholarship within that discipline (Bexley et al., 2011). Wenger (1998) affirms that the motivation for most professional learning is the desire to enter and be accepted by a specific community of practice and to adopt and practise its ways, behaviours, values and norms. However, in terms of shaping academic and professional identities, Poole (2009) suggests disciplines, as powerful examples of communities of practice, can be as much a “barricade” as a “home”.

Therefore evidence from the literature suggests that the meso-level can act as a positive space to foster professional identity, opportunities for mutual support and collaboration, and generative sources of ideas (Poole, 2009). Conversely, the meso-level could serve to limit perspective, and operate as a place to defend territories and cultivate resistance to corporate, managerial or even collegial others (Poole, 2009).

Academic homes offer security and can create disciplinary silos. Venturing outside, that is, leaving one's discipline to teach or learn in another, requires considerable negotiation regarding the legitimacy of pedagogy, curriculum, discourse, cognition, and student and peer behaviour (Poole, 2009). Paradoxically, disciplines appear to help make sense of our academic worlds while at the same time limiting our ability to do so. Significantly, when considering the relationship between the meso- and macro- layers of academic work, Poole (2009) clarifies that "disciplinary affiliations trump institutional affiliations, sometimes to the chagrin of university administrators" (p.51).

Micro-level.

In a higher education ecosystem that features complexity and uncertainty, it is important not to lose the perspective that educators are the heartbeat of the institution (Debowski, 2012), and the single most important learning resource available to most students (Villar & Alegre, 2007). Research conducted into the core professional values that draw people to academic work reports deep commitment and intrinsic appeal to scholarship, the opportunity for intellectually stimulating work, and a genuine passion for a field of study. Also reported are the opportunity to contribute to new knowledge, the potential to act as an agent of change, and most critically, a love of learning and a desire to share that with others (Bexley et al., 2011; Debowski, 2012). This altruistic perspective of academic work does not factor in the six main external forces inhibiting educators' motivation to engage in their academic work reported by Bexley et al. (2011) as: high stress jobs, insufficient funding and resources, work overload, poor management practice, job insecurity, and insufficient recognition and reward. High stress jobs are characterised as those combining high demands with low control or autonomy (Kain & Jex, 2010).

As the micro-level is concerned with the educator's inner motivations, Debowski's (2012) lived experience of being a long-standing academic affirms that agility and adaptability are the key traits asked of today's educator operating in a rapidly changing higher education context. This means taking the focus away from extrinsic rewards (or barriers), often the seed of stress, such as workloads, tenure and promotion, and resetting the focus on self-awareness and a more anchored sense of identity to sustain the individual through the rough patches of academic work (Debowski, 2012).

Starting with one's self, Debowski's (2012) view is to build a robust sense of the educator's identity, values and beliefs, asking the internal questions of "why" and "how" the educator can enact their role, and raise consciousness of their own personal agency and values to actively contribute and participate as a member of scholarly communities. The challenge manifests as an inner exploration of the ways they will make a difference as an educator, researcher, leader, and engaged scholar (Debowski, 2012). At the micro-level, Debowski (2012) concludes that there are three key influences to being an educator: the individual's own capabilities and talents; the environmental setting and support that is available; and the degree to which the individual commits to developing their personal agency to progress their career.

Workplace learning in Higher Education.

When rethinking workplace learning in a modern society, Jarcho (2012) declares work is learning and learning is work, and to consider them as separate entities is a major business mistake. Attending to the reciprocal nature of work and learning requires a pragmatic approach (Boud & Brew, 2012). The practicalities include challenging traditional thinking where organisations can no longer leave the learning to academic (professional) development units, human resources departments or IT training departments (Jarcho, 2012). Furthermore, as workers by-pass organisational level learning initiatives for self-directed, self-organised and self-managed learning activities, the organisation can no longer expect to control learning (Hart, 2014b). Such a view requires a fundamental shift from a top-down to a bottom-up approach where workers control the learning (Jarcho, 2012).

Macro-level.

From a top-down perspective, the complex organisational structure of universities, coupled with geographically dispersed societies that are digitally networked, translates into new human and social behaviours that place demands upon traditional institutional operational models (McIntyre, 2014). Universities, like all organisations, need to recognise there is as much, if not more knowledge outside any organisation than inside (Jarcho, 2012). Furthermore, when applied to institution-led professional development, digital technologies and personal learning networks have connected educators to scholarly communities, creating a collective

intelligence that is not guided or dictated by the institution's formal learning mechanisms (Cochrane & Narayan, 2013; Webster-Wright, 2009). It democratises learning and characterises the reciprocal nature of being a learner and a teacher in any learning context (Morgan, 2014).

Micro-level.

From a bottom-up perspective, the pragmatics to enact learning as a normal part of work characterises individuals as:

- Driving decisions and conversations around how and when work gets done, who is responsible and what technologies are being used to achieve the work;
- Conceiving of opportunities to learn as being connected anytime, anywhere, and everywhere without being inhibited by geographical, physical or cultural boundaries, suggesting a learning mobility;
- Believing that it is everyone's job to take control of their learning, and to share what they learn; and
- Being adaptable, not just to rapid change but to continual change.

(Hart, 2014b; Jarcho, 2012; Morgan, 2014)

Whether viewing workplace learning from a top-down or bottom-up perspective, the common ground shared across views is the combined ideas of learning, knowledge and autonomy. Learning needs to be put into practice, which comes with a deeper layer of provisioning time and space for reflecting on, and sharing with others, the self-exploration of the practice (Jarcho, 2012). Knowledge is a commodity where Morgan (2014) jests that to be the smartest person in the room, all you need is a smartphone. This shifts the value from knowledge to the ability to learn new things and apply those learnings to new contexts and environments. Autonomy is a powerful motivator that leads to deeper engagement as workers choose what, how, and when they want to learn (Hart, 2014b; Pink, 2011).

These characteristics challenge the main principles of traditional workplace learning models that used extrinsic rewards to enable the organisation to control the content, the delivery, and the outcome of the learning to meet organisational needs (Hart, 2015). A shifting perspective in workplace learning is learning in networks where individuals build their own professional learning networks to exchange ideas and resources with one another (Hart, 2015). Networks require intrinsic motivation

characterised by autonomy, mastery, and a sense of purpose, driven by the deep human need to direct our own lives, to learn and create a true sense of meaning making and agency in all facets of life – at work, at home, and professionally and personally (Jarche, 2013a; Pink, 2011). Whether considering from a top-down or bottom-up perspective, the changing nature of workplace learning in higher education involves a process of ongoing personal development and enrichment whilst attending to the possibility of rapid and radical conceptual change at the individual and institutional levels (Sharples, Josie, & Vavoula, 2007).

2.1.2 The Educator's Learning Ecology

The educator's learning ecology refers to the way educators act and interact from their experiences and perspective within a dynamic, multi-dimensional educational setting. For this reason, Palmer (1998) considers the ecology a high stakes learning environment. Typically, teaching is an activity centred on engaging students in learning, resulting in educators being among the most powerful influences in the learning process (Beetham & Sharpe, 2008; Hattie, 2009; Matthews, 2014). Local, national and global forces, combined with the many expectations of stakeholders including the learning needs and expectations of diverse cohorts of learners, make the professional life of an educator at best complex and, at worst, fragmented, confronting and confusing (Elliott, 2011; Palmer, 1998). However, recent figures indicate that 70 percent of Australian academics have never participated in any kind of formal activity to build their teaching skills and capacity (Matthews, 2014). Bates (2015) attributes this to the traditions of academe. The professionalisation of university educators is "training" through the doctoral route to do research within their discipline field. There is no requirement to be qualified in teaching methods, to engage in the scholarly discourse on learning and teaching, nor to continuously grow and develop their teaching practice (Bates, 2015; Weimer, 2012).

Therefore the educator's learning ecology is complex as the individual constantly experiences the tensions of the traditions of academe and the pull to advance their research profile at the macro-level, with the potential added pressure of subscribing to professional values and discipline norms and expectations. These

conditions inform the complex circumstances under which professional identity is formed, negotiated and mediated.

Understanding professional identity.

The educator's professional identity is theorised as ever-shifting and emergent as opposed to a fixed package of characteristics to which educators can subscribe (Mockler, 2011). The shifting nature of professional identity, described as the plurality of identities, is characterised as multiple and co-existing (Castells, 1997), temporal (Wenger, 1998), dissonant and divergent (Day & Hadfield, 1996) and fragmented (Melucci, 1996). Although Hall (1996) claims identities are never unified but rather multiply, constructed across different and often intersecting and antagonistic practices, positions and discourses, he also implies a higher-order sense of harmony. This represents a paradox where professional identity can be both stable and shifting at the same time.

To make sense of the educator's professional identity paradox, Melucci (1996) clarifies identity as both fragmented due to the co-habitation of a range of identities within an individual, and unified due to the unresolved tension between self-perception and the perception by others. Furthermore, identity is both constant due to the presence of our being, and shifting due to the human nature of ever-changing experiences and evolution. Identity can also be self-directed and externally-directed, mediated by a range of factors both internal and external to the self (Melucci, 1996; Mockler, 2011). The very nature of the paradoxical understanding of professional identity suggests that the process of identity formation is a complex act of negotiation that occurs as an inward and outward expression of self.

Professional identity is formed through discourse, embedded in policy and processes, and manifested through professional practices (Sachs, 2001, 2003). There are two competing discourses which have particular relevance to the higher education ecosystem. At the macro-level is the managerial discourse, whereas at the micro-level is the democratic discourse. These discourses frame and inform the educator's identity and professional practice at the individual and institutional levels (Sachs, 2001, 2003).

Macro-level.

Sachs (2001) characterises the managerial discourse as focusing on accountability, economy, efficiency and effectiveness emerging from various systems and structures at the institutional level. Managerial discourse shapes how educators individually and collectively construct their professional identity and gives rise to an entrepreneurial persona to the outside world.

Micro-level.

Sachs (2001) sees the democratic discourse in direct opposition to the managerial discourse. Democratic discourse gives rise to an activist professional identity. Being an activist means actively engaging in one's own learning experiences that may be impacted by variables within the educator's external environment, yet outside their control. The democratic discourse is an internal conversation as a process of reconciliation (Wenger, 1998) and reflexive negotiation (Archer, 2007) as the educator interacts between the systems and structures existing in their external environment whilst developing a sense of personal agency and identity within their inner being (Mockler, 2011). Reflexivity is concerned with questioning our own attitudes, thought processes, habitual actions, values, assumptions and prejudices to gain a deeper understanding of our complex role in relation to others (Cunliffe, 2009). Therefore to be reflexive is to examine how we are involved in creating social or professional structures and practices within the workplace that may be counter to our own values, and how our behaviours enable us to relate with and to others, and influence or impact organisational practices (Cunliffe, 2009).

Therefore the educator's professional identity is reflexively and emotionally negotiated, and continuously mediated, based on the interaction between their inner world consisting of personal histories and experiences, and their broader, outer world consisting of their professional environment and institutional structures (Mockler, 2011; O'Connor, 2008). Of significance, the interaction, negotiation and mediation between the educator's outer contextual variables and the inner sense of identity is neither simple nor uni-directional, but rather an intricate and iterative process that is unique to the individual, giving rise to the subjective nature of professional identity (Mockler, 2011). Conversation plays a critical role in the subjective reality of reconciling personal and professional identity within the context of their professional

environment (Archer, 2007; Wenger, 1998). The individual's identity is iteratively constructed through internal dialogues that are formed on, and informed by, external conversations. This internal negotiation of personal meaning then shapes the individual's external expression of self, that, in turn, frames and shapes professional identity (Archer, 2007; Mockler, 2011). The multiple, coexisting, and temporal nature of the educator's professional identity can be positive and negative, stable and unstable, and mediated by past and current personal and social histories (Day, Kington, Stobart, & Sammons, 2006).

Importantly, the cornerstone to professional identity is grounded in the educator's experiences of learning that form their beliefs and values about the kind of teacher they hope to be (Mockler, 2011). It could be argued that bringing awareness to the importance of fostering professional identity is an over-looked and under-developed aspect of designing for engaging professional learning experiences in higher education. One of the reasons for this, as implied by Archer (2007), is the critical role internal dialogue plays in the reflexive and emotional aspects of the inner negotiation of identity. Furthermore, Mockler (2011) reminds scholars of the inevitable changing political, social and institutional forces in the external context. The body of knowledge on the educator's professional identity gives insight into the conditions that may serve to enable or inhibit an educator's motivation to engage in professional learning, whilst illuminating a deeper understanding of the relational nature of the individual (micro) learning needs and institutional (macro) learning initiatives.

Changing nature of professional practice.

We have become a digitally networked society best witnessed by the fact that we are becoming comfortable living more public lives. We build communities, share, communicate, collaborate, access information, and shape our personal experiences within an open digital environment (Morgan, 2014). As society's shift to a mobile lifestyle continues (Sherwood, 2013) and the Web continues to democratise learning (Tapscott & Williams, 2010), it can be argued that digitally networked societies for learning, socialising, communicating and conducting business are now accepted as normal practice in many business contexts (McIntyre, 2014). However, Sharples et

al. (2007) contend that although part of daily life, this “normal practice” continues to challenge established practices within higher education.

Challenging established professional practices within the learning and teaching domain of higher education is located in Boyer’s (1990) model of scholarship which advocates for four academic endeavours (scholarships of discovery, application, integration, and teaching), and the UK’s Joint Information Systems Committee (JISC) research on learning literacies which encompasses digital literacy. Boyer (1990) characterises the scholarship of teaching as: depth of subject and discipline knowledge; the systematic study of teaching and learning processes by applying educational theory and concepts to teaching practice; modelling active, lifelong learning as part of teaching practices which develops students as critical and creative thinkers; and the recognition that teachers are also learners (Boyer, 1990; L. Martin, 2007).

JISC’s (2009) work describes learning literacies as the range of practices that underpin effective learning in a digitally networked society. The term “learning literacies” encapsulates the tension between literacy as the generic capacity for critical thinking, communication of ideas and intellectual work – the traditional hallmarks of universities – and the digital networks and technologies which are transforming what it means to work, think, communicate and learn (JISC, 2009). Digital literacy skills in learning and teaching (and research) are essential for educators in advancing their learning literacies capabilities.

Within the context of the scholarship of teaching, and learning literacies, Thota and Negreiros (2015) affirm that new forms of digital interaction, expression, conversation, communication and entertainment continue to challenge educators’ professional practice. The changing socio-technological character of knowledge, creativity, communication and learning is diversifying what it means to be a learner and a teacher, who it is who learns, and the backgrounds and expectations of learners (Jewitt, 2009). The boundaries that separate learners and teachers are collapsing. The resultant impact on the learning context and the relationship between teachers and learners is challenging educators to rethink their traditional pedagogical practices whilst placing new demands on traditional institutional operational models (Jewitt, 2009; McIntyre, 2014; Thota & Negreiros, 2015).

Macro-level.

At the institutional level, McIntyre (2014) contends that universities need to adapt to help educators develop skills and knowledge to understand how technology is used within current work practices, and how to adapt a pedagogy-technology relationship to effect change in practice. Institutionally, training to support learning literacies as mandatory professional development for academic staff is rare to non-existent (Bates, 2015; Johnson, Adams Becker, Estrada, et al., 2015). However, learning-centred educators are beginning to realise that they are limiting their students by not demonstrating, modelling and integrating learning literacy skills into discipline and teaching contexts, and therefore not helping students develop digital literacy (as a subset of learning literacies) competencies to foster success at university and preparedness for the demands of the workforce (Johnson et al., 2013). Furthermore, Bryant et al. (2014) claim gaps in learning literacies, risk taking and other manifestations of passive and active institutional resistance to advance professional practice slows or even reverses the pace and success of change in terms of innovative teaching and pedagogies.

Meso-level.

At the faculty level, Land (2012) contends disciplines develop discipline-based teaching practices. The primary focus is the mechanisms that influence the discipline context, its signature ways of thinking and practising, and accepted conceptual structures and boundaries that enact norms and values within disciplinary communities of practice (Land, 2012; Poole, 2009). Furthermore, Land (2012) suggests that for those working in academe, the training and acculturation required to become a professional scholar continues the academic traditions of acquiring deep knowledge in a specialised field to gain entry to an academic community consisting of “tribal norms” (Land, 2012, p. 38). Immersion within academic tribes, and the related tacit, often unspoken practices, constitutes the process of academic formation of a discipline-based epistemology. Poole (2009) refers to this as a disciplinary homogeneity of thought processes which can serve to limit perspective, and, thus, limit the ability of a discipline to evolve.

Therefore the meso-level can act as a barrier to the educator’s active engagement in the professional practice in two key areas. First, without disciplinary endorsement to challenge discipline-based conceptual boundaries, many academics

are unfamiliar and unaware of the scholarship of teaching literature as it exists outside their discipline (Weimer, 2012). Second, Poole (2009) argues that building comfort within their disciplinary homogeneity creates a kind of boundary that limits the educator's openness and willingness to being able to engage in the language and methodology of the scholarship of teaching. A possible solution, claims Poole (2009), is in fostering cross-disciplinary encounters to overcome the silo effect of disciplinary and faculty conceptual structures.

Micro level.

The dynamics and complexities that exist at the micro- and meso-levels are challenging educators to rethink their professional practices (Thota & Negreiros, 2015). Specifically, Mirriahi et al. (2015) believe that the challenge lies at the individual level with the need to address the low learning literacies amongst teaching staff. Furthermore, Torrisi-Steele and Drew (2013) contend educator's learning literacy adoption continues at a slow pace and often does not encompass effective, transformative pedagogical practices advocated in the scholarly learning and teaching literature. In contrast, Bryant et al.'s (2014) research discovered significant, complex and widespread *individual* engagement in innovative pedagogical practices. However, it was at the localised level with limited cross-pollination between individuals and rarely free from tensions due to the perceived lack of institutional commitment in terms of support, resources, time and space to experiment (Bryant et al., 2014). These competing findings can be attributed to:

- The educators' beliefs and attitudes formed from their experiences with learning literacies (Mirriahi et al., 2015). King's (2005) research reveals that changing educators' beliefs and attitudes is a developmental process in self-understanding that is grounded in examining the rational aspects of the individual's ways of knowing but within an emotional setting. Opening boundaries for educators to understand themselves and their worlds in new ways is an emotional progression from fear and uncertainty, to exploration, to confidence (King, 2003);
- The conservative nature at the institutional level limits innovative institutional policies and strategic initiatives. A shift in institutional perspective is needed to raise awareness of the benefits of effective learning literacies and scholarly teaching strategies. In concert, providing a range of opportunities for professional learning minimises barriers to the actual use of the technologies whilst focusing

on building educators' confidence and awareness of effective pedagogical innovations applicable to their teaching contexts (Garrison & Vaughan, 2011; Mirriahi et al., 2015); and

- Balancing the tensions of meeting the expectation of students who come to the learning environment with their own diverse backgrounds, experiences and learning literacies. Students are expecting guidance, support and training from educators in the effective use of learning literacies within curriculum and within the discipline they are studying (Dahlstrom, 2012).

It is clear that the changing nature of professional practice and the challenges underwriting learning literacies are significant points of tension across the macro-, meso-, and micro-levels. As institutions are exposed to increased pressures to meet the demands of their many stakeholders (such as the diversity of students' needs, the individual and collective educators' needs, disciplinary and faculty needs, and industry and professional bodies expectations, to name a few) in a globalised and competitive market place, Bryant et al. (2014) offer a holistic approach to help resolve the social-technological tensions in the higher education ecosystem. The critical point, suggests Bryant et al. (2014) is to encourage educators to experiment and play, take risks and explore pedagogical innovations whilst making learning about teaching fun. However, implying a systems thinking approach, Bryant et al. (2014) affirm this is only part of a broader strategic process in that universities need to consider ways to build institutional resilience to adapt their core teaching and learning practices to a changing social and digital world.

2.1.3 Summary

For the past twenty years, digital technology has reorganised how we live, learn, work, communicate, connect and lead. When applied to socio-technical changes facing the educator, and the higher education ecosystem more broadly, employing the three level macro- (institutional), meso- (faculty/discipline) and micro- (individual) framework enables a richer investigation into how educators as adult learners learn. This intentional approach to scanning the scholarly literature provides a more insightful, evidence-based inquiry to add new thinking to the possibilities of designing for effective professional learning in higher education.

The exploration of the discourse on the higher education ecosystem and the educator's learning ecology acknowledges the importance of the external forces at the macro- and meso-levels that inform, influence and impact the structures, conditions and functions at play outside the educator's (micro) control. Also uncovered in the review of the literature is the changing nature of academic work, taking a pragmatic view of professional practice in situ with workplace learning. Workplace learning is a function of professional learning that redistributes how educators learn across networks, communities, and conversations both inside and outside institutional structures, conditions and control. This shift in focus is primarily concerned with the educator's inner exploration and negotiation of their professional identity that challenges their values, beliefs and sense of self in ways they can make a difference in the world. Taking a bottom-up approach to workplace learning forefronts the shift from tradition workplace learning models, built on extrinsic rewards that enable the institution to control the learning to meet organisational needs, to a workplace where educators build their own professional learning networks. Networks require intrinsic motivation characterised by autonomy, mastery, and a sense of purpose and agency, driven by the deep human need to direct one's own life.

Fundamentally it shifts the responsibility to the educator to personalise their own scholarly trajectory which capitalises on the view of workplace learning as social, informal, cooperative and, especially, *mobile*. The educator's learning mobility is *much less* concerned with specific structures, hierarchies, tasks and place. It shifts the fluidity of academic work to the activity of learning that is not fixed by time, place and convention. That is, learning how to learn is a continuous, paradoxical, self-inquiry into the educator's professional identity that is both stable and shifting at the same time. The educator's professional identity is reflexive and emotionally negotiated, and continuously mediated. It is based on the two-way conversation between the internal dialogue of the educator's inner world and external conversations with their broader, external professional environment.

2.2 Educators as Adult Learners

In Section 2.2, the focus is on the micro level of the individual educator from the perspective of being an adult learner in order to gain a deeper understanding of how educators learn. The literature is critiqued through the lens of contemporary theories of learning with a particular emphasis on adult learning. The educational discourse is investigated from the theoretical perspectives of a social constructivist orientation, learning-centred approaches, and adult learning principles and practices.

2.2.1 Contemporary Theories of Learning

Contemporary theories of learning are grounded in multiple disciplines: philosophy of education; pedagogical studies; psychology; sociology; and more recently, neuroscience (M. Stewart, 2012). This range of feeder disciplines provides a depth and richness to ways of understanding how people learn. However, it also presents scholars with a complex evidence base clouded by a mix of interpretations with contrasting, sometimes conflicting, vocabularies and epistemologies, resulting in controversy and complexity (M. Stewart, 2012). Norton (2009) suggests that in spite of the criticisms, contemporary theories of learning afford a framework for challenging the status quo and the potential to bring about change in educators' scholarly practices. Developing an understanding of learning theories, and their applications and interpretations, provides a powerful vocabulary for educators to organise their thinking and make sense of their teaching practice. Educators' scholarly engagement in learning theories also acts as a frame of reference to negotiate personal meaning in endeavours to advance innovative pedagogical practices at the discipline and institutional levels (Poole, 2009).

The educational discourse views contemporary theories of learning from four main perspectives: behaviourist, cognitivist and constructivist, social and situated, and humanistic perspectives (M. Stewart, 2012). Figure 2.3 provides an overview of the four theoretical categories of learning, identifying the main characteristics and theorists who influence each perspective. In themselves, the perspectives, and the underlying epistemological orientations, have a degree of variability in the educational literature and between educationalists. For example, Mayes and de Freitas (2008) conceptualise the contemporary theories of learning from the three perspectives of associative, cognitive, and situative, whereas Beetham (2008) uses

the terms associative, constructive, and situative perspectives. Anderson and Dron (2011) refer to the perspectives as cognitive-behaviourist, social constructivist, and connectivist, and Bates (2015) asserts the four perspectives are objectivist and behaviourist, cognitivist, constructivist, and connectivist.

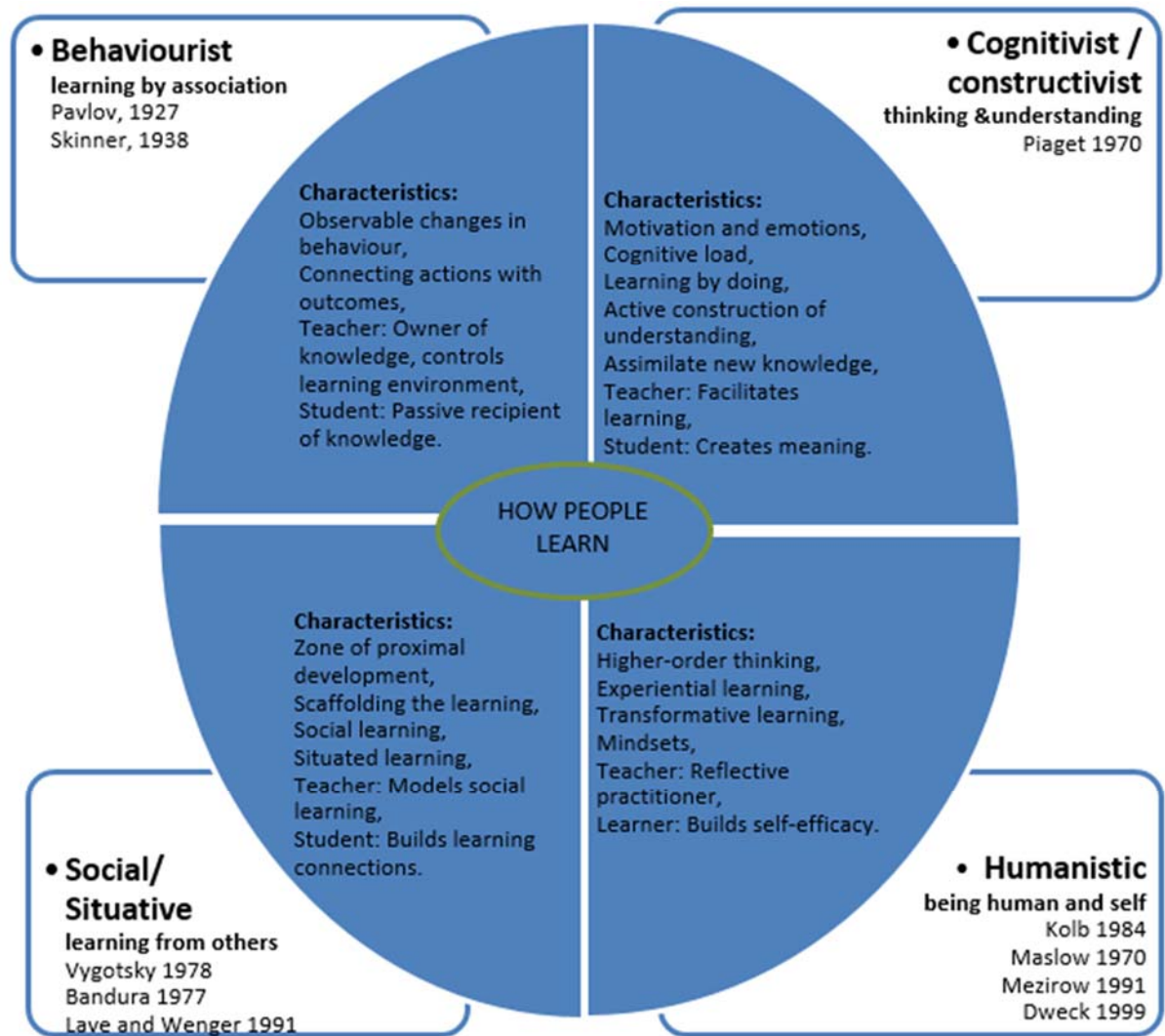


Figure 2.3. Overview of contemporary theories of learning.

This figure illustrates the main characteristics and theorists of the four main contemporary theories of learning (Beetham, 2008; M. Stewart, 2012).

The unifying element of the contemporary theories of learning is that each perspective (and the scholarly interpretations within perspectives) addresses different aspects of the progression towards mastery of knowledge or skills in the quest to understand how people learn: the situative perspective addresses the learner's

motivation; the behaviourist perspective focuses on the detailed nature of performance; the constructive perspective focuses on the role of understanding and reflecting on action; and the humanistic perspective is primarily concerned with the learner's self-efficacy (Mayes & de Freitas, 2008; M. Stewart, 2012).

However, one point of clarification needs to be made between the epistemological foundations shared across the behaviourist, cognitivist and constructivist, social and situated, and humanistic perspectives that is not inherent in the connectivist view. Siemens (2004) makes the distinction that the aforementioned perspectives attempt to address how it is that a person learns through their experiences, conceiving that learning occurs inside a person and does not take into account learning that occurs outside a person, such as learning that is stored and manipulated by digital technologies. The connectivist view is framed within the impact of technology on the knowledge worker where chaos, networks, and complexities develop our competency for forming connections (Siemens, 2004). Connectivism is still concerned with the individual's experience but from the perspective that personal knowledge comprises a network. The network feeds into organisations and institutions, which in turn feeds back into the individuals in the network. The recurrent connection continues to provide learning to the individual. This cycle of knowledge development (personal to network to organisation to person) enables learners to stay current in their field through the connections they have formed in their networks (Siemens, 2004).

Rather than being distracted by the subtleties of language, it is more important to identify the epistemological view shared across the perspectives to support a pragmatic approach to investigating how people learn. The commonality across the various educationalists' perspectives of learning is the central importance of the activity that the learner engages in and the outcomes of that activity to foster change in understanding, perspectives, and meaning making for individuals themselves (Beetham, 2008; King, 2003). For the purposes of this study, the pedagogical orientation guiding the activity of learning implies a socially constructed, learning-centred approach that elevates the importance of the learning context (Laurillard, 1993; Phillips et al., 2011).

Social constructivist orientation.

Constructivism has a long history in cognitive psychology, educational theory and research. The social constructivist stance may be traced to the early 20th Century writings of Dewey (1916, 1938). His pioneering work challenged the authoritarian nature of education models by positioning the learner as an active participant in the learning process to build a sense of self-exploration and growth, and be the creator of understanding (M. Stewart, 2012). Dewey's early views on understanding how people learn were further shaped by Vygotsky's ([1933] 1978) social constructivism. Vygotsky emphasised the social origins of co-constructing understanding through conversations, culture and the interventions of others. The works of Dewey and Vygotsky continue to influence theoretical orientations such as activity theory (Engeström, 1987), social learning theory (Bandura, 1977), situated learning (Lave & Wenger, 1991), transformative learning (Mezirow, 1991), adult learning (Knowles, 1975, 1980), and reflective practice (Brookfield, 1995; Schön, 1983). These, in turn, continue to influence social constructivist pedagogy (Garrison, 2011).

Today, social constructivism takes on the form of the individual, and the relations between individuals, groups, communities, situations, practices, language, culture and society (Biggs & Tang, 2007; Marton & Booth, 1997). The major emphasis of social constructivism is that the learner is central to, and situated in, the activity of learning. Learning activities allow learners to form multi-contextual learning experiences to digest and reflect on knowledge construction, discovery and meaning making, and the associated social interactions that support how people learn (Ally, 2005; Beetham & Sharpe, 2008; Stanton & Ophoff, 2013). Given its application across learning contexts from kindergarten to university, social constructivism comes with many interpretations to the point that scholars (Marton & Booth, 1997; Perkins, 2013) consider it an umbrella term to acknowledge ways to think about good learning and teaching. Furthermore, social constructivism has credibility in educational research when questioning how people learn and understand (Perkins, 2013).

However, employing a social constructivist stance comes with its own set of challenges. At the institutional level, the challenge is to embed social constructivism (in its various emerging forms) as a strategic initiative (Monti, 2011) within the pedagogical affordances of digital technologies, learning literacy and personal

learning networks. For the educator, the challenges stem from time constraints, cognitive demands, the nature of subjective realities, learner motivation, and the changing roles of learner and teacher.

Time constraints, cognitive demands and subjective realities.

Biggs and Tang (2007) warn that constructivist pedagogical practices often require more time to design, develop, implement and evaluate resulting in educators feeling the time pressures and the need to compromise other aspects of their academic work. Constructivist learning experiences can exert high cognitive demands on learners. Not all learners respond well to the challenge, especially learners who approach learning from a teacher-centred, knowledge transmission perspective, e.g., ‘Why don’t you just tell me what you want me to know?’ (Perkins, 2013).

A constructivist orientation assumes there is no single, objective reality (Merriam & Kim, 2012). Therefore social constructivist learning is characterised by Dobozy (2012) as messy, arising from the emotional reactions evoked from learning experiences that ask learners to challenge perspectives, take risks, and engage in the possible dissonance of their inner belief system (Mezirow, 2000).

Motivation: Deep and surface.

Marton and Säljö’s (1979) research informed the discovery of two distinct and contrasting approaches to learning known as deep and surface approaches to understanding when engaging with a learning activity (Ramsden, 2003). Learners who adopt a deep approach are motivated by intrinsic interest, concerned with developing personal understanding through thoughtful analysis of ideas and evidence, and building abstract meaning (Perkins, 2013; Ramsden, 2003). When learning situations trigger this inner need-to-know, learners automatically begin to focus on underlying meaning, key ideas, themes, principles and successful applications (Biggs & Tang, 2007). Learning activities that are designed for deep approaches generate positive emotions and feelings, that is, deep learning engenders interest, a sense of importance, challenge, and exhilaration for learners (Biggs & Tang, 2007). Learning is perceived as a pleasure creating a sense of personal

fulfilment (Ramsden, 2003). The learner's internal dialogue stems from a feeling of needing to know (Biggs & Tang, 2007).

In contrast, learners who adopt a surface approach are often motivated by fear of failure and extrinsic concerns, and focus on memorisation, minimal effort and procedural learning (Perkins, 2013). For surface learners, emotionally, learning becomes a drag, a task to be got out of the way, generating negative feelings about the learning task such as anxiety, cynicism, boredom and resentment (Ramsden, 2003). The surface approach does not engender exhilaration or enjoyment of the task. The learner's internal dialogue relates to getting the task out of the way with a minimum of trouble (Biggs & Tang, 2007).

A third distinction can also be known as "strategic". Taking a strategic approach to learning means learners develop a systematic way to manage time carefully to attain high grades or other rewards (Perkins, 2013). Of significance, the deep, surface and strategic educational methodologies have been applied in higher educational research contexts to understand and compare variations in students' and teachers' conceptions of learning (M. Stewart, 2012).

Deep and surface approaches to learning have an association with the humanistic orientation of Dweck's (2006) belief system work surrounding intrinsic motivation and intelligence. Dweck's (2006) theory of intelligence proposes that learners sit somewhere along a continuum of mindset between a fixed and growth view of their intelligence. A growth mindset has a belief system that basic qualities can be cultivated through challenge and effort. Learners with a growth mindset believe learning and self-improvement are a function of resilience built on confronting life's obstacles and setbacks, converting failure into a learning opportunity, and stretching oneself to learn something new (Dweck, 2006). In contrast, a fixed mindset views (learning) success as a function of innate ability. Demonstrating effort, of trying and possibly failing, is the worst fear within the fixed mindset (Dweck, 2006). Coming to understand our mindset can affirm or change our inner belief system as the view we adopt of ourselves can profoundly affect the way we lead our lives.

Shifting nature of roles.

Constructivism emphasises a shift in the roles of learner and teacher, asking for active engagement of both learners and teachers to create a learning-centred focus (Biggs & Tang, 2007). Building on the work of philosopher D. C. Philips (1995), Perkins (2013) reports three distinctive learner roles:

- Active learners: Knowledge and understanding is actively acquired by exploring, discussing, investigating and considering others' viewpoints;
- Social learners: Knowledge and understanding is socially constructed as part of the social act of dialogue with others; and
- Creative learners: Knowledge and understanding is created or recreated by the learner for themselves.

Learning-centred focus.

Learning has been the focus of research by psychologists and educationalists for a long time, yet Biggs and Tang (2007) remark little has directly resulted in improving teaching. However, Weimer (2012) declares that teachers across disciplines are noticing that learning-centred approaches are resulting in experiences that permanently change how students view learning and how educators approach teaching. Conceptions of teaching are commonly found to fall into two main orientations, teaching as information transmission, also known as teacher-centred and content-oriented, and teaching as supporting students' learning, also known as student-centred and learning-centred (Kember, 1997; Norton, 2009). Learning-centred refers to efforts by educators to use instructional approaches and learning activities that develop student autonomy and responsibility for learning (Weimer, 2012). In contrast, teacher-centred approaches focus on teachers being the content expert and effectively imparting that knowledge to their students (Biggs & Tang, 2007; Norton, 2009). There are many challenges to, and subtle differentiations in, the interpretations of the two orientations (Norton, 2009).

It is not the purpose of this study to critique the evolutionary elements that underpin the discourse of teacher-centred and learner-centred. Nor is it the purpose of the study to debate the terms "learning-centred" and "learner-centred" as Weimer (2012) confirms the terms are used interchangeably in the educational discourse. It is

more relevant to this investigation to recognise that the days of being an “expert” have changed.

Bersin (2012b) affirms that in today’s rapidly-moving knowledge economy, professionals in every discipline have to learn continuously. Although Bersin’s (2012b) insight comes from an industry perspective, the applicability across boundaries is significant. The warning is clear, if the organisation and staff within the organisation are “not continuously developing new skills and learning from your customers, the market, and your own teams - you will fall behind” (Bersin, 2012b, p. 1). A learning-centred ideology then is far-reaching. When applied to the higher education sector, all stakeholders within the university – executive, educators, administrators, and students - are developing skills to learn continuously, across learning contexts. Therefore learning-centred, argues Garrison (2011), is a unifying process where the activity of learning has value for students, teachers, the institution and the larger society.

The key characteristics presented in the educational discourse that frame a learning-centred approach are:

- **Meaningful connections:** Learners connect and build bridges between what they already know and new contexts, material, experiences. Constructivist pedagogy scaffolds learners’ self-responsibility in the learning activities;
- **Power and control:** Learning-centred techniques shift the power dynamic between the teacher and learner. The role of the teacher moves from directing and controlling the learning process to facilitating and supporting learners to learn. Adult learners respond favourably to controlling their own learning and collaborating with others; and
- **Motivation and decision making:** When learners have autonomy, it has a powerful and lasting effect on their motivation to learn as it places them in control to make decisions about the learning process (Uzunboylu & Ozdamli, 2011; Weimer, 2012).

Considering these characteristics provides deeper insights into how educators learn and helps inform the purpose of this research study.

2.2.2 The Foundations of Adult Learning

Adult education has been strongly influenced by humanist psychologists such as Maslow (1970) and Rogers (1969). Humanistic assumptions in adult education are founded on the idea of freedom and autonomy (Cranton & Taylor, 2012). Maslow's concept of self-actualisation is based on a hierarchy of needs, drives and human motivations which infer the characteristic of acceptance of self and others. Rogers inspired Knowles' (1975, 1980) theory of self-directed adult learning. The core assumptions underpinning the humanistic approach to adult education are grounded in the belief that human nature is inherently good and includes the assumptions that:

- Individuals are capable of making major personal choices;
- Human potential for growth and development is unlimited;
- Self-concept plays a significant role in growth and development;
- Individuals have a desire to move towards self-actualisation;
- Reality is defined by the individual; and
- Each person has responsibilities to themselves and to others (Elias & Merriam, 2004).

Therefore, the goal of adult education, in Mezirow's (1991) view, is to help adult learners become more critically reflective, participate more fully and freely in discourse and action to validate one's beliefs, and challenge meaning perspectives to move towards a more inclusive, holistic experience of learning in adulthood. The role of adult education is to enable adults to realise their potential for becoming more socially responsible, autonomous thinkers who engage in reflective practice to make informed choices and build a sense of personal efficacy. This process of self-empowerment enables individuals to acquire greater control of their life as a liberated, lifelong learner (Mezirow, 2000).

Adult learning in theory.

Adult learning, as made distinct from children's learning by Knowles (1975, 1980), is described as voluntary in that individuals choose to be involved, self-directed, collaborative and experiential. Adult learning theory has evolved into a complex, multifaceted arrangement of theoretical perspectives (Cranton & Taylor, 2012). Mezirow (2000) reasons this is due to development in adulthood being a

learning process within itself, influenced by the uniqueness of our interests and priorities as they change through the stages of our lives. The phases of our life offer opportunities for the transformative process of meaning making to become illuminated through expanded awareness, critical reflection, validating discourse, and reflective action, as we move towards a fuller sense of agency (Mezirow, 2000).

Dirkx (1997, 2001) has been critical of much theory and practice of adult learning as marginalising emotions and elevating rationality and cognitive processes. Dirkx (2001) notes that teachers within formal adult learning contexts seek to control, manage, limit or redirect the adult learners' outward expressions of emotions and feelings so that they can get back to the business of teaching. Brookfield's (1986) work on understanding and facilitating adult learning shifted the emphasis beyond the cognitive processes of learning and drew attention to the social context. Merriam's (2008) contributions to the evolution of adult learning theory assimilated the epistemological perspectives of constructivist theory, feminist theory, critical social theory, and postmodern theory. A constructivist orientation, in Merriam's (2008) view, assumes there is no single, objective reality. An individual's reality is based on their interpretation, resulting in many possible constructions of reality (Merriam & Kim, 2012). Feminist theory and critical social theory suggest that reality is multiple and meaning is constructed as in the constructivist perspective but also seeks to empower learners to be able to change their lives for the better. A postmodernist perspective recognises a diverse world with multiple realities to the point that there is no single "truth," but rather multiple 'truths' (Merriam & Kim, 2012, p. 60).

Today, adult learning scholars are moving toward the integration of various divisions of the theory to shape a holistic perspective that embodies learning in all its forms – the emotions, spirituality, relational learning, arts-based learning, and storytelling (Cranton & Taylor, 2012).

Characteristics of adult learners.

In his seminal work on adult learning, Knowles (1980) noted qualitative differences to learning engaged in during the early years of life as compared to learning in adulthood. The more recent work by developmental psychologists Kegan and Lahey (2001, 2009), whose work involves bringing the field of adult learning to

organisational life, championed the idea that there is *life* after adolescence. Their research explored the possibilities of shifts in the expansiveness of our mindsets and our ability to evolve whole patterns of increasingly complex and agile ways of apprehending the world as we continue to grow (Kegan & Lahey, 2001, 2009).

In his andragogic model, Knowles (1980) differentiated adult learners as pursuing learning from their needs and applying it into their settings. He proposed six key characteristics, which in dynamic conjunction with each other, made for this difference: the need to know; a self-concept of being responsible for decisions; having experience; the presence of a readiness to learn; a life, task or problem orientation; and internally driven motivation, as detailed in Table 2.1 (Knowles, 1980). Other educational scholars, for instance Schön (1983) and Mezirow (1991), emphasised reflection-on-action and reflection-in-action as critical processes, with Mezirow citing Habermas's (1971) emancipatory cognitive knowledge (our ability to be self-determining and self-reflective) as distinctive in the adult learning domain.

Table 2.1. Characteristics of adult learners.

Characteristic	Description
Self-concept	Adults gradually become self-directed and move away from being dependent on others as young people are. They develop their own personality and clear self-concept of themselves.
Experience	Adults accumulate significant and numerous life experiences upon which they are able to draw as a resource for learning, unlike young people who have relatively few experiences to draw upon.
Readiness to learn	Adults have a greater inclination to learn by themselves without being directed as young people need to be. This is linked to their emerging social roles in society.
Orientation to learning	Adults are orientated towards “just-in-time” learning, rather than “just-in-case” learning which characterizes the learning which occurs in schools. Therefore adults adopt a more pragmatic approach to learning which is focused less on the subject of learning and more on its applications (e.g., problem solving).
Motivation to learn	Adults develop an intrinsic motivation to learn in contrast to young people who tend to be motivated by extrinsic factors (e.g., rewards, rules, punishments)
Need to know	Adults need to know why they need to learn something.

(Adapted from Knowles, M. S. (1980). *The modern practice of adult education:*

From pedagogy to andragogy. Cambridge, USA: The Adult Education Company.)

In summary, in recognition of educators as adult learners, designing for effective professional learning experiences must attend to the key characteristics of how people like to learn in adulthood. These characteristics are: Educators come with a wealth of knowledge and experiences; they are eager for immediate and practical educational application; they are responsive to learning-centred learning and teaching; and they are intrinsically motivated when possessing learner control and autonomy to develop their own self-directed learning perspectives (King, 2003; Mezirow, 2000).

Adult learning in practice.

When applying the theoretical concepts of adult learning to rethinking the design for effective professional learning, attention needs to be given to fostering a learning-centred approach to the educator's learning context.

Learning context.

Luckin (2010) reports that a lack of attention has traditionally been paid to the learner's wider context. The learning context, in Luckin's (2010) view, needs to be reframed as the interactions between the educator and any configuration of inter-related elements that belong to, and are created by, the individual and their connections in the world. With the shift to personalised and informal learning that is not tied to a physical or virtual location, the educator's learning context is often evolving outside the highly structured traditions of universities (Garrison & Kanuka, 2004).

Furthermore, mobile digital technologies are transforming much of society, compelling educators to confront existing assumptions of learning and teaching at the individual (micro) level and sectoral traditions at the macro-level (Garrison & Kanuka, 2004). Educators are realising that new and emerging mobile digital technologies have become the catalyst to rethinking pedagogical innovations in terms of flexibility, mobility and connectivity to create fully engaged communities of learners independent of time and space (Garrison, 2011). Therefore, the learning context is shifting in response to the learner's desire to engage in learning across the boundaries of time, space and the activity of learning (Jarcho, 2012, 2013b).

Designing for learning needs to harness the potential for learning mobility within, between and outside the classroom to meet the increasing need for more personalised, emergent, self-directed and informal learning contexts (Jewitt, 2009).

Learning-centred approach to the educator's learning context.

When considering the educator's learning context has mobility across the boundaries of time, place and the activity of learning, learning becomes very personal to the educator (Hattie, 2009). Nuthall (2005) expresses this as three worlds: the public world of more formal, structured learning and work tasks; the private-social world of informal peer conversations and interaction; and the private-individual world of self-talk, feeling and thinking. Importantly, each world has its own characteristics and patterns of behaviour, interaction, structures, customs, rules, roles, values, expectations, and discourse (Nuthall, 2005). Furthermore, Nuthall's (2005) learning-centred approach to understanding learning and teaching found that learners lived in a private-individual and private-social world within the more formal learning environment. In addition, learner engagement was often critically dependent on private or peer talk generated within more informal, unstructured learning environments, or internalised as self-designed learning activities (Nuthall, 2005). All three worlds attempt to address how it is that a person learns. Of particular interest when considering the effective design for professional learning is the private-individual world of self-talk, self-designed learning activities, feeling and thinking, which Siemens (2004) refers to as learning that occurs "on the inside."

Characteristics of a learning-centred approach in the educator's learning context.

In cultivating a learning context from the perspective of educators as adult learners, King (2003) emphasises five distinctive characteristics of adult learners that need to be integrated into the activity of learning: they come with prior experience; they are keen for immediate practical application; they respond to learning-centred approaches that foster self-directed inquiry; they are motivated by autonomy and personal control; and they are self-directed.

Therefore when designing for professional learning from the stance of educators as adult learners, practical considerations include a blending of formal and

informal learning, opportunities for learner autonomy and control, which brings to the forefront the idea of *metalearning*, and *mindful* learning.

Blending formal and informal learning.

Informal learning can be defined by its contrast with formal learning. Formal learning may be characterised as institutionally sponsored, often classroom-based and highly structured (Marsick & Watkins, 2001). In contrast, informal learning, which includes incidental and serendipitous learning, may happen at the institution level, but is generally not classroom-based or highly structured. Although informal learning can be deliberately encouraged by the institution, control in informal learning settings sits primarily with the learner (Marsick & Watkins, 2001). Both formal and informal learning may be intentional, described by Mezirow (2000) as the result of deliberate inquiry. Incidental learning is considered a by-product of another activity involving intentional learning (Mezirow, 2000). Informal and incidental learning normally take place without much external facilitation or structure as they are triggered when educators have a learning need, motivation and opportunity for learning (Marsick & Watkins, 2001).

The interactive nature of the Web has serviced an increasing interest in self-directed, curiosity-based learning and the growth of personal learning networks. These more serendipitous forms of learning foster learner engagement by encouraging learners to follow their own learning pathway and interests (Johnson, Adams Becker, Estrada, et al., 2015). Furthermore, Johnson, Adams Becker, Estrada, et al. (2015) suggest many educational scholars believe that a blend of formal and informal approaches to learning and teaching can create a higher education environment that cultivates experimentation, curiosity, and above all, learning creativity for the teacher as well as the learner.

Although many workplaces already encourage informal learning approaches to professional development, the challenge is that people rarely receive formal or substantial recognition for such learning experiences. The invisible and spontaneous nature of informal learning creates a shaky precedent for informal learning recognition at universities (de Laat & Schreurs, 2013; Johnson, Adams Becker, Estrada, et al., 2015).

Metalearning: Autonomy and control.

The idea of metalearning was originally conceived by Biggs (1985) as a term to describe being aware of and taking control of one's own learning. Metalearning is perceived by Jackson (2004) as a creative awareness displayed by people who deliberately self-regulate learning as a way of life. Metalearning also requires metacognition, that is, higher order thinking to actively control the cognitive processes when engaged in thinking and knowing (Jackson, 2004).

The challenge of instilling a metalearning approach into adult learning contexts is that educators need to have knowledge and understanding of how they learn. Additionally, they need to be motivated to, and have the capacity for, taking control of their learning and regulating their actions and behaviours in ways that heighten their awareness of self (Jackson, 2004).

Similar to the concept of metalearning, learner autonomy is the ability to take charge of, and become responsible for one's own learning (Holec, 1979), as a process of self-regulation and self-determination (Ryan, 1991). Autonomous learners make decisions on what and how to learn, understand their learning needs, reflect on learning critically, and maximise opportunities to practise inside and outside the classroom (Snodin, 2013). Furthermore, autonomous learning enables the learner to establish a personal agenda for learning to the point of being totally responsible for all the decisions, and the implementation of those decisions, related to learning (Dickinson, 1992; Little, 1995). Such learning contexts affirm their individuality and cultivate their personal direction in a world that they themselves have partially created (Littlewood, 1996).

The challenge with autonomous learning is the ability to match the different aspects of autonomy with the characteristics and needs of learners in specific learning contexts (Snodin, 2013). Moreover, autonomy is a recognition of the *rights of learners* within educational systems (Benson, 2013) which requires learners to have a sense of personal agency and locus of control (Snodin, 2013). The learner's locus of control feeds into the concept of self-efficacy, which is seen increasingly as central to learner engagement (M. Stewart, 2012). Self-efficacy refers to a person's belief in their capabilities to make a difference and succeed (Bandura, 1977). A strong sense of self-efficacy is needed when positioning educators to challenge their

teaching practices and strive for difficult learning goals (Bandura, 1977). Snodin (2013) attributes the cultivation of the educator's locus of control to the possibility for growth and change within professional learning as ownership of the change percolates from the bottom up (micro level) through to institutional systems and structures (macro level).

As discussed in Section 2.1.2, understanding professional identity is a complex field as identity is a moving intersection of the inner and outer forces that makes an individual who they are (Palmer, 1998). The complexity of being an educator is one factor that influences an educator's resistance to taking control of their professional learning. Being empowered to meet the complex challenges of being an educator suggests openness to serendipity and the possibilities inherent in taking charge of one's own learning (Elliott, 2011). Although there is an element of the fortuitous appeal to serendipitous learning, the learning is in the doing which comes through a learner's raised conscious awareness, cognitive presence, and heightened sense of reflective and critical thinking (Garrison, 2011).

Mindful learning.

Mindful learning is the continuous creation of new ways of understanding, openness to new information, and an inherent self-awareness of more than one viewpoint (Mezirow, 2000). In contrast, *mindless* learning relies on past forms of action without becoming conscious, or self-aware of how we function (Cranton, 2000). As learners, we are more likely to manifest an authentic sense of self through the practice of self-awareness and mindfulness (Brown, 2010; Cranton, 2006). When it comes to designing for adult learning contexts, the challenge is to be cognisant that learning may be intentional as the result of deliberate inquiry, incidental as a by-product of another activity involving intentional learning, or mindlessly assimilated (Mezirow, 2000).

2.2.3 Summary

In Section 2.2, a social constructivist orientation to investigate how educators as adult learners learn has been taken. The epistemological view shared across contemporary theories of learning is the central importance of the activity of learning, and the outcomes of that activity to cultivate change in ways of

understanding and meaning making at the individual level. The pedagogical orientation guiding the activity of learning involves a socially constructed, learning-centred approach that recognises the importance of the learning context. In response to shifts towards personalised, self-directed, informal learning that has mobility across the boundaries of time, place and the activity of learning, the educator's learning context begins to develop outside the highly structured traditions of universities.

Designing for professional learning needs to harness the potential for learning mobility within, between and outside traditional learning environments. Enabling learning opportunities beyond traditional boundaries cultivates the educator's natural motivation to engage in professional practice in the form of meaningful learning connections, a sense of personal power to take control of their learning, and autonomy to make decisions about how they come to the learning, how they learn, and what they do with the learning.

The emphasis of social constructivism is that the educator as adult learner is central to, and situated in, the activity of learning. Reported challenges inhibiting an educator's willingness to actively engage in learning-centred approaches are attributed to time constraints, cognitive demands, the nature of subjective realities, learner motivation, and the changing roles of the learner and the teacher. Learning in adulthood embodies self-empowerment, self-regulation and self-determination. Educators who cultivate their own growth and development to deepen their understanding of their professional practice become liberated, lifelong learners. They take control of their learning, make and enact decisions, become socially responsible, autonomous thinkers, and engage in reflective practice to make informed choices and build self-efficacy.

However the dynamics of learning in adulthood also mean the educator's learning context is often messy as it evokes emotional reactions to learning experiences that ask educators to challenge perspectives, take risks, and openly engage in the possible dissonance of their inner belief system. When educators become aware of their inner belief system they become open to harnessing their metalearning capabilities. The educator's inner belief system therefore has significance when designing for effective professional learning as the educator's

self-concept and developing sense of identity inherent in their inner belief system can enable or inhibit their motivation to engage in their professional practice.

2.3 The Practice of Transformative Learning

In this section, transformative learning, a contemporary theory of adult learning, is reviewed with an emphasis on a unified transformative learning approach. A unified theory of transformative learning acknowledges the co-existence of the rational, cognitive perspective with the extrarational, affective and conative perspective that enables educators to experience personal and professional growth and development as they come to learn who they are. Both the rational and extrarational perspectives are concerned with freedom, autonomy, choice and the importance of self-awareness in coming to understand our own nature through the Jungian concept of *individuation* (Cranton & Taylor, 2012). Jung ([1921] 1971) defines individuation as the process by which individuals differentiate themselves from the general, collective society. People come to see how they are both the same as and different from others.

Investigating how educators learn from a unified view of transformative learning focuses on individual perspective transformation as people construct personal meaning related to self. Our meaning structures, referred to as our frame of reference, act as a perceptual filter known as our habit of mind to interpret the meaning of the experience. To develop a deeper understanding of how educators learn in order to design for effective professional learning is to focus on the educator's sense of self as a psychological habit of mind. Our psychological disposition is concerned with our self-concept, our personality, our ways of feeling and acting in adulthood that acts as a filter for interpreting the meaning of the learning experience, making judgement on those experiences and taking action.

2.3.1 Transformative Learning Theory

Mezirow introduced the theory of transformative learning to the field of adult education in 1975. In 1991, Mezirow published his seminal book, *Transformative Dimensions of Adult Learning*, which serves as the basis for transformative learning theory as we know it today (Lawrence & Cranton, 2015). The emergence of Mezirow's transformative learning theory drew on social philosophy (Habermas),

conscientization (Freire), and psychoanalysis (Gould) (Lawrence & Cranton, 2015). Mezirow's (1978) early insight affirmed that behavioural change is a function of perspective transformation involving a structural shift in the way we see ourselves, our relationships and the underlying inner criteria for valuing and taking action. Even at the early stage of theory formulation, Mezirow (1978) emphasised that if culture permits, transformation involves *unity* as we move towards perspectives that offer a more inclusive, discriminating and integrative experience.

The core concept of transformative learning theory in Mezirow's (2000) view is the realisation that there are no fixed truths or definitive knowledge. In a world of constant change, the human condition to make meaning is a continuous learning process (Mezirow, 2000). Transformative learning involves "reflectively transforming the beliefs, assumptions, attitudes, opinions, and emotional reactions that constitute our meaning schemes or transform our meaning perspectives" (Mezirow, 1991, p. 223). Humanistic and constructivist assumptions are inherent in Mezirow's (2000) conception of transformative learning theory. The humanistic assumptions of transformative learning theory are concerned with the individual's ability to make choices, define their own reality, and have the potential for growth and development (Cranton & Taylor, 2012). The constructivist assumptions of transformative learning theory are based on Mezirow's (1991) ideology that meaning exists within ourselves, not in external forms. We develop or construe personal meaning interpreted from our experiences, make judgements on those experiences, and validate it through interaction and communication with others (Cranton, 2006; Mezirow, 2000).

Transformative learning process.

As this research study is concerned with how educators learn, the process of transformative learning focuses on a deeper investigation into the ways people construct personal meaning related to self. Mezirow (2000) describes our meaning perspective as a habitual set of expectations that establishes an orienting frame of reference. A frame of reference for meaning making is composed of two dimensions: a habit of mind and resulting points of view. A habit of mind is a set of assumptions that shapes our perceptions, cognition, feelings and disposition to form our overall world-view (Mezirow, 2000). As we experience the world around us, our habit of

mind acts as a perceptual filter to interpret the meaning of the experience (Cranton, 2000). This screening process helps us make sense of our experiences, set personal rules, make judgements, and express points of view as we participate in society (Mezirow, 2000).

The challenge with this line of thinking is that meaning structures commonly operate outside of awareness due to our most guarded beliefs about ourselves and our world. Mezirow (2000) identifies this sense of self as a psychological habit of mind concerned with our self-concept. Our habit of mind is inferred and hardcoded into our dualistic sense of self (we are smart or dumb, good or bad, winner or loser). The way we see ourselves and interpret experiences is further influenced in our unconscious by our cultural background, emotional responses, behavioural patterns, knowledge acquisition, and moral and spiritual beliefs (Cranton, 2000). Our sense of self and our underlying values anchored in our frames of reference provide us with a sense of stability, coherence, community and identity. The result is that each person can live in a different (their own) reality (Mezirow, 2000).

Consequently, our psychological sense of self is often emotionally charged and strongly defended (Mezirow, 2000). Others' viewpoints that call our sense of self into question may be dismissed as distorting, deceptive, or ill intentioned. A more dependable psychological frame of reference is considered by Mezirow (2000) as more inclusive, differentiating, open to other viewpoints, critically reflective of assumptions, emotionally capable of change, and integrative of experiences.

A unified theory of transformative learning.

Since 1978, the field of adult learning has struggled with the multiple meanings, dimensions, interpretations, and implications of transformative learning (King, 2005). The evolutionary nature of the theoretical perspectives of transformative learning proposed by researchers and theorists is a demonstration of the complexity that surrounds adult learning and adult development.

Mezirow's earlier studies were criticised for being too cognitive with a focus on rational processes, and that he ignored action that challenged societal norms (Lawrence & Cranton, 2015). There was also tension between Mezirow's emphasis on individual transformation and the work of later theorists who felt the social dimension of change was equally important (Merriam & Kim, 2012). Within the

focus on individual transformation, further fragmentation occurred as much transformative learning research recognised the powerful emotional and behavioural antecedents to an individual's perspective transformation (Merriam & Kim, 2012).

Of significance, and as advocated by Cranton and Taylor (2012), a closer inspection of the other perspectives attend to, and connect with Mezirow's understanding of transformative learning. Transformative learning is not described as an entirely rational process, but rather one that includes processes that are extrarational – the emotional and behavioural aspects (Lawrence & Cranton, 2015). Indeed, Mezirow (2000) clearly announces that intuition, imagination and dreaming are other ways of making meaning. Furthermore, an imaginative, intuitive or spiritual approach to learning still relies on the construction of meaning from experience which is an essential element in the transformative learning process (Cranton & Taylor, 2012).

The varying transformative learning perspectives do not need to be contradictory. A contradictory mindset only serves to fragment the transformative learning theoretical framework. A harmonious interpretation, in fact, recognises the overlap and the fragile nature of the boundaries between the alternative perspectives seem artificial in an attempt to make a distinction between them (Cranton & Taylor, 2012). Transformative learning scholars (Cranton & Taylor, 2012; Lawrence & Cranton, 2015; Merriam & Kim, 2012) recognise the evolutionary nature of transformative learning and advocate for a unified, holistic approach that acknowledges the iterative nature of the theory in response to changing environmental factors.

Potentially the bigger challenge to transformative learning as a contemporary theory of learning is not in the evolutionary nature of the theory and its application into varying educational contexts. Scholarly discourse has always been rooted in challenging earlier interpretations to make sense of current contexts. Weimer (2012) clarifies that the bigger challenge is that it is known primarily only to adult educators although it is relevant to teachers and learners in every discipline. Educators in other disciplines are often not expected to read educational literature (Poole, 2009). Those few who tend to read anything pedagogical rarely venture beyond their own discipline to the point that it perpetuates a wicked challenge to innovative teaching,

described by Weimer (2012) as a circular conundrum that divorces the scholarship of teaching from professional practice, to the detriment of both.

2.3.2 Rational and Extrarational Processes of Transformative Learning

In contrast to Mezirow's cognitive approach is the extrarational approach or, as termed by others, the depth psychology approach (Cranton & Taylor, 2012). Depth psychology theorists (Boyd & Myers, 1988; Dirkx, 2001) locate transformation within the Jungian concept of individuation. In Dirkx's (2001, 2012) view, Jung's individuation approach to transformative learning moves beyond the cognitive rationality of meaning making to the more unconscious, imaginative, and extrarational processes.

The unified transformative learning approach that informs this research study is to consider the rational, cognitive assumptions with the extrarational, affective and conative assumptions. Both the rational and extrarational perspectives are concerned with freedom, autonomy, choice and the importance of self-awareness in coming to understand our own nature through the Jungian concept of individuation (Cranton & Taylor, 2012). Furthermore, recent studies in transformative learning (Dirkx, 2006, 2012; King, 2005; Lawrence & Cranton, 2015) reveal the extrarational aspects such as emotion, feelings, intuition, imagination, soul and spirituality as fundamental to the process of deep, significant change and personal growth. Whether scholars align themselves to the rational or extrarational perspective of transformative learning, King (2005) believes transformative learning emerges as a new framework for understanding our lives, our psychological sense of self, the inner being of the adult. The essence of transformative learning is the dynamic process learners experience "as they gain new discernment and knowledge, wrestle with its meaning, and determine how to reintegrate their learning and insight into their existing, and changing, perspectives" (King, 2005, p. 2).

Rational process of perspective transformation.

Mezirow's (2000) process of personal perspective transformation consists of ten steps starting with a "disorienting dilemma" and finishing with a "reintegration" of the new perspective into our lives (Merriam & Kim, 2012). The ten steps are often recognised and articulated as the four core steps of perspective transformation: a

trigger or disorienting dilemma; critical reflection; discourse with self and others; and action (Cranton, 2006; Mezirow, 2000).

Transformative learning is often triggered by a catalyst event that frequently leads to change (Lawrence & Cranton, 2015). The trigger surfaces as an internal or external stimulus that signals dissatisfaction with current ways of thinking or being (Marsick & Watkins, 2001). Mezirow (1991) refers to this as a disorientating dilemma. Whether or not the trigger event serves as a catalyst for transformative learning depends upon many factors, including a person's readiness and openness to be transformed, and their growth and maturity cycles (Lawrence & Cranton, 2015). Furthermore, the provocation of the disorientating dilemma may be an externally manifested trigger event outside the control of the individual, internally manifested as a growing self-awareness, or below consciousness and invisible to our meaning structures (Lawrence & Cranton, 2015).

What Mezirow refers to as disorienting dilemma, Dewey (1933) wrote of:
A state of doubt, hesitation, perplexity, mental difficulty, in which [reflective] thinking originates, and...an act of searching, hunting, inquiring to find material that will resolve the doubt, settle and dispose of the perplexity. (p.12)

Mezirow (1991) argues that learners experience personal and intellectual growth when confronting disorienting dilemmas. They examine their assumptions related to the contradictory information, engage in conversation with others in order to better consider alternative perspectives, determine validity through reflection, and ultimately acquire new knowledge, attitudes, and skills in light of these reflections (Cranton, 2006; Henderson, 2010).

Critical reflection is the central process in transformative learning (Mezirow, 2000). Reflective practice has typically drawn on the theoretical orientations of Dewey (1933) and Schön (1983). Dewey (1933) defined reflection as "active, persistent and careful consideration of any belief or supposed form of knowledge in light of the grounds that support it and the further conclusion to which it tends" (p. 9). Meaning making from a transformative learning perspective is about becoming critically aware of our tacit assumptions and experiences as well as those of others, and the ways we assess and interpret such experiences (Mezirow, 2000). A natural human interest in emancipation (growth and development) drives us to reflect on the ways we see ourselves, our history, our knowledge, and our social roles (Cranton,

1996). Aspects of critical reflection that are consistent with transformative learning theory include:

- Reflection as problem-solving: Integrates the thinking, rational process of problem-solving situated in Dewey's (1933) writings with the affective domain (feelings and beliefs) of problem-solving (Boud, Keogh, & Walker, 1985);
- Reflection as a conscious, rational process: Dewey (1933) describes the nature of reflection as a conscious, deliberate act of inquiry that involves a state of doubt, hesitation, perplexity and mental difficulty. The practice of reflective thinking serves to enact searching and hunting for materials to resolve the doubt and perplexity. Brandenburg (2013) reports that Dewey's (1933) view of reflective practice emphasised three attitudes to cultivate the union of inquiry with the creation of knowledge. Dewey's three attitudes of open-mindedness, whole-heartedness and responsibility are the predispositions to reflective practice;
- Reflection as an intuitive process: Unlike Dewey's view of reflection as a rational process, Schön's (1983) alternative and influential view of reflection sees it as mainly unarticulated and intuitive. Not all people are rational and orderly, yet engage in reflection. Schön's work extends the view that reflection can be unarticulated intuitions, a detailed evaluation of an experience, a logical analysis, or an assessment of feelings (Cranton, 1996);
- Reflection as a social, interactive process: Interaction with others is an energetic component of transformative learning. Cranton (1996) affirms that educators learn with their students; similarly academic developers learn with their educators. The interactive process supports Freire's (1970) and Boyer's (1990) work that learners are simultaneously teachers and students, and learn together through dialogue; and
- Reflection as a developmental process: Reflection infers judgement in which knowledge must be actively constructed as a developmental process through the stages of uncertainty, subjectivity, and then contextualised within the stimuli to which the reflection was generated (Cranton, 1996).

Cranton (1996) and King (2005) confirm that if educators are to develop their professional practice, considered a process of both personal and professional growth,

then cultivating a safe and trusting environment to engage in critical reflection on practice will be essential to the possibilities of transformative learning.

Transformative learning is a way of problem-solving (that infers a developmental, social, and possibly intuitive process) by becoming critically reflective of those beliefs that become problematic. Becoming critically reflective of our assumptions, or those of others, provides the platform for transformative insight, but we need to justify our new perspective through discourse (Mezirow, 2000). Discourse is the process of engaging in active dialogue with others to better understand the meaning of an experience. The conditions that foster free, full participation in discourse include values such as academic freedom, equality, tolerance, social justice, and rationality (Mezirow, 2000).

While a trigger event, reflection and associated dialogue of itself is an experience, it is not an end in itself (Boud et al., 1985). It is the interpretation of the experience that leads to choices about alternative actions (Marsick & Watkins, 2001). Action leads to problem resolution by applying and testing ideas either directly or vicariously (Garrison, 2011). Action is predicated on becoming conscious (Lawrence & Cranton, 2015). Transformative learning scholars such as Dirkx (2012) rely on Jung's conceptualisation of becoming conscious as a means of understanding transformative learning. Cranton (2006) connects action as a consciousness-raising experience in the process to how individuals become authentic. Authenticity infers a sense of wholeness as Cranton (2006) explains; it is how we become more conscious of our sense of self in relation to and/or separate from the collective of humanity, which is the essence of individuation.

Furthermore, there are many contextual factors influencing the ability to learn well enough to successfully implement the desired solution. Marsick and Watkins (2001) report conditions include availability of appropriate resources (time, money, expert others from whom to learn, institutional support), willingness and motivation to learn, and the emotional capacity to develop new capabilities. All of these have implications at the micro-level of the individual, and the macro-level of the institution when designing for effective professional learning and are worthy of consideration in the context of this research study.

The process of personal perspective transformation is located within the continuum of the transformative learning process (Cranton, 2000). It is evident that

the rational process of transformative learning embraces the intuitive, emotional, open-mindedness, whole-heartedness and personal responsibility aspects present in the extrarational processes of individual transformation that cultivate critical reflection to bring about action.

Extrarational process of transformative learning: A Jungian perspective.

Transformative learning from a Jungian perspective extends beyond the constructivist, rational process of meaning making to the more extrarational processes deeply-seated in the unconscious, imaginative, emotional, spiritual aspects of the Self (Dirkx, 2000, 2012). Although, Boyd (1991) and Dirkx (1997, 2006, 2012), among others, have used a Jungian approach to express an alternative perspective to transformative learning, Cranton (2000) contends that Jung is explicitly constructivist in his philosophy, which aligns with Mezirow's (2000) writings on transformative learning.

As previously mentioned, a clear goal of adult education, and transformative learning in particular, is Jung's concept of individuation (Cranton, 2000; Dirkx, 2006). There are further, more complex and intriguing dimensions to Jung's individuation as a process that incorporates developing an understanding of our "shadow", "animus" (masculine and feminine soul), and the presence of "archetypes" in our psyche (Cranton, 2000). The two aspects of individuation's separation of the individual from the collective which have relevance to this research study are the parallels to critical reflection, considered the core concept in transformative learning theory (Cranton, 2000); and individuation as concerned with psychological development and psychological wholeness which speaks directly to the interplay between conscious and unconscious, of outer and inner worlds (Dirkx, 2012; Stein, 1998). Cranton (2000) refers to this sense of wholeness as *authentic union*.

Developing a deeper understanding of the educator's psychological habit of mind to inform a more effective approach to design professional learning is to create learning opportunities to raise consciousness amongst individuals as a process of self-knowledge and self-awareness (Cranton, 2000). The point of intersection in becoming conscious is the individual's psychological predisposition; that is, becoming conscious of our very nature (Cranton, 2000). However, our psychological

predispositions impact on how we engage in transformative learning as we can only see ourselves and our experiences, and the experience of others, through our own eyes (Cranton, 2000, 2006).

A further challenge to individuation as a process of transformative learning is that individuation is a lifelong journey rather than a one-time event (Cranton, 2000). Mezirow (2000), also an advocate of lifelong learning, believes that if people have no sense of self as separate from others, there is little hope for finding one's voice or having free and full participation in discourse. Individuation also recognises that individuals may not have formed their identity as separate from others. In such situations, the individual may present as inconsistent, unreliable, in conflict or unsure of themselves (Cranton, 2000). Whether or not a person engages in the transformative learning process depends on many factors including their readiness to experience a transformative event, and where they are in their growth and maturity cycles (Lawrence & Cranton, 2015).

Applying the process of transformative learning, informed by the breadth of theoretical interpretations by scholars, recognises that the inner journey of individuation is informed by the process of learning through reflection as much on the rational, cognitive states, as on extrarational affective, conative, and spiritual aspects of our lives. Individuation - our very nature - is one's uniqueness expressed inwardly as the Self and outwardly to the world as ways of knowing, acting and being (Boyd, 1991; Cranton, 2006; Dirkx, 2012; Palmer, 1998).

2.3.3 Nature of Learning Transformations

The nature of learning transformations is framed within the literature on cognitive, affective and conative states influencing the rational and extrarational aspects of human nature. The nature of transformative learning is essentially about change and empowerment (Merriam & Kim, 2012). Change relates to personal and professional growth and development to gain self-awareness as we come to learn who we are. As we come to discern how we come to the learning, how we learn, and what we do with the learning, we consider the wholeness of learning, empowered by language, intuition and imagination to cultivate a sense of spiritual completeness.

When considering the implications for designing effective professional learning that fosters change in professional practice, whilst manifesting the

educator's sense of personal power, attention needs to be given to our meaning structures in recognition that how we learn commonly operates outside of awareness and is filtered through our cognitive, affective, and conative states (Mezirow, 2000).

Cognitive state.

Mezirow's theory of transformative learning recognises a cognitive process of change (Merriam & Kim, 2012). Cognitive processes are created directly through critical reflection on our own (and others') tacit assumptions and expectations, and dialogue with self and others (Garrison, 2011). The cognitive processes of meaning making are conditioned by our emotional reactions and behaviours acquired from our background, culture, and social roles, resulting in learning being a highly individualistic, subjective experience (Cranton, 2006).

For these reasons, the rational, cognitive aspects of transformative learning have strong affective (feeling and emotions) and conative (personal agency and actions) dimensions (Mezirow, 2000). Transformative learning, particularly when it involves subjective reframing – challenging our meaning structures and habits of mind – is often an intensely threatening emotional experience that enables or inhibits our personal agency and actions based on our thoughts and feelings. To avoid learning experiences that may be perceived as a personal attack, Mezirow (2000) affirms the need for mindful transformative learning experiences that awaken our emotional resilience as part of our developing self-awareness. Increasing our self-awareness underscores the process of individuation as we come to see how we are both the same as, and different from others (Cranton, 2006).

Affective state.

To develop an understanding of our affective state is to recognise our emotions and feelings are shaped by specific sociocultural and psychic contexts and the meanings we attribute to our affective state tell us about ourselves and our broader social world (Dirkx, 2001). Denzin (1994) believes that to understand ourselves, it is necessary first to understand our emotions, to the point that emotions always refer to the inner self as a means of developing self-knowledge. Our experience of this inner life is intrinsically emotional and deeply connected to the sense of self we construct and maintain (Chodorow, 2001).

A growing body of research reveals that emotions and feelings have greater importance than merely as a motivational concern in learning and teaching. Postle (1993) affirms that the individual's affective state provides the foundation on which practical, conceptual and imaginal (such as dreaming, active imagination and other forms of creative activity) modes of learning live. Goleman's (1998) concept of emotional intelligence – the ability to recognise, know and manage one's emotions and recognise emotions in others is considered the embodiment of learning in adult education (Merriam & Caffarella, 1999).

Emotional intelligence, Mezirow (2000) contends, is the cornerstone to transformative learning as it requires adult learners to possess emotional maturity, awareness, empathy and control. Inhibitors to a healthy sense of emotional intelligence are paradoxically our affective state. Emotions can serve to give voice to our fundamental sense of irrationality (Chodorow, 2001). In these situations, we experience a self that is fragmented, conflicted, confused – a diminished sense of self battered by the dualities of life (Iyengar, 2005; Palmer, 1998). In such situations, we are challenged by our consciousness that seems populated by multiple, contradictory voices, each claiming a difference sense of reality (Dirkx, 2001). Enablers to a healthy sense of emotional intelligence is our inherent interest in self-knowledge, growth, development and freedom, referred to by Habermas (1971) as emancipatory learning. Emancipatory learning has been the goal of adult education through time (Cranton, 2006). Mezirow's (1991) expression of adult education as transformative learning draws on the idea of emancipatory knowledge – our ability to be self-determining and self-reflective.

Our affective state then plays an integral role in how we interpret and make sense of events in our lives (Dirkx, 2001). The practice of interpreting and integrating our affective state into sense-making allows for deeper expression of our inner selves, and provides a pathway to reveal ourselves more fully to ourselves and others (Dirkx, 2001).

Conative state.

Although Mezirow's work (1991, 2000, 2012) over time mentions conation specifically as part of the transformative learning process, there is limited explication of the human characteristics that underpin his view of the conative dimension. In the

cases where the conative state is mentioned, it is expressed as power, intentionality, will and behaviour to control our actions within the context of personal agency within the process of transformative learning. The conative state is also connected to becoming more critically reflective of our assumptions and having the self-confidence to take action on reflective insights (Mezirow, 1991, 2000, 2012).

In summary, transformative learning involves a deep shift in perspective that involves critical reflection, validating discourse, and reflective action to move towards a fuller realisation of personal agency. Challenging one's cherished beliefs encompasses the rational and extrarational aspects of human nature. Such learning experiences often evoke threatening emotional reactions considered by Mezirow (2000) as the qualities that constitute emotional intelligence and an essential condition for transformative learning. When applied to the idea of an individual's ongoing growth and development, suggesting a learning mobility towards a deeper sense of self, Mezirow (2000) advocates for inner freedom, "not just will and insight to change, but also the power to act to attain one's purpose" (p. 24). Challenging meaning perspectives and appropriating new ideas and attitudes enables people to experience a sense of wholeness that comes from activating their intuitive and imaginative capabilities as well as their rational capabilities (Boud et al., 1985). Investigating how educators learn to design for effective professional learning that is personally meaningful needs to attend to the cognitive, affective and conative states of human nature that may serve to enable or inhibit the educator's motivation to engage in their professional practice.

Power of learning transformations.

The power of learning transformations is located at the learner's interface between the socio-emotional and intellectual worlds, where the inner and outer worlds converge (Dirkx, 1997). This point of convergence is described by Land (2012) as a *liminal* space of transition that can be highly disconcerting to the learner. The liminal space serves as a conceptual gateway where new understanding needs to be integrated and, significantly, prior conceptions surrendered (Land, 2012). Jung terms this space as *liminality* – the boundary or threshold of emotional and behavioural oscillation that manifests as uncertainty of identity and purpose of life (Meyer & Land, 2013). At the point of intersection between the inner and outer

worlds, the educator's learning mobility is conceived as a potentially confronting and disorienting space as they let go of who they are so that they can become who they are meant to be. Mezirow (2000) refers to this as moving towards our potential.

Mezirow (2000) affirms that imagination is central to understanding this liminal space where our worlds converge. It is complicated, distressing, profoundly personal, and often a powerfully emotional space (King, 2005; Merriam & Kim, 2012). Mezirow (2000) acknowledges language, intuition, imagination, and spirituality as central elements to self-knowledge and self-awareness. This would suggest that coming to understand the power of one's learning mobility is also coming to a state of self-knowledge and self-awareness.

The power of language.

Language, according to Kegan and Lahey (2001) is a powerful tool that can be used as a filter to shift customary mental or social arrangements of our experiences into a form that increases the possibility of transformative learning moments. Of particular relevance is the language of the inner voice. How we speak to ourselves, a tool rarely considered as a transformative space, is "one of the most influential and continuous conversation venues" (Kegan & Lahey, 2001, p. 7) to foster lasting change. The power of the inner voice regulates our forms of thinking, feeling and meaning making to which we have access, which in turn, enables or inhibits how we see the world and act in it (Kegan & Lahey, 2001). The power of the inner voice is embodied in the private self-talk, self-editing space described by Nuthall (2005) as our private-individual world (as discussed in Section 2.2.2).

The power of language can manifest as an external expression of self. In such situations, Kegan and Lahey (2001) emphasise that the places that we work and live are spaces where certain forms of speech and points of view are promoted, encouraged or discouraged. When considered within the learning-centred approach to the educator's learning context (See Section 2.2.2), the outer expression of our sense of self through participation in conversations has particular relevance to Nuthall's (2005) public world of more formal, structured learning and the private-social world of informal peer conversations and interaction.

When considering the convergence of the inner and outer worlds, the language of the inner voice also has the power to manifest as a learning narrative, co-creating

understanding and sense making, as an act of storytelling (Bryant et al., 2014; Facer, 2011; Klein, 1999). Tyler and Swartz (2012) describe storytelling as a social process that can foster transformative learning. Storytelling is a powerful mechanism to exchange personal experiences as a natural form of human communication. Storytelling is conceived not in the telling of myths, fables or folklore, but as a relational, emergent, non-linear exchange where individuals have the opportunity to freely convey their own experiences of their (inner and outer) world (Tyler & Swartz, 2012). Storytelling is an alternative way of thinking about the serendipitous nature of social learning that fosters creative opportunities for educators to develop meaningful connections within their developing sense of self (inner world) and to others (outer world) to more freely and fully participate in professional learning activities.

The power of intuition.

Intuition has a strange reputation and sometimes people feel uncomfortable trusting a source of power that seems invisible, accidental and mysterious (Klein, 1999). This is particularly true in situations where decision-making is trusted to the judgement that comes with the rationality of careful analysis of all the relevant factors. However, Klein's (1999) research indicates intuition grows out of experience, but that we are not used to using our experience consciously or deliberately. For Klein (1999), intuition manifests from the use of past experiences to recognise key patterns to indicate the dynamics of the current situation.

There are two particular challenges to engaging in the power of intuition. First, as humans we are not aware of how we are using our experiences to make judgements and decisions. Such situations ask for a conscious raising of self-awareness as Klein (1999) states, "We see what is going on in front of our eyes but not what was going on behind them" (p. 33). The second challenge is intuition is not infallible as our experience may mislead us. In such situations, Klein (1999) suggests we should harness our mistakes as this adds richness to our pattern-matching experience base to inform intuitive judgements in future situations.

The power of imagination.

Personally significant and meaningful learning, according to Dirkx (2001) needs to be grounded in the adult's emotional, imaginative connection with the Self and with the broader outer, social world. Cultivating imagination conveys a deep, inner life that serves as a gateway to the unconscious and our emotional and feeling selves as a process of meaning making (Hillman, 1997). In Dirkx's (2001) view, this process of meaning making is essentially imaginative and extrarational, rather than purely reflective and rational. Imaginative connection and engagement evoked through our experiences in the world give rise to personal meaning as we make sense of ourselves, our relationships with others, and the world we live in (Chodorow, 2001). Imaginative engagement then serves to animate our thoughts and actions.

The challenge for evoking imagination to make sense of ourselves and the world we inhabit is that imagining alternatives requires people to paradoxically break free from existing patterns of thoughts and actions (Cranton, 1996). Often this is easier said than done as imagining alternatives is closely linked with our psychological predisposition (self-concept, personality traits or types). For example, non-intuitive types may experience frustration at trying to visualise alternative ways of personal meaning making (Brookfield, 1995; Cranton, 1996; Mezirow, 2000). However, a unified view of transformative learning recognises that in engaging in the act of seeing alternatives to one's invalidated assumptions is, at some level, a component of critical reflection (Cranton, 1996).

In summary, the power of language, intuition and imagination opens a gateway to transformation through individuation (Dirkx, 2001, 2006, 2012). It can occur whether we are conscious of it or not. However, Cranton (1996) suggests when we participate in transformative learning experiences consciously and imaginatively, we develop a deeper sense of self and an expansion of consciousness. Transformative learning that manifests the emergence of the Self is to foster our sense of spirituality (Dirkx, 2001). As mentioned in Section 1.6, this study asserts that the terms "self" and "the Self" are relational in nature rather than interchangeable. For the purpose of this study, investigating the educator's sense of self relates to developing a deeper understanding of how educators learn as part of their self-concept that is continuously formed and informed by the individual's rational and extrarational processes of meaning making. Designing for effective professional learning needs to

be congruent with the individual's subjective realities that manifest inwardly as one's unique human nature (the Self), and expressed outwardly to the world as knowing, feeling and acting in adulthood.

Spirituality.

As we separate ourselves from the collective of humanity, Mezirow (2000) believes what we have in common is human connectedness, the desire to understand, and spiritual incompleteness. Brown (2010) defines spirituality as:

... recognising and celebrating that we are all inextricably connected to each other by a power greater than all of us, and that our connection to that power and to one another is grounded in love and compassion. Practicing spirituality brings a sense of perspective, meaning, and purpose to our lives (p.64).

In terms of the human desire for intellectual, emotional and spiritual completeness, Palmer (1998) claims that learning (and teaching) are crucial to our individual and collective survival and to the quality of our lives. It brings into focus the nature of learning transformations that chart the landscape of our inner journey to more truthful ways of seeing and being in the world, of being at home in our own soul, of coming to our identity, and selfhood - the sense of "I-ness"(Palmer, 1998).

Transformative learning that unifies the rational and extrarational aspects asks us to do something alien to academic culture – we must talk to each other about our inner lives characterised by our identity and integrity (Palmer, 1998). Identity and integrity are the subtle dimensions of the complex, conflicting, and lifelong processes of self-discovery, self-knowledge, self-perception and self-reflection (Cranton, 2006; Mezirow, 2000; Palmer, 1998). Identity, explains Palmer (1998), is the moving intersection of the inner and outer forces that makes a person who they are; the mystery and complexity of being human. Identity is formed on our capacity for connectedness; that place in our hearts where the intellectual, emotional and spiritual worlds converge as the human self (Palmer, 1998). Integrity, Palmer (1998) suggests, is discerning the balance of the inner and outer forces that bring wholeness and completeness to life, rather than fragmentation, to our purpose of being and acting in the world. Wholeness is integral to the Self as it is about becoming more aware of "the whole of who I am" (Palmer, 1998, p. 13).

Palmer's (1998) and Brown's (2010) writings of wholeness as an undivided, unified self also resonate with Jung's writings on individuation. Brown (2010) suggests we are more likely to manifest an authentic sense of self by cultivating a resilient spirit through the practice of self-awareness and mindfulness. The spirituality of a unified self is not about religion or theology. To be spiritual, Gates and Kenison (2002) clarify, is "to act like an adult, to take responsibility for one's actions, to manifest love in one's interactions" (p. 131).

The power of language, intuition, imagination and spirituality as the process of transformative learning can be both an illuminating experience and difficult pathway to traverse. Some transformative learning situations manifest as distressing choices that individuals must face alone. Challenging meaning perspectives within the design of professional learning, particularly those perspectives located in psychological habits of mind of who we are, can pull and bind, stiffen movement, feel awful, and provoke emotional cues that induce spiritual challenges to the foundations of one's life and work (King, 2005; Palmer, 2007). Such transformative learning moments inhibit the educator's learning mobility and highlight challenges that existing in the designing for effective professional learning.

Knowledge and transformative learning.

When concerned with what drives the learning process, transformative learning scholars (such as Cranton, 2006; Mezirow, 2000) identify three categories of knowledge to help inform an interrelated understanding of the world and ourselves within that world. The three categories, framed within Habermas's (1971) work and used by Mezirow (2000) when he introduced transformative learning theory into adult education, are technical knowledge, practical knowledge and emancipatory knowledge. Technical knowledge provides for instrumental learning, practical knowledge for communicative learning and emancipatory knowledge for transformative learning (Cranton, 2006; Mezirow, 2000). Although knowledge is located within these three categories in order to understand them, Cranton (2006) warns that considering these categories as mutually exclusive in the adult learning process is limiting and fragmenting.

Technical knowledge allows learners to manipulate and control the environment, predict observable physical and social events, and take appropriate

action. Technically useful knowledge is necessary for industry and production in a modern society (Cranton, 2006). When applied into adult learning settings, Mezirow (1991) refers to the acquisition of technical knowledge as instrumental learning, believing that many adult education practices and workplace learning programs have instrumental learning as the goal.

A good proportion of institutional professional development programs emphasise new information, techniques, and training (Cranton, 2006). Therefore when rethinking the design for professional learning to bring about change in professional practice, academic developers need to be cognisant of the balance and type of knowledge assimilation that underpins the activity of learning.

Humans have always been social creatures. Practical knowledge is based on our need to understand each other through language. The communication of practical knowledge may be based on the individual's interpretation of what is said or based on the society's shared and transmitted social knowledge (Cranton, 2006). When applied to adult learning settings, we instinctively form groups, communities, and societies to satisfy mutual needs (Cranton, 2006). According to Mezirow (2000), practical knowledge infers communicative learning. In order for us to survive in communities and societies, we must communicate and understand one another. The application to professional learning means becoming critically reflective of the assumptions of the person(s) communicating (Mezirow, 2000).

According to Habermas (1971), emancipatory knowledge is the natural human desire for self-knowledge, growth, development, and freedom. Emancipatory knowledge is derived from instrumental learning and communicative learning and is dependent on our ability to be self-determining and self-reflective. Self-determination is considered to be our capacity to be aware and critical of ourselves, and of our social and cultural contexts (Cranton, 2006). Self-reflection encompasses being aware and critical of our subjective perceptions of knowledge (Cranton, 2006).

When applied to adult learning contexts, transformative learning processes that focus on meaning making and the possibility of change in the educator as a person necessitates learning that is emancipatory. In rethinking the design for professional learning, Cranton (2006) recommends the activity of learning needs to involve and integrate elements of all domains of knowledge with the emphasis on emancipatory knowledge as crucial to the transformative learning process.

However, as leading educationalists in adult learning (Cranton, 1996, 2006; King, 2005; Mezirow, 1991, 2012) rightly point out, when this epistemological stance is applied to professional learning contexts, opportunities for educators to move beyond instrumental learning associated with technical knowledge are limited. People may acquire large amounts of instrumental or practical knowledge without calling into question any previously held assumptions or beliefs, limiting the possibilities for emancipatory (transformative) learning (Mezirow, 2000).

Opportunities to collaborate, share, reflect, (communicative learning); and to wrestle with meaning, decide how to reintegrate their learning and insight into existing and changing perspectives, and gain new discernment and knowledge (transformative learning) are often not designed for in current models of professional development in higher education (Cranton, 1996, 2006; Weimer, 2012). However, when designing for professional learning as a function of adult learning, Cranton (2006) claims we should always be conscious of the potential for those moments when the acquisition of new knowledge or elaboration on existing knowledge can move into the realm of emancipation. Movement that challenges the self-concept of our inner being, King (2005) warns, can be invisible to those around the learner. The hidden elements of transformative learning therefore suggest that the educator's learning mobility may also be invisible to others as they cross the liminal space between inner and outer worlds.

Change and transformative learning.

Our natural human interest in emancipation motivates us to reflect on the way we see ourselves, our history, our knowledge, and our social roles (Cranton, 1996). Transformative learning suggests not only a change in "*what* we know" or do but also a dramatic shift in "*how* we come to know" (Dirkx, 2012, p. 116 [original emphasis]). The transformative learning process enables people to examine problematic frames of reference (our habits of mind and our points of view) to make them more inclusive, open, reflective, and emotionally able to change as we come to understand ourselves in relation to the broader world (Cranton, 2006; Dirkx, 2012).

Importantly, change may not be immediate or linear, and disorientation may not adequately represent the experiences of some learners (Lawrence & Cranton, 2015). The transformative learning process may be provoked by a single dramatic

event, a series of almost unnoticed events, a deliberate effort to make change in our life, or by the natural developmental process of becoming more mature. Furthermore, transformative learning can be experienced within an individual's personal or professional life (Cranton, 2006). Therefore the possibility of transformation may be epochal – a sudden, dramatic, reorienting insight, or incremental – a gradual, subtle series of turning points leading to a person's transformation (Lawrence & Cranton, 2015; Mezirow, 2000).

2.3.4 Summary

Mezirow's (1991) transformative learning theory unites contemporary learning perspectives to illuminate how people learn. Transformative learning offers more than a change in specific knowledge, beliefs, values and behaviours. It becomes a new framework for understanding our lives. In a world of constant change, the human function of meaning making is a continuous learning process. Personal perspective transformation involves a sense of unity, of wholeness towards our inner and outer expressions of self.

As we grow, develop, and gain self-awareness to understand our own nature, filtered through our psychological habit of mind, we individuate. That is, we come to see how we are both the same as, and different from, others. This is an essential process of transformative learning as it unifies the rational and extrarational approaches to transformative learning to embody a more authentic sense of self. This movement towards a fuller realisation of the Self, where our inner and outer worlds converge, often goes beyond language and is difficult to capture in a linear string of words (Cranton, 2006; Dirkx, 1997, 2012). Movement towards a fuller sense of self forms a conceptual understanding of learning mobility that is abstract in nature as it is nested within the liminal space of individuation and emancipation.

The very condition of human nature is troublesome when designing for effective professional learning that is personally meaningful to the educator. A way of moving beyond the complexities of how educators learn is to consider the wholeness of learning. This conception of the wholeness of learning recognises the natural human desire in adulthood for self-knowledge, growth, development, and freedom (emancipation). The educator's learning mobility presents as a pathway to

the wholeness of learning which challenges traditional approaches to designing for institution-led professional development.

2.4: Personalising Professional Learning

In this section, the nature of personalised professional learning in higher education is critically reviewed. The educational research and workplace learning literature is examined to reveal the challenges to institution-led professional development. In particular, the discourse that proposes an alternative conceptualisation from the formal, structured practices of institution-led professional development to the learning of practising professionals as personalised, authentic professional learning is explored. In addition, how educators learn as part of their professional practice in the context of learning as part of the activity of work is examined. A distinction is made in that the focus of this section is on how educators learn as part of the activity of learning, rather than a critique of particular events or activities such as the range of professional development programs and initiatives often discussed in the higher education literature. Furthermore, the characteristics of, and challenges to, designing for professional learning that enables the educator to take control and responsibility for how and what they learn are examined.

2.4.1 Rethinking Professional Development as Professional Learning

In the context of this study, institution-led professional development refers to centrally controlled processes that focus on formal, structured learning activities (Boud & Brew, 2012). Such activities are targeted at educators for the purpose of encouraging their engagement in the scholarly discourse to enhance knowledge of, skills in, capacity for, and attitudes towards learning and teaching practices, concepts and theories (Ling, 2009; Reushle, 2005). The intent of professional development is for the educator to improve aspects of their teaching practice and to influence student learning outcomes (Cranton, 1996; Webster-Wright, 2009).

The concept of professional learning shifts the focus away from purely formal, structured, periodic events to more authentic learning activities situated in the workplace as a form of professional practice (Boud & Brew, 2012). The intent of professional learning is to actively engage educators in their ongoing growth and development. Professional learning places the emphasis on the activity of learning in

recognition that educators continue to learn through their working lives (Aubusson, Ewing, & Hoban, 2012; Webster-Wright, 2009).

Universities, according to Bates (2015) are holding on to a broken model of professional development. The capacity of institution-led professional development to have an impact on professional practice is challenged by the views of a number of educational scholars who conclude that many educators are resistant to professional development initiatives (Bates, 2015; Holley & Oliver, 2010; Poole, 2009). Formal institutional level professional development programs, offered either face to face or online, are often perceived by educators as ineffective or unappealing (Hart, 2015), frustrating or requiring large investments of time they do not have (Dede et al., 2009), and not meaningful or applicable to their world of work (Norton, 2009). Furthermore, educators' willingness to participate in formal, structured professional development becomes increasingly challenged when the educator can choose to engage in their professional learning across a range of institutional and personal learning contexts supported by the growth in formal and informal learning networks (Hart, 2015; White, Connaway, Lanclos, Le Cornu, & Hood, 2012).

To this point, institutional ownership of, and provision for, professional development has generally been controlled, often mandated, by central management and leadership structures. In many universities, central academic development units have been tasked with leading university-wide pedagogical change strategies designed to improve learning and teaching in response to quality assurance requirements and competitive learning and teaching funding (Fraser & Ryan, 2012). The educator's unfavourable perceptions of formal professional development programs create further tensions as institutions come to recognise the need to build educators' capacity for innovative pedagogical approaches (Dede et al., 2009). Institutions are tasked with ensuring that the time, effort and scarce resources expended on the design of quality programs meets the individual educator's learning needs and institutional priorities (Dede et al., 2009). Boud and Brew (2012) weigh in on the challenges of professional development to meet the complex and increasing demands of the modern academy, contending that the area of academic professional development remains an under-theorised field of endeavour. Furthermore, there is increasing critique in contemporary research calling for the re-evaluation of professional development practices (Webster-Wright, 2009).

As such, there are many possible reasons that exist across the functions, structures and conditions at the macro-level (institutional) and micro-level (individual) as to why Bates (2015) states that the professional development model is broken. However, Webster-Wright (2009) looks beyond this to the conception implicit in most professional development research that professional development tends to reinforce the status quo in professional practice. Although the adult learning discourse has influenced the design of professional development programs by offering more learning-centred, flexible, engaging and interactive learning experiences (Cochrane & Narayan, 2013; King, 2005; Weimer, 2012), there is little consideration given to the underlying challenges that prevent change. Programs continue to be characterised as episodic updates of information, didactic in nature, removed from the educator's teaching context and therefore lacking authenticity (Boud & Brew, 2012; Boud & Hager, 2012; Gravani, 2007; Webster-Wright, 2009). King's (2005) research supports this claim highlighting that a common theme evident across diverse educational preparedness initiatives for academics is that professional development focuses on the students in ways of enhancing the quality of teaching. Seldom do professional development programs address the educators' needs and perspectives as learners (King, 2005).

To intentionally address the educator's learning needs, Boud and Brew (2012) suggest a conscious re-focus of professional development as a pragmatic enterprise that emphasises academic work as professional practice. Professional development generally takes educators out of their normal context of work and treats aspects of academic work as separate which emphasises the perceived divide between theory (what you learn in a course) and practice (what you do at work every day) (Boud & Brew, 2012). Essentially, professional learning represents a shift from an institution's controlled and scheduled model of professional development, characterised as formal, structured, sporadic or episodic, to a more continuous, informal and autonomous model of self-organised learning that positions professional learning as lifelong learning (Aubusson et al., 2012; Hart, 2015; Jennings, 2015; Mirriahi et al., 2015). Professional learning is seen as a social process deliberately situated within the context of practice, fostering learning-conducive work, and constructed in the act of developing communities that actively support the learning process (Baxter, 2012; Boud & Brew, 2012; de Laat &

Schreurs, 2013). Such situated learning at work takes on a learning-centred approach as it is based on the idea of professional learning as continuous, active, social, collaborative and related to practice (Bersin, 2012b; Boud & Brew, 2012; Boud & Hager, 2012; Hart, 2015; Webster-Wright, 2009). This changing landscape challenges institution-led professional development to be responsive to the educator as adult learner's need for authentic, personalised, transformative professional learning experiences that have immediacy and application to their teaching context (Cochrane & Narayan, 2013; Laurillard, 2008).

To address the shifting demands placed on professional development, Jarcho (2012) contends that workplaces need to move from formal hierarchical structures to informal learning networks in response not just to rapid change but to continual change. Jarcho (2012) advises that organisations can no longer leave learning to their professional development department. Adopting a wider approach to professional development will optimise the potential for personal and organisational learning (Senge, 1990). The challenge then for professional development programs is that however powerful informal learning may be, there is a difficulty in utilising it as mainstream workplace learning. Informal learning activities are mostly implicit, ad hoc, spontaneous, and invisible to others (de Laat & Schreurs, 2013).

A new paradigm of workplace learning.

Based on several years of research and work to integrate diverse perspectives on the development of human capital and workplace learning, Cobo and Moravec (2011) suggest a new paradigm of learning and propose the invisible learning concept. The central element in the paradigm shift from visible to invisible learning is the individual rather than the organisation. Invisible learning recognises the “fuzzy metaspaces of learning” (to use the term by Cobo & Moravec, 2011, p. 26) resulting from the impact of technology advancements that enable people to learn continuously: formally in classrooms, informally on the job, and through self-development experiences, feedback, and social experiences (Bersin, 2012b; Cobo & Moravec, 2011). The modern workplace paradigm of learning is characterised by individuals bypassing their professional development units to address their own learning and performance needs in ways that best suit them. However, modern workplace learning also advocates for supporting organisational learning in more

relevant ways for today's workforce. Hart (2015) clarifies it is as much about developing new workplace learning initiatives that are inclusive of building new independent personal and social learning skills as it is about enabling organisational growth. However, this paradigm is still poorly understood with Billett (2010) stating a gap exists in understanding what enables and inhibits an individual's learning. Assuming that the individual's intentions and processes for learning are going to be wholly consistent with that of the organisation's is, according to Billett (2010), wrong.

2.4.2 Introducing Learning Mobility

In this view of modern workplace learning where learning is distributed, decentralised, informal and fragmented (Jarche, 2013a), the concept of "learning mobility" plays an essential part as it enables the individual to experience learning continuity across the boundaries of time, space and the activity of learning (Jarche, 2012, 2013b). Learning mobility advocates the invisible nature of workplace learning and presents the following trigger points (in the form of questions) as gaps in understanding when designing for effective professional learning in higher education that reflects how people like to learn (Hart, 2014b):

- How can more autonomy in learning be supported?
- How can continuous learning be encouraged?
- How can learning at the point of need be supported?
- How can the need for institutional learning and individual learning be balanced?
- How can educators be encouraged to take control of their learning?

These questions support the view held by Billett (2001, 2009, 2010) that the shift away from institutional interventions brings to focus the role of individuals' engagement in, and construction of, knowledge in their own growth and development. The challenge with this line of thinking is that the diverse ways individuals choose to engage in workplace learning activities is mediated by individuals' subjectivities (Billett, 2010; Fenwick, 2004). That is, the individual's subjective disposition shapes, limits and directs their thinking, which acts as a filter to interpret how and what they learn in any given learning experience (Billett, 2010).

Here Billett (2010) uses the term “self” alongside subjectivity as an explanation of the sources, formations and development of individuals’ subjectivity.

To advance this research study, Boud and Brew’s (2012) emphasis on a pragmatic approach where academic motivation to engage in their professional practice hinges on a fundamental shift in the institution’s and educator’s perspective of professional development is considered. This shift is centred on the perspective that professional learning is purposefully situated as academic work in the form of professional practice (Boud & Brew, 2012).

A pragmatic approach also emphasises two key points that can foster the educator’s learning mobility. First, adopting a wider approach to professional development in higher education optimises the potential for institutional learning whilst situating professional learning at the need for individual (the educator’s) growth and development (de Laat & Schreurs, 2013; Webster-Wright, 2009). Second, a pragmatic approach is not advocating for the demise of the professional development unit in an organisation. Hart (2014b) declares those who see professional learning within the activity of learning at work as either inconsequential or a threat to institutional professional development are missing the bigger picture. The educator’s self-directed, independent learning and organisation-led learning are actually complementary learning forces. They are interconnected and interdependent that support rather than conflict with one another (Hart, 2014b). Hart (2014b) refers to this situation as the “yin and yang” of modern workplace learning.

Learning mobility: The wholeness of learning.

In considering the educator’s learning mobility when designing for professional learning, Jarcho’s (2013a) suggestion that provision needs to be made for learning that is distributed, fragmented and decentralised is significant. It is these very characteristics that underpin possible tensions between the individual’s motivation and their engagement in professional practice (Laurillard, 2007). In particular, Jones, Issroff and Scanlon (2006) identify the affective forms of motivation, such as control (over goals and outcomes), ownership, fun, communication, learning-in-context, and continuity between contexts as factors enabling or inhibiting the educator as adult learner’s motivation to take more responsibility for their own learning. Laurillard (2007) asserts that ownership and

control are central to making (professional) learning easier and effective, and more fun. This, in turn, suggests Monti (2011), leads to more engaged and self-motivated learners as they choose the times, situation and contexts to meet their needs. The concept of learning mobility empowers educators to actively participate in the dynamics of continuing professional learning that are decentralised and distributed across time, place, and convention, and transcend the spaces of the educator's outer (broader professional environment; external conversations; professional identity) and inner worlds (personal histories and experiences; internal dialogue; inner belief systems; personal identity).

Learning mobility is conceived as enacting the educator's choice and autonomy. Educators can select specific professional learning to meet their immediate needs, to gain greater benefits for their own growth and development, and to build their confidence and awareness, providing a higher degree of authentic learning (Mirriahi et al., 2015). Supported by Knowles's (1980) characteristics of adult learning, educators learn at their own learning pace and navigate content and resources just-in-time to resolve their professional problems, cultivating self-directed skills, and independent exploration that may be nurtured by informal, incidental or serendipitous learning (King, 2003; Marsick & Watkins, 2001). This promotes the educator's sense of power to move with a degree of fluidity across any range of professional learning settings as they come to know how they like to learn.

As discussed in Section 2.3, transformative learning involves a deep shift in perspective that leads to a new way of seeing the world, and becoming conscious and open to the ways we live in our world. When applied to the conception of professional learning, Cranton (2006) claims that we cannot say what kind of learning experience will promote a deep-seated shift in perspective in any person or any context – itself attractive to a sense of learning mobility. It is the learners themselves, in the end, not those charged with facilitating the learning, who decide what will be learned (Hattie, 2009). Designing for learning experiences must attend to the learners' needs and goals, explicitly address why learners would want to engage in learning, and above all recognise that learning is very personal to the educator as adult learner (Hattie, 2009; Weimer, 2012). Personalised learning does not mean we attend to individualised instruction but rather design for learning experiences that bring awareness to how individuals learn by themselves, learn with

others, and learn across contexts (Hattie, 2009). It is the mobility of the learner and the learning that becomes significant.

The core conditions that transcend the characteristics of designing for professional learning that makes provision for learning mobility are the educator's motivation and engagement (Biggs & Tang, 2007; A. Martin, 2006). Motivation and engagement provide educators as adult learners with the energy and drive to work effectively, learn, and achieve to their potential (A. Martin, 2006). However, educators must feel confident and in control to assume personal responsibility (R. Martin, McGill, & Sudweeks, 2013). A re-distribution of the function of academic work across the mobility of networks, communities, and conversations shifts the responsibility on to the educator to personalise their own scholarly practice and professional learning trajectory (Jewitt, 2009). This suggests that the educator's learning mobility, like authentic professional learning, is the responsibility of the educator. Taking responsibility for one's own learning mobility, King (2003) suggests, requires educators to develop skills and experience in self-directed learning. Cultivating self-directed learning is situated in, and influenced by, what educators experience and how it is experienced. Boud and Walker (1991) refer to this as the learners' personal foundation of experience, a way of being present in the world, which profoundly influences what they bring to the professional learning situation. This, in turn, influences what and how they learn based on their expectations and perceptions of any given situation (Boud & Walker, 1991). The idea of a personal foundation of experience is pragmatic in nature. It is based on the educator's own awareness of a developing sense of self, characterised as the effort and intent which is often linked to their core values and ideals; influencing the intellectual and emotional meaning attributed to the experience; and acting as a filter or magnifier to frame the learner's confidence, perspective, actions, thoughts, feelings and reflections (Boud & Walker, 1991).

2.4.3 Summary

In Section 2.4, the importance of positioning professional learning as authentic learning activities situated in the workplace as a form of professional practice has been explored. There are many possible factors that exist across the functions, structures and conditions at the macro-level (institutional) and micro-level

(individual) that contribute to the belief that the more formal, structured, didactic aspects of professional development serve not to bring about change but rather to reinforce the status quo in professional practice.

As this research study is concerned with how educators learn, in Section 2.4, the focus has been on the challenge for institution-led professional development to be responsive to educators as adult learners and their need for authentic, personalised, transformative professional learning experiences. Designing for effective professional learning has shifted the focus to learning that occurs naturally in the flow of activity, is continuous and immediate, social and informal, and fosters autonomy and control to address the educator's learning needs. Such opportunities are shaped and informed by learning-centred approaches and transformative learning processes that are situated in authentic activities of learning and social collaboration. This perspective emphasises the importance of workplace learning as a means of effective, continuous professional learning that enables educators to take control and responsibility for the learning. Addressing the educator as adult learners needs also means recognising that learning-centred, transformative approaches can often be intellectually and emotionally confronting for educators. Such approaches are framed by the premise of change, which can challenge the educator's identity, their inner belief system and therefore their motivation to engage in their learning mobility to advance professional practice. The implication of this for the study is that the design for effective professional learning needs to cultivate the educator's natural motivation to engage in their own, ever-changing identity and sense of self that manifests as continuous growth and development.

2.5 Process to Identifying the Knowledge Gaps

At the outset of Chapter 2, the literature review was organised within the conception of the higher education ecosystem and the educator's learning ecology. The micro- (individual), meso- (discipline/community), and macro- (institution) level framework helped make sense of the rapid social and technological changes impacting and influencing higher education whilst identifying the complexities within each level and the relational nature across the levels of the higher education ecosystem. A systematic critique of the literature within the disciplinary fields of a learning-centred orientation to the contemporary theories of learning, transformative

learning as a theory of adult learning, and professional learning as professional practice led to the introduction of the concept of learning mobility. The idea of learning mobility is the crossing of boundaries between the educator's inner, individual (micro) world and their outer (institutional), external world.

In this section, a conceptual framework is proposed to bring together the relevant literature, key theories and concepts, and assumptions and expectations investigated in Chapter 2. The purpose of the conceptual framework is to provide a systematic approach to organise and explain the presumed relationship between the key ideas and concepts. The development of a conceptual framework also serves to address the research problem, support the research questions, and inform the research design described in Chapter 3.

2.5.1 What are the Knowledge Gaps?

The researcher identified the knowledge gaps through the lens of the educators as adult learners challenged by their motivation to engage in the complexities of professional practice whilst perceiving current professional development initiatives as not meaningful, nor applicable to their world (Norton, 2009), ineffective or unappealing (Hart, 2015), and frustrating or requiring large investments of time they do not have (Dede et al., 2009). The knowledge gap is articulated as a need to rethink institution-led professional development and to design authentic, personalised, collaborative and transformative learning experiences for educators as part of their continuing professional learning (King, 2003; Webster-Wright, 2009). Also, regardless of decades of research and theorising about how educators learn as part of their professional practice, the field of professional learning appears under-theorised, poorly understood and ambiguous to scholars and practitioners alike (Beckett & Hager, 2002; Billett, 2010; Boud & Brew, 2012; Kek & Hammer, 2015). Webster-Wright (2009) contends professional learning has a scholarly reputation in the educational discourse for reinforcing the status quo in professional practice.

The researcher addresses these knowledge gaps by introducing the concept of the educator's learning mobility to add new thinking to the conditions and characteristics of effective profession learning from the perspective of the educator as adult learner. The idea of learning mobility considers that learning opportunities occur continuously within, between and outside institutional structures to meet the

increasing need of educators for more personalised, pragmatic, self-directed and informal learning contexts (Bersin, 2012a; Boud & Brew, 2012; Garrison & Kanuka, 2004; King, 2003, 2005; Marsick & Watkins, 2001). The researcher has come to recognise, as did Billett (2010) and Webster-Wright (2009), that the emerging gap in knowledge uncovers the need to understand more about how educators continue learning through their working lives in order to design effective, meaningful professional learning opportunities. This suggests it is the mobility of the learner and learning that becomes significant to this research study. Learning mobility, it could be argued, prepares educators to engage in their ongoing personal professional learning to cultivate their own growth and development that transcends the boundaries between their inner and outer worlds.

The researcher's contribution to this gap in knowledge is to investigate the phenomenon of the educator's learning mobility as a means to create a shift in the theory and practice status quo of professional learning to bring about change in the design for effective professional learning. Therefore, the research problem underpinning this study is to gain a deeper understanding of the ways educators are motivated to engage in their learning mobility to transform their professional practice.

The nature of the knowledge gap is multi-faceted. Investigating how educators learn, with a particular focus on their perspective and experiences of the activity of learning, recognises the complexities of the broader higher education ecosystem – the extremely dynamic, constantly confronting, and strongly connected system of humans and their environment (Walker & Salt, 2006). Although the centrality of this study rests with developing a deeper understanding of the educator as adult learner's motivations to engage in their learning as a means to transform their professional practice, due attention must be given to their broader external environment.

At the individual (micro) level, evidence from the literature indicates a gap in understanding how to design for effective, authentic professional learning that is resilient to educators' individual subjective realities (Billett, 2010; Cranton, 2006; Mezirow, 2000) and the ever-shifting nature of educator professional identity (Castells, 1997; Mockler, 2011; Sachs, 2001, 2003; Wenger, 1998). This needs to occur whilst concurrently addressing the educator's learning needs, expectations and

perceptions in any given professional learning situation (Boud & Brew, 2012; Cranton, 1996; King, 2003, 2005; Knowles, 1980; Weimer, 2012).

Applying resilience thinking when designing for professional learning considers the capacity of the activity of learning to absorb the disturbances inherent in the individual's subjective realities and identity whilst achieving the learning outcomes. The idea of designing for resilience within the complex system of humans and their environment appears to be missing from higher education management practices (Walker & Salt, 2006). That is, the individual's subjective dispositions (emotions and behaviours) shape, limit and direct their thinking, which acts as a filter to interpret *how* and *what* they learn in any given learning experience (Billett, 2010; Boud & Walker, 1991).

Investigating how educators as adult learners learn brings to the forefront the idea of learning-centred approaches to professional learning that manifest authentic learning situations and the possibilities of the educator's perspective transformation (Cranton, 2006; King, 2003, 2005; Webster-Wright, 2009; Weimer, 2012). Challenges that become intriguing to this knowledge gap are that the authentic nature of learning-centred approaches and transformative learning processes are framed by the premise of change. It is about changing educators' beliefs, perceptions and attitudes about themselves as self-directed adult learners on a path of continuing personal growth and development, whilst at the same time holding them accountable to learn autonomously as an expected part of their professional practice (Boud & Brew, 2012; Cranton, 2006; King, 2003, 2005). The pivot point is the educator taking responsibility for their own learning mobility.

At the institutional (macro) level, evidence from the literature indicates workplace learning, as a function of professional learning, redistributes how educators learn across networks, communities, and conversations both inside and outside institutional structures, conditions and control (Boud & Brew, 2012; Cochrane & Narayan, 2013; Jarche, 2012; McIntyre, 2014). Two significant points that add to, and challenge, thinking about professional learning as a form of professional practice are evidenced in the literature. First, the institution can no longer expect to control the educator's learning (Boud & Brew, 2012; Hart, 2015; Webster-Wright, 2009). Second, educators need to be willing to be self-directed, self-determined, and self-reflective to discern how to take control and be responsible

for their learning (Cranton, 2006; Habermas, 1971; Hart, 2014b; King, 2003; Knowles, 1975; Mezirow, 2000). This dynamic raises awareness that when investigating how educators learn, their sense of self (manifested in the inner, micro world) may enable or inhibit the way educators act and interact within their learning experiences based on the multi-faceted, complex nature of the higher education ecosystem of their outer world. This means a deeper investigation is needed to examine the educator's capacity to grow, develop and potentially change within a non-linear, unpredictable external environment that may serve to foster or limit what they do with the learning. Therefore the idea of the educator's learning mobility potentially recognises the fluidity across boundaries of time, convention and the activity of learning that transcends the spaces of the educator's inner world and their broader outer world.

A further aspect of the knowledge gaps relates to adding new thinking to educational research on how educators learn. Education scholars (Cochrane & Narayan, 2013; Jewitt, 2009; Laurillard, 2007; McIntyre, 2014; Mirriahi et al., 2015) suggest that the effect of social and technological change is diversifying what it means to be a learner, who it is who learns, the learning context, and impact on the relationship between teacher and learner. Ultimately, such shifting perspectives prompt the need for educational researchers to investigate ways to effectively design personalised learning trajectories for learners (in consultation with learners) across emerging learning contexts. The idea of learning mobility potentially offers movement and fluidity for the learner and the activity of learning regardless of the context.

To address the knowledge gaps at the individual and institutional level in ways of rethinking the design for effective professional learning that is meaningful to the educator, the focus of this research study is the individual (micro-level). That is, the educator's inner world that enables or inhibits their motivation to engage in their professional learning. However, as evidenced in the literature, investigating how educators learn needs to be cognisant of the broader higher education ecosystem, regarded as the educator's outer world. Therefore the need is to design for effective professional learning that is mindful of the educator's learning needs, whilst being cognisant of institutional needs.

2.5.2 Research Questions for this Study

To address the research problem of how educators are motivated to engage in their learning mobility to transform their professional practice, how educators learn, from their perspective and from their world is investigated. As evidenced in the identified knowledge gaps, challenging the status quo of professional learning theory and practice means taking a deeper approach to understanding the educator's inner world that enables or inhibits their motivation to engage in their professional learning. Ramsden (2003) claims that the qualitative aspects of learning are concerned with "what" and "how" educators experience, organise and structure their activity of learning. From this, the research questions have emerged:

1. How do educators come to the learning?
2. How do educators learn?
3. What do educators do with the learning?

Since the purpose of this study is to gain a deeper understanding of how educators learn to add new thinking to the design of effective professional learning that is meaningful to the educator, the research questions work in concert to provide a holistic view of the educator as adult learner. The conception of the wholeness of learning is situated in the principles of transformative learning as portraying people naturally moving towards wholeness as they gain new discernment and emancipatory knowledge that manifests as the natural human desire for self-knowledge, growth, development, and freedom (Cranton, 2006; Mezirow, 2000). Translating the wholeness of learning to the research questions emphasises a systematic, yet pragmatic approach to understanding the ways educators can cultivate fuller, freer participation in their own learning.

The research question 1: *How do educators come to the learning?* aims to gain a deeper understanding of educators as adult learners, in particular their background, experiences and actions towards their learning as aspects of their professional practice and learning mobility. The research question 2: *How do educators learn?* aims to scaffold the insights gained from Question 1 to achieve a deeper understanding of how educators learn in the workplace, in particular their personal constructs that motivate them to engage in their learning mobility across the boundaries of professional learning situations. The iterative nature of the first two

research questions leads to the research question 3: *What do educators do with the learning?* which aims to gain a deeper understanding of the conditions and characteristics that cultivate the educator's self-determining and self-reflective perspective transformation toward their professional practice. Taking a deeper approach to understanding the educator's inner world by asking them how they come to the learning, how they learn, and what they do with the learning aims to illuminate and mature an understanding of the educator's learning mobility as a conceptual gateway to develop a unified, holistic approach to designing effective professional learning.

2.5.3 The Conceptual Framework: A Pragmatic Approach

The introduction of a conceptual framework plays two important functions within this research study. First, it acts as a systematic mechanism: to identify key concepts, structure and organise ideas; to connect theory with practice; and to identify relationships between concepts, often abstract in nature, theory and practice (Blaxter, Hughes, & Tight, 2010; Rudestam & Newton, 2015). Second, the conceptual framework provides a visual and narrative method to focus the research study, inform the research design and help make sense of the data collection and analysis (Leshem & Trafford, 2007; Maxwell, 2013).

As the essence of this research study is the inherent complexities of human nature, the conceptual framework serves a pragmatic and integrative function to recognise the knowledge gap informed by the potential relationships between concepts, assumptions, expectations, beliefs and theories, and the underlying conditions and characteristics, as illustrated in Figure 2.4. The pragmatic elements of the developing conceptual framework critically examined in Chapter 2 to inform the research gap were investigated through a social constructivist orientation to contemporary theories of learning within the theoretical perspectives of learning-centred approaches, adult learning characteristics, transformative learning processes, and professional learning practices.

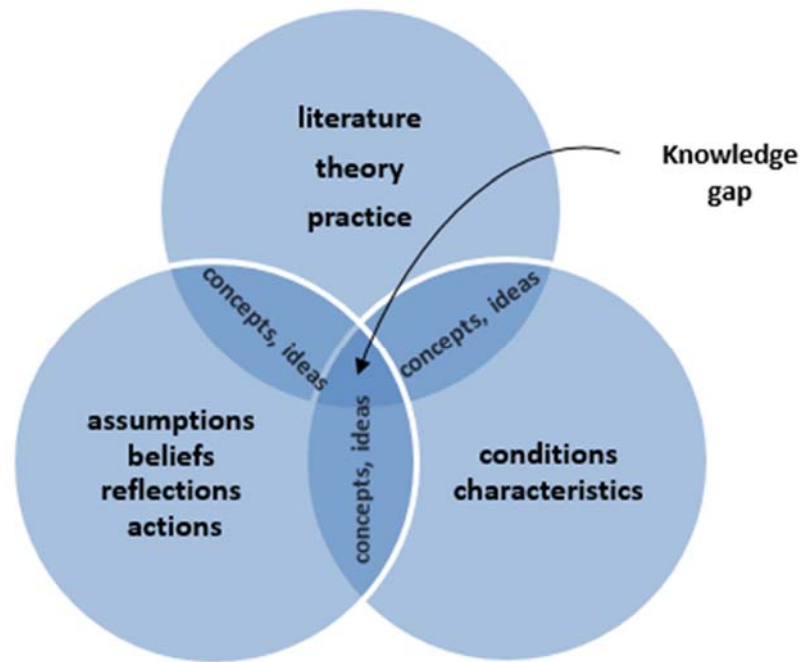


Figure 2.4. The knowledge gap.

This figure illustrates the pragmatic elements informing the knowledge gap.

Influential higher education scholars (Barab, Thomas, Dodge, Carteaux, & Tuzun, 2005; Biggs & Tang, 2007; Laurillard, 2007; Mezirow, 2000) emphasise the four key conditions of a social constructivist orientation which shape and inform the developing conceptual framework of this study to illuminate how educators as adult learners learn. The four conditions are understanding, motivation, engagement, and transformation.

1. **Understanding:** Developing an open, transparent learning culture enables educators to gain a deeper understanding of how they come to the learning, how they learn, and what they do with the learning. The learning process needs to have a clear focus on the expectations and outcomes of the professional learning situation that is personally meaningful to the learner. Learning is a negotiated partnership that emphasises the reciprocal nature of being a learner and a teacher within the professional learning situation;
2. **Motivation:** Motivation is as much a product of effective learning as it is a pre-requisite and central to the learner's engagement (Biggs & Tang, 2007). Educators experience a feeling of needing to know when cultivating their own growth and development to gain a deeper understanding of their professional

practice. This felt need is referred to by Laurillard (2007) as the affective form of motivation. The essence of effective professional learning situations is to communicate that need to educators where it may be initially lacking. Biggs and Tang (2007) believe it is about meeting the learner where they are by creating a personally meaningful professional learning culture that connects with the educator's intrinsic motivation. Intrinsic motivation is characterised as many things: curiosity and fascination (Biggs & Tang, 2007); autonomy, mastery, sense of purpose and agency driven by the deep human need to direct our own lives (Pink, 2011); self-improvement and growth cultivated through challenge and effort (Dweck, 2006); and self-efficacy as the educator's inner belief in their capabilities to make a difference and succeed (Bandura, 1977). Learning activities that ignite learners' intrinsic motivation enact positive feelings, and a sense of importance, challenge, and exhilaration (Biggs & Tang, 2007);

3. Engagement: Educators need the space, time and support to feel free to focus on, and engage in their own self-exploration, growth and development. Autonomy is a powerful motivator that leads to deeper engagement as educators choose what, how, and when they want to learn (Hart, 2014b; Pink, 2011). The educator's engagement is often critically dependent on their inner dialogue, that is, how they talk to themselves shaped by their personal foundation of experience and peer social talk considered as scholarly conversations generated from more informal, unstructured learning (Nuthall, 2005); and
4. Transformation: According to King (2005), transformative learning's essential elements of reflection, dialogue, and questioning values, beliefs and assumptions, can enable dramatic changes in people's lives. Educators work collaboratively and in dialogue with others, in a range of scholarly communities that may be characterised as a blend of formal and informal personal learning networks, visible or invisible to institutional structures and conditions, with both peers and academic developers, and within the context of the flow of work to pragmatically solve the educator's professional problem at the point of need. Biggs and Tang (2007) emphasise good dialogue elicits those activities that shape, elaborate and deepen understanding. However, dialogue is not an end in itself, but rather leads to choices about alternative actions for problem resolution that is personally

meaningful to the educator as adult learner (Boud et al., 1985; Marsick & Watkins, 2001).

These four conditions contain a wealth of implications for the design for effective professional learning. An important aspect that is implicit in the conditions of understanding, motivation, engagement and transformation is reflective practice using transformative learning processes (Biggs & Tang, 2007; Laurillard, 2007; Mezirow, 2000) as educators as adult learners come to understand who they are. When these conditions are present, Biggs and Tang (2007) suggest learners are “‘entrapped’ in this web of consistency, optimizing the likelihood that they will engage in appropriate [professional] learning activities” (p.52).

Therefore the developing conceptual framework, illustrated in Figure 2.5, is considered the wholeness of professional learning that manifests the key concepts and ideas that take into account the literature, theories and methods, the conditions and characteristics, the assumptions, beliefs and reflections that represent the educator’s learning mobility within and across their inner and outer worlds.

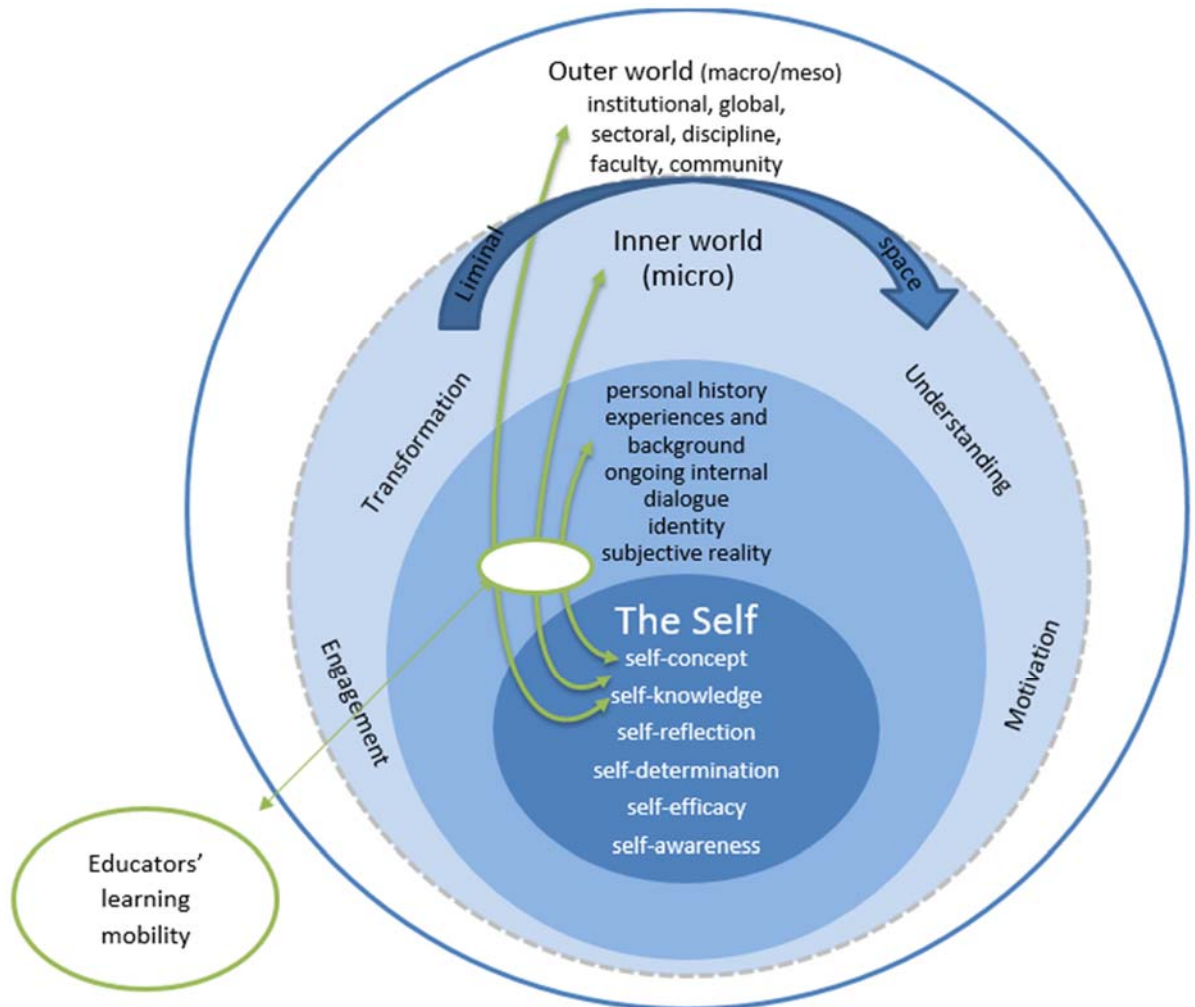


Figure 2.5. The wholeness of professional learning.

This figure illustrates the key elements of the educator's learning mobility within and across their inner and outer worlds.

Within this theoretically sound but pragmatic approach, it is evident that to gain a deeper understanding of how educators learn means gaining a deeper understanding of their inner world manifested through such characteristics as their personal histories and experiences, ongoing internal dialogue, inner belief system, identity and subjective reality. These characteristics inform a person's psychological habits of mind. The wholeness of professional learning is about starting from the inside, exploring the educator's personal constructs framed within their psychological habits of mind, that validates their intellectual (cognitive), emotional (affective) and behavioural (conative) states to form and inform the educator's developing self-concept (Cranton, 2006; King, 2003; Mezirow, 2000).

I recognise, as did King (2005), that understanding our psychological sense of self serves as a transformative learning framework for understanding our lives, how we work, live, learn, and communicate. Furthermore, King's (2005) work makes a significant claim to the relationship of the outside forces to the educator's as adult learner's inner being. Acknowledgement is given to the outer world that may exert pressure in the form of political, economic, or other conditions that impact on educators to respond to the need for coping, and dealing with change. The outer world of the educator also encompasses aspects closer to their personal life such as the workplace, educational settings and the concerns and conditions which come with engaging professionally at this level (King, 2005). The outer world described by King (2005) has connection to the outer (macro- and micro-level) world conceptualised within this chapter. Also supporting this developing conceptual framework is King's (2005) view that learning transforms our perspective, our very substance of being, and occurs on the inside. Our inner being, and our ways of being in the world, are dramatically and permanently altered by emotional dynamics, and intellectual and spiritual concerns that are harboured on the inside (King, 2005). King (2005) refers to this as enabling adult learners to be the architects of their future; I refer to it as enabling educators as adult learners to be architects of their learning mobility.

In addition, my views are built on Kegan and Lahey's (2001, 2009) work in the field of adult and organisation learning, who discovered that to create a system of change, the "master motive" (2009, p. x) is not located within outside structures. Unlocking the system of change starts on the inside; the hidden dynamics within the individual's mindset and mental complexity structures act as a powerful tool to preserve the existing way of meaning making. By investigating and developing a deeper understanding of our being, our sense of self, Kegan and Lahey (2001) contend it holds more promise for individual change that can manifest as organisational change.

2.5.4 Summary

Conceptualising the relational nature of this research starts with the individual and takes a bottom-up approach to investigate the research problem from the depths of the educator's perspective. The idea of the educator's learning mobility is

ultimately concerned with the transformative space of the inner being of the educator as adult learner. Jung terms this as a liminal space that forms a boundary or threshold of emotional and behavioural fluctuations that manifests as uncertainty of identity and purpose of life (Meyer & Land, 2013). Due attention is also given to the broader conceptual level of the educator's outer world. Such an approach recognises the synergistic, often problematic, relationship between individual and organisational learning.

Within the in-depth critique of the educational literature and the development of the conceptual framework, the conditions of understanding, motivation, engagement and transformation emerged. In addition, a number of characteristics appeared across the fields of knowledge relating a social constructivist orientation to contemporary theories of learning, especially transformative learning as a process of adult learning, and professional learning as a form of professional practice. When applied to designing for professional learning that cultivates the educator's learning mobility, the characteristics include: learning context; power, autonomy and control; intrinsic motivation and change; meaningful connections; identity and personal growth.

2.6 Concluding Remarks

A comprehensive investigation of the literature has been reported in Chapter 2. The higher education ecosystem metaphor offered a pragmatic, systems thinking approach to make sense of the complexities inherent in human nature; the dynamic, interconnected relationship between educators and the institution when investigating how educators as adult learners learn. The higher education ecosystem takes a bottom-up approach directed at the individual (micro, inner world) level. Due attention was given to the institution (macro, outer world) given the relational, often complex nature between individual and organisational learning. As noted at that point, often the meso- (discipline, faculty, community) level is integrated into the macro-level as it is part of the educator's outer world.

In Chapter 2, the focus was on investigating how educators learn within the body of knowledge of contemporary theories of learning, adult education, transformative learning, and professional learning in higher education. As part of the investigation, and the early phase formulation of the research problem, the idea of

the educator's learning mobility was revealed through the critique of the literature. The essence of the educator's learning mobility is that it is the mobility of the learner and the learning that becomes significant, which affirmed the inside-out approach.

Chapter 2 identified that the perceptual challenges within the educator's inner world are that professional learning often does not service their learning needs nor has meaning to their learning context, potentially limiting their motivation to engage in the learning process. Further exploration of the literature suggested the educator's learning needs are unique to the individual due to their subjective realities informed by their personal histories, experiences and background, internal dialogue, and sense of identity. The educator's individual perspectives relate to how they construct personal meaning related to self. Therefore to develop a deeper understanding of how educators learn in order to design for effective professional learning is to focus on the educator's sense of self. Their inner belief system that is concerned with self-concept, self-awareness, self-knowledge, self-efficacy, self-determination, and self-reflection in adulthood acts as a filter for interpreting the meaning of the learning experience, make judgement on those experiences and take action.

Also identified in Chapter 2 was the perceptual challenges educators experience within their outer world, which potentially limits their sense of control, freedom and choice of the learning activities to address the immediacy and authenticity of their learning needs. Such perceptual challenges within the educator's inner and outer worlds may serve to enable or inhibit the educator's learning mobility to change, and possibly transform aspects of their professional practice. This led to the formulation of the research problem of how educators are motivated to engage in their learning mobility to transform their professional practice, and the research questions to address how educators come to the learning, how educators learn, and what educators do with the learning.

Chapter 2 concluded by presenting a conceptual framework termed the *wholeness of professional learning* that demonstrated a conceptual relationship (based on the literature) between the educator's inner and outer worlds. The conceptual framework consolidated the key conditions and characteristics situated within the literature to validate the research problem, knowledge gap and research questions. The conceptual framework provided a theoretical agenda for a research

design that needs to reflect the pragmatic and systematic research qualities of the conceptual framework.

Chapter 3 outlines the research design in order to address the pragmatic nature of the research problem and research questions. Chapter 3 continues the journey of gaining a deeper understanding of how educators learn by employing a pragmatic research design that offers a methodological framework to deal with subjective realities inherent in the complexities of human nature when designing for effective professional learning.

Chapter 3 Research Design

This work employs a pragmatic paradigm of inquiry in research design in order to gain a deeper understanding of how educators learn, through the lens of their subjective realities and informed by their sense of self. Methodologically, the research is design-based. The researcher worked in collaboration with research participants (educators) to resolve the real-world problems in terms of educators' professional learning as adult learners. This supported the process of refining the research problem, developing and testing solutions, and designing principles to resolve the problem (Reeves, 2006; Wang & Hannafin, 2005).

A pragmatic paradigm affords a mix of qualitative and quantitative sources of data to address the research problem of how educators are motivated to engage in their learning mobility to transform their professional practice. The data collection methods included a pre-interview questionnaire, a structured interview, and researcher observations and reflections. These methods enabled the researcher to gain a deeper, richer understanding of the research participants' perceptions, judgements, thoughts, feelings and views of self when inquiring about how educators come to the learning, how educators learn, and what educators do with the learning (the research questions).

Primarily, qualitative analysis was used as this form of analysis is appropriate in naturally occurring research settings that seek a richer, deeper understanding of the perspective of the person being researched. Thematic analysis, a widely used qualitative analysis method, focused on identifying, analysing and reporting patterns (themes) across the datasets to address the research problem. Like design-based research, thematic analysis offered a theoretically flexible approach as it enabled a pragmatic yet *systematic* investigation of the complexities inherent in the subjective realities of how educators learn. Systems thinking treats the research design as a whole, described by DeKay (1996) as a system not only made up of parts but also the relationships and interconnections between the parts. Figure 3.1 illustrates the pragmatic research design for this study including the methodological framework, methods and procedures to address the research problem and research questions.

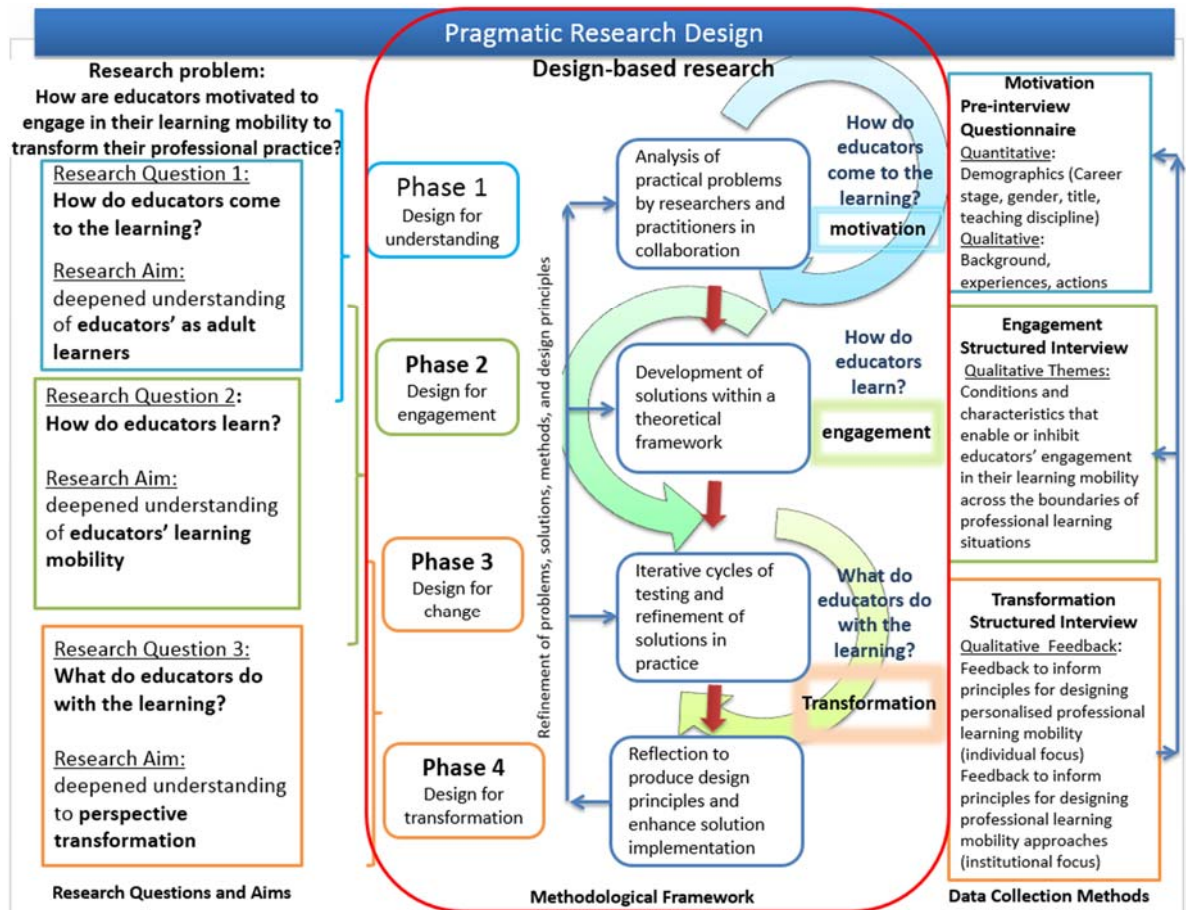


Figure 3.1. The pragmatic research design.

This figure illustrates the methodological framework, methods and procedures to address the research problem and research questions.

In this chapter, the pragmatic yet systematic research design is described along with the methodological framework and data collection methods. The methodological framework, discussed in Section 3.1, includes the rationale for a pragmatic paradigm of inquiry and justification for design-based research (DBR). The data collection methods and procedures are discussed in Section 3.2, inclusive of the appropriateness of the approach taken and the rationale for the selection of research participants. In Section 3.3, the rationale and procedures for thematic analysis are provided.

3.1 Paradigms and Methodology

3.1.1 Pragmatic Paradigm of Inquiry

The research methodology is discussed in this section in terms of paradigms of inquiry. The paradigms of inquiry reflect the philosophical position of the whole research enterprise, inform the methodology, and thus provide a context for the research process. The methodology then reflects the strategy: the plan of action to (re-)solve, systematically (Crotty, 1998; Kothari, 2009; Phillips et al., 2011), the research problem of how educators are motivated to engage in their learning mobility to transform their professional practice.

The common paradigms of inquiry used in social sciences research are positivism, interpretivism, critical theory and pragmatism – each of which has its own epistemological and ontological considerations (Phillips et al., 2011). What we believe about the nature of reality, also called our ontological perspective, and the nature of knowledge, or our epistemological perspective, is intimately linked to the researcher's philosophical stance and the research contextual factors (Merriam & Kim, 2012).

As there are no fixed truths in the real-world context of this study, where the individual experiences their subjective realities in parallel to a world that is diverse with multiple realities, a pragmatic paradigm enabled the researcher to take on objective and subjective states as she worked in collaboration with educators to resolve real-world problems. This is in contrast to the positivist stance which sees reality as objective where there exists only one interpretation, and sees the researcher as objective and removed from the research process (Merriam & Kim, 2012; Phillips et al., 2011).

In addition, the pragmatic paradigm affords a mix of qualitative and quantitative sources of data to provide rich descriptions of complex phenomena. Although similar to the interpretivist stance in this regard, the pragmatic paradigm goes beyond the exploratory nature of rich descriptions, interpretable patterns and themes characterised by the interpretivist paradigm, to make judgements about learning contexts, seek deeper understanding of them, and aim to improve them (Phillips et al., 2011). Furthermore the pragmatic paradigm is concerned with how things work in a particular learning context.

The purpose of the study was to gain a deeper understanding of how educators learn in order to add new thinking to the design for effective professional learning that is meaningful to the educator. The premise of change, and the potential for transformative learning processes to change the educator's perceptions of self as being in control of their continuing personal growth and development were explicit dimensions under investigation in this study. The concept of change is largely absent from the interpretivist and positivist paradigms but is a key characteristic of the critical theory paradigm. However, critical theory's prime focus is on social rather than individual change and empowerment, whereas the pragmatic stance offers these characteristics in union with improvement (Merriam & Kim, 2012; Phillips et al., 2011). Additionally, a unified transformative learning perspective (Section 2.3.1) is concerned with the pragmatics of individual perspective transformation that is essentially about change and empowerment to improve professional learning. Making improvements to the design for effective professional learning is concerned with the wholeness of learning that represents the educator's learning mobility in how educators come to the learning, how educators learn, and what educators do with the learning.

Although the main paradigms mentioned here may be contested by established social science researchers, Crotty (1998) advises researchers, from novice to experienced, not to become overwhelmed but rather use the research process as a framework to guide and establish a pathway to orderly research. As such, this research used a pragmatic paradigm of inquiry as it combined the most appropriate features of the other paradigms for the explicit purpose of handling the complexity inherent in addressing real-world problems. The pragmatic paradigm situated the philosophical position within the goals of this research study: to seek a deeper understanding of how educators learn; to identify the conditions and characteristics that enable or inhibit the educator's engagement; to investigate alternative perspectives to the design for effective professional learning; to investigate transformative learning processes as a pathway to the educator's learning mobility; and to present the idea of the educator's learning mobility as a new paradigm for workplace learning.

The appropriateness of qualitative and quantitative analyses was based on the strong relationship between paradigms of inquiry, informed by the epistemological

and ontological nature of the study and the types of data the research was focused on, and therefore the methodologies and methods used to generate the data (Phillips et al., 2011). Quantitative research is usually valued for its objectivity, minimising error and bias. In contrast, qualitative research acknowledges the subjective part played by the researcher, where the assessment of attitudes, opinions and behaviours is the function of the researcher's insights and impressions (Kothari, 2009; Norton, 2009).

Norton (2009) makes a case for integrating both the objective and the subjective in educational research. Studies situated within a pragmatic paradigm of inquiry will happily accommodate a combination of quantitative and qualitative methodologies and methods (Phillips et al., 2011). In this study, the researcher involvement extended to collaborating with research participants to address the practical problem of how educators as adult learners learn. Therefore qualitative analysis, and descriptive statistics as a quantitative aspect of data analysis were used to support the pragmatic stance.

Primarily, qualitative analysis was used as this form of analysis is appropriate in research studies where a richer, deeper understanding of the perspective of the person being researched is sought. Furthermore, more in-depth information can be obtained from open-ended questions to provide richer detail in response (Norton, 2009). Qualitative analysis was used for Research Question 2: *How do educators learn?* and Research Question 3: *What do educators do with the learning?* to gain a deeper understanding of educators' personal constructs (perceptions, judgements, thoughts and feelings) towards professional learning that motivated them to engage (or not) in their learning mobility to transform their professional practice. The themes emerging across the personal constructs served to inform the developing design principles to help resolve the research problem.

Quantitative analysis, often seen as inappropriately positivist in educational research, is useful in research studies that produce any information that is quantifiable (Norton, 2009). Descriptive statistics, one of two types of quantitative data, was used for Research Question 1: *How do educators come to the learning?* Research Question 1 generated quantifiable results (such as gender, career stage, teaching discipline, title) to provide useful demographic information to describe the educator's background, experiences and actions towards their professional practice

and learning mobility. Inferential statistics, the second type of quantitative data, goes beyond description and attempts to draw conclusions from the data collected (Norton, 2009). Specifically, inferential statistics would be used when the research study is testing a hypothesis to make a case for cause and effect between variables. As this was not the case, nor the intent of this study, inferential statistics were not used.

A mix of qualitative and quantitative analyses generates multiple perspectives which enable triangulation. Triangulation is a way of strengthening the validity of findings and conclusions as it enables the researcher to determine the accuracy and credibility through multiple sources of information to validate qualitative, subjective measurements (Creswell, 2012; Phillips et al., 2011). This research used both methods triangulation and sources triangulation. Methods triangulation is concerned with a mixed methods data collection (Creswell, 2012; Phillips et al., 2011). This research study used the mixed method data gathering techniques of pre-interview questionnaire, structured interview, and researcher observations and reflections. Sources triangulation seeks a combination of different perspectives (sources of information) from educators from a range of backgrounds and experiences. Essentially triangulation is a process of cross-checking findings, analysis and conclusions to advance the authenticity and trustworthiness of the research.

3.1.2 Design-based Research (DBR)

The potential effects rapid social and technological changes are having on models of education create intriguing opportunities for new forms of learning because they change the nature of the relations between the situation and the phenomenon. In the context of this study, that related to professional learning situations within the phenomenon of the educator's learning mobility. It was due to the situated, active, social characteristics associated with effective professional learning, and the educator's subjective reality that acted as a filter to how and what they learn (and therefore their learning mobility), that the methodological framework aligned with a pragmatic paradigm of inquiry. Design-based research (DBR) is fit-for-purpose as it is a systematic but flexible methodology to improve educational practices through iterative phases of analysis, design, development, and implementation (Wang & Hannafin, 2005).

There are three core tenets to DBR that have significance to this research study. First, DBR starts with the basic assumption that existing practices are inadequate, and drives innovative design by seeking alternatives to current educational practices that can be established and sustained (Edelson, 2006). A critique of the literature in Chapter 2 revealed that existing professional learning practices are often perceived by educators as ineffective, unappealing, and not meaningful or applicable to their world. The idea of the educator's learning mobility as an alternative approach to designing for effective professional learning that is meaningful to the educator's real-world professional practice was also introduced. This first tenet of DBR addressed research goals 3 and 5 of the study (Section 1.2), concerned with investigating alternatives to professional learning practices and the educator's learning mobility as a new paradigm to improve workplace learning practices.

The second tenet of DBR recognises that collaboration is central to each stage in the process of refining the problem, developing and testing solutions, and designing principles to resolve the problem (Reeves, 2006; Wang & Hannafin, 2005). To address the design for effective, authentic professional learning that makes provision for the educator's learning mobility, the researcher worked in collaboration with the research participants to gain a deeper understanding of how the participants come to the learning, how they learn, and what they do with the learning (the three research questions) to transform their professional practice. This tenet of DBR addressed research goals 1, 2, 4 and 5 of the study, concerned with developing a deeper understanding of the conditions and characteristics that enable or inhibit the educator's motivation to engage in their professional learning as a means to gain insight into how educators learn. The iterative, collaborative nature of DBR afforded the opportunity to test transformative learning processes and the idea of learning mobility as a practical approach to address the research problem.

The third tenet asserts that DBR is situated in an authentic educational context and requires more than understanding the happenings of one particular teaching context; it is concerned with moving beyond the local conditions to demonstrate the relevance of the findings to other contexts (Barab & Squire, 2004). DBR heightens the potential for generalisability and provides a sense of validity to the research as results can be effectively used to assess, inform, evaluate and improve practice

across contexts (T. Anderson & Shattuck, 2012). Seeking the participants' views from their range of contexts added new thinking to the design for effective professional learning. The diversity of views provided a richness of data to address the proposed research outcomes, concerned with theorising the educator's learning mobility in professional practice as a framework to transform workplace learning in higher education.

These three tenets, in concert, gave the research study credibility. A criticism of educational research is the "credibility gap" where research is detached from practice (Phillips et al., 2011; Wang & Hannafin, 2005). DBR addresses the credibility gap as it is concerned with advancing theories of learning and teaching in complex settings to improve educational practice as well as offering new possibilities for innovation (Design-Based Research Collective, 2003; Wang & Hannafin, 2005).

Other considerations when making judgements about the methodological value of DBR to the overall pragmatic research design for this study related to research validity and objectivity. Barab and Squire's (2004) critique of DBR is concerned with threats to validity, stating that if a researcher "is intimately involved in the conceptualization, design, development, implementation, and researching of a pedagogical approach, then ensuring that researchers can make credible and trustworthy assertions is a challenge" (p. 10). Anderson and Shattuck (2012) recognise that this is a familiar challenge to qualitative research in general and respond to this concern by stating that DBR does not claim that the researcher's bias is removed from the research process. Rather, an argument could be mounted for the researcher themselves, with their biases, insights, interpretations and deep understanding of the context being the best research tool available to the phenomenon under investigation (T. Anderson & Shattuck, 2012). In this research study, validity was addressed by optimising the cyclical nature of DBR where the researcher worked in collaboration with the research participants as a mechanism for validating the findings by increasing alignment of theory, design, and practice.

Establishing objectivity in the process of generating the learning intervention results in DBR researchers often finding themselves in the dual intellectual roles of advocate and critic. DBR manages these necessary tensions by triangulating multiple sources and kinds of data to connect intended and unintended outcomes to the

iterative nature of refining problems, solutions and design principles. In addition, triangulation across multiple sources of data (as discussed in Section 3.1.1), repetition of analyses across iterative cycles and the use of standardised data collection methods (see Section 3.2.1), support overall objectivity and reliability (Design-Based Research Collective, 2003).

Design-based research and action research.

With the focus on developing broad models of how educators learn to inform the design for effective professional learning, the researcher made the distinction by employing design-based research (DBR) rather than taking an action research approach. Educational researchers often have trouble differentiating between the two approaches. Anderson and Shattuck (2012) attribute this to the fact that the approaches share many epistemological, ontological, and methodological underpinnings.

DBR and action research are both cyclical, continual improvement research approaches used in educational research. Both approaches directly intervene in real-world domains, aim to effect changes within these domains, and share a common paradigm - pragmatism (Cole, Purao, Rossi, & Sein, 2005). The key difference between the two methodologies that has relevance to this research study is that action research is practitioner-based, first-person inquiry, that is carried out by the teacher alone, and concerned with the outcome of improvement in personal practice (T. Anderson & Shattuck, 2012; Phillips et al., 2011). In contrast, DBR is generative in nature and based on collaborative partnerships between researchers and practitioners. The key purpose of DBR is “to foster learning, create usable knowledge, and advance theories of learning and teaching in complex settings” (Design-Based Research Collective, 2003, p. 5). DBR provides a methodological framework to refine both theory and practice, whilst providing new possibilities to advance the body of knowledge on how people learn. In this study, the pragmatic and flexible affordances of DBR dealt with the ill-defined, messy and complex forces influencing the educator’s motivation to engage in their professional learning.

Design-based research: In theory.

The main characteristics of DBR are: pragmatic; grounded (that is, grounded within literature-based problem identification and grounded within real-world contexts); interactive, iterative, and flexible; integrative; and contextual (Reeves, 2006; Wang & Hannafin, 2005). DBR studies usually involve some type of intervention situated within a real educational context (Schuck, Aubusson, Kearney, & Burden, 2010). For the purposes of this research study, the intervention was considered to be professional learning situations that may have many permutations depending on the learning context.

Design is central in efforts to foster a whole range of contextually-sensitive design principles and models to advance theories of learning and teaching (Wang & Hannafin, 2005). Of significance, DBR extends beyond designing and testing particular interventions. Interventions are grounded in theoretical perspectives about learning and teaching, and demonstrate a commitment to evolving the relationship between theory, design artefacts, and practice (Design-Based Research Collective, 2003). Reeves (2006) articulates the iterative nature of DBR (illustrated in Figure 3.2) as including an analysis of practical problems; development of solutions based on existing knowledge; evaluation of research of the solution in practice; and reflection to produce design principles.

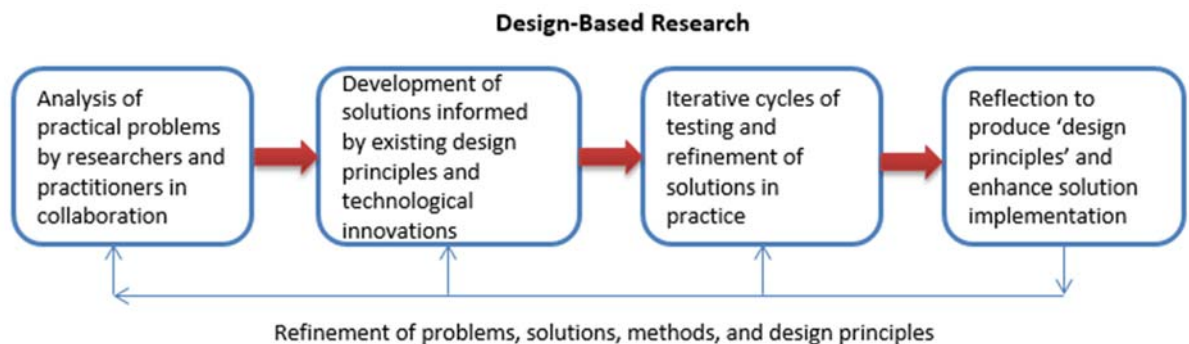


Figure 3.2. Design-based research.

This figure illustrates the four phases of designed-based research

(Reeves, T. (2006). Design research from a technology perspective. In J. V. den Akker, K. Gravemeijer, S. McKenney, & N. Nieveen (Eds.), *Educational design research* (pp. 52–66). London, United Kingdom: Routledge, p. 59.)

Design-based research: In practice.

Design-based research normally involves an intervention or solution in *practice* that is designed to improve an outcome. In this study the intended outcome is to design for effective professional learning situations. In practice, this study took a modified approach to DBR where the intervention, informed by design principles, will be implemented as the next stage of future research opportunities (see Section 5.5).

Within this research study, the four phases of DBR were identified as designing for understanding, designing for engagement, designing for change, and designing for transformation (refer to Figure 3.1). These four phases of design were informed by the conditions and characteristics underpinning the conceptual framework outlined in Section 2.5.3. The application of the four phases addressed the purpose of this research study which was to add new thinking to the design for effective professional learning that makes provision for the educator's learning mobility. To gain a deeper understanding of how educators learn to improve professional learning practice using DBR, Table 3.1 details the research activities across the four phases. The application of the four phases is summarised across the research problem and question, the conditions and characteristics underpinning the application of theory to practice, the research methods and processes, and the evaluation aspects across the four phases.

Table 3.1. Application of phases of design-based research.

Design-based research phases	Phase 1: Analysis of practical problems	Phase 2: Development of solutions based on existing knowledge	Phase 3: Evaluation research of the solution in practice	Phase 4: Reflection to produce design principles
	<i>Designing for understanding</i>	<i>Designing for engagement</i>	<i>Designing for change</i>	<i>Designing for transformation</i>
Research problem	How educators are motivated to engage in their learning mobility to transform their professional practice.			
Research purpose	In seeking to address this research problem, the researcher worked in collaboration with research participants to gain a deeper understanding of how they learn, from their perspective, for the purpose of adding new thinking to the design for effective professional learning that makes provision for the educator's learning mobility.			
Research questions	How do educators come to the learning?	How do educators learn?	What do educators do with the learning?	
Research aims	A deepened understanding of educators as adult learners' backgrounds and experiences to inform effort, intent, and actions towards their growth and development, professional practice and learning mobility	A deepened understanding of how educators learn in the workplace: personal constructs that motivate them to engage in their learning mobility across boundaries of professional learning situations	A deepened understanding of the conditions and characteristics that cultivate the educator's self-determining and self-reflective perspective transformation of their professional practice	Improve professional learning practices that cultivate transformative learning processes as a pathway to the educators' learning mobility
Theory-practice conditions & characteristics	Understanding Effort, intent, and actions leading to growth and development	Engagement Personal constructs	Change Perspective transformation	Design principles Conditions and characteristics
	Motivation		Transformation	
Methods	Pre-interview questionnaire	Structured interview	Structured interview	Reflective notes

Design-based research phases	Phase 1: Analysis of practical problems <i>Designing for understanding</i>	Phase 2: Development of solutions based on existing knowledge <i>Designing for engagement</i>	Phase 3: Evaluation research of the solution in practice <i>Designing for change</i>	Phase 4: Reflection to produce design principles <i>Designing for transformation</i>
Processes	<p>Quantitative descriptive statistics: Background and experiences: demographics (career stage, gender, title, discipline)</p> <p>Qualitative: Categories of action towards professional practice and learning mobility:</p> <ul style="list-style-type: none"> • scholarly activities • personal qualities 	<p>Qualitative themes: Personal constructs: conditions and characteristics that enable or inhibit educators' engagement in their learning mobility across professional learning situations</p> <p>Researcher's iterative mind maps to capture and triangulate findings</p> <p>Ongoing coding of interview transcripts</p>	<p>Qualitative design principles: Themes to inform developing principles for designing for effective professional learning</p> <p>Researcher's iterative mind maps to capture and triangulate findings</p> <p>Coding of all interview transcripts</p>	<p>Develop design principles to provide practical solutions to the research problem and advance theoretical understanding to improve professional learning practices</p>
Products from each phase	<p>Initial conceptual framework Research problem Research questions Descriptive statistics</p>	<p>Rich descriptions, patterns and themes</p>	<p>Developing principles informed by ongoing theme development</p>	<p>Design principles Conceptual model</p>
Evaluation	<p>Extensive review of literature Evaluate understanding of the research problem Conduct a small pilot study of data collection methods</p>	<p>Formative evaluation of developing themes and patterns as part of the cycle of interviews</p>	<p>Formative evaluation of themes informing the design principles as part of the cycle of interviews</p>	<p>Future application and interpretation of conceptual model</p>

A more detailed description of each phase, and the relational, iterative research activities across the phases is given in Table 3.5 as part of a detailed account of the analysis. The importance of mapping the application of the DBR phases (as detailed in Table 3.1) is that it offers transparency in addressing the purpose and outcome of this research study. Applying the tenets of DBR enabled the researcher to seek meaning and understanding from the participants' perspectives, entwined with cycles of theory-practice evaluation, to enable the researcher to gain a deeper, more sophisticated understanding of the research problem, the research questions, and data collection to address the research outcomes. Merriam and Kim (2012) refer to this as phenomenon maturity. Wingiest and Ericsson (2011) advocate for this layer of maturity as it leads to scalability and maturity for future research which serves the ideologies of DBR to advance theories of learning and teaching in complex settings.

The benefits of mapping this research study's key processes and outcomes across the DBR phases were to demonstrate the scaffolded, iterative, reflective inquiry used to test and refine the solution to the research problem whilst developing and defining the design principles (J. Herrington, McKenney, Reeves, & Oliver, 2007). An example of these benefits was that the review of literature conducted in Phase 1 of the study helped to inform the research problem. Furthermore, the researcher consulted educators to gain a deeper understanding of their experiences of how they learn as part of their professional practice. A pilot study was conducted to assess the researcher's interpretations and understanding of the problem as well as test the pre-interview questionnaire and structured interview methods. Phase 2 scaffolded the insights gained during Phase 1 to inform the researcher's work. The researcher continued to consult the literature and to refine the data collection methods. The researcher administered the pre-interview questionnaire and commenced the iterative cycle of interviews with research participants to:

- Generate rich descriptions, interpretable patterns and themes to address the complexity of how educators learn;
- Illuminate thoughts and feelings: rational, (cognitive) processes, extra-rational emotions (affective) and behaviour (conative) to gain a deeper understanding of the educator's view of self; and

- Make iterative judgements about, and improvements to, the design for effective professional learning grounded in the theoretical and practical activities underpinning the pragmatic research design.

The participants' personal constructs and rich descriptions of how they learn which emerged from Phase 2 were trialled and tested as part of the iterative nature of the interview process in Phase 3, resulting in these two phases occurring in parallel rather than in sequence. The researcher continued refining and revising her mind maps as a mechanism to consolidate the reflective inquiry to inform the analysis and findings of the data collection process. The mind maps helped navigate the shifts in theme development through this stage of testing, trialling and refining the development of design principles.

Design principles.

Design-based research enables the development of principles for the design of learning interventions. Development of the design principles occurred through the collaboration of the researcher and the participants in real-world settings, which led to contextually-sensitive design principles and theories. This is seen as a strength as often a criticism of educational research is the limited impact on advancing the field of knowledge as the research is divorced from the problems and issues of everyday practice (Design-Based Research Collective, 2003; Phillips et al., 2011).

Furthermore, design principles developed in natural settings are perceived to have greater external validity than those developed in sterile, controlled settings of laboratory studies, which in turn, serves to better inform solutions to those long-term and systemic issues in education (Wang & Hannafin, 2005). In the context of this study, the development of design principles helped to illuminate the challenging, complex nature of how educators learn, from their perspective, that gives due attention to the educator's inner and outer worlds.

3.1.3 Summary

The methodological framework is discussed in terms of paradigms of inquiry and methodology. Employing a pragmatic paradigm of inquiry builds research capacity to handle the complexities inherent in educational research where human nature is at the core. The pragmatic paradigm enabled the researcher to be systematic yet flexible in utilising a fit-for-purpose methodological framework to investigate, and conceive of, alternative approaches to professional learning practices to improve opportunities for the educator's learning mobility.

Design-based research offered a pragmatic and flexible methodological framework to address the complexities inherent in the messy, unpredictable and multi-faceted real-world context of investigating how educators learn. Educational researchers (Dede et al., 2009; J. Herrington et al., 2007; Wang & Hannafin, 2005) affirm that a hallmark of design-based research methodology is the capability to address dynamic and complex learning environments. Design-based research's iterative phases of testing and refining possible solutions to the research problem, in collaboration with participants' practical experiences of how they learn, has the capability of cultivating theory-driven, evidence-based meaningful change in the context of professional learning practice.

3.2 Methods and Procedures

3.2.1 Data Collection Methods

Although some researchers use the terms "methodology" and "method" interchangeable (Merriam & Kim, 2012), distinction has been made between the two in this research study. The methodology refers to the plan of action to resolve the research problem systematically and pragmatically, which is the role of design-based research, whereas research methods refer to the specific tools, data collection techniques, and processes used to obtain the data as evidence of the research conducted (Crotty, 1998; Kothari, 2009).

The pragmatic paradigm of inquiry advocated in this research study offered the selection of a mix of qualitative and quantitative data collection methods to obtain evidence to answer the research questions. Design-based research accommodated and encouraged a mixed methods research inquiry to respond to emergent characteristics and conditions of the practical problem under investigation.

According to Phillips et al. (2011), interviews and surveys are the most common data collection methods in educational research. This research study used a pre-interview questionnaire and structured interview to gain deeper insights into how educators learn, using the perspectives of the participants. The researcher also documented her reflections and observations, primarily in the form of iterative mind maps (Appendix F), to capture the shifts and changes in theme development. The structured interviews (Appendix J) were a demonstration of the cyclic nature of data collection, where surfacing trends and patterns in earlier interviews was tested in the latter interviews.

Professional practice can become so ingrained by often unconscious habits, conventions and actions that educators do not realise such behaviours may be limiting them from challenging existing practice and making changes. Quantitative data (descriptive statistics) collected from the pre-interview questionnaire helped the researcher gain a deeper understanding of the educators' backgrounds and experiences as insight into how they came to the learning, in particular their actions, efforts and intentions towards their professional practice and learning mobility. Qualitative data collected from the structured interview enabled the researcher to gain a deeper understanding of the educators' perspectives of how they learn and what they do with the learning within the complexities and messiness that characterise the research participants' dynamic, real-world learning contexts. The rationale and procedures for the pre-interview questionnaire are given in Section 3.2.3, and for the structured interview in Section 3.2.4.

3.2.2 Research Participants

Rationale for selection of research participants.

To add new evidence to rethinking professional learning that makes provision for educator's learning mobility, the researcher needed to speak to educators who take responsibility and control of their own learning as scholarly practitioners actively engaged in their professional practice. Throughout this research study, the researcher used the term "research participants" or "participants" and, as this study is located in the higher education sector, the research participants were practising educators in a university setting.

Selecting a particular educator as a participant in the research study was based on their scholarly action, behaviour and their desire to deepen their understandings of their professional practice. This was not seen as a limitation of the research study. On the contrary, as this research is primarily located in the study of human nature where we are all unique individuals informed by our background, experiences, emotional intelligence and cultural heritage, there was diversity among participants in regard to their openness to learning based on their subjective realities and psychological predispositions. Doyle's (2008) work uncovered the tension that many adult learners come to the learning setting conditioned by years of experiencing knowledge transmission, that is, instructional approaches to teaching that make them very dependent learners. Furthermore, educators' resistance to being innovative in their teaching practice often stems from their own learners wanting teachers to do what they have done in previous learning contexts – lecture, tell them what to think and make decisions about learning for them (Doyle, 2008). This is true for engagement in, and resistance to, professional learning situations that aspire to embed learning-centred approaches and transformative learning processes, as the underlying pedagogical principles are about change. Cultivating change and the possibilities of perspective transformation are concerned with challenging the research participants' beliefs, attitudes and perceptions of self as adult learners, enabled or inhibited by their motivation to engage in profession learning as a function of their own learning mobility.

Therefore, the researcher did not make the assumption that because a research participant demonstrated active engagement in their professional practice, they were open to transforming their perspectives about learning in adulthood in order to continuously grow and develop their professional practice. The richness was in exploring the participants' experiences of learning from their perspective; that is, working in collaboration with the participants as problem solvers to potentially resolve the problem of designing for meaningful engagement in professional learning that may offer opportunities for transformative learning. A further benefit in eliciting contextually-sensitive views, judgements, and perceptions was the diversity of rich descriptions from participants, which led to phenomenon maturity in making sense of the idea of educators' learning mobility for the betterment of designing for effective professional learning to inform professional practice.

Research participant samples: Scholarly communities.

Research participants in this study represented a sample of higher education teachers who belonged to scholarly learning communities. The idea of learning communities within the context of this research was people working together where they regarded learning as a social act that was an integral part of everyday life (Lave & Wenger, 1991). “Scholarly communities” is a useful term as it moves beyond the established, and highly regarded work of Lave and Wenger’s (1991) communities of practice. As Wenger, White and Smith (2009) articulate, scholarly communities expand an understanding of a community of practice in terms of size, stability, diversity, boundaries and modes of engagement, as well as personal and collective identities.

This research positioned scholarly communities within the value of learning enabled by community involvement and networking where social learning activities offer new types of professional learning opportunities, characterised as: collaboration and sharing information, tips and practice; learning from each other’s experience; supporting each other with challenges; creating new knowledge together; staying current in the field; reaffirming personal and collective identities; and stimulating change (Wenger, Trayner, & de Laat, 2011). Within the context of this study, five scholarly communities emerged demonstrating these characteristics. The scholarly communities were disciplinary and cross-disciplinary, institutional and cross-institutionally based. Some scholarly communities were more formal in nature, such as a government funded research project (the medical community, comprising the disciplines of paramedicine, nursing, and midwifery, across two universities) that had clear goals, explicit timelines, outcomes, membership and roles. Other scholarly communities were more loosely associated, such as the adult education discipline-based community that was cross-institutional, and the allied health cross-disciplinary (occupational therapy, public health and psychology), institutional-based community. These scholarly communities came together to address a common domain or area of interest, where members shared and built knowledge, learnt from, and supported each other rather than completed projects. These communities were more serendipitous in nature, across a range of formal (such as conferences and professional development events) and informal (such as catching up for coffee or

lunch whilst discussing aspects of their teaching) learning contexts, seen as a social, collegial space for connecting, collaborating and sharing in their professional practice. The commonality across all five scholarly communities was that each community took on its own form and function to be responsive to the individual and collective learning needs within that community.

Selecting the research participant sample.

This research study used targeted convenience sampling which, according to Phillips et al. (2011) is commonly employed by educational researchers. Sampling involves careful selection of research participants to represent the broader population of interest. Targeted convenience sampling is characterised as a sample of participants that is convenient, available and accessible, and judged as appropriate within the research context (Phillips et al., 2011).

In this research, the broader population of interest was educators who were actively traversing the complex ground of continuous growth, learning, and development in their professional practice. Participants were selected based on the visible and more formal aspects of their scholarly practice (such as presenting at conferences, publishing journal articles, and membership of research projects within the learning and teaching in higher education domain) and the informal aspects such as their connections and networks in scholarly communities and digital contexts. Those selected demonstrated, through their active participation in scholarly communities and their scholarly actions, how to learn about and reflect on their practice, and to grow and potentially change professionally based on what they had come to know, do and feel. This also provided opportunities to observe a participant's learning mobility and explore the possibilities of their transformative learning experiences.

During the period of data collection, the researcher travelled to the United States of America to present at two conferences in the field of learning and teaching in higher education. The 11th International Transformative Learning Conference held at Columbia University, New York City and the 63rd Annual American Association for Adult and Continuing Education (AAACE) Conference held in Charleston, South Carolina provided a collegial landscape to connect and create collaborative partnerships to investigate how adult educators learn, grow and develop within their

profession. The conference program provided a rich pool of potential participants for the researcher to employ targeted convenience sampling. In particular, the conference abstracts and list of conference delegates provided the researcher with insight into the participant's background, serving as a conversational starting point to establish (a potential) collaborative partnership between the researcher and participants.

Determining the sample size when conducting qualitative research is dependent on a number of factors. Social science researchers (Baker & Edwards, 2012; Braun & Clarke, 2014) and educational researchers (Norton, 2009; Phillips et al., 2011) provide guidance rather than a fixed, optimal number of research participants as epistemological, methodological and practical issues need to be taken into account when conducting qualitative research studies. In addition, consideration also needs to be given to the purpose and goals of the research, the epistemic qualities within the scholarly communities, and the available time and resources (Baker & Edwards, 2012; Braun & Clarke, 2014). A total of 25 participants completed the pre-interview questionnaire and interview; 12 from Australia and 13 from the USA. The researcher believed that a sample size of 25 educators was sufficient to address the purpose of the study, as the epistemological and methodological aspects reflected the belief that there are no fixed truths in the real-world context of how educators learn. This meant that the 25 research participants experience their subjective realities of how they learn in parallel to a world that is diverse with multiple realities, giving exponential insight into the multi-faceted, complex nature of the educator as adult learner's inner belief system of how they learn, grow and develop. On a practical level, the mixed methods of pre-interview questionnaire and structured interview were powerful instruments to help participants chart their views of self, and their thoughts, feelings and perceptions. These data collection methods generated diverse, rich and detailed data sets that provided a wealth of data to address the purpose of this study.

Approach to connecting with the sample of research participants.

My scholarly endeavours of attending conferences, knowing about participants' educational research projects, and tapping into my own scholarly connections and networks enabled me to identify research participants. Furthermore,

participants were members of their own professional networks and scholarly communities so by accessing one member, their endorsement of my work gave me access to other members.

Initial contact with participants was through email. In each case, the participants were selected as their work was in the field of learning and teaching in higher education but their professional discipline was not necessarily education. The intention was to seek, from a variety of disciplines, the educator's perspective of how they learn. This was achieved as participants were spread across a range of disciplines including adult education, occupational therapy, public health, business and management, nursing, and veterinary science. A total of 30 potential participants were contacted of which five said "no." Of these five, three apologetically declined due to competing work schedules or commitments, and two did not respond to my initial (or follow-up) invitations. Appendix A provides an overview of the steps taken during the initial contact phase, confirmation of participation, and interview confirmation. Within Appendix A, reference is made to further supporting documentation including examples of the initial email sent to participants (Appendix B), the pre-interview questionnaire (Appendix C), the interview participant information sheet (PIS) and the participant consent form (Appendix D).

Coding research participants.

Research participants were coded from P1-P25 to ensure confidentiality. All participants were active in the three areas of academic work – teaching, research and service. They were from five scholarly communities, which collectively ensured the sample of participants were from a variety of disciplines, and were cross-institutional. A total of six participants belonged to the allied health scholarly community, seven participants were from business and management, seven participants from adult education, three from the medical scholarly community and two participants from science (Appendix J).

In accordance with the categorisation used by Bexley et al. (2011), there was a mix of early-career academics (in academia 7 or fewer years), mid-career academics (8-20 years) and late-career academics (more than 20 years). Interviews were conducted between August and November 2014. The primary data sets for this

research study were the 25 pre-interview questionnaires and the 25 transcribed interviews.

3.2.3 Pre-interview Questionnaire

This study was concerned with seeking the views of research participants who were actively engaged in developing a deeper understanding of their professional practice, even if they perceived professional learning situations as problematic. Taking a learning-centred approach to rethinking the design for effective professional learning means taking the time to get to know the participants as adult learners, and their backgrounds and experiences to gain insights into how they come to the learning (Research Question 1). The pre-interview questionnaire classifications (Appendix E) of demographic variables, scholarly activities and personal qualities were the basis for building a richer understanding of the participants' actions towards their professional practice and learning mobility.

Rationale for the pre-interview questionnaire.

The pre-interview questionnaire was used during Phase 1: Designing for Understanding of the design-based research iterative stages, as detailed in Figure 3.3. The purpose of the pre-interview questionnaire was to address Research Question 1: *How do educators come to the learning?* in order to seek deeper understanding of the participants' backgrounds, experiences and actions. The pre-interview questionnaire collected quantitative and qualitative data. The quantitative data was in the form of descriptive statistics on demographic attributes such as career stage, gender, title, and teaching discipline. The qualitative data related to the participants' scholarly actions towards their own learning processes for their growth and development (suggesting a learning mobility), and the effort and intent they brought to their professional learning practices. The qualitative data attributes (Appendix E) included: scholarly activities towards learning and teaching in higher education, innovative pedagogical practices, scholarly leadership, and the personal qualities of learning literacy and personal change.

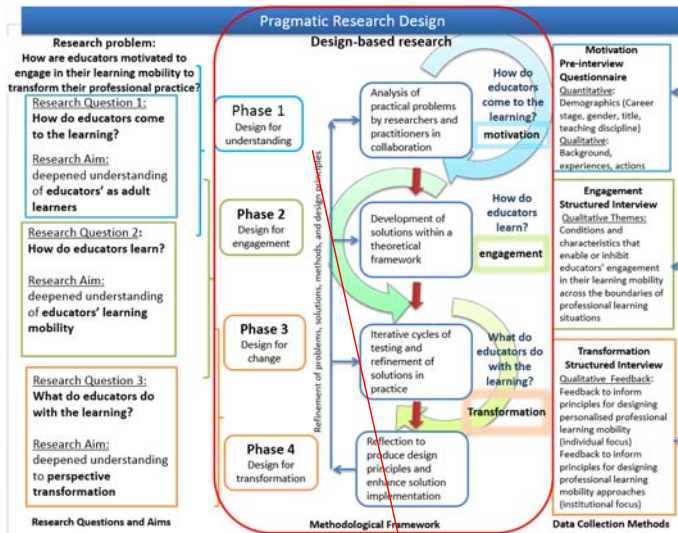


Figure 3.1. The pragmatic research design.

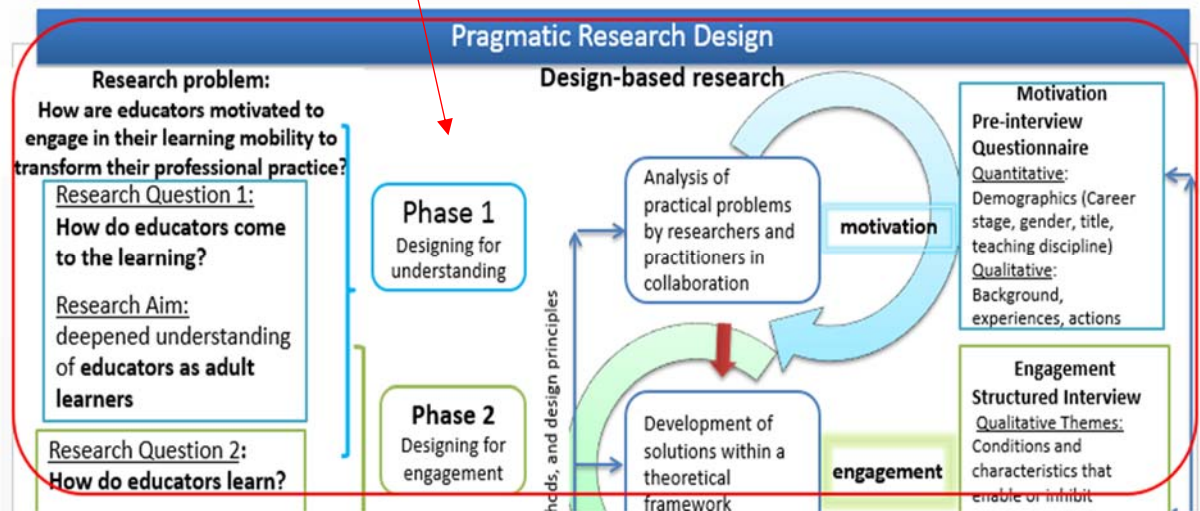


Figure 3.3. Pre-interview questionnaire.

This figure situates the pre-interview questionnaire within the overall pragmatic research design.

The pre-interview questionnaire provided a window into whether research participants took responsibility and control for their own learning, not because they “said they do”, but because their scholarly actions provided demonstrable evidence that they had a natural predisposition to engage in their professional practice. Amongst the many barriers, obstacles and challenges (perceived or real) to current models of professional learning, Jarcho (2013) believes that engagement is not a question of motivating people, but rather understanding why people are naturally motivated to engage, share and actively participate in a scholarly community.

Therefore, to gain deeper insight into what is troublesome and/or effective about professional learning, asking participants who are naturally motivated and actively engaged in their professional practice about how they learn in their professional context is appropriate. Regardless of the professional learning situation, Boud and Walker (1991) claim that people are not equipped to take responsibility for their own learning unless they have the ability to learn from their experiences.

The exploration into background and experiences of the participants via the pre-interview questionnaire provided three key areas of evidence. First, insight was gained into participants as adult learners, particularly their scholarly activities towards learning and teaching in higher education, innovative pedagogical practices, and scholarly leadership, as demonstrable evidence of actions towards their professional practice. Second, a deeper understanding of the participants' personal qualities towards their learning literacy (see Section 2.1.2) and change was gained, as demonstrable evidence of their inner belief system which was used to investigate the phenomenon of educators' learning mobility. Third, the early phase theme development of the intrinsic motivation was identified, which served as a latent (hidden) theme identified within the inner world of the participants. The latent theme, like the other two points of evidence served to scaffold the design-based research processes into Phase 2: *Designing for Engagement* and Research Question 2: *How do educators learn?*

Latent (hidden) themes.

Latent themes are discussed in more detail as part of the discussion on thematic analysis (Section 3.3.1). Briefly, latent themes are inductive in nature, occurring at the interpretative level for the researcher. The latent theme of intrinsic motivation was not tangible in the way actions were, but rather part of the research participant's inner world. However, the research participant's actions may be indicative of their intrinsic motivation as a factor of self-concept. The wholeness of professional learning conceptual framework (Section 2.5.3) developed from a critique of the literature in Chapter 2 identified the sense of self as a function of learning mobility. Self-concept plays a significant role in the conception of learning mobility as it enables educators to engage in their ongoing personalised professional

learning to cultivate their own growth and development that transcends the boundaries between their inner and outer worlds.

Procedures for administering the pre-interview questionnaire.

The pre-interview questionnaire was developed using the SurveyMonkey software program and made available online, enabling participants to access and complete it anytime, anywhere. The pre-interview questionnaire was piloted with both Australian and American colleagues to ensure that the language and expression had clarity and meaning. The link to the pre-interview questionnaire was emailed to participants upon confirmation of their participation in the study. Participants were invited to complete the pre-interview questionnaire prior to the structured interview. A total of 25 participants completed the pre-interview questionnaire giving a 100% response rate. The fact that all participants completed the pre-interview questionnaire was partly due to the researcher nurturing the collaborative relationship between both parties, and partly due to the collegial attitude of the participants.

Prior to conducting the structured interview, the researcher reviewed the participants' responses to gain greater insight into their background and experiences (such as career stage, teaching discipline, innovative pedagogical practices, scholarly leadership, learning literacy and personal qualities). One participant (P20) did not complete the pre-interview questionnaire prior to the interview, but did so in the days following. This did not impact on the interview process as P20 was a well-published educational scholar with a strong online presence (enabling the researcher to gain easy access to such aspects as P20's scholarly works, professional history, and teaching background and experiences), meaning that the researcher was able to ascertain, to a large extent, his background and experiences. Getting to know more about the participants enabled the researcher to personalise the interview. This approach established a stronger connection between the interviewer and participant in order to foster rapport and trust, respect and collegiality during the interview process.

3.2.4 Structured Interview

A structured interview approach was employed, guided by the principles of the *repertory grid technique* (Kelly, 1991). The repertory grid technique, commonly

called “the Grid”, is a highly structured form of interviewing that offers flexibility in the elicitation of quantitative and/or rich qualitative data by creating an environment for the interviewee to engage in systematic introspection uncontaminated by the interviewer’s own viewpoint (Jankowicz, 2004). Originally developed by clinical psychologist George Kelly in the 1950s as part of his personal construct theory, the repertory grid technique can be used in a variety of fundamental and applied research studies on human constructs (Schneider, 2009). Kelly (1991, as cited in Goffin, 2002,) believed that “to make sense of our world all humans develop ‘rules’ by which we view or categorize situations, people, relationships and objects, in fact almost any phenomenon” (p. 202). The rules by which people make sense of these situations are called *personal constructs*. The interview technique is based on the premise that if you want to know what is troubling someone, ask them – they probably know (V. Stewart, 2010).

It is this premise of asking those “best in the know” that has significance to the research study, as well as alignment to a pragmatic paradigm of inquiry and design-based research’s systematic, flexible methodology. This is based on a collaborative relationship between the researcher and participants as they aim to resolve the research problem. Evidence in the literature (as reported in Chapter 2) revealed that professional learning activities tended to have a limited impact on changing educators’ professional practice. To resolve this practical problem was to ask those who experienced professional learning within the constraints or freedoms of their personal constructs, that is, their personal rules that shaped their motivation to engage in professional learning. Using the principles of the repertory grid technique to guide the structured interview proved to be a versatile, flexible, yet systematic process (Jankowicz, 2004) that was primarily concerned with investigating how educators learnt by eliciting their personal constructs.

Rationale for the structured interview.

Eliciting personal constructs that enabled or inhibited the participants’ continuous growth and development meant creating a conversational space (structured interview) for the participants to reflect on their professional practice. Seeking the participants’ views provided a fertile ground for them to articulate their inner dialogue for making judgements and decisions about the conditions and

characteristics of professional learning situations that were personally meaningful to them. Therefore the structured interview component, as part of the repertory grid technique, was a powerful process used to investigate, without interference from the researcher, the participants' perceptions, judgements, thoughts and feelings about how they learnt. Examples of responses are provided in Table 3.2. In particular, the participants reported that the structured interview process provided a safe place to challenge their taken-for-granted assumptions, question their decision making and reasoning, and reflect on their views of self.

Table 3.2. Research participants' reflections on the structured interview process.

Participant	Reflections on the structured interview process
P4	“I found it interesting... you delve deep by way of this don't you? It got me thinking about things I've never consciously thought about before which I like. It's almost sort of challenging but satisfying”
P7	“Enjoyed it. I think this gave stimulus to having meaningful conversations that allowed me to think about these things quite differently. I just blurted things out. I wasn't trying to make sense of any of it”
P13	<p>“Helped me to dig deep; the comparison and the contrasts enable me to kind of think differently about things”</p> <p>“Enjoyable. I thought in advance it might be more mechanical...but I thought the way you probed around things was very supportive and it was interesting”</p> <p>“Encouraged complex thinking...gets more at my reasoning behind things, the choices”</p>
P14	“As somebody who does qualitative research it was interesting. It required me to think and give more thought to what my rationale was to distinguish between my views and judgements”
P16	“loved it; great for problem solving; made me think about how I work, about the processes, how I learn about things, how I think”
P22	“I enjoyed it and I loved the way that it pushed my thinking about things in a way that asked for my different perspectives...[to think] about my perspectives separately but how they relate to each other”
P23	<p>“great way to really elicit verbal protocols that you made me reflect on, why I was doing what I was doing; gets at the heart of the issues in much more detail, in depth”</p> <p>“gives richer understanding of what motivates my learning modes, and how I do it...tapped into the different facets that initially were not at all apparent to me, and they just came out somehow”</p>

Furthermore, the repertory grid technique can be used to extract quantitative data, qualitative data or both depending on the research study (Jankowicz, 2004). For the purpose of this study, the researcher used the systematic approach of the technique as an effective and structured interviewing tool to elicit rich qualitative data to gain a deeper understanding of the educator's perspective of how they learnt by "standing in the shoes of others to see the world from their point of view, to understand their situation, their concerns" (Beail, 1985, p. 2). It is for these reasons that the structured interview was employed during Phases 2, 3 and 4 of the design-based research iterative stages of reflection and evaluation, as detailed in Figure 3.4. The structured interview was used to collect rich qualitative data relating to Research Question 2: *How do educators learn?* and Research Question 3: *What do educators do with the learning?*

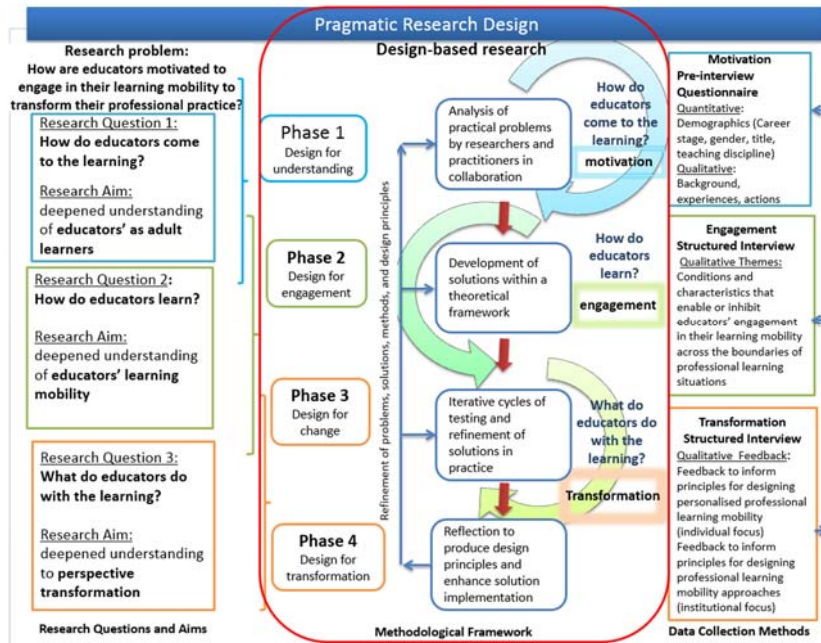


Figure 3.1. The pragmatic research design.

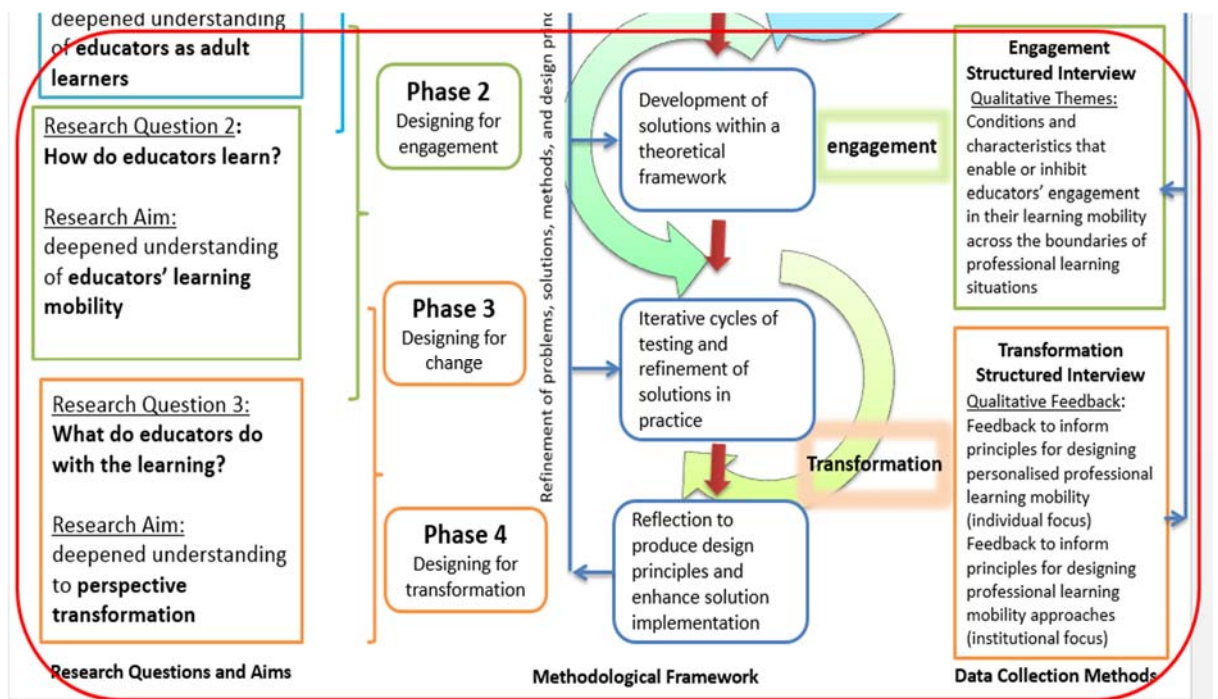


Figure 3.4. Structured interview.

This figure situates the structured interview within the overall pragmatic research design.

The structured interview was a powerful data collection tool in two significant areas: as a gateway into the participants' inner dialogue on how they make sense of how they learn; and a conceptual gateway into the possibilities of perspective

transformation. These two areas of significance added value to the pragmatic paradigm of inquiry and the methodological principles of design-based research to address the theoretical and practical challenges of how educators think, know, act and learn within the complexities of professional learning practices.

First, the structured interview provided a gateway into the participants' introspections of self in how they learn. The participants' introspections were self-reflective narratives of how they make sense of how they learn based on their personal judgements that enabled or inhibited their motivation to engage in professional learning activities. These narratives were a key part of the structured interview process. Eliciting personal constructs as part of the conversational framework provided rich descriptive insights into the participants' inner worlds: their views of self, perceptions, thoughts and feelings related to how they liked (or do not like) to learn (Research Question 2), which provided powerful qualitative evidence to inform Phase 2: *Designing for Engagement*. For example, the most common personal construct elicited across all interviews related to the informal-formal dynamic of professional learning. When participants were asked their views on what "informal" and "formal" meant to them in ways it might motivate them to engage in professional learning, a wealth of qualitative data (see Table 4.4) was collected to illuminate alternative approaches to professional learning practices. It is this wealth of qualitative data that shaped and informed Phase 3: *Designing for Change*. For this reason, Phase 2 and Phase 3 occurred simultaneously rather than in a linear fashion.

Second, the structured interview provided a conceptual gateway into a second latent (hidden) theme relating to the possibilities of perspective transformation. Investigating ways participants may have experienced perspective transformation as part of their ongoing growth and development presented a conceptually challenging aspect to the research design. Perspective transformation may be invisible, disorienting or perplexing to the individual. Asking participants what they did with the learning (Research Question 3) had challenged the participants' self-efficacy, their sense of identity, and potentially their closely held, highly protected self-concept. Furthermore, they may not have had a developed self-awareness or had the language to express their experiences of possible shifts in meaning perspective. Therefore, like intrinsic motivation, transformation took on the characteristics of a latent theme in that it surfaced in the data at the interpretive level for the researcher.

A key pattern in the interview transcripts that acted as a signpost for the latent theme of transformation was when a number of participants talked about (or implied) “I am the sort of person who” as a means of becoming conscious of an inner sense of self. For example, P3 stated “I’m a kinaesthetic sort of person”; P4 reported “I am a ‘glass half full’ sort of person”, P14 believed “I am the sort of person who ‘is a link in the chain’”, and P17 stated “I am the sort of person who wants to have fun.” Therefore Phase 4: *Designing for Transformation*, like the idea of the educator’s learning mobility, presented a conceptually abstract idea.

Furthermore, following the methodological principles of design-based research meant that the cyclical nature of the interviews (Appendix J) served to test, trial, reflect and refine the categories and themes situated within the rich qualitative data collected. Developing and refining the themes (patterns) surfacing in the iterative cycle of interviews helped inform the development of design principles.

Procedures for administering the structured interview

To gain a clearer understanding of what constitutes the process of using the repertory grid technique, an overview of the four steps typically used in this data collection method is provided. The purpose is to demonstrate how the structured interview used the triadic method to harvest rich qualitative data (Jankowicz, 2004). The overview also provides an account of the process underpinning the four steps and how that was applied to the practice of conducting a structured interview. A summary of the procedures for administering the structured interview is given in Table 3.3 followed by details of each step in the process.

Table 3.3. Administering the structured interview.

<p>Commencing the interview</p> <ul style="list-style-type: none"> • Thank the interviewee for their time • Ask the interviewee to sign the Participant Information Sheet if not already done so • Confirm duration of interview of up to one hour • Confirm audio recording • Restate the research problem • Explain the Grid technique • Explain the elements • Explain the triad process for construct elicitation (see Step 2 below) • Make explicit to interviewees that: <ul style="list-style-type: none"> - there are “no right or wrong answers” - there can be more than one construct per triad

- they cannot repeat constructs
- it may be helpful to verbalise their thinking, to provide a narrative on how they are making sense of surfacing/extracting their personal constructs based on the presentation of the triad of elements (see Step 1 below)
- Ask the interviewee if they have any questions before the interview commences
- Interview commences with the interviewee being presented with the first triad of elements and the interviewer asking “In what way are two of these elements alike/similar and at the same time different from the third?” and then “How is the third element different from the other two?”

During the interview

- Continue to foster a trusting, collegial relationship
- Apply listening skills, reflective questioning, note taking and be mindful of hidden language
- Paraphrase the interviewee’s descriptions and characterisations of the emergent and pole constructs to negotiate meaning

Closing the interview

- Ask the interviewee if there is anything they haven’t had an opportunity to talk about
- Ask the interviewee if they have any questions before the interview concludes
- Thank the interviewee for their time

Step 1: Selection of elements.

The process: An element is an example of, instance of, or an occurrence of a particular topic. Elements can be people, objects, events or situations. The researcher has the option to provide elements to the interviewee or elements can be chosen by the interviewee (Jankowicz, 2004). Current literature on the technique suggests that six elements provide sufficient variability in the triadic construct elicitation process (Boyle, 2005).

The practice: I provided six elements (professional learning situations) to the interviewees at the commencement of the interview. The main advantage in this approach was that the elements were identical across interviews meaning that the personal constructs elicited from the interviewees were more easily compared across interviews. More time was then dedicated during the interview process to eliciting constructs to enable interviewees to chart their views of self, and their thoughts, feelings and perceptions on the complex topic of how they learn. Furthermore, providing the elements sits comfortably with the four core steps in the transformative learning process (Section 2.3.2), where the supplied elements act as a catalyst to trigger the interviewees’ reflections, dialogue and the action of articulating how they

perceive and make judgements about how they learn and what they do with the learning.

In this study, the elements were instances of professional learning situations that are situated in the literature on ways people like to learn in a modern workplace (Section 2.4.1). The elements selected created an analytical opportunity for the researcher to make judgements on the current literature of how people like to learn based on the interviewees' articulated practice of engaging in professional learning situations. This means that the findings and analyses (as articulated in Chapter 4) have a more focused agenda on advancing the possibilities of rethinking the design for effective professional learning that is not only meaningful to the individual educator but enables actionable knowledge and theory building to contribute to a new model of professional learning.

The six elements were:

- a) Institutional facilitated professional development (e.g., workshops, seminars, courses)
short title: institutional facilitated PD
- b) Institutional developed materials (e.g., guides, tip sheets, resources)
short title: institutional developed materials
- c) Self-directed discovery (e.g., external blogs, news feeds, external courses, content curated from external sources, web searches for resources)
short title: self-directed discovery
- d) Personal and professional networks and communities
short title: networks and communities
- e) Informal conversations and interactions with people
short title: informal conversation
- f) Collaboration (team/network/community – internal or external)
short title: collaboration

Step 2: Construct elicitation.

The process: Elicitation of personal constructs used the triadic method with the elements (professional learning situations). It involved the presentation of three elements (called a triad) followed by the question, “In what ways are two of these

elements alike/similar and at the same time different from the third?” and then “How is the third element different from the other two?” A response is termed a construct. The construct elicited to express the similarity is termed the emergent construct. Probing the meaning of the emergent construct by asking interviewees to explain the opposite of that construct (how is it different) generates the pole construct. Probing what educators mean by their personal constructs is the foundation for eliciting rich qualitative data (Denicolo & Pope, 2001; Jankowicz, 2004; Schneider, 2009).

The practice: The triadic method to elicit personal constructs generated rich qualitative data. To probe for deeper meaning and understanding, I paraphrased the interviewees’ descriptions and characterisations of the emergent and pole constructs. This served as a two-way process to negotiate meaning - I paraphrased and summarised key points to check for understanding, which in turn enabled the interviewee to affirm, further clarify, or challenge their personal constructs and the ways they made sense of, and judgements about, their perceptions of professional learning in their world.

Step 3: Rating.

The process: Each element is rated on each construct. A frequently used scale is a five point Likert scale where 1 represents the closest match of the element to the emergent construct (professional learning situation) and 5 the closest match to the pole construct. The result is a Grid matrix used for quantitative analysis (Denicolo & Pope, 2001; Jankowicz, 2004).

The practice: A pilot interview was conducted with three of the researcher’s colleagues (higher education teachers) to check that the elements (professional learning situations) selected were appropriate to the research problem being studied. The pilot interview also ensured that the elements were simple and clear to support effective interviewing, and avoided any value judgements as this increases the potential for interviewee misunderstanding.

The pilot interviews affirmed that the elements were fit-for-purpose to the research study. However, the researcher became aware that the quantitative Grid matrix would not be an essential part of the data collection for two reasons:

1. The rating scale produced only ordinal information since the Grid matrix process does not contain a mechanism for ensuring the intervals between, for example,

ratings of 1 and 2, and 3 and 4 are the same within the construct dimension or between construct dimensions. This became obvious when conducting the 25 interviews, where four interviewees found the rating process too restrictive. For these four participants, the interview became a narrative account of their personal constructs triggered by the elements. For the remaining 21 interviewees, comments often arose about ratings not enabling them to fully express the relationship between the elements and the constructs, raising questions about the validity of the ratings generated and therefore the validity of the quantitative analysis; and

2. For many of the interviewees, the rating of elements on constructs became arbitrary as the relationship between elements and constructs shifted depending on the many roles and contexts in which the educator learns. That is, the only way they could make sense of, and articulate their own meaning, was to apply their personal constructs to their real-world setting which resulted in the need for flexibility and fluidity on the construct dimension against the elements. Therefore in the process of rating the construct on the element, interviewees would change the rating when viewed through the different lenses of their many professional responsibilities, rendering the quantitative ratings invalid.

As this research is fundamentally a study in human nature, securing a quantitative Grid matrix was not a priority. The structured interview became a powerful mechanism to allow interviewees to express their views by means of their own constructs (not an external party such as the researcher's, the literature, the institution), to talk about the world in their own terms.

Step 4: Analysis.

The process: Traditional methods of repertory grid data analysis have been factor analysis and principal component analysis, both quantitative data analysis techniques conducted on the Grid matrix (Jankowicz, 2004; Schneider, 2009). The Grid matrix is the ratings applied by the interviewee against the elements for each of the personal constructs elicited during the interview process. Influential researchers (such as Fransella, Bell, & Bannister, 2004; Jankowicz, 2004) who advocate for the repertory grid technique in a variety of fields and research settings, advise to look

beyond the Grid matrix and suggest that the type of analysis chosen depends on the purpose of the research and the practical feasibility of implementing particular analyses. In fact, there are many forms and applications that have developed beyond the traditions of the repertory grid technique. The result is the repertory grid technique as a data collection method which is open to several different types of analyses (Fransella et al., 2004).

This study was also guided by Denicolo and Pope (2001) who, as repertory grid technique advocates often collect full Grid matrices in their research including ratings for quantitative analysis; and who also state at other times they have conducted research studies using the triadic method without ratings, leading to purely qualitative data analysis. Such a time was in their research on teachers' views of teaching effectiveness where they used the triadic method without ratings in order to elicit personal constructs. The rich qualitative data from the structured interview enabled Denicolo and Pope (2001) to use qualitative data analysis techniques such as thematic analysis and content analysis to identify themes that teachers deemed to be important to address the purpose of their study.

The practice: The powerful qualitative data generated from the interview process aligned with thematic analysis (Section 3.3.1) to allow sense-making of patterns of meaning within the complex, messy and often contradictory inner world of how people learn. The two-way conversational framework where the interviewer acted as a mirror, restating and paraphrasing the interviewee's characterisations of their emergent and pole constructs to negotiate meaning, provided a basis for developing mind maps (example provided in Appendix F).

This outcome enabled a deeper understanding of the relational nature of emergent and pole constructs, and the possibility of revealing a "superordinate construct" (of higher importance) to inform theme development, and latent (hidden) themes. For example, through the interview process with P5, four personal constructs were elicited that generated a self-reflective narrative on the dynamics across the four partner emergent and pole constructs on the ways her views may motivate her to engage in the learning. What became significant, that is, of higher importance in how she liked to learn related less to hierarchies, structures and the content of the learning experience and more to her ability to connect with people, apply it back to her professional context, influence and impact change within herself

and within her community, and be creative. Through challenging her views of self, as part of her introspections, she came to articulate when she experiences these characteristics, for example, “It’s where the magic happens”, giving insight to the latent theme of transformation.

Due to the time sequence of events, the structured interviews were conducted with the Australian research participants prior to the researcher’s trip to the USA, where the remainder of the interviews were completed. Furthermore, the structured interview process offered both advantages and considerations as detailed in Table 3.4. The key advantages addressed the possible concerns of subjectivity that are associated with essentially a qualitative design-based research study. The subjective nature related to the researcher and the participants work in collaboration to identify and solve problems associated with personally meaningful professional learning situations that span the boundaries of the individual’s inner and outer worlds.

The considerations flagged that if conducting further research in this area, be mindful that not all participants will connect with this structured interview approach, believing it to be too structured as a method of eliciting and expressing their personal theories. This was the case for four of the participants in this study. In these cases, the researcher used the elements (professional learning situations) as a catalyst to trigger a conversational framework, where interviewees expressed their stories in a more unstructured format.

Table 3.4. Structured interview: Advantages and considerations.

Advantages
<ul style="list-style-type: none"> • Systematic: Positions the interviewee for systematic introspection by developing and testing constructs as a way of explaining and anticipating a situation, in this case, how the research participants made sense of their perceptions and personal rules to engage in their professional learning. • Absence of researcher bias: The data collection yielded a picture of an interviewee’s understanding of the research problem, in their own words with no input from the interviewer. • Learning-centred: Invites the interviewee to take responsibility for their way of understanding the world, with the interviewer playing the role of a skilled mirror - questioning, checking, clarifying, and stimulating reflection to negotiate understanding of what the interviewee means by their personal constructs. • Rich qualitative data: The conversational framework triggered by the construct elicitation process from the triad of elements is a two-way process to increase the precision and detail by clarifying the meaning behind the interviewees’ personal constructs. Therefore construct elicitation led to rich qualitative data gained from the interviewees’ comments on their personal constructs as they reflected on and challenged their meaning schemes in the ways they learn.

- **Ease of use:** From the interviewer's perspective, administering the interview is systematic, offering a structured process for both the interviewer and interviewee. However, a great deal of effort is needed by the researcher in the preparation for, and in the practice of, administering the structured process. When this preparatory work is done, the interview process takes a more natural order.
- **Model building:** the in-depth qualitative data was used to identify interpretable patterns and theme development to inform the anticipated outcomes of the study.

Considerations

- **Mindful:** The process of construct elicitation can be time consuming, and possibly confronting, for interviewees as they are asked to articulate their thoughts, feelings, attitudes and perceptions. Throughout the interview process, the interviewer was mindful of whether the conversational framework was shifting into a harmful place for the interviewee. Across the 25 interviews, none of the interviews needed to be discontinued due to an interviewee feeling uncomfortable.
- **Cognitive load:** As the interviewer negotiated meaning with the interviewees by acting as a mirror - restating and paraphrasing emergent and pole constructs that reflected the interviewees' attitudes, perceptions and behaviours towards professional learning situations, the interview process requires a degree of attentiveness and focus by both parties. This meant that interviews did not exceed one hour as it can become cognitively exhausting after that time frame.
- **Connection:** As the structured interview process was concerned with gaining insight into human nature, it is possible some interviewees might not connect with the technique believing it to be too structured as a method of expressing their personal theories. This was the case for four interviews. In those instances, the interviewer gave the interviewee the option to discontinue or to move to a more unstructured narrative conversation. All four interviewees elected to continue the interview process under these revised terms.

(Goffin, 2002; Jankowicz, 2004; Schneider, 2009; V. Stewart, 2010)

Although the structured interview process was systematic, it also offered opportunity for flexibility and conversational flow to explore the inner, often unconscious decision-making processes educators make in choosing to engage (or not) in professional learning situations. Overall, the key outcome gained in optimising the structured interview process was to enable a layer of objectivity to the subjective nature of eliciting educators' thoughts, feelings and sense of self when asked to express their personal constructs. Therefore, in practice, it is the key principles underlying the structured interview process that ensured a layer of rigour and reduced interviewer bias. The key principles included:

- Eliciting emergent constructs and pole (opposing) constructs, for example: informal – formal; bottom up – top down; unstructured – contrived; two way interaction – one way interaction;

- Developing mind maps that enables a deeper understanding of the relational nature of emergent and pole constructs, and superordinate construct (of higher importance) and latent (hidden) themes; and
- Seeking interviewees' descriptions, conditions and characteristics of the emergent and pole constructs (deeper understanding) informed the thematic analysis (Section 3.3.1), which, in turn, served to validate the design principles as part of Phase 4 of the design-based research process.

3.2.5 Researcher as Reflective Transformative Learning Practitioner.

An attribute of qualitative research is to openly acknowledge the subjective part played by the researcher in the collection, analysis and interpretation of data. For this reason, Norton (2009) suggests the researcher should make notes in the data collection phase. Being a reflective practitioner is a central tenet of transformative learning theory. In my view, transformative learning is becoming conscious of the inner sense of self.

As a transformative learning adult educator researching into the field of how educators learn in higher education, I interpreted the advice from Norton as an opportunity to advance my skills as reflective practitioner on two levels: firstly, in the skilful self-development as a qualitative researcher, and secondly, to further shape my reflective practice using Schön's (1983) framework of reflection-in-action, reflection-on-action, and reflection-for-action in the ongoing self-inquiry into my growth as an adult educator. Taking this approach helped to identify my personal research agenda to grow my identity as a researcher and as an adult educator engaging in, and continuously growing, her scholarship of learning and teaching.

Being a qualitative researcher.

As the structured interview provided a way of describing the educator's system of learning as a means for both the interviewer and interviewee to gain a deeper understanding of the educator's (interviewee's) perceptions of how they learn, the method is grounded in the educator's subjective reality. This layer of subjectivity is countered by requiring the interviewer to develop their interviewing skills to obtain an accurate description of the interviewees' constructs and values. The end result is a

description which stays true to the constructs being offered by the interviewee, rather than to the interviewer.

Therefore to ensure that the structured interview offered an unbiased account of the educator's contributions, I established what Braun and Clark (2013) term a qualitative sensibility which refers to an orientation toward my research that fits within the research problem, research design and outcomes of the research study. Just as significant, establishing my qualitative sensibility offered a layer of integrity and transparency in how I conducted myself within the collaborative nature of design-based research, where I built connections with the research participants. My qualitative sensibility included the following activities and actions.

Piloting the structured interview.

I conducted a pilot interview with three colleagues to practise both the structured interview approach and to develop my interview skills to support the procedural aspects underpinning the method. The pilot interviews also enable me to test the reliability of the elements (professional learning situations) provided to the interviewees as part of the structured interview process.

Building an ethical framework.

How we make sense of and interpret our world, and how those interpretations are structured and organised is often a personal and private thing. Sometimes we choose to give our opinions on some aspect of our world readily, while at other times we only share with those we consider are safe companions. Sometimes verbalising why we hold such opinions or why we construe the world a certain way may not be shared or may not even be part of our consciousness, limiting our ability to be aware of the influence it may have on our being (Denicolo & Pope, 2001). Therefore asking interviewees to engage in a process to express their views can be revealing, and possibly confronting, for them and for me as the interviewer. Revealing such intimate details of their thinking required me to adopt a special duty of care that informed my ethical framework. Activities that demonstrate my ethical framework included:

- Being open and transparent about the research with participants; and

- Ensuring that the Participant Information Sheet (PIS) and Consent Form clearly stated my ethical responsibility, the aims of the research and the commitment sought from the participant.

Building a connection of trust and respect.

An ethical framework sets the scene for building a connection of trust and respect between the interviewer and interviewee. I particularly focused on developing a warm and friendly manner, and good interaction skills to create a respectful, collegial climate where interviewees could trust that their inner thought and feelings, if shared, were respected. The purpose was to establish a sense of rapport and trust to put the interviewees at ease and feel safe to share their stories. Furthermore, it was the belief that interviewees were more open and willing to share their version of truth (their subjective realities) if they felt their views were heard, respected and represented truthfully within my interpretations of their narrative. This further heightened the need for a two-way conversational framework where I acted as a mirror to restate and paraphrase their views to negotiate meaning.

Developing my listening skills.

Developing good listening skills underpins an interactive conversation as part of the structured interview. Listening involved the intellectual and emotional aspects which supported meaning making and understanding. The process of listening needed to be conceived of as a complex act that involves not only hearing but also selecting, attending to, and interpreting what is heard (Denicolo & Pope, 2001).

In the interviews, I would purposefully pause to consolidate and integrate what I thought I heard and was interpreting, asking participants for confirmation, clarification or to further express themselves. As the interview progressed, I would pause at points to synthesise the narrative for the purpose of scaffolding what I was understanding to be the main conditions and characteristics to support the personal constructs. This served two purposes. First, it created a space for interviewees to hear back what they had said which often led to an illuminating moment. Often it gave them insight into how they like to learn without them consciously realising those habits, behaviours, attitudes or judgement attached to the activity of learning.

Second, it served as confirmation of their own meaning within the complexities that come with effective communication, both at the level of their inner dialogue and the two-way dialogue between the interviewer and interviewee.

Reflective questioning.

Reflective questioning involved me questioning, checking, and mulling over what exactly the interviewee meant in real time (during the interview process). Reflective questioning required me to act as a mirror - restating and paraphrasing emergent and pole constructs, attitudes, perceptions and behaviours to enable the interviewee to hear back their views of the world. This served very much as a two-way process to negotiate meaning. I would paraphrase and summarise key points to check for understanding. This enabled me to affirm, further clarify, or challenge their personal constructs and the ways they made sense of their learning experiences. It is through this cycle of interactive dialogue that interviewees gained insight into their views of self. For some interviewees, this provided a pathway to reveal a transformative learning moment.

Note-taking.

Paraphrasing and synthesising the narrative as the interview progressed required me to take notes even though the interview was recorded. The notes aided listening, reflective questioning and directing attention to what was being said. This served as “interview breadcrumbs” as I noted key words, descriptions and quotes, to surface patterns, disjunctions and behaviours to give greater focus to the interview process. The breadcrumbs meant that I could summarise and synthesise constructs and frame my reflective questions using their words to repeat back to them for the purpose of deeper introspection, confirmation and clarity.

Hidden language.

The combination of developing my listening skill, using reflective questioning and note-taking addressed some of the challenges of language that manifest themselves through verbal and non-verbal communication. For this reason, I also tried to observe non-verbal cues; points where interviewees may have felt

uncomfortable, disconnected, unsure or potentially vulnerable. Being receptive to the educator's "in-the-flow" experience of the interview meant that I needed to be attuned to when to dig deeper and when to move on. Reflective questions helped at these points as it gave insight into whether the interviewee was open, willing and possessed the language to express their sense making. Such questions as "Tell me a little more about?", "What does that mean to you?", "How did it make you feel?", "Can you give an example?" and "Is that important to you?" often cycled the conversation into a deeper layer of introspection. It is the affective and often intensely emotional components that are more likely to lend themselves to people telling parts of their story that may have been previously hidden from others, and potentially themselves. What the interviewees see remains, for the most part, invisible to the researcher. The researcher is allowed glimpses but only through the interviewee's filter of self-editing, emphasising the subjective reality nature of the research environment.

In summary, developing my skills so that I could simultaneously listen intently and critically reflect on what was said helped to produce better, possibly more complex, and richer data. By establishing a trusting, respectful, collaborative and collegial relationship with the participants, the more reliable and trustworthy were my interpretations of their realities, of their stories. Getting to know the participants through their visible and hidden language (even if self-editing took place) positioned me for data analysis of attitudes, opinions and behaviour that are a function of my insights, impressions and interpretations of their worlds. This supports the principles and practices of design-based research - of working collaboratively with the participants as problem solvers to potentially resolve the problem of designing for effective professional learning from the perspective of those who experience the learning.

Being a reflective practitioner.

Reflection-in-action.

As I was working in collaboration with research participants to resolve the research problem, the use of reflection-in-action (Schön, 1983) prompted by the use of reflective questioning was employed during the structured interview. Interviewees were asked during the flow of the structured interview process to critique the

conditions, characteristics, and traits of their personal constructs to gain richer insights into their inner worlds.

Reflection-on-action.

Reflection-on-action was informal and opportunistic in the sense that I documented my observations, feelings, thoughts and ideas following the interview when opportunity availed and within timeframe constraints. This usually meant spending a couple of minutes post-interview collecting and documenting my thoughts using a range of mediums such as audio recording on my smart phone, typing some quick notes to document my observations, or capturing thoughts on paper. It was during these moments of reflection-on-action that I often experienced a shift in understanding on the changing nature of the developing themes, or affirmation of the developing themes.

Reflection-for-action.

I found mind maps (Appendix F) were effective in captured the evolving nature of my understanding through my own reflections and through my collaboration with research participants. This was particularly helpful in addressing design-based research's Phase 2 and Phase 3. It also served as a form of triangulation to cross-check findings, patterns and themes, and insights that were presenting themselves within the interview process and across the interviews. This meant that surfacing themes could be explored and investigated in the following interviews to support the iterative, generative nature of collaborative problem solving in design-based research. Importantly, this approach did not compromise the integrity of the interviews as the structured interview process ensures reliability.

An emerging personal research agenda.

Through the process of coming to know myself as researcher, adult educator, and reflective practitioner on a journey of continuous growth and development, and manifested through the experience of this research study, my personal research agenda can be articulated as:

- A belief that there are no fixed truths and that there are multiple, subjective realities;
- A commitment to conducting an investigation with the minimum of disruption to the natural context of the phenomenon;
- A commitment to hearing the participants' viewpoints without interference; and
- A commitment to analysing and reporting on the findings in a literary style rich in the participants' narratives and commentaries.

3.2.6 Summary

Interviews appeal to researchers who are interested in the lived experiences of their participants. The pragmatic philosophical orientation assumes there is no single, objective reality. An educator's reality is her or his interpretation of their world, expressed through their words. The pre-interview questionnaire and structured interview are fit-for-purpose as both methods offer the practical tools and mechanisms to support the overarching design-based research methodological approach to seek a deeper understanding of how educators construct their reality of professional learning, in their context. The structured interview emphasises the importance of the collaborative relationship between the researcher and participants to identify and solve problems in practice. The ill-defined nature of this study indicates, as does the discourse in the literature review, that as problem solvers proceed, they gradually re-characterise the problem, transforming it into a better-defined, and more solvable one. This is referred to as phenomenon maturity which supports the key tenets of design-based research.

Phenomenon maturity relates to gaining a deeper understanding of the educator's learning mobility as they experience any range of professional learning situations. The structured interview's amplified contribution to the research study is in its potential to provide rich qualitative data gained from the interviewees' comments on their personal constructs. The potential is that qualitative data elicited from these personal constructs offered insight into the ways educators make decisions and choices, often an internalised, invisible process, about their motivations to engage in their learning that is meaningful, but possibly unique, to them. It is these rich insights, elicited through the participants' voice that illuminates an alternative conceptualisation of authentic professional learning situations where a

learning mobility culture has continuity across boundaries of time, space and the activity of learning. Gaining insight in the ways educators learn, challenge, chart and change their views of self, and their thoughts, feelings and perceptions addresses a key tenet of transformative learning. Behavioural change is a function of perspective transformation involving a structural shift in the way we see ourselves, our relationships and the underlying inner criteria for valuing and taking action in the ways we make sense of, and apply personal meaning to learning in professional learning situations.

The meaning educators apply to how they learn (Research Question 2) and what they do with the learning (Research Question 3) differs from person to person depending on their perceptions, informed by their background and experiences of learning. Such backgrounds, unique to the individual, influence how they come to the learning (Research Question 1).

As part of the design-based research iterative cycles, the pre-interview questionnaire complemented the structured interview process by gaining a deeper understanding of the participants' perspectives based on the effort and intent they bring to their professional learning and their actions relating to the learning processes used for their own growth and development.

3.3 Data Analysis Procedures

3.3.1 Qualitative Analysis

Qualitative analysis is more useful in naturally occurring data collection settings that seek to more closely resemble real life situations where researchers cannot make sense of the data in isolation from the context (Braun & Clarke, 2013). Qualitative analysis is an appropriate method for this study in exploring and understanding the meaning educators ascribe to how they learn. The purpose of qualitative analysis for this research study was to generate rich descriptions, and interpretable patterns and themes to address the complexity of the educators' learning mobility phenomenon while making judgements about, and improvements to, designing for professional learning in higher education. Qualitative analysis afforded opportunities to capture the complexity, messiness and contradiction that characterises the real world setting of the educator's experience of professional

learning while allowing the researcher to make sense of patterns of meaning through the educator's narratives.

For these reasons, this research study used thematic analysis, a widely used qualitative data analysis method that focuses on identifying patterns and meaning across a dataset to address the research questions (Braun & Clarke, 2006; Norton, 2009; Vaismoradi, Turunen, & Bondas, 2013). The primary data sets used for qualitative analysis were the research participants' 25 transcribed interviews and the responses to the 25 pre-interview questionnaires.

Rationale for thematic analysis.

Thematic analysis is a method for identifying, analysing and reporting patterns (themes) within qualitative data. As the design-based research approach addressed simultaneously the multitude of variables evident in the educator's real-world context of their views and judgements of how they learn, thematic analysis organised and described data sets in rich detail, and was effective in assisting the interpretation of various aspects of the research problem.

Thematic analysis offers a number of ways to approach qualitative analysis including inductive, deductive, semantic, latent, realist or essentialist, and constructionist ways (Braun & Clarke, 2013). As tends to be the case when an analytical approach matures and evolves with its application into a multitude of disciplines, different variations of thematic analysis have emerged. In reality, Braun and Clarke (2013) contend that separation between the different approaches is not always that rigid. Of higher importance is that the analysis is theoretically coherent and consistent (Crotty, 1998; Norton, 2009).

This research study followed the theoretically flexible approach of thematic analysis advocated by Braun and Clarke (see Braun & Clarke, 2006, 2013, 2014; Braun, Clarke, & Rance, 2014; Braun, Clarke, & Terry, 2014). A hallmark of Braun and Clarke's (2013) approach is its theoretical flexibility in providing for a pragmatic, yet systematic framework for coding qualitative data, and for then using that coding to cut across data to search for patterns and themes to resolve the research problem. This aligns to methodological principles of design-based research and a pragmatic paradigm of inquiry. Like the philosophy of the pragmatic paradigm, Braun and Clarke's (2013) thematic analysis combines the most

appropriate features of the other thematic analysis versions for the explicit purpose of offering flexibility in dealing with the complexity inherent in addressing the subjective nature of real-world problems.

There is one other point of distinction between Braun and Clarke's (2006, 2013) thematic analysis and other versions. It relates to the calculation of inter-rater reliability scores. Calculating inter-rater reliability involves two or more researchers coding data independently and then comparing their codes. The degree of agreement between their codes is calculated using Cohen's Kappa where a Kappa of $>.80$ specifies a very good level of agreement, and therefore suggests the coding is reliable (Yardley, 2008). The assumption with calculating inter-rater reliability is that a variety of perspectives on the data results in a more accurate, robust analysis. Although Braun and Clarke (2013) agree that it may be helpful to code data with another researcher, they advocate that it does not necessarily result in better, more accurate coding. The use of inter-rater reliability scores, Braun and Clarke (2013) argue, is underpinned by the realist assumption that there is an accurate reality in the data that can be elicited through coding by multi-independent coders. In contrast, Braun and Clarke's (2013) thematic analysis approach is flexible and organic, espousing there is no one accurate way to code data. Braun and Clarke's (2013) view is that coding is an active, iterative and reflective process that evolves throughout the coding process and therefore inevitably bears the mark of the researcher. In summary, the key argument underpinning Braun and Clarke's (2013) view is that inter-rater reliability scores demonstrate two researchers have been trained to code data in the same way, rather than that their coding is "accurate".

As I worked in collaboration with participants to explore the phenomenon of the educator's learning mobility, I was inevitably connected to the research and the participants, and fully acknowledged the subjective part I played. Kothari (2009) emphasises that the aim of qualitative research is to acknowledge that the assessment of perceptions, attitudes, opinions and behaviour of participants is the function of the researcher's insights and impressions. For this reason, there is no one accurate way to code the data, resulting in the logic behind inter-rater reliability disappearing (Braun & Clarke, 2013).

As an analytical approach, thematic analysis was used in Phases 1, 2 and 3 of the generative cycles of design-based research to resolve the research problem.

Thematic analysis was used:

- To categorise the ways educators come to the learning (Research Question 1) and to develop a deeper understanding of educators as adult learners, in particular their background, experiences and actions towards their professional practice and learning mobility; and
- To identify the conditions and characteristics of how educators learn (Research Question 2) and what they do with the learning (Research Question 3), and the emergent patterns of thinking, acting, doing and feeling that reflect the inner, often invisible world of the educator as adult learner and manifest as outward expressions of self. This provided a richness of insight into the complexities of human nature when designing for effective professional learning. Theme development, informed by the patterns, conditions and characteristics across the data set was the evidence base for drafting the design principles.

Thematic analysis procedures.

Providing the elements (professional learning situations) to the interviewees as part of the structured interview process enabled consistency in that all interviewees were presented with the same evidence-based professional learning situations to elicit their personal constructs. It was the interviewees' unfiltered personal constructs, that is, their ways of making sense of professional learning situations that have relevance, meaning and application into their real-life context (or not) that provided rich data descriptions for thematic analysis.

In the search for patterns (themes) and categories, Braun and Clarke (2013) identify six stages of conducting thematic analysis through a rigorous process of data familiarisation, data coding, theme development, review and definition and presenting findings as detailed in Table 3.5. Although these stages are sequential, with each building on the previous, analysis is normally a recursive process, with movement back and forth between the different stages (Braun & Clarke, 2013).

Although qualitative analysis recognises that researchers bring their own subjectivity – their views, perspectives, values and belief system for making sense of the world – into the research process, it is seen as a strength rather than a weakness

(Kothari, 2009). However, Norton (2009) warns researchers to be scrupulously careful about generating themes and categories to maintain rigour while maintaining the pragmatic, theoretically flexible approach that thematic analysis has to offer. For this reason, Table 3.5 provides an overview of the six analytical stages of thematic analysis in relation to the data analysis activities and processes I conducted to assure a rigorous, reliable qualitative approach.

Table 3.5. Stages of thematic analysis.

Analytical stages (Braun & Clarke, 2006, 2013; Clarke & Braun, 2013)	Researcher's data analysis activities
<p>Stage 1: Familiarisation with the data Becoming familiar with the data is common to all forms of qualitative analysis.</p> <p>This stage involves reading and re-reading the data, noting any analytical observations. It is an opportunity to become immersed and intimately familiar with the data.</p>	<p>Data analysis activities at this stage included:</p> <ul style="list-style-type: none"> • Reading the responses to the pre-interview questionnaire to gain a deeper understanding of the participants' backgrounds and experiences relating to their scholarly practice and insight into their learning mobility • Making notes about their scholarly actions as a way to “get to know them” to help foster a better connection with educators during the interview process • Reading researcher interview notes following the completion of the interview, noting any initial analytic observations or key words and phrases, ideas, thoughts, feelings, actions, behaviours • Transcribing interviews into written form in order to conduct a thematic analysis provided the opportunity to familiarise myself with the data and check the accuracy of transcript against the audio • As interviews progressed, starting to identify patterns across interviews, and issues of potential interest in the data • Reading the interview transcripts and noting conditions and characteristics relating to personal constructs to become more immersed in the data • Developing researcher reflective practice for systematic and deep engagement to develop a rich and complex account beyond obvious meanings in the data <p>I approached all of these activities holistically, that is, considering the data as a whole rather than trying to align responses to each research question. A common mistake with thematic analysis is to look for themes related to the questions asked. This tends to lead to a descriptive synthesis rather than an analysis. The result is that so-called themes are no more than extricated quotes under each question heading.</p>

Analytical stages	Researcher's data analysis activities
<p>Stage 2: Coding</p> <p>Coding is a common element of many approaches to qualitative analysis. However, in thematic analysis, coding is not simply a method of data reduction; it is also an analytic process where codes capture the semantic (explicit) and conceptual meaning of the data.</p> <p>This stage involves generating succinct codes (labels) that identify important features or categories of the data that may be relevant to answering the research questions. This stage not only involves generating categories but possibly deleting or merging categories.</p> <p>Coding is a flexible, organic process that evolves as part of the researcher's active and reflective engagement in the coding process.</p>	<p>Data analysis activities at this stage included:</p> <ul style="list-style-type: none"> • Downloading the pre-interview questionnaire data file from the software program, SurveyMonkey, as an Excel spreadsheet • Creating code classifications for the pre-interview questionnaire (Appendix E) • Reviewing interview transcripts to generate codes (known as nodes in NVivo) • After coding five interviews, I reflected on the categories used for coding with a particular interest in refining categories that had considerable overlap with other categories. I did not delete any categories as it was too early in the data analysis to disregard possible patterns that may have significance to the literature, and/or overall significance to nuances surfacing within themes, or across themes. • Taking a systematic approach as I continued the analytic process for each interview, becoming particularly interested in features and patterns in the data across the entire data set, and collating data relevant to each code • Engaging in continuous reflection in the ways the inter-play of emerging patterns and codes may create an analytical narrative.
<p>Stage 3: Searching for themes</p> <p>A theme is a coherent and meaningful pattern in the data relevant to the research question.</p> <p>This stage involves examining the codes and collated data within the categories to identify significantly broader patterns of meaning, that is, potential themes.</p>	<p>Data analysis activities at this stage include:</p> <ul style="list-style-type: none"> • Taking a closer look at the codes and collated data within the categories to identify potential themes • Being actively engaged in my reflective processes to consider the possibilities in the arrangement of the features of the codes and the patterns in the data to surface emerging themes • Using mind maps to think about relationships between codes, between themes, and between different levels of themes, that is, overarching themes and sub-themes within them • Starting to get a sense of the significance of individual themes to inform the next stages.

Analytical stages	Researcher's data analysis activities
<p>Stage 4: Reviewing themes</p> <p>This stage involves checking the emerging themes against the interview data to determine if there is a convincing story within the data that answers the research questions. This stage usually involves refining themes which may mean splitting, combining or discarding themes.</p>	<p>Data analysis activities at this stage included:</p> <ul style="list-style-type: none"> • Re-examining my categories and considering collapsing as many as possible, relabelling them as themes • Undertaking a reflective cycle where I reviewed the emerging themes against the original tentative themes garnered from my first reading (see Stage 1) to see if I could refine and describe the themes more accurately • Making connections between the emerging themes and the research questions to evaluate whether the themes tell a compelling story about the data • Defining the nature of each individual theme and possible relationships between themes • Refining themes to develop a deeper understanding of the characteristics and conditions of each theme, sub-themes and possible connections across themes • Refining mind maps to help conceptualise the key themes and the relationships between themes.
<p>Stage 5: Defining and naming themes</p> <p>This stage is possibly the most difficult stage as it involves developing detailed analyses of each theme to identify the scope and focus of the theme, and possible relationships or links between themes. In this stage, attention is also given to determining the “story” of each theme and deciding on a meaningful name for each theme.</p>	<p>Data analysis activities at this stage included:</p> <ul style="list-style-type: none"> • Focusing on the connection to the research problem, research questions, research goals and looking for patterns that made sense in order to develop a coherent and convincing account of what the data is uncovering • Reflecting on my analytical process to surface those aspects that surprised me, and patterns that appeared to be emerging from looking at these themes • Becoming clear on defining the specifics of each theme and the overall story that the analysis was telling • Generating clear definitions and names for each theme • Identifying themes that contained sub-themes and describing the hierarchy of meaning within the data.

Analytical stages	Researcher's data analysis activities
<p>Stage 6: Writing up This final stage involves integrating the analytical narrative and data extracts and contextualising the analysis to existing literature to provide a compelling argument to address the research problem and research questions.</p>	<p>Data analysis activities at this stage included:</p> <ul style="list-style-type: none"> • Integrating demographic and scholarly practice supportive data from the pre-interview questionnaire to provide a more comprehensive narrative • Focusing attention on weaving together the theme(s), transcript data, personal constructs, and overall commentary and quotes to draw together a compelling story to contribute to the overall narrative to inform the next steps • Presenting an analytical narrative, contextualised to the literature review, that told a coherent and persuasive story and makes a reasoned case to address the research problem and research questions, and to provide an analytical foundation for the research outcome.

Furthermore, the theoretically flexible framework of thematic analysis involves a number of choices which need to be made explicit as part of the analytic process. As part of the researcher's ongoing reflective dialogue, the proposals of Braun and Clarke (2006) were followed by the researcher in that she needed to make explicit judgements on the following four key decisions:

1. What constitutes a theme?

Theme development, as represented in Stage 3, Stage 4 and Stage 5 of Table 3.5, is concerned with capturing something important about the data in relation to the research questions. A theme represents some level of patterned response or meaning within or across a data set. In terms of coding (Stage 2), the questions often asked by researchers are "What constitutes a pattern/theme?", and "What size does a theme need to be to count?" Braun and Clarke (2006) advise that a theme is a question of prevalence in terms of within a data item (interview/pre-interview questionnaire) or prevalence across the entire data set. Preferably, there will be a number of instances of the theme across the data set. However, the more instances does not necessarily mean the theme itself is more important. Prevalence is not dependent on quantifiable measures. As this is qualitative analysis, there is no fixed metric to determine what proportion of a data set needs to demonstrate evidence of a theme for it to be considered a theme (Braun & Clarke, 2006, 2013). There is no right or wrong method for determining prevalence, but rather it is based on the researcher's ongoing reflective practice and judgements.

My reflective practice and active engagement in the practical activities during all stages of thematic analysis, and as part of the overall methodological principles of design-based research, enabled me to refine my analytic abilities and judgements to search, review, define and name themes. I was able to move beyond simply summarising and describing the data to providing rich interpretative analysis that told a compelling and convincing story about the data, contextualised in relation to existing literature and responsive to complexities underpinning resolution of the research problem and research questions.

2. *A rich description of the data set or a detailed account of specific aspects.*

A second decision is to determine the type of analysis undertaken, and the interpretations made in relation to the data set. There are two ways: a rich thematic description of the entire data set, or a more detailed and nuanced account of a theme, or group of themes, within the data. A rich description of the data set serves to identify, code and analyse predominant themes as an accurate reflection of the content of an entire data set. Although a rich overall description is maintained, some depth and inherent complexity is lost. The alternative is a detailed, more granular account of the themes across the whole or majority of the data set, which allows for deeper, richer interpretations when analysing descriptive patterns (Braun & Clarke, 2006, 2013).

For this research study, a detailed account supported the nuances within the patterns, to arrive at a more compelling understanding of how educators learn, from the perspective of those experiencing professional learning. A detailed account of specific aspects supported an inductive thematic analysis within a latent approach to theme development (see points 3 and 4 below).

3. *Inductive or deductive thematic analysis.*

Themes or patterns within data can be identified in one or two primary ways: the inductive, “bottom-up” way or the deductive, “top-down” way. An inductive approach is data-driven in that themes identified are strongly linked to the data themselves rather than in relation to the specific questions that were asked of the research participants or to the researcher’s theoretical interest in the area.

In this approach, the data collected is specifically for the research study as was the case with the pre-interview questionnaire and structured interview. Therefore, inductive analysis is a process of coding the data without trying to make it fit into a pre-existing coding frame or analytical preconceptions which is the case with deductive analysis (Braun & Clarke, 2006, 2013). I use the inductive approach to thematic analysis as designing for understanding, engagement, change and transformation must start with those who experience the learning. By asking educators how they come to the learning, how they learn and what they do with the learning, the inductive, bottom-up approach provides a more compelling pathway to address the complexities of designing for effective professional learning, that to date

has served to reinforce the status quo of professional practice. An inductive approach adds new thinking to alternative approaches to professional learning practices by investigating the phenomenon of the educator's learning mobility to cultivate change and possibly individual perspective transformation to revitalise individual and organisational learning.

4. Semantic or latent themes.

A fourth decision is concerned with the level at which themes are to be identified: at the semantic, explicit level, or at the latent, interpretative level (Boyatzis, 1998). A semantic approach typically focuses on identifying themes at the surface level of the data. Analysis does not extend beyond a description of what participants say. Data is simply organised to show patterns in the content, and summarised and interpreted in an attempt to theorise the significance of patterns and their broader meaning, often in relation to previous literature (Braun & Clarke, 2006). Conversely, a latent approach to thematic analysis extends the semantic content of the data by identifying and examining the underlying ideas, assumptions, and conceptions that are theorised as shaping or informing the semantic level of analysis. Thus, latent thematic analysis builds on the semantic, surface approach by going deeper within the data. The development of themes involves interpretative work to gain insights into the educator's inner world for meaning making rather than just stating descriptions of what was said.

The theoretical position I took in this research study was an inductive, latent approach to theme development to present a detailed account of potential nuances in the data. Therefore the approach I took to the thematic analysis activities of coding, category and theme development, and interpreting and integrating the analytical narrative (the six stages of thematic analysis) were directed by the content of the data (inductive) and by concepts and assumptions underpinning the data (latent). The inductive, latent thematic approach added new thinking to alternative models of professional learning as it is concerned with making sense of the latent, often hidden characteristics and conditions that motivate (or not) the educator's engagement in their own continuous growth and development, to arrive at a deeper understanding of the phenomenon of the educator's learning mobility.

3.3.2 Summary

This research study was concerned with exploring the research participants' (educators as adult learners) perspectives of professional learning situations that accommodate their learning mobility across learning contexts for continuous professional learning and personal growth. The research design of this study intentionally sought to deepen the body of knowledge of how educators learn from the perspective of those experiencing the professional learning situations. The pragmatic paradigm of inquiry using design-based research meant that the researcher worked in collaboration with participants to explore the phenomenon of the educator's learning mobility as a means to rethink the design for effective professional learning. Thematic analysis worked in concert with the methodological framework (Section 3.1) and data collection methods and procedures (Section 3.2) as it offered a flexible, pragmatic qualitative research tool that provided a rich and detailed account of the data by investigating and identifying common themes that extended across an entire interview or set of interviews. Exploring and identifying patterns, categories and theme development is subjective in nature – a hallmark of qualitative analysis. Subjectivity does not produce bias that undermines the research, but rather is essential to good qualitative research practice.

The integrative research design offered the possibility for phenomenon maturity – considered when problem-solvers (researcher and educators) work together to resolve how to address the research problem which was: *How are educators motivated to engage in their learning mobility to transform their professional practice?* The research design approach taken to gain a deeper understanding of how educators learn naturally espoused a mobility of learning in that it crossed boundaries of time, place, and context in the educator's outer world; and crossed boundaries of the educator's sense of self, subjective realities, and multiple identities in their inner world, as they came to learn who they are.

3.4 Concluding Remarks

The review of the literature in Chapter 2 provided a theoretical and conceptual framework, and the pragmatic research design in Chapter 3 provided a methodological framework, to address the purpose of the research study. The purpose of this study was to gain a deeper understanding of how educators as adult

learners learn in order to add new thinking to the design for effective professional learning that makes provision for the educator's learning mobility.

In addition, the researcher came to realise that the scholarly activities she conducted in Chapter 2 and Chapter 3 gave insight into her own learning mobility. As she reflected on her changing, growing and developing sense of self as a researcher, an adult educator and an adult learner, the application of the theoretical and conceptual framework into her real-world professional practice helped her make sense of her own perspective transformations. The iterative, generative, flexible and contextual phases of design-based research, together with the supportive analytical approach of thematic analysis, provided a pragmatic research design for the researcher to also consider her personal research agenda as a reflection on her inner belief system.

When applied to Chapter 4 to address the processes of data analysis and the findings that emerged from the analysis of the data, the researcher's personal research agenda continued her commitment to an analytical approach. In particular, the agenda framed the researcher's commitment to ensure a deeper understanding of the research participants' learning mobility, to report the findings in a literary style rich in the participants' narratives and introspections without researcher interference, and to represent the multiple, subjective realities of the participants.

Chapter 4 Analysis and Findings

In this chapter, the analysis of data and findings from those analyses are presented across the four phases of design-based research (DBR), theorised as Phase 1 Designing for Understanding, Phase 2 Designing for Engagement, Phase 3 Designing for Change and Phase 4 Designing for Transformation. Phase 1 Designing for Understanding employed the pre-interview questionnaire to explore the research participant's background and experiences to gain a deeper understanding of the dynamics of their real-world professional learning context. Phase 2 Designing for Engagement, and Phase 3 Designing for Change scaffolded the insights gained during Phase 1 to advance an understanding of possible solutions to design for effective professional learning. The qualitative data collected from the structured interviews meant that emerging themes could be explored and interrogated in the following interviews. This supported the iterative, generative nature of DBR that underpinned Phase 2 and Phase 3. Phase 4 Design for Transformation integrated and consolidated the patterns and themes within the rich narrative descriptions and personal constructs elicited from the research participants. The four phases enabled a deeper understanding of the wholeness of professional learning manifested within the educator's learning mobility that transcends their inner and outer worlds (as illustrated in Figure 4.1). This understanding guided the analysis and findings described in this chapter.

The research participants' personal constructs elicited from the interview process provided qualitative data as part of the analytical process of thematic analysis. As described in Section 3.2.2, participants were coded P1-P25 to ensure confidentiality. The themes were developed from the pre-interview questionnaire and interview process, and trialled, tested and refined across the cycle of interviews. Phase 1 Design for Understanding themes were *professional practice* and *learning mobility*. Phase 2 Design for Engagement themes were *structuring the learning context*, *balance of control*, and *personalising professional learning*. Phase 3 Design for Change themes were *power to act*, *learning in the flow* and *continuity of connection*. Phase 4 Design for Transformation themes were *knowing one's self*, *knowing one's identity*, and *personal growth*. Appendix G provides an overview of the theme development based on the data collection methods of the pre-interview questionnaire and structured interview. These themes are further supported by the

summary of the key theoretically relevant characteristics in the literature given at the conclusion of Chapter 2 (see Section 2.5.4). This chapter concludes with the researcher's interpretations and reflections on the themes across the four phases to inform the design principles and conceptual model presented in Chapter 5.

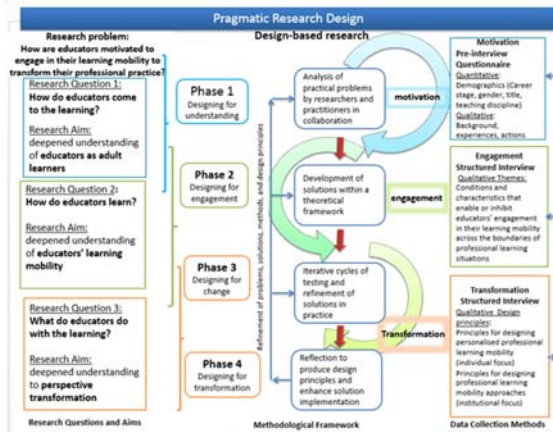


Figure 3.1. The pragmatic research design. This figure illustrates the methodological framework, methods and procedures to address the research problem and research questions.

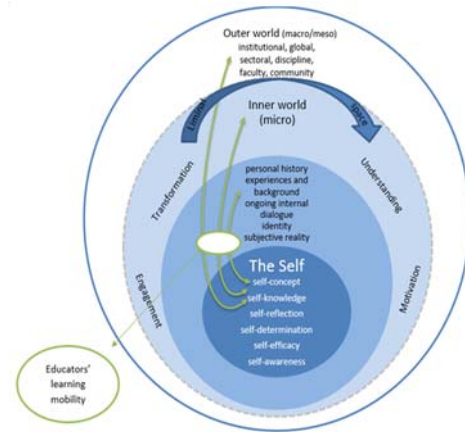


Figure 2.5. The wholeness of professional learning. This figure illustrates the key elements of the educator's learning mobility within and across their inner and outer worlds.

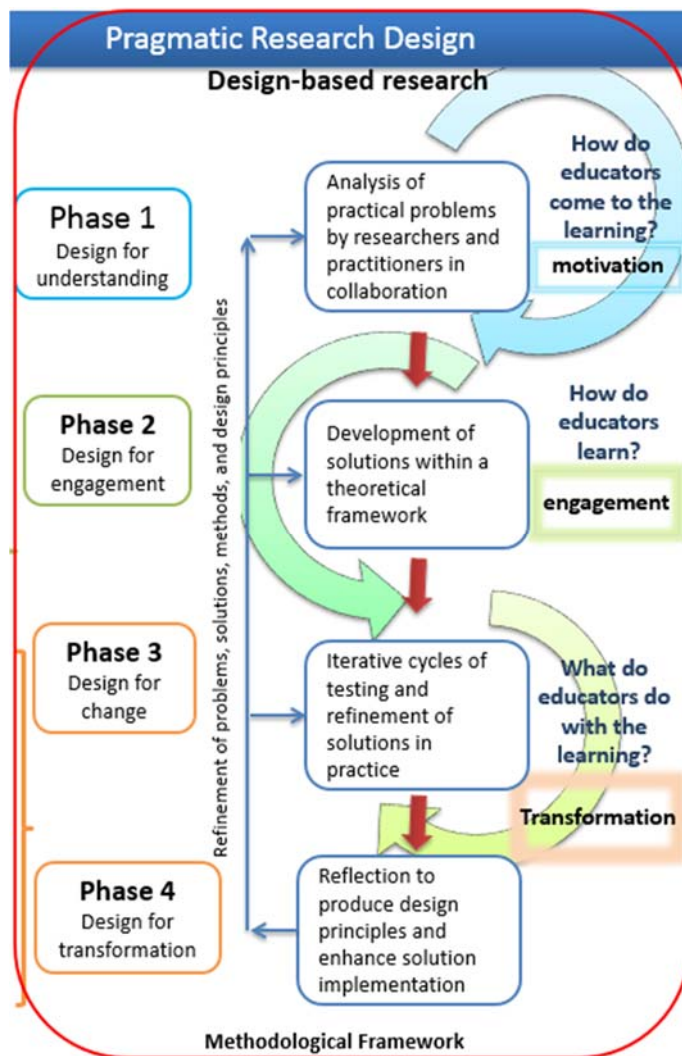


Figure 4.1. Phases of designing for the wholeness of learning.

This figure illustrates the relational nature of the four phases of design embedded within the pragmatic research design (Figure 3.1) of Chapter 3, and the wholeness of professional learning conceptual framework (Figure 2.5) given at the conclusion of Chapter 2.

4.1 Analysis

The four phases of design-based research (see Section 3.1.2) directed the analysis. The pragmatic, generative and flexible characteristics inherent in DBR enabled the researcher to continuously develop and refine the research problem in collaboration with the research participants (educators). Furthermore, thematic analysis was instrumental during the design-based research phases as it provided a pragmatic yet systematic framework for identifying, analysing and reporting patterns and themes that surfaced through the iterative phases of the interview process. As the interviews progressed (Phase 2 and Phase 3), sources triangulation across the multiple sources of data increased the authenticity and trustworthiness of the research as the interview process enabled cross-checking of the evolving findings and analysis. The fact that the research participants came from a range of disciplines, backgrounds and experiences afforded a breadth of perspectives. The generation of multiple perspectives during the analysis stage strengthened the validity of the qualitative, subjective data to inform the findings, interpretation and discussion. The focus of the analysis was to achieve a deeper understanding of how educators came to the learning, how they learned, and what they did with the learning.

Phase 1: Designing for Understanding

Phase 1 was concerned with the identification and analysis of the educational research problem in consultation with the research participants. Evidence from the literature (Chapter 2) illuminated four aspects that underpinned the problem identification: that an enduring educational paradigm is the focus on how people learn; that little is known about how people continue learning through their working life; that the current practices of professional learning tended to reinforce the status quo of professional practice in higher education; and that educators reported professional learning initiatives as being unappealing, ineffective and not meaningful to them. Additionally, in the researcher's ongoing role as an academic developer and adult educator, where she continues to work in collaboration with educators on matters relating to advancing their professional practice, she had observed, experienced and researched aspects of this educational problem as part of her scholarship of teaching. These four aspects served as the foundation to inform the

development of the research problem of: *How are educators motivated to engage in their learning mobility to transform their professional practice?* The researcher worked collaboratively with the research participants to gain a deeper understanding of the complex nature of their real-world professional learning context, from their perspective.

In preparation for, and during Phase 1, a comprehensive literature review was conducted. Potential themes and patterns within the educational literature were identified. These themes and patterns were tested as part of the pilot of the pre-interview questionnaire and structured interview to evaluate the researcher's interpretations and understanding of the research problem. At that point, the researcher started formulating a conceptual framework (see Section 2.5.3) to make sense of the complex nature of the research problem whilst capturing the core themes and potential relational nature between them. Documenting this as part of the analysis of the problem in Phase 1 served to shape the iterative cycles of testing and refinement in Phases 2, 3 and 4.

To better understand the participant's world, Phase 1 was concerned with designing for understanding *how educators come to the learning* (Research Question 1) within the themes of *professional practice* and *learning mobility*. The pre-interview questionnaire (Appendix C) explored the participants' backgrounds and experiences based on demographic attributes, and the qualitative categories of scholarly activities and personal qualities to build a richer understanding of the participants' actions towards their ongoing professional growth and development (see Section 3.2.3). For the purpose of this study, the three scholarly activities were characterised as "learning and teaching in higher education", "innovative pedagogical practices", and "scholarly leadership" as demonstrable evidence of the research participants' actions towards their professional practice. The two personal qualities were characterised as "learning literacy" and "personal change" as demonstrable evidence of the research participants' inner belief systems that may inform actions towards their learning mobility. Table 4.1 outlines the Phase 1 themes, qualitative categories and characteristics. Of significance, identification of the three scholarly activities and two personal qualities within the analysis was supported by evidence in the literature of Chapter 2 as part of the changing nature of

higher education (Section 2.1.1) and the changing nature of professional practice (Section 2.1.2).

Table 4.1. Design for understanding themes.

Theme	Qualitative categories	Characteristics
Demographic attributes	<i>[Nil – descriptive statistics]</i>	Discipline-based scholarly communities Career stage Gender Qualifications
Professional practice	Scholarly activities	Learning and teaching in higher education Innovative pedagogical practices Scholarly leadership
Learning mobility	Personal qualities (inner belief system)	Learning literacy (see Section 2.1.2) Personal change

Phase 1 enabled the researcher to gain a deeper understanding of the participant's personal foundation of experience (see Section 2.4.2), characterised as the individual's effort, intent and actions towards their professional practice and learning mobility, as a means of being present in their world. Appendix E summarises the personal foundation of experience classifications from the pre-interview questionnaire that maps the background and experience attributes to the pre-interview questions. This mapping process (supported by the literature in Chapter 2) informed the development of the qualitative categories to reveal the Phase 1 themes. Phase 1 also served to establish a more trusting, collegial, collaborative relationship with participants as the researcher moved into Phase 2 and Phase 3.

Phase 2: Designing for Engagement

Following the iterative nature of design-based research, Phase 2 scaffolded the understanding gained during Phase 1 to advance an understanding of possible solutions to designing for effective professional learning. This involved a triangulation of approaches. First, the researcher continued to conduct the literature review to refine the theoretical aspects. Refinement was in the form of extracting the conditions and characteristics within the literature as theoretical evidence to inform the methodologically aspects of DBR (J. Herrington et al., 2007). Second, the researcher worked in collaboration with the participants, using the structured

interview process, to collect data as practical evidence informing how educators, as adult learners, learn. The cycle of interviews also enabled the researcher to recalibrate her evolving understanding of the research problem and potential solutions. Third, the researcher documented her reflections and observations in the form of mind maps (Appendix F). Mind maps were an effective method to capture the evolving and shifting nature of knowledge construction based on her own reflections, but informed by her continuing collaboration with research participants in parallel with a continuing immersion in the educational literature.

When designing for educators' engagement in professional learning that fosters their learning mobility, there is no escaping the need to understand how educators learn. Therefore Phases 2 and 3 focused on *how educators learn* (Research Question 2) and *what educators do with the learning* (Research Question 3). This supports the methodological underpinnings of design-based research in that the data collection and analysis are situated within the educational research problem area, and the research questions explore alternatives to existing educational practices (J. Herrington et al., 2007). This means that Phases 2 and 3 are concerned with investigating alternative approaches to the design for professional learning informed by data collected from the structured interview process. The generative nature of DBR affords opportunities for the qualitative categories identified in Phase 1 to be explored further in Phase 2.

As part of Phase 2, the researcher recognised that to gain deeper insight into the educators' motivations for personal and meaningful engagement in their professional learning, she needed to ask the research participants about their motivations and subsequent actions. Asking them added a layer of authenticity as the researcher sought the participant's view about how they made sense of how they learn, in their world, from their perspective. This was achieved by the researcher eliciting, through the interview process, the research participant's personal constructs – their perceptions, judgements, thoughts, feelings and views of self about how they learn. It was the participant's introspections during the structured interview that provided rich qualitative data. The interview process provided a safe environment for the participant to challenge and articulate their meaning schemes about how they learn. In doing so, the participant examined the intellectual and emotional meaning they attributed to how they learn, filtered through their inner belief system (self-

concept, self-awareness, self-efficacy, self-determination, and self-reflection), as they interpreted and made judgements on the meaning they ascribed to their professional learning experiences. The research activities in Phase 2 provided evidence from the participants as they became conscious of their inner belief system and their taken-for-granted assumptions that formed and informed their motivations to engage (or not) in professional learning. It is important to note that Phases 2 and 3 occurred simultaneously rather than in a linear fashion as the structured interview process was a fertile ground to both develop solutions in practice (Phase 2) whilst using the cycle of interviews to address the iterative nature of testing and refining the solutions (Phase 3). This, in turn, led to the shaping and affirming of themes to inform designing for change.

Phase 3: Designing for Change

Phase 3 was concerned with developing a deeper understanding of the participant's inner worlds to gain insight into the dynamic process of change that served to enable or inhibit their motivation to engage in their ongoing growth and development. This phase saw the researcher use reflective questioning and active listening skills (supported by note taking) to paraphrase and synthesis the narrative descriptions underpinning the participant's emerging personal constructs to check for understanding. Reflective questions such as "Tell me a little more about", "What does that mean to you?", "How did it make you feel?", "Can you give an example?" and "Is that important to you?" often cycled the conversation into a deeper layer of introspection. This phase of negotiating meaning focused on the participant's critiques of their views of self as a pathway into their inner world; their inner belief system that shaped and informed their sense of self. The researcher found herself in a privileged position as the participant became conscious of (and articulated) their inner belief system.

Hearing back their views of the world served as a conversational space for the participants to challenge the meaning they ascribed to their personal constructs and the ways they made sense of how they like to learn in order to foster change and growth in their professional practice, an example of which is provided in Appendix H. This two-way conversation, where the researcher acted as a mirror restating and paraphrasing the patterns surfacing in the narrative, challenged the participants to go

deeper into their self-examination of their inner dialogue that shaped and informed the conditions and characteristics of their personal constructs on how they learn.

As this research study is situated within the complexities inherent in human nature, the researcher's reflective mind maps (Appendix F) served as an invaluable mechanism to capture the evolving nature of how educators learn and what they do with the learning in order to design for change to current practices of professional learning. In particular, it served as a form of triangulation of data to evaluate findings, patterns and themes, and insights that occurred within the interview process and across the interviews. This meant that surfacing themes could be explored, investigated and interrogated in the following interviews to support the iterative, generative nature of DBR underpinning Phases 2 and 3. This approach supported the view held by Reeves (1999) that the evaluation aspects of DBR should be developmental in nature with the purpose to improve the learning environment in order to address the research problem.

Phase 4: Designing for Transformation

The analysis across the iterative phases of DBR enabled Phase 4's integration and consolidation of patterns and themes discovered within the participants' narrative descriptions and personal constructs. The participants' narratives were cultivated from their self-inquiry and self-reflections on how they learn as a condition of coming to know themselves on the inside. A deeper understanding was gained of their inner world, manifested through their personal histories and experiences to get to the learning (Research Question 1), their inner dialogue, inner belief system and identity that shaped their subjective realities of how they learn (Research Question 2), and their psychological sense of self as the transformative processes to understanding what they do with the learning (Research Question 3).. As detailed in Section 3.2.4, the researcher recognised that the way participants made sense of, structured and interpreted their world was often a personal and private thing. The process of asking the research participants to reveal the intimate details of thoughts, feelings and actions was aided by the use of reflective questioning. This systematic, yet pragmatic approach to deeper understanding of the participant's inner world unified the conception of the wholeness of professional learning.

4.2 Findings

The findings were organised around the four phases of design-based research: design for understanding; design for engagement; design for change; and design for transformation. The findings were expressed as themes, guided by the six stages of thematic analysis as detailed in Section 3.3.1. In Phase 1: Designing for Understanding, the findings were presented as an analytical narrative informed by the participant's responses to the pre-interview questionnaire. Phase 1 was concerned with making early stage analytical observations on the research participant's effort, intent and actions towards their professional practice and learning mobility based on their personal histories, background and experiences. The findings in Phases 2, 3, and 4 (Designing for Engagement, -Change and -Transformation) were reported in a literary style rich in the research participants' narratives from the structured interviews. The analytic narrative during these phases was contextualised to the literature review to provide a coherent argument to address the research problem and research questions. The participants were represented as codes from P1-P25 to ensure confidentiality. The integration of the participants' narratives, inclusive of direct quotes, was given to enhance the reader's sense of connection to the participants' lived experiences. This is a purposeful output of design-based research, as readers make judgements to determine which insights have relevance to their own real-world learning contexts (J. Herrington et al., 2007).

Additionally, Phases 2 and 4 exposed latent (hidden) themes. Inductive thematic analysis provided an analytical approach to interpret the nuances in the data. This deeper layer of interpretation revealed these latent themes, manifested from those hidden characteristics and conditions that motivate (or not) the participant's engagement in their own continuous growth and development. Within the context of this study, "hidden" refers to hidden from the research participant's outer world (other people, processes and structures in their meso- and macro world) as their views of self are often constructed through internal dialogue; and possibly hidden from the participant themselves if their taken-for-granted assumptions are not challenged. Uncovering the hidden nature of how the research participants made sense of how they learned in their world, based on their subjective realities,

represented the more esoteric dynamics of Designing for Change, and Designing for Transformation.

Phase 1: Understanding Themes

Understanding how educators come to the learning (Research Question 1) was concerned with understanding each research participant's personal foundation of experience, that is, their self-determining effort, intent and actions towards their *professional practice* and their *learning mobility* (themes). The pre-interview questionnaire (Appendix C) explored the participant's background and experiences based on demographic attributes (descriptive statistics), and the qualitative categories of scholarly activities and personal qualities. The qualitative categories were inclusive of descriptive statistics where it served a purpose (e.g., including percentages to demonstrate the number of participants undertaking peer mentoring activities as evidence of professional practice growth and development).

Demographic attributes.

The participants were from five discipline-based scholarly communities across 10 universities, which collectively ensured the sample of participants was from a variety of disciplines and educational contexts. Of the discipline-based scholarly communities, six participants belonged to the allied health community (occupational therapy, public health and psychology), seven participants were from business and management (human resource management, leadership, and information systems), seven participants from adult education, three from the medical community (paramedicine, nursing and midwifery) and two participants from science (virology, vet science). Two participants nominated more than one discipline. P24 (participants were coded from P1-P25) identified her disciplines as information systems and education, and P14 gave his disciplines as human resource management and education. In these cases, the researcher grouped the participants within the primary disciplinary area that was business and management.

Of the 10 universities, three were in the Australian higher education section and the remaining seven in the USA higher education sector. The broader spread of USA universities was due to targeted convenience sampling as the USA research participants were sourced from two USA conferences at which the researcher was

presenting. Of the 25 participants, 28% were early-career academics (in academia 7 or fewer years), 40% mid-career academics (8-20 years) and 32% late-career academics (more than 20 years). A total of 68% were female and 32% male. Of the 25 participants, 84% held a doctorate, with the remainder undertaking a doctoral qualification. The researcher considered the group of participants to be representative of the broader population of interest. The demographic attributes identified the range of discipline (meso) and institutional (macro) contexts related to the participant's outer world, as shown in Figure 2.5. This, combined with the personal foundation of experience (effort, intent, and actions) manifested within the participant's inner world (see Figure 2.5), informed how they came to the learning (Research Question 1). Figure 2.5 is regarded by the researcher as pivotal to illustrating the complexity of an educator's professional and personal world. Gaining insight into the subtleties in the participants' inner and outer worlds was typical of the complexities inherent in designing for effective professional learning for a diverse group of educators with varying backgrounds, experiences, needs, expectations and views.

Professional practice.

The pre-interview questionnaire investigated the participant's effort, intent and actions towards their professional practice category of scholarly activities, characterised as "learning and teaching in higher education", "innovative pedagogical practices", and "scholarly leadership." Identification of these characteristics within the pre-interview questionnaire data (Section 4.1) was supported by the educational discourse relating to the changing nature of higher education (Section 2.1.1) and the changing nature of professional practice (Section 2.1.2).

Learning and teaching in higher education.

Of the 25 participants, 19 (76%) held a post-graduate qualification related to learning and teaching in higher education. Of those 19, 42% had multiple post-graduate qualifications; three participants were from the allied health community, two each from the adult education and medical disciplines, and one from the business and management community. It would be expected that the adult education

community would rate well on this metric. Of interest is the breadth of engagement in the learning and teaching literature by the disciplinary communities other than those involved in adult education. This was not characterised as a “surprise” finding though as the researcher targeted participants based on their scholarly actions, behaviours and stated desires to deepen their understanding of their professional practice. This was intentional as to add new thinking to the challenges of designing for effective professional learning, there was a need to ask those who had navigated the complexities of being an educator by focussing on their own growth and development. However, the findings suggested that for this cohort of participants, they had a natural motivation to engage in their scholarly growth and development beyond their disciplinary boundaries. The participants demonstrated a self-determining ability to grow and develop their professional identity that may or may not have been in conflict with their discipline culture, norms and values.

In relation to mentoring peers within the field of learning and teaching in higher education, 60% (15) of participants responded that they acted as peer mentors (Carbone et al., 2014). This suggested a natural attraction to engage in social, collaborative learning and teaching partnerships to grow and challenge their own professional practice and working with peers to foster personal change, growth and development in others. Table 4.2 outlines the spread of peer mentoring, as a scholarly activity, across the discipline-based communities. The science community, of which there were only two participants, was absent on this metric. The researcher places no significance on this as this sub-group size was too small. Instead, the researcher was drawn to the number of early-career (7 years or fewer in academia) participants across adult education, allied health, and business and management who were acting in peer mentoring roles. The traditions of academe would suggest that peer mentorship is normally a scholarly arrangement where a mid-career (8-20 years) or late-career (more than 20 years) academic is a mentor to early-career academics (Carbone, 2015). The data in Table 4.2 suggested that the idea of scholarly peer mentoring is an activity of engaging in professional practice across the research participant’s career life cycle. Furthermore, it could be argued that the early-career research participants had a sense of self-efficacy and felt empowered in their professional practice to be involved in peer mentoring partnerships.

Table 4.2. Mentoring peers. Research participants by discipline-based scholarly communities who responded that they acted as peer mentors.

Discipline-based scholarly communities	Research participant(s)	Career Stage	Gender
Adult education	P13	Early-career	Female
	P18	Late-career	Female
	P19	Early-career	Female
	P20	Late-career	Male
Allied health	P2	Early-career	Male
	P5	Mid-career	Female
	P6	Mid-career	Female
	P7	Early-career	Female
	P8	Early-career	Female
Business and management	P12	Late-career	Male
	P14	Late-career	Male
	P22	Early-career	Female
	P23	Mid-career	Female
Medical	P1	Mid-career	Male
	P4	Mid-career	Female

All 25 participants indicated they were involved in the contribution to, participation in, and dissemination of learning and teaching scholarship by presenting at conferences, and researching and publishing within the scholarship of learning and teaching domain. Furthermore, close to 25% (6) of the research participants had received an internal or external award for learning and teaching excellence, which suggested that their efforts towards growing and improving their learning and teaching scholarship had been recognised and rewarded institutionally, and more broadly within the sector. These findings indicated the participants were self-directed in taking responsibility for their own professional learning.

The participants' efforts in seeking and obtaining post-graduate qualifications in learning and teaching in higher education, in researching, publishing and presenting on the scholarship of learning and teaching, in mentoring peers, and achieving teaching excellence awards suggest a self-awareness to take control of their own professional learning for ongoing growth and development in their professional practice. Furthermore, when asked, 88% said they intended to continue developing their scholarship of teaching and learning into the future as part of their professional practice, suggesting motivation to continuously engage in professional learning across their career life-cycle.

Innovative pedagogical practices.

In the pre-interview questionnaire, participants were asked to chart their teaching practice within their teaching team, with peers and/or with their students in their use of digital technologies as a pedagogically innovative means to access, create, share, collaborate and interact, and to reflect on their own learning (Garrison & Vaughan, 2011; Laurillard, 2008). Of these five pedagogical practices (access, create, share, collaborate and interact, and reflect), 80% (20) of the participants indicated they used at least four of the five practices as a means to connect and/or generate conversations with peers, students, the literature, the course materials, and with themselves as learners. Interestingly, of the five remaining research participants who indicated they used three or less of the digital technologies for innovative teaching and learning practices, four nominated the higher order self-directed, social learning innovative activities of sharing, collaborating and interacting, and/or reflecting, alongside the lower order learning activities of accessing materials. There was no significant pattern in the demographic attributes within this group of five. They were male and female, early-, mid- and late-career, and belonged to two of the five disciplinary-based scholarly communities.

Of significance, these results indicated that the participants' efforts and actions reflected the changing nature of professional practice. They demonstrated a natural openness to share, communicate, collaborate and shape their personalised experiences of scholarly activities within a digital environment. It also suggested that the research participants had a willingness and natural motivation to develop their learning literacies capacity (see Section 2.1.2) to use digital networks for intellectual work and communicating ideas.

Scholarly leadership.

Investigation of the participants' learning and teaching leadership revealed that within the many forms of leadership, early-career participants are as actively engaged as their mid- and late-career colleagues. For the purposes of this study, scholarly leadership refers to active engagement in formal institutional and professional body leadership, and assumed leadership roles within informal, distributed scholarly activities. Of the 25 participants, six (24%) held the position of professor and 4 (16%) of associate professor. As expected, the participants in these senior academic positions were involved in formal institutional learning and teaching

leadership roles such as head of department/school, director of research institute, member of learning and teaching committees (at the meso- [department] and macro- [institutional] levels), as well as extending their academic service to membership of professional body committees. Of the seven early-career research participants, almost 60% (4) were involved in the formal aspects of scholarly leadership. As well as serving on institutional and professional body learning and teaching committees, they held positions of director of studies, and of program (degree) coordinator at the undergraduate and postgraduate levels within their disciplines.

All 25 research participants demonstrated effort towards advancing individual and collective (theirs and others), and institutional (macro) learning and teaching scholarship by undertaking assumed leadership roles. Assumed leadership, in Kegan and Lahey's (2001) view, is characterised as undertaking leadership activities as an extension of self-identity, carried along, possibly unsuspectingly, by the momentum of one's own interests, commitments, loyalties and relationships. Assumed leadership is often invisible to broader institutional structures as it occurs within informal and distributed professional learning networks outside of central management boundaries and leadership structures. A deeper exploration of the informal aspects of professional learning (Boud & Brew, 2012), as a dynamic of assumed leadership, was addressed within the structured interview process as part of Phase 2 and Phase 3 to address how educators learn (Research Question 2) and what they do with the learning (Research Question 3).

Learning mobility.

The pre-interview questionnaire investigated the participants' personal qualities of learning literacy (Section 2.1.2) and openness to personal change, as demonstrable evidence of their inner belief system towards their learning mobility. The researcher used Dweck's (2006) belief system framework of intrinsic motivation and intelligence (outlined in Section 2.2.1) to explore the participant's inner belief system as a tool to investigate and develop an understanding of the educator's learning mobility. Understanding the participant's intrinsic motivation to engage in continuous professional learning and personal growth across learning contexts and boundaries (Meyer & Land, 2013; O'Connor, 2008) supported the researcher's concept of learning mobility. Dweck (2006) characterises intrinsic

motivation as self-improvement and growth cultivated through challenge and effort. Those with a growth mindset have an inner belief system that learning and self-improvement are a condition of resilience, built by confronting life's obstacles and setbacks. Those with a fixed mindset have an inner belief system that learning success is a result of innate ability. Demonstrating effort, of trying and possibly failing, is seen as weakness as it confirms a deficiency in intelligence, character, ability or personality (Dweck, 2006).

Dweck's (2006) framework has a range of questions which were used to identify which mindsets participants had in relation to their inner belief system. In the context of this study, the questions were framed to reveal the research participants' personal quality mindsets related to the characteristics of learning literacy and personal change. To ensure reliability, four questions were used for each of the characteristics (Appendix E). That is, four statements were given in the pre-interview questionnaire as different permutations of the same question as a form of testing reliability of measurement of a growth or fixed mindset. Consistency across the four questions ensured face validity.

Learning literacy.

Although question 7 of the pre-interview questionnaire specifically asked participants to rate their beliefs about digital literacy, as established in Section 2.1.2, for the purposes of this study, learning literacy encompasses digital literacy skills (see Section 2.1.2). Digital literacy is the ability to locate, organise, understand, evaluate, analyse, and create information using technology (iNACOL, 2011), whereas learning literacy is concerned with the range of practices and skills underpinning effective learning in a digital, networked society. All research participants held a learning literacy growth mindset (that is, rated themselves as holding a growth mindset on at least three of the four statements in the pre-interview questionnaire) which indicated a natural openness to learning mobility to challenge and grow their professional practice within a digitally networked society. A learning literacy growth mindset suggested that the participants believed that their abilities can be developed through effort, authentic learning environments, and persistence. This is supported by the earlier metric (innovative pedagogical practices) where all research participants indicated they integrated digital technologies into their teaching

practice as an innovative means to access, create, share, collaborate, interact and reflect.

Personal change.

Question 8 of the pre-interview questionnaire specifically asked participants to rate their beliefs about their ability to change the kind of person they are. The participants' ratings of personal change proved interesting. Three participants (12%) were of a mixed mindset (a term used by the researcher). A mixed mindset occurred when two out of the four possible responses indicated a growth mindset, but conversely two out of the four responses indicated a fixed mindset. A mixed mindset to personal change would suggest that the (learning) context and purposeful engagement (Sternberg, 2005) played a key role in motivating the participant to change an aspect of themselves. A total of seven participants (28%) rated themselves as having a fixed mindset about personal change, suggesting their implicit belief about their ability to change personal traits is not open or responsive to shifts in perspective. Table 4.3 outlines the spread of fixed and mixed personal change mindsets across the discipline-based scholarly communities.

Table 4.3. Personal change mindset. Research participants by discipline-based scholarly communities who rated themselves as a fixed or mixed mindset related to personal change.

Discipline-based scholarly communities	Research participant(s)	Career stage	Gender
Mixed mindset			
Adult education	P18	Late-career	Female
	P21	Late-career	Male
Business and management	P14	Late-career	Male
Fixed mindset			
Adult education	P9	Mid-career	Female
	P20	Late-career	Male
Allied health	P5	Mid-career	Female
	P6	Mid-career	Female
	P8	Early-career	Female
Business and management	P12	Late-career	Male
	P23	Mid-career	Female

The remaining 15 participants (60%) nominated a growth mindset related to personal change. It could be argued that the participants with a growth mindset to

personal change are open to learning mobility. To reiterate the researcher's concept of learning mobility, it is about the educator's choice to learn, work, communicate, collaborate and connect in any configuration, across learning contexts and boundaries for continuous professional learning and personal growth. Learning mobility, like a growth mindset, suggests openness to changing personal traits, habits, behaviour and patterns related to learning.

Importantly, Dweck (2006) confirms that mindsets can differ between personal qualities. The learning literacy mindset involved situations of mental and cognitive (rational) ability, whereas the personal change mindset involved personality traits that dictate emotional (affective) and behavioural (conative) responses (Dweck, 2006; Mezirow, 2000). As an analysis of the data revealed that all 25 research participants had a learning literacy growth mindset, it suggested that they had the cognitive ability, supported by an inner belief system that they had the capabilities to challenge and improve their learning literacy, that is, their range of practices underpinning effective learning in a digital networked society. This suggested the participants had a growth mindset towards changing and developing their professional practice that may influence actions towards their willingness to learn, work, communicate, collaborate and connect in any configuration, across learning contexts and boundaries (learning mobility). However, the diversity of results on the participant's inner belief system about change as a personality trait needed further examination during the interview process. Dweck (2006) advises that individuals may not be aware of their own mindset but that it can be discerned based on behaviour, particularly in a person's reaction to failure. Furthermore, mindsets can be changed with Dweck (2006) stating "mindsets are powerful beliefs but they're just something in your mind, and you can change your mind" (p. 16).

During the Phase 2 and Phase 3 cycles of interviews, where opportunities arose, participants were asked to share their views on failure related to their learning and teaching activities. This served as a method of triangulating the data that emerged on the participant's mindset towards personal change, in recognition that learning mobility, as an internally manifested construct, is located within the individual's sense of self.

Intrinsic motivation.

In Phase 1, intrinsic motivation was revealed as an early-stage latent (hidden) theme as a means of designing for understanding the ways participants engage in their professional learning. Intrinsic motivation is not tangible in the way actions are, but rather part of the research participant's inner world. During Phases 2 and 3, the researcher used the growth and fixed mindsets theory as a framework to explore the participant's intrinsic motivation. During these phases, judgements were made on possible connections between the participants' fixed and growth mindsets, and their inner belief system towards changing, growing and developing their professional practice as conditions of their learning mobility across the boundaries and contexts of professional learning experiences.

At Phase 1, the findings from the pre-interview questionnaire revealed that the participants' efforts and actions towards their professional practice and learning mobility, on an interpretative level, may provide evidence of intrinsic motivation such as:

- Self-efficacy to navigate the complexities of professional practice to cultivate one's own learning processes for ongoing growth and development;
- Self-determination to be critically aware of one's effort, intent and capacity for ongoing growth and development;
- Self-reflection to be critically aware of one's subjective perceptions of the rational and extrarational processes of perspective transformation; and
- Self-awareness to feel in control of one's learning even if perceiving partial or limited control over the professional learning situation (Biggs & Tang, 2007; Cranton, 2000, 2006; Hattie, 2009; Mezirow, 2000).

The structured interview process, as part of Phase 2 and Phase 3, was a powerful tool to chart the researcher participant's introspections about their implicit views of self. Self-concept is a prevailing factor to achieve purposeful engagement, to change beliefs about one's self, and to transform one's way of being in the world.

Summary points.

The pre-interview questionnaire provided a wealth of insight into how the participants come to the learning based on their backgrounds and experiences. Participants' actions and efforts indicated an openness and willingness to continuously grow and develop their professional practice as evidenced by such scholarly activities as holding post-graduate qualifications in learning and teaching in higher education, actively participating in the scholarship of teaching and learning, receiving awards for learning and teaching excellence, mentoring peers to improve the teaching practice of others and self, and actively participating in scholarly leadership endeavours with the intention of advancing learning and teaching good practice. The participants' responses to the scholarly activities category suggested they viewed themselves inherently as agents of change by growing and developing learning and teaching scholarship, innovative pedagogical practices, and scholarly leadership. Evidence from both the scholarly activities and personal qualities categories further suggested that the participants were motivated to change, grow and develop their pedagogical knowledge and skills, based on their growth mindsets towards learning literacy, and to some degree their mindset towards change of person traits, habits and behaviour, as a pathway to cultivating their learning mobility.

The generative cycle of design-based research meant that elements to be further explored in Phase 2 Design for Engagement and Phase 3 Design for Change included the research participant's inner belief system towards changing, growing and developing professional practice and learning mobility. Deeper understanding of their inner world elicited from their personal foundation of experiences particularly affirmed the developing themes of *knowing one's identity, continuity of connection* through social and collaborative engagement, and being in (*balance of*) *control* and *personalising (professional learning)* their own growth and development within the formal and informal structures (*structuring the learning context*) of the higher education ecosystem.

At the conclusion of Phase 1, evidence from the pre-interview questionnaire indicated the participants had a natural, intrinsic motivation that was self-directed towards an openness and willingness to grow and develop their professional practice that is filtered through their self-efficacy, self-determination, and self-awareness.

The next phases targeted a deeper understanding of the participants' inner belief systems by critiquing their self-reflections and subjective realities of how they learn.

Phase 2: Engagement Themes

Eliciting the participant's personal constructs that enabled or inhibited their motivation to engage in professional learning for continuous growth and development meant creating a conversational space (structured interview) for the participant's self-reflections on their professional practice. Seeking the participant's views provided a fertile ground for them to articulate their inner dialogue for making judgements and decisions about the conditions and characteristics of professional learning situations that were personally meaningful to them, within their world.

Designing for educators' engagement in professional learning revealed three themes: *structuring the learning context*, *balance of control*, and *personalising professional learning*. As part of the six analytical stages of thematic analysis (see Section 3.3.1), the Design for Engagement themes emerged from the identification of meaningful patterns in the data (interview transcripts) relevant to the research questions, with a particular focus on Question 2 (how educators learn). Naming and defining the themes was based on collapsing and consolidating the emergent-pole personal constructs (see Section 3.2.4) elicited from the participants' interviews (see Appendix G), supported by the rich descriptions the participants gave as part their reflections on what those personal constructs meant to them (see Table 4.4 as an example). A screenshot from NVivo of the participant's descriptive narratives used by the researcher to code the characteristics and patterns to develop the themes is given in Appendix I. The analytic process of theme development included reviewing the Design for Engagement themes with the significance to the literature in Chapter 2 as part of the analysis and findings. Furthermore, as part of the iterative cycle of DBR, these themes were supported by the deeper understanding gained in Phase 1, based on the participant's personal foundation of experiences. The three themes are mutually beneficial in their role as the core themes to enact the design for engagement. Furthermore, in interrogating each theme separately it became obvious that by their very nature, the themes were connected, affirming that one's learning mobility is concerned with learning as a whole rather than conceived of it as component parts in the learning process of coming to know who we are in adulthood.

Structuring the learning context.

The theme “structuring the learning context” was defined as the conditions and characteristics that reframe the educator’s learning context, in recognition that learning mobility evolves outside the boundaries, systems and traditions of institution-led professional learning. Importantly, structure is inclusive of the meaning structures (internalised view of the world) the participants ascribe to how they like to learn in ways that motivate them to engage in their professional practice. The emergent-pole personal construct that appeared most frequently across all the participants’ interviews was the informal-formal characteristic of professional learning. When asked what the formal-informal dynamic meant to the participants from their perspective, a wealth of descriptions were generated, as detailed in Table 4.4.

Table 4.4. Structure: Research participants’ descriptions of informal-formal personal constructs.

Informal	Formal
Informal collaboration, can be about anything (P3);	Formal collaboration, currency in discipline profession and teaching profession, best practice, guided (P3);
Just-in-time discovery, rich conversations (P4);	Looking for meaning at a certain time (P4);
Conversations and translation of formal learning, exploring ideas, application, opportunistic, networks, unknown space, where dreaming happens, transformative space to manifest; embodiment of new learning, transitional space (P5);	Reason, purposeful, about something, fill the gap (P5);
Just-in-time learning, solving problems right now (P6);	Big picture, institutionally driven, funnels skills, resources, energy (P6);
Practical - why apply pedagogical concepts, organic, more important to me, explore own pace, daily learning on the go (P7);	Pedagogical theory to practice, formal language of learning and teaching, systems and processes to guide, broaden thinking of what learning and teaching is all about - need this (P7);
Unstructured (P10);	Structured (P10);
Personal (P11);	Professional (P11);

Non-institutional in nature, small group (P12); Autonomous (P14); Informal interactions, less about scheduled (P24)	Institutional in nature, large community (P12); Structured; predetermined (P14); Expert speaks to participants (P24)
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When investigating the structure of professional learning under the umbrella terms of informal or formal in nature, the characteristics provided by participants that helped deconstruct an understanding of informal structure included: “personal and distributed” (P2); “flexible” (P1); “unplanned, unguided interaction” (P9); “transformative” (P15); and “open” (P9, P11) with “no agenda” (P15). In contrast, the characteristics elicited to support an understanding of formal, structured (institution-led) professional learning included: “institutional focussed” (P2); “professional” (P11); “contrived” (P8); “linear and didactic” (P1); and “transactional” (P15).

In particular, P5’s introspections on informal and formal learning offered powerful insights into the opportunities for professional learning to position the educator as adult learner for the possibilities of transformative learning. The appeal of informal learning for P5 was the unknown learning agenda stimulated by flowing conversations to explore and apply ideas, which P5 emphasised may have been triggered from, or had its origins in formal learning situations. Informal learning encouraged P5 to reach into “an unknown space and potential for more opportunistic learning and probably more dreaming where transformative stuff has the potential to happen, to manifest.” Informal learning spaces were perceived by P5 as “the vehicle, the application to the embodiment of new learning.” In contrast, more formal learning was seen by P1, P2, P5 and P15 as having a specific learning agenda. P1 expressed the learning agenda in formal settings as often creating a didactic, linear, lock-step transmission of knowledge learning environment that could serve to negate his learning needs, in particular his need for immediacy in problem solving. P5 articulated the more formal aspects of the learning agenda as being a “transition space” that had a clear purpose, where the drive to engage in structured learning, for her, was to fill a need or gap in knowledge or skills in order to apply it to solve a professional real-world problem. P5’s self-reflections on informal and formal

professional learning environments indicated a growth mindset inner belief system about personal change towards her professional practice. This is at odds with her self-rated fixed mindset to personal change (see Table 4.3) in the pre-interview questionnaire, affirming that embracing a growth mindset to personal change can be influenced by the learning context.

Blend of formal and informal.

In the main, the research participants conceived of the structure of professional learning as a blend of formal and informal learning experiences. P1, P2, P5, P6, P7, P12, P13, P19 and P25 explicitly expressed a personal learning preference for more informal learning to connect with people, develop conversations and networks, and explore ideas. However, these participants declared a need for the more structured learning places that usually had an agenda, objectives and outcomes, as a venue for informal ideas to be realised and developed into mainstream learning and teaching practices. The benefits of institution-led professional learning provided a collective culture to improve teaching and to consolidate the informal interactions around teaching practices (P14). The value of formal (institution) professional learning expanded P7's awareness of the systems and processes to support her in her teaching while broadening her thinking about pedagogical theories to develop perspectives of her professional practice. Furthermore, as an early-career academic, P7 emphasised that institution-led professional learning on the scholarship of learning, teaching (and research into learning and teaching) in higher education affirmed her inner dialogue of being "in the right head space. I know the agenda." It gave P7, as it did for P12 (late-career academic), confidence to apply theory into their teaching practice, a voice to participate in scholarly conversations, and feel empowered in their teaching. P7's reflections supported her self-rated growth mindset for personal change from the pre-interview questionnaire. For P7 and P12, conversation, connection and confidence was their motivation to engage in formal professional learning. P12's empowerment manifested through his internal dialogue "to slay the dragon of terrible teaching." P12's internal conversation suggested a growth mindset inner belief system about personal change towards his professional practice. This is in contrast with his self-rated fixed mindset (see Table 4.3) in the pre-interview questionnaire.

The pragmatics of informal learning served the benefit of harnessing individual strength to influence institutional learning and strategic direction (P6). P5 suggested a two-way interaction of knowledge construction where she saw the more structured places as a fertile ground for informal ideas to be realised; and the learning opportunity that comes with informal conversations with people, and the genesis of ideas, “for enactment of those ideas into more structured places” (P5).

The participants’ views suggested a reciprocal relationship between formal learning and informal learning. P12 felt particularly strongly about the relational nature stating that “formal and informal are both equally powerful, equally important for learning as a teacher.” While engaging in structured, formal learning, P5’s internal dialogue was “thinking about the application - which networks, which people; thinking about who to have conversations with, mental connections about places to play with new learning, what is the value for me.” P4 also recognised the value of the blend of formal and informal in that both offered the opportunity to “look for meaning.” Meaning making for P4 was qualified by rich conversations with peers where her inner dialogue was “I often find myself saying something like - I hadn’t thought about it like that” or “that’s terrific.” P22 shared that in her role as Head of Program there was an organisational expectation that she attended at the institutional level. P22’s outlook was intriguing as she recognised that there are circumstances outside her control, yet chose to situate her approach to learning, whether formal or informal, within all parts of the learning journey that is a social event connecting “all elements of the journey to build a community of professional practice.” P22 demonstrated a heightened sense of self-awareness to feeling in control of her learning (even if elements were outside her control) as an example of personal agency.

Whether the professional learning was more formal or informal in structure, the participants’ reflections identified the common denominator that transcended the learning setting was connection to create a wholeness to the learning experience. For P5, informal learning created spaces for conversations to enable the translation and application of formal learning into the practice of teaching. The significance to this study drawn from the participants’ narratives is how they like to learn is less about the structure, whether it is a more formal or more informal learning setting as they see value in both, and more about the *connection, collaboration, cooperation,* and

opportunities to be *creative* and *spontaneous*. It is more about the pace, place and personalised nature of the learning context. When P5 experienced professional learning that had these characteristics, her internal dialogue was “gets excited” and “is satisfied that I am doing my job”, and P4 experienced “little a-ha moments. You walk away going ‘oh that’s why I come to work.’” P17’s view was particularly insightful. Although she recognised the constraints of institution-led professional learning, she was “happy to go down the rabbit hole” of structured professional learning as long as it is created a space to challenge her (and her peers’) views. Creativity for P17 was about the learning being fun, energetic and meaningful to foster some sort of shift in her theoretical or practical perspective of how she learns. P17’s internal dialogue supported her self-rated growth mindset for personal change from the pre-interview questionnaire.

Balance of control.

The theme “balance of control” was defined as the conditions and characteristics that cultivated a learning context where individuals self-determine the balance of autonomy, choice, and freedom that is meaningful to their learning needs. P1’s introspections were compelling to the researcher. For P1, control was moderated on a learner-institution continuum where the learning context, his learning needs, and his identity as a learner influenced his decision to position himself on the continuum. P1’s view implied learner and learning mobility that is about choice, autonomy and his sense of self on the learner-institution control continuum. P1 articulated that when he comes to the learning with “an expert” sense of identity, efficiency and productivity are paramount. P1’s internal dialogue is he wants “less institutional control” so that he can get to the “solution as fast as possible”, “apply it immediately” to fix the problem, and move on to other work tasks and responsibilities, and “not waste time.” However, P1 revealed that when he comes to the learning with “a novice” sense of identity then “the level of [learner] control varies across the continuum.” When he sees himself as a novice engaging in learning about something he has no knowledge of “I may want a greater degree of [institutional] control over my learning, so that I don’t wander off into the wilderness.”

A further dimension to P1's learner–institution control continuum related to when “the problem or the learning needs or the gap is ill defined” which emphasised that where P1 placed himself on the continuum was contingent on the learning context. When the problem was ill defined, P1 saw benefit in collaborating and drawing on other people's experience. This added value in that others' contributions gave a shared understanding of the problem. However, P1's view was again moderated by the learning context. If the problem was ill defined but also fairly routine such as the instrumental learning of “operating a new piece of software”, P1 preferred to work on his own. That is, he preferred to self-determine his own effort, intent and actions by taking a just-in-time, self-directed, personal responsibility approach for learning to source a solution “right now” rather than “sitting in a large group...brainstorming how best to get this done.” P1's insightful narrative account of the learner-institution control continuum reflects his self-rated growth mindset for personal change from the pre-interview questionnaire.

P1's conception of the learner-institution control continuum was the catalyst for the researcher to help make sense of, trial, test and validate the control theme by seeking the views of other participants. The characteristics participants ascribed to learner control connected with a learning-centred approach to the design for effective professional learning that cultivate selfhood: “me” (P8), “my choice” (P7) and “my input in creation” (P9); and “self-paced” (P3), “self-regulated” (P18), “self-exploration” (P7) and “self-contained learning” (P19). Such characteristics create a “bottom-up” (P2, P6), “learning environment to foster autonomy” (P14), “freedom” (P18) and “independence” (P2). Conversely, the characteristics participants attributed to institutional control to some degree inhibited learner control, autonomy and freedom such as “top-down” (P2, P6), “pre-determined learning” (P19), “institutional driven” (P5) professional learning that the participants perceived was “regulated by others” (P18) and that they had “no control” (P12) or “less control over” (P1) and “no input in the creation” (P9).

P2, P6 and P18s' introspections uncovered a deeper dynamic related to their inner belief system within the bottom-up – top-down characteristic of learner control in professional learning. Their sense of self manifested a personalising learning environment independent of where they may place themselves on the learner-institution control continuum. P2's self-concept was manifested through his internal

dialogue as “a co-creator of solutions.” By contributing to institutional goals and policies, he serviced institutional needs, influenced institutional decisions which, in turn, serviced his needs and personal goals to solve issues and change practices that were personally meaningful to his immediate world. He viewed this as a form of self-efficacy to change and empower himself and others, affirming his growth mindset to personal change. P6 had a similar view of empowerment that manifested in the grassroots, informal, networked nature of a bottom-up approach to harness individual strength to influence the strategic direction of the institution. Her sense of identity and sense of purpose was empowered by “working within the system” to bring about institutional and personal change. Interestingly, this conflicted with P6’s self-rated fixed mindset inner belief system to personal change (see Table 4.3) in the pre-interview questionnaire.

Learner control manifested itself for P18 in learning contexts where “I control, self-determine and have free choice.” P18 characterised herself as a self-directed learner who took responsibility for how she learns, confirming “it is how I engage in learning.” Freedom of choice, where learning is “grass-roots and bottom-up” is “more powerful for me as I grow and mature in my own learning.” Conversely, P18 felt constrained in her ability to experience a richness in her learning when she perceived it to be mandated, top-down, and externally controlled and regulated at the institutional level or by others. Importantly, P18 (as did P13 and P14, all of whom hold senior positions in their respective universities) affirmed that although she has a clear sense of how she learned best to realise her potential, as part of her professional identity she needed to be seen as an active and engaged academic institutionally. Staying visible and current institutionally meant that she could better understand how to navigate the higher education ecosystem. P18’s reflections affirmed her self-rated mixed mindset to personal change, suggesting her inner belief system enabled her to discern when the learning context fostered or inhibited her ability to stretch her views of the world.

Personalising professional learning.

Personalised professional learning situations are characterised by learner control and social engagement. When participants were asked to express their views on the personal gains of engaging in professional learning that transcended formal or

informal structures, their motivations and evidence of learner control stemmed from having autonomy, choice and freedom. P22 and P23 had very clear views on the importance of personalised learning. P22 believed learning becomes personalised with social engagement but, equally, P22 mentioned that personalised learning is about the efficacy of self-directed discovery to solidify personal understanding. Time with self to construct meaning was considered by P22 as the preface to richer learning experiences within her networks and communities. She expressed this sense of learner control as “coming to the community to kick the tyres”, to test thinking, validate understanding, and apply back into her context to improve aspects of her professional practice. This supported her nomination of a growth mindset to personal change in the pre-interview questionnaire. It was the people who enriched the learning connections and fostered P22’s engagement in learning that further strengthened connections in her own meaning making and her self-efficacy. Like P22, P23 gravitated towards personalised learning as self-directed exploration in which she had the power, control and flexibility to choose how, when and what mix of people, networks, resources, and materials to integrate to “customise the learning to my needs.” This is also where P22 and P23 differed.

At points of their choosing, P22 moved from self-directed discovery to social engagement within her community, whereas as much as P23 valued learning with her peers, she was pre-occupied with the tensions and time constraints of being an academic. For P23, personalised learning moved from a preferred approach to learning to a necessity. P23 reported “it is a constant balancing act between collaboration, and effectiveness and efficiency” with the end result being that P23’s individualised approach to personalised learning “is a lonely place.” Potentially, P23 was experiencing her own personally manifested professional learning dilemma. She was invested in her continuous growth and development, and more significantly, intrinsically motivated to do so as her internal dialogue was “as an educator it is very important to be current” and “stay ahead of my students” but concurrently she made internal judgements about not going to institution-led professional learning that she perceived as not applicable to her or “doesn’t fit my time frame.” Fitting her timeframe meant that P23 did self-exploration in her networks at night, “outside the distractions of the day.” The potential danger for P23 was that her self-directed approach to engaging in her professional learning was invisible at the meso- and

macro- levels, and caused her social isolation. This may have some connection to her nomination of a fixed mindset to personal change (see Table 4.3) from the pre-interview questionnaire and her urgency to prove herself as an educator within the competing demands of being an academic.

P18's self-reflections find common ground between the polar end results of personalised learning experienced by P22 where learner control led to social engagement, whereas for P23 learner control resulted in social isolation. P18 had a very clear view on designing for personal engagement in professional learning where the activity of learning needs to be personalised to the individual educator's interests. P18's insights suggested that the educator had multiply identities within any learning exchange. Therefore, designing for engagement needed to be cognisant of the educator's personal and professional identity within their world, and the agenda, hidden or visible, within the educator's learning context. P18's introspections provided further insight into her mixed mindset to personal change (see Table 4.3). When learner control and social engagement were present in professional learning situations, P18 was open to growing and changing her professional practice. Conversely, if she perceived limited freedom to express her identity, and therefore limited opportunities for personal connection, her inner belief system that motivated her to grow and change was fixed (that is, not open to engagement). This reinforced P18's perspective that designing for engagement is about the activity and context of learning, addressing the needs of the educator.

P14 added his view that designing for social engagement was about interacting with peers on a more personal level. Personally meaningful social engagement as a condition of professional learning offered P14 "freedom." P14's internal dialogue was "to engage when and how he wanted, to explore emerging thoughts and ideas and not to follow a pre-existing script." P14's emphasis on freedom fostered his sense of learner control where he could "internalise the learning better" to start to make connections, and to "bring into focus tacit knowledge and to let the mind wander." For P14, freedom activated the mind to create a connective, cyclical, generative learning process where "I go into my own space...It is like the entry point of really energizing learning." P14's introspections suggested a growth mindset to personal change when accompanied by a sense of personal freedom to make choices, and be in control of, his learning mobility.

A further characteristic of personalised professional learning that surfaced for P4, P10 and P17 was *fun* and *humour*. Often overlooked in the design for social engagement in professional learning is the idea that educators as adult learners are curious, and want to interact and connect with peers to be creative, experiment, explore, play and reflect on aspects of professional practice for improvement (Bryant et al., 2014; Johnson, Adams Becker, & Hall, 2015). P4 stated that “humour is very important to me It’s the key to learning.” For P10, social engagement and collaborative practices gave professional learning a sense of purpose. It was the fun element of interacting with peers that made professional learning interesting and engaging, with the end result reported by P10 as motivating him to work harder, feel a sense of connection, and perpetuate the desire for further interaction. When professional learning manifested as “learning as fun”, P10 felt “happiness and satisfaction.” P10’s introspections supported his self-rated growth mindset to personal change identified in the pre-interview questionnaire. Fun, for P17 “is my MO [modus operandi].” P17 stated that her “tolerance for it [institution-led professional learning] is not good.” P17’s resistance to the more impersonal, formal, structured aspects of professional learning were diminished when she “gets to work on my inner adult” by experiencing a sense of play, creativity, personal growth, and significantly, opportunities to reflect on her actions and change professional practice.

Intrinsic motivation.

As part of the iterative nature of DBR of trialling and testing solutions to the problem in collaboration with the research participants, the researcher further explored Dweck’s (2006) inner belief system framework of intrinsic motivation to investigate the participants’ inner belief system towards changing and developing their professional practice as a condition of learning mobility. Phase 1 revealed that intrinsic motivation, as a latent theme that explored the nuances in the data, may be interpreted as the participant’s inner belief system manifested as their self-concept in adulthood (self-efficacy, self-determination, self-reflection, and self-awareness). Furthermore, Dweck (2006) advises that a fixed or growth mindset can be discerned based on a person’s reaction to failure. A growth mindset responds to failure as a learning experience that cultivates opportunities to grow, to improve, to change. A fixed mindset dreads failure and reacts negatively believing being wrong or making

mistakes is a sign of weakness (Dweck, 2006).

When asked about how they responded or reacted to failure, P10 revealed that to him, failure was just a different type of learning. “There is lots of failure in science. If not, then you are not trying hard enough. I fail most weeks.” P11 had a more conservative approach in that she made decisions about her professional practice based on seeking advice from a range of people to give her confidence and to minimise risk by making judgements based on informed choices. Even with this safety net in place, if she experienced failure, she built on the experience as part of her ongoing learning. P13 preferred engaging in her professional learning through rich collaborative experiences to generate ideas for further exploration that may lead to innovative teaching practice or research. When ideas failed to produce the desired outcome, P13 saw it as an opportunity to reflect on actions to learn for next time. P16 stated he had “a love for learning” and placed importance on accidental learning, which he termed “learning from failure,” and the unanticipated or unexpected outcomes of learning that sustained him in his professional practice. P22’s personal belief was that there is so much to be learned in the moment of failure; “that brilliant people fail dramatically” and that as educators, researchers, and professionals this should not be forgotten. Furthermore, P2 stated that his preferred way of learning was trial and error to “try and see what works” where “failing is part of learning.” These participants’ (P2, P10, P11, P13, P16, and P22) self-reflections on how they respond to failure demonstrated a growth mindset that was resilient to the emotional reactions (affective state) inherent in learning experiences that challenge one’s professional identity in their outer world and sense of self in their inner world, suggesting an emotional intelligence that embraces learning mobility.

Of significance, all six participants rated themselves as having a growth mindset inner belief system on the learning literacy and personal change characteristics identified in Phase 1 as part of the pre-interview questionnaire. These findings provide demonstrable evidence (together with the deeper analytical approach to the participants’ narratives given within the design for engagement themes of *structuring the learning context*, *balance of control*, and *personalising professional learning*) that the participants’ efforts and actions towards their professional practice and learning mobility is conditional on a deeper, innate motivation manifested from the inside. This *natural* motivation was resilient to

professional learning that extended beyond the boundaries and conditions of success or failure to provide learning opportunities to grow, challenge and change one's internal status quo to professional practice.

In addition, P13 and P18 offered personal constructs on intrinsic motivation within the context of their professional learning. P13's intrinsic motivation was bolstered by interaction with people and the flexibility to pursue common interests, think together, and work on problems or tasks. This suggested P13's inherent need for professional learning was not only to be personalised through connections but for the learning to take a nature flow to address immediate interests and situations. For P13, her inner belief system was guided by her own learning mobility, underpinned by her personal power to make decisions, to problem solve situations as they arose, and to have control to autonomously navigate her own networks in searching for solutions.

The fact that the first personal construct elicited from P18 was the emergent-pole construct of intrinsic motivation-extrinsic motivation gave insight into her inner world to the point that her inner belief system was not latent or hidden to her self-awareness. When it comes to P18's view on how she is motivated to engage in professional learning, she verbalised her self-concept as "I like to learn, like to find things out, take things apart." Her curiosity for learning and continuous growth was inherent in every aspect of her world - "my personal interest, my professional interest . . . my institutional interest."

Summary points.

Critiquing the participants' reflective narratives in Phase 2 Designing for Engagement as part of the cyclical nature of the interview process validated the finding from Phase 1 and enabled a deeper understanding of how educators come to the learning (Research Question 1) and how educators learn (Research Question 2). The interview process provided a safe environment for the participants as they became conscious of, and raised their self-awareness about, their taken-for-granted assumptions, inner belief system, thoughts, feelings, actions and reflections that formed and informed their motivations to engage (or not) in professional learning. It also served as a collaborative space for the researcher to provide practical evidence (critique of research participants' narratives) to demonstrate the growth and fixed

mindset inner belief system framework as a means to design for effective professional learning that served as a deeper, natural motivation to enable or inhibit participants to engage in their professional practice.

The participants' introspections clarified three points for this study. First, learning mobility embodies the educator as adult learner's choice to learn, work, communicate, collaborate and connect in any configuration, across learning contexts and boundaries for continuous professional learning and personal growth. Second, for professional learning to be personally meaningful, it needs to embrace a learning mobility that blends formal and informal learning contexts. Third, one's growth or fixed mindset to personal change is moderated by the learning context, the learner's needs and learner control.

Reflection on the Design for Engagement themes from Phase 2 enabled the researcher to extract several key design for professional learning considerations to take forward. Illuminated by the participants' inner narratives, the shifting perspective towards designing for effective professional learning included:

Blend of formal and informal learning contexts

Less transactional learning agenda that manifests transmission of knowledge

More transformative learning agenda that manifests connection to people

Balance of control

Less institutional control – top-down ownership of knowledge

More educator as adult learner control – bottom-up creation of knowledge

Personalising professional learning

Less social isolation

More social engagement

Motivation mindset

One's natural motivation towards changing, growing, and developing their professional practice that cultivates an internalised (sense of self) learning mobility.

Phase 3: Change Themes

Phase 3 Designing for Change continued to build a deeper understanding of how the research participants learn in order to advance solutions to designing for effective professional learning. The iterative, generative nature of design-based research meant that the themes developed from the interview process continued to be trialled, tested and refined across the cycle of interviews. Phase 3 focused on the participants' increased self-awareness of their inner belief system that acted as a perceptual filter for them to interpret meaning, make judgements, and to take action in the ways they change, grow, and develop their professional practice.

The process of analysis in Phase 3 Designing for Change revealed three themes: *power to act*, *learning in the flow* and *continuity of connection*. The three themes were a demonstration of the wholeness of learning as each theme built on, and connected to the themes generated from the previous phases, as well as revealing an inter-connectedness between the themes in designing for change. The inter-connectedness is demonstrated by a continuation of research participants' reflective narratives illuminated during Phase 2, and expanded into Phase 3 to amplify an understanding of how educators learn (Research Question 2), and to gain insight into what educators do with the learning (Research Question 3).

Power to act.

This theme focused on the research participants' personal power to action change in their professional practice. Cultivating personal power hinged on the self-efficacy, self-reflective and self-determining powers of trusting oneself, giving oneself licence to take risk and fail, having the confidence to deploy one's own ideas, and possessing the emotional and intuitive intelligence to cultivate personal and institutional change (Cranton, 2006; Hart, 2014a; Mezirow, 2000). Gaining a deeper understanding of how the participants activated their personal power as a means of motivating themselves to take action in the ways they change, grow, and develop their professional practice was explored more deeply through the reflective narratives of P5 and P18.

P5's active engagement in her professional learning created opportunities for her to influence change and improvements to institutional systems and processes, as well as employing a self-reflective lens to be more observant of, make changes to,

her own professional practice. However, such opportunities to influence that brought about change in P5's inner and outer world were moderated by a "trusting, open environment" that was as much about rational decision making as the emotional connection with people that manifested "creative, intuitive and interactive" learning exchanges.

P5 articulated her personal power as having "a strong sense that when you learn something it's your social responsibility to do something with it." P5 viewed herself in "a privileged position, paid by public money" and therefore her identity was manifested through an inner voice that when in positions:

. . . not just professionally but in life where we are privileged then it's our responsibility to use that knowledge to contribute to improving the world. Well, in this context learning for students. . . . It makes me feel responsible and a sense of satisfaction that you're contributing . . . for a fairer world, for a fairer place, to make things fairer.

When asked where her social responsibility sense of personal power originated from, P5 responded that she thought "it comes from my public health background [discipline] and my understanding about the social construction of education [educational scholarship]." Delving deeper, she revealed that the catalyst was the plight of women, women's health and education to which P5 then illuminated that:

. . . it comes from personal experience . . . from the background where women weren't valued and particularly the education for girls, that's very much my background, so it's probably personally driven. . . . Education is the key . . . giving people the opportunity to learn and contributing to building people's confidence and the environment where people, where others can actually enjoy and experience learning.

P5 demonstrated a learning mobility that had its origins in the fabric of her being, where the wholeness of learning was expansive across her life. When P5 applied her self-concept to the role of being an educator, her social responsibility narrowed to improving student learning as her contribution to the improvement of society. Questioned on the rational and affective states that fostered her personal actions for change, on a cognitive level, P5's personal power was evoked by the view that "education is a human right . . . knowledge is a resource that enables a

fairer world.” On an emotional level, P5’s actions to bring about change gave her “a sense of peace.”

P18 expressed a strong connection with her personal power by stating “I like to learn....I’m self-directed, I’m self-determined, always had to be.” The origins of her personal power were embodied in her cultural heritage, conditioned by religious and family ideology stating “I come from a protestant background, middle class, uneducated family with a hard work ethic Thinking about this as a kid, it was my responsibility to learn, parents didn’t help.” P18’s catalyst for personal power exemplified the complexities underpinning the hidden dynamics of personal and professional change, grounded in one’s unique personal foundation of experiences (personal history, background and experiences) that shaped one’s inner voice in adulthood. In addition, P6 mentioned her person power had an intuitive element. P6 stated that “the way I learn is intuitively grounded” in the serendipitous aspects of “informal, self-directed learning”, situated in “self-discovery and collaboration within my networks” as her personal approach to sense making.

Learning in the flow.

People’s optimal learning experiences occur naturally in the *flow* of learning. Learning in the flow is a balance between challenge, skills, effort, and action, conditioned on learner self-efficacy, self-awareness and control (Csikszentmihalyi, 1990; Hart, 2014a, 2014b; Jennings, 2014). Learning in the flow opens learners to the possibility of transformative learning moments where the body, mind and spirit are stretched to challenge deep structural shifts to deal with the dynamics of constant change within their lives (Csikszentmihalyi, 1990; Jennings, 2014; Mezirow, 2000). Learning in the flow creates a culture of learning mobility.

The participants identified the characteristics that enabled learning in the flow as: “immediacy” (P6); “timely” (P7) and “just-in-time” (P13); “fluid/emergent learning” (P14); “dynamic” (P16); “serendipitous” (P22); and “a process of a wide flow of information” (P24). In contrast, the characteristics that inhibited learning in the flow were: “not time relevant” (P7); “distance from immediacy to teaching” (P12); “just-in-case” (P13); “pre-programmed” (P14); “static” (P16); “structured” (P22); and “product informed by narrow flow of information” (P24).

Learning in the flow for P13 meant having the flexibility to pursue learning in a non-linear fashion, represented by her inner dialogue as “intrinsic and immediate to me versus learning something which perhaps is important but I don’t know when I’m going to apply it; how I’m going to apply it.” P13 indicated that she “gets more satisfaction . . . better and fuller learning” out of the immediacy of just-in-time learning. By being closer to the context to which the learning is applied, P13 clarified “I explore it more thoroughly; I look at it more fully; I consider it more deeply in relationship to what it is that I’m interested in.” The immediacy of application to her professional context gave P13 a more seamless flow in her learning which nurtured her intrinsic needs as a natural process of the wholeness of learning manifested from the inside. P13 stated that she was not “turned off” by just-in-case learning. The challenge was distance to the context or situation in which the possible application of the learning may have a connection. Without P13 being able to see the relevance to her current and real situation, it diminished the learning continuity - “it becomes a little vaguer and therefore I don’t really fully get it at the same level . . . I understand more about it if I see it in relationship to particular situations that I’m interested in at that time.”

When professional learning offered a personalised approach, P14 referred to it as the “fluid nature of learning.” Learning took on a flow, an emergent fluidity where “the boundaries [to learning] were more porous” to new ideas and the “unexpected” rather than a pre-programmed, pre-determined transfer of information. Of significance, P14 clarified:

I’m not saying one’s negative and one’s positive, but in terms of the kind of learning I spend most of my time doing, I would prefer to learn in social, personalised situations generated by informal conversations and interactions with people and communities rather than in institutional, pre-programmed learning situations.

Although learning in the flow was P14’s personal preference, his learning mobility was demonstrated by an openness and flexibility to recognise that “it depends on what the learning objective is and what needs to be learned” as he adjusted his personal preference to meet the boundaries and conditions of the learning situation.

P22's personal power was entwined in her view of being comfortable in the discomfort of her own learning mobility expressed by her as "learning in the seams," suggesting a liminal learning space. P22 further clarified that growing, changing and developing her inner belief system was the genesis of the serendipity of learning that comes from being a lifelong learner; the interconnections between the known and the unknown that come with interactions, conversations and "asking questions I don't know the answer too." P22's openness to challenging and changing her views of the world for ongoing growth and development was witnessed by her internal dialogue of "I take a deep dive in, challenge my mental models in terms of how I think about myself."

Continuity of connection.

P4 was empowered by the qualities of integrity, quality and excellence within herself (making them personal) and within her connection with peers in professional learning contexts (to personalise her professional learning). These qualities formed the language of P4's inner voice, giving a sense of continuity in the connection between her inner (personal) world and outer (professional) world. When P4 perceived a deep connection with colleagues, it was like crossing a threshold where she became "more internally motivated, open to the learning, to do things better and get things done." P4 referred to these qualities that fostered connection as "innate", stemming from respect for people and derived from trusting relationships. When asked what innate meant to her, P4 responded "It's me as an individual; it's my background; it's who's informed me as I've developed . . . probably my parents."

To this point, deeper insight was gained into how P4 comes to the learning (Research Question 1) that emphasised the influential nature of an individual's personal foundation of experiences that enabled or inhibited how P4 learns (Research Question 2). P4's unique personal history, background and experiences revealed that the rational (cognitive), emotional (affective) and behavioural (conative) states of her inner belief system influenced her motivation to engage in professional learning. When asked how her innate values enabled or inhibited change in her professional practice, P4 stated:

I think I make good decisions...I'm very considered. I certainly make the wrong decisions at times. I don't usually beat myself up. I usually rationalise it

was the best way at the time. I am resilient. I will move on – sort it out, get on with it.

P4's inner belief system indicated a personal power built on a strong self-concept, affirmed by her statement "I have a strong belief in myself" that extended beyond her professional world. Within her personal and professional identity, informed by her rationale and emotional intelligence, P4's growth mindset activated her personal power to "have a voice", "be empowered" and "make a difference." P4 demonstrated a natural motivation to continuously grow, challenge and explore her inner world of learning mobility, suggesting that P4's sense of identity was both stable and shifting at the same time based on her continuous journey of self-growth.

Additionally, for P3, people connection provided an opportunity to develop networks and learn from peers, which in turn drove her continuous improvement for student learning, professional learning, and improved patient care (discipline knowledge). P3's internal dialogue verbalised the relational nature of co-constructing her scholarship of learning and teaching knowledge, and her scholarly disciplinary knowledge for the pedagogical gain to improve student learning. This suggested that P3 had a well-developed sense of awareness of being in control of her learning and her identity whether she was positioned within her discipline-based scholarly community or within the scholarship of learning and teaching community of practitioners. However, without the sense of people connection that spanned the contexts and boundaries inherent in learning mobility, P3's internal dialogue labelled the activity of professional learning as "faceless."

P13 had a strong connection with the social aspects of learning. This was partly due to her inner belief system that collaboration and interaction offered a higher quality learning experience. On a deeper level, P13 valued social interaction "because it also enriches the thinking processes" as it challenged her own and her peers' meaning schemes, generated ideas and changed teaching practices. P13 emphasised that the deeper layer of connection that comes from social learning can be fostered in any learning exchange. However, the socially facilitated aspects of institutional-led professional learning somehow seemed "more managed or more controlled" resulting in the interaction with colleagues being "less deep, more artificial, less authentic" limiting P13's learning flow and connection. P13's rational state was reflected in her inner dialogue of making sense of learning by

contextualising it to her world that built a connection to a deeper, fuller, richer understanding. Interestingly, when asked how a deeper connection made her feel (her affective state), P13 responded “more satisfied” without being willing, able or seeing the need to delve deeper into her feelings at that point in the interview. P13 couched her affective state (“more satisfied”) within her cognitive domain of meaning making by stating “I wouldn’t be an academic if I wasn’t interested in deepening my knowledge of things, so there is a certain level of satisfaction that occurs.” P13’s inherent professional identity was framed within her inner belief system that she had a personal responsibility to be a continuous scholarly practitioner – it was her “normal life not my extra-normal life.” It could be argued that P13’s natural state is an innate self-engagement in continuous learning. Her deeply seated sense of self is expressed as a metalearning state (see Section 2.2.2) where she is self-aware, self-determining and self-reflective of her lifelong learning journey.

Summary points.

The insights gained from the participants’ introspections provided evidence of the need for the educator as adult learner to activate their personal power to feel in control of the learning to enact a flow of learning mobility. Through the participants’ narratives, authentic professional learning focussed on the application into one’s professional context, to meet the immediacy of one’s needs of learning mobility that is as much about building a deeper connection to the inner being of coming to know who we are as it is about enriching connections within the world around us as a transformative process of individuation.

Reflection on the Design for Change themes from Phase 3 allowed the researcher to extract several key design for professional learning considerations to illuminate the shifting perspective towards designing for effective professional learning, to include:

The power to act

Less institutional power to enact the possibilities for cultivating personal power

More personal power to act within one’s learning mobility for change, growth and development

Balance of learning in the flow

Less distance in the flow between the learning and the doing

More openness to the flow of learning across one's inner world of rational and extrarational processes to experience deep, structural shifts to deal with the dynamics of constant change

Continuity of connection

Less concern for the human capacity to disconnect

More connection to the wholeness of learning to discern the balance of inner and outer forces that bring continuity and completeness to become more self-aware of "whole of who I am" (Palmer, 1998, p. 13)

Phase 4: Transformation Themes

Phase 4 Designing for Transformation delved more deeply into the *extrarational* (emotions, imagination, feelings) transformative learning processes from the research participant's perspective. Extrarationality is grounded in Jung's ([1921] 1971) concept of individuation – the transformative process of differentiating the individual personality from the collective of society. The forces and dynamics associated with individuation are largely unconscious and manifest themselves within the emotional, affective, behavioural and spiritual dimensions of our lives (Dirkx, 2000). Therefore, to gain a deeper understanding of the conditions and characteristics that enabled or inhibited the possibilities of the research participants' own transformative learning, Phase 4 explored the powerful role the participants' thoughts, feelings, emotions, imagination and actions played in their learning mobility as it transversed the boundaries of their inner and outer worlds. Movement towards the wholeness of self explored the research participant's natural human desire in adulthood for self-knowledge, growth, development and freedom nested in the liminality of individuation and emancipation. In exploring Designing for Transformation, three themes were revealed: *knowing one's self*, *knowing one's identity* and *personal growth*.

Of importance to this study, the researcher observed a shift during the transitional space between Phase 3 and Phase 4. Through the iterative cycles of design-based research, where during Phase 4 the aim was to develop design principles scaffolded across the previous phases of theme development, the latent

(hidden) theme of perspective transformation was illuminated. The extrarational processes of transformative learning by their very nature mean that in many ways an individual's introspections are beyond language and difficult to capture in a linear string of words (Cranton, 2006). This was true for the research participants' expressions of self, and for the researcher in negotiating meaning from those expressions in collaboration with participants. P3 affirmed this, stating "trying to describe your feelings is a bit hard . . . trying to think of a better word for good [as a description of her feelings] would be good [followed by laughter between the two parties in shared recognition of the challenges of expressing the inner self to the outer world]."

When P14 was asked how personalised learning, that gave him a sense of freedom, made him feel, his response was "In what way?" querying what the researcher was asking of him when triggered to respond to how it made him feel. P14 was challenged to find a language to describe his feelings. Furthermore, P10 stated "It's hard to think of a descriptive adjective; scientists don't talk or write about how they feel in science." P10's self-reflection served not only as evidence of the challenges to a fuller expression of self, but a demonstration of the cultural norms and values associated with discipline-based pedagogies that may inhibit a fuller expression of self.

Knowing one's self.

Through the interviews, the participants identified the characteristics that enabled an inward expression of their perspective transformation as: "self-agenda" (P6); "my own sense making" (P7); "connection to self" (P16); and "inside-out learning" (P19). The participants also identified the characteristics that enabled an outward expression of self as: "self-purpose within the institution" (P6); "interaction with people to create my sense making" (P7); "connection to others" (P16); and "outside-in learning" (P19). Transformative (professional) learning processes attend to coming to *know one's self*, to understand our lives, to understand the innate connection to our very nature as we continue learning throughout our lives (Cranton, 2006; King, 2003, 2005; Lawrence & Cranton, 2015), supporting the participants' introspections that meaningful professional learning cultivated a deep-seated

connection to one's self (inner world), whilst fostering connections to others (outer world).

P19's reflection on her interpretation of inside-out learning revealed how her extrarational (feelings, emotions, imagination) processes created a transformative learning framework as it made her feel "alive, like I am part of something mysterious and unfolding . . . it's a lived experience where I can be surprised, which is wonderful." In contrast, P19 shared that "my way of learning is outside in," not by preference but by the conditions within her outer world, stating "if I want to participate then I have to pay attention to the rules, regulations and systems of my [outside] world of my work." For P19, her outside world felt "far more instrumental dependent," where "I may not even recognise I have learned stuff." P19, an adult educator, clarified that her use of the term instrumental related to knowledge construction where learning is the acquisition of technical knowledge, information and techniques, limiting opportunities to challenge perspectives. P19 had a strong personal efficacy of how she liked to learn that manifested as shifts in perspective to do something with the learning. That is, when activities created opportunities for inside-out learning she felt alive, cultivating energy for change. She also possessed the self-awareness that, as part of her professional identity in her external environment, she had to pay attention, be seen, be active within the formal university structures, describing this as outside-in learning. It was evident that P19 felt that there was limited opportunities in "outside-in learning" for to enable self-reflective learning moments to cultivate personal change in professional practice as learning was a top-down exchange of information.

P6 clarified that her self-agenda was her "sense of self . . . my self-purpose . . . the reason for coming to work." P7 firmly positioned her own sense making within her learning mobility across professional learning situations and contexts stating it "requires self-motivation" that is a combination of collaborating with colleagues and interacting with resources as part of her own self-exploration and self-empowerment. P7's internal dialogue was "It is up to me to do something . . . to look at the literature, theory and research and the practice of others, make sense of it in relation to my own practice and to interact with peers to test my understanding and construction of knowledge." Both P6 and P7 demonstrated self-awareness of their identity within the changing (learning) contexts of their professional practice.

Connection to self was P16's preferred way to learn, solve problems and enact his "love of learning." P16 articulated a strong self-concept, stating "after 35 years of teaching I have the self-confidence to see and solve my own problems." As a late career academic, P16 continued to demonstrate a desire for emancipatory learning by prospering in learning and teaching environments that he characterised as being "dynamic, spontaneous, flexible, fluid and organic" in nature. The diversity of coming to know himself by "figuring out what works for me" in union with "exploring and envisioning different approaches, people's opinions, other's needs . . . interacting and collaborating on a personal level" demonstrated P16's quest for individuation (Jung, ([1921] 1971) and emancipation (Habermas, 1971; Mezirow, 2000).

Knowing one's identity.

The theme "knowing one's identity" had a strong presence across all the themes, and across all the phases. This was not surprising as the review of the literature discussed in Chapter 2 revealed the multi-faceted, ever-shifting nature of one's identity. Evidence from the literature was supported by the participants' narratives, in particular P8's personal construct of "me" and "them." P8 articulated that the "me" was her sense of self, her personal identity that informed her effort, choices, actions as in "my reality, directed by me, my choice – what, how, when, and why." In contrast, P8's inner dialogue of "them" was conceived as her "institutional identity" and her "professional identity", both existing in her outer world. Institutional identity was conceived by P8 as her academic job, "the need for tenure, being a team player, understanding the system, being told what to do, knowing what is expected", all of which P8 felt was essential to surviving academe. Professional identity was conceived by P8 as her career, located more broadly in her outer world. P8's conception of her outer world identity involved a further dynamic related to the transience of being an academic in the professional world of occupation therapy, and being a professional occupational therapist in the world of academe. P8's internal dialogue resonated with learner control when located within her personal identity (her "me" sense of self) as part of her inner world, and other's control when located in her "professional" and "institutional" identities in her outer world. P8 harmonised

her multiple identities by way of her own self-determining and self-reflective approach to growing her professional practice, stating:

I need to fit in as well, so this is kind of like you have to deal with – there is still an element of toeing the line . . . that’s part of survival too, and that’s time saving in its own funny way. So it rubbed me up the wrong way because I’m being told what to do occasionally. But I also understand that they’re just things that I need to get through – it’s just part and parcel of it. And often if you get past that, the stuff [professional learning contexts] is beneficial – most of the stuff is actually of benefit to you, it’s not totally a waste of time – a bit of a waste of time, but not totally.

Like P8, P15 had an expanded view of identity that was located in her cultural heritage, stating “look at me, I’m a Latino, an immigrant, a single mum” that served as a “mask to her identity.” P15’s introspections revealed that the opportunity to grow, change and come to know herself in adulthood, realised through the social justice role of education, enabled her to “find my mask and take it off, take off the labels.” This liberated view of self gave P15 personal “agency” as through the “learning process of taking off the mask, the label, the identity, I was able to see.” P15 illuminated that this experience was transformative as she “reflected . . . checked in on her own truth and assumptions; then sharing in her truth with others” where “the connection to self and others opened-up transformative moments.” P15’s personal perspective transformation related to letting go of her self-imposed stereotype to find her “identity and sense of personal agency,” which was to work with culturally and socially disadvantaged people to “find their sense of self.” P15 characterised sense of self as reflecting and exercising agency, power to find one’s resilience, worth and place in the world, and visibility.

Referring back to P23’s introspections from the *personalising professional learning* theme in Design for Engagement where she stated engagement in professional learning was a “constant balancing act between collaboration, and effectiveness and efficiency,” this suggested inner conflict with her professional identity. Sachs’ (2001, 2003) view of professional identity formation (see Section 2.1.2) is emergent through two competing discourses: the managerial discourse at the macro-level (institution, outer world) where professional identity is conditioned on accountability, efficiency, and effectiveness; and the democratic discourse at the

micro-level (individual, inner world) manifested as an internal conversation to develop a sense of personal agency and identity to actively engage in learning that may be in conflict with structures and conditions in the external environment. P23's professional identity was conflicted by her conative state to address the needs for efficiency and effectiveness with her external professional environment, and her desire to learn collaboratively through social engagement as part of her sense of self and personal agency within her inner world.

Personal growth.

Like the theme of *knowing one's identity*, *personal growth* is inherent in the development and characterisations of the previous themes. Personal growth in adulthood is a transformative learning process within itself. The goal of adult education in general, and transformative learning specifically, is to realise one's potential by becoming critically reflective to challenge our meaning perspectives, and by becoming conscious of our inner sense of self, to participate more fully and freely in the ways we live in our world (Cranton, 2006; Lawrence & Cranton, 2015; Mezirow, 2000). This process of personal growth manifests as self-empowerment where we acquire greater control of our lives as liberated, lifelong learners (Mezirow, 2000).

P22's personal constructs of "personal growth" and "ongoing growth" were viewed by her as a continuous process of learning to make informed choices and build a sense of personal efficacy. "Personal growth" was viewed by P22 in the "present moment" in the application of learning into the practice of teaching, whereas her "ongoing growth" was conceived as "future, continuing learning" and application for further "personal change, growth and development, maintaining currency." P22's introspections supported her view of self as a "lifelong learner."

P14's view of personal growth within professional learning situations was about:

Gaining additional insight into self and one's environment. I would say it is repetitive reflection, continuing to just reflect on the events. Drawing analogies from other sources and making connections with things in your life. . . . It's actually drawing meaning out of experiences. I am more aware of them [reflecting on life's experiences] because now I've got a language around

that . . . a deeper range of patterns to really draw on, it's just a function of age. You're more aware of repeatedly telling stories to myself in my head and those stories are reflections of ways of making sense out of the patterns.

P14 revealed that his personal growth was ongoing, across all facets of his life, potentially liberated with age as a function of lifelong learning. His mindset of continuous reflection allowed him to be fully aware of his ever-shifting identity, harmonising his personal identity and professional identity. He actively made connections, looked for patterns in experiences to challenge or affirm meaning perspectives, and importantly, realised that perspective transformation was a lived, inner language within himself as he became aware of "things in your life." P14's introspections were a demonstration of an educator being an activist in their own learning mobility that is boundaryless – it is in his head, in his heart, manifesting in his innate spirit of being in control of his own professional learning to make sense of his life.

Although P18 stated she was a self-actualised learner, suggesting that she is critically and consciously aware of herself and her individuated, emancipated self, she continued to embody an open and reflective habit of mind to opportunities for continuous personal and professional growth and development. P18 shared her understanding by way of example, stating that every project she worked on "I learn, it expands me, I get interested in different topics so they (peers, students, colleagues) are teaching me." P18's views reflected the reciprocity of being a learner and a teacher in any given moment for a fuller sense of agency to more fully and freely be aware of, participate in, and control, her learning mobility across the structures and identities that transcend the boundaries of her inner and outer worlds.

Perspective transformation.

Sometimes perspective transformation may be a radical, dramatic change and other times it is incremental, invisible to others, and possibly invisible to one's self without the support of reflective practice. Changing understandings of self, having new views of the world, discovering new ways to live and work are instances of transformative learning (Cranton, 2006; King, 2005; Mezirow, 2000). Development of the perspective transformation latent theme was embedded in the nuances of the data resulting in the findings being more abstract in nature. The wholeness of the

rational and extrarational processes of transformative learning presented themselves at the interpretative level of the research participants' narratives rather than a clear, linear declaration of their new world views. Perspective transformation laid the groundwork for a greater understanding of the research participants' professional learning experiences that served as a transformative learning framework to cultivate learning mobility. It required a degree of interpretation on the researcher's behalf as she examined the research participants' narratives from a holistic view. To make sense of the dynamics of individuation and emancipation was to discern what the research participants do with the learning (Research Question 3) that unified the rational, emotional, and behavioural dimensions of their inner and outer world to embody a more authentic sense of self as a form of learning mobility.

Within a professional learning context, P2 articulated his perspective transformative as the "point of transfer" where "I am the common denominator" (Figure 4.2 illustrates P2's perspective transformation). Using reflective questioning, P2 illuminated his changing view of self in the context of a learning-centred approach to professional learning. This took the idea of personalised professional learning to a higher level in that P2 was becoming conscious of himself as the personal connection in his own learning mobility. He saw himself as the filter, disseminator, interpreter, curator and possibly the gatekeeper in the learning exchange. At the point of transfer, he reflected that his role was to be creative, to give meaning between the two-way flow of learning between the formal and informal structures. P2 articulated his view of self as having the personal power to control the learning exchange, and to make judgements about the validity, value and impact of the activity of learning to address efficiency, solve problems and enrich the learning experience for his students, his profession, the institution, and importantly, for himself.

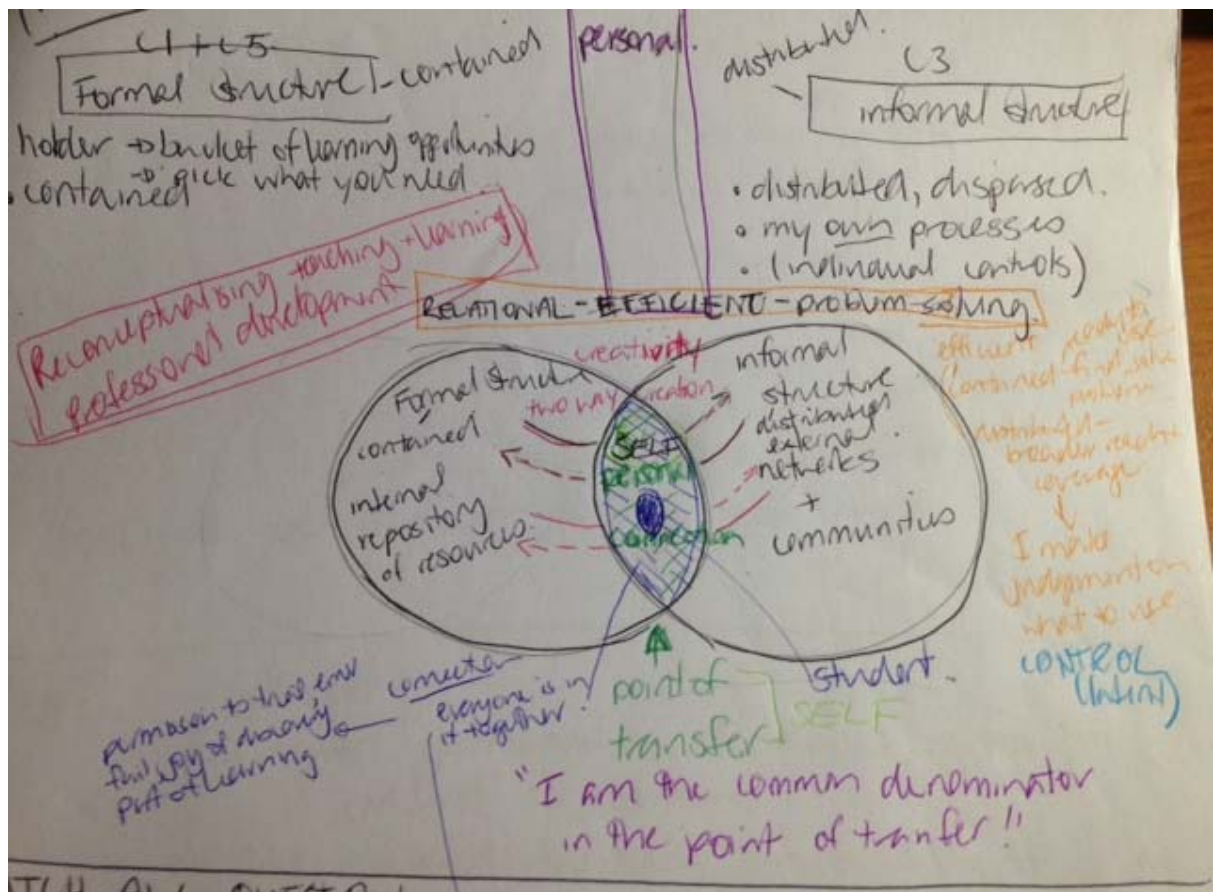


Figure 4.2. P2's perspective transformation.

This figure illustrates the researcher's mind map of P2's view of self in the learning exchange between his formal and informal learning structures.

Whether the learning setting is formal or informal in nature, P3's motivation to engage was centred on building connections (see Figure 4.3). Even when working in self-directed solitude, P3 had an elevated view of connection by applying a learning-by-doing framework to the theoretical concepts to engage in and improve her teaching and discipline (nursing) practice. Connection sustained P3's intrinsic motivation by participating, interacting and collaborating in conversations to ensure currency. For P3, her changing understanding of self was empowered by a growing sense of personal efficacy, of developing a deeper connection with her students, her patients, her teaching, her profession and ultimately herself to make a difference in the world.



Figure 4.3. P3's perspective transformation.

This figure illustrates the researcher's mind map of P3's personal efficacy.

Through the course of the interview with P4, the researcher noted a pattern in her dialogue relating to connection. When questioned on why “people connection” was important to her, P4’s response was “that’s interesting because I would never have thought I’d say that.” This was a transformative, awakening moment for P4 as she followed this statement up with an outward narration of her own conscious raising inner dialogue by asking herself “But why people?”; to which she responded to her own critically reflective question:

I don’t know why [pause in her thought processing before continuing her narration] because *you* . . . because *we* need people to do . . . *I* need [people] connections to be able to do my work. I deal with people. I’m immersed with people. It’s how you get things done that are – it’s richer learning. Not always but . . . if they’re the right ones . . . you do things better. (P4)

The italics on the “you”, “we”, and “I” are a powerful insight into P4’s changing view of self as she grappled with her own perspective transformation as expressed through language. P4 started with “you” (second-person plural), corrected herself to “we” (first-person plural) and came to the realisation that it was “I” (first-person singular). P4 came to know herself within her own view of the world.

As a late career, highly regarded academic with a credible reputation and established teaching and research track record in her discipline area, P13’s heightened approach to the ways she positioned herself for the possibilities for learning transformations was illuminating. The language of her inner voice was to continuously aim for a richer understanding of the theoretical concepts to grow a deeper appreciation of the dynamics of what’s going on in society now. P13’s changing sense of self was stretched to reach beyond the boundaries of her own inner world to help make sense of societal complexities. P13’s transformative story related to wrestling with her inner perspective of self by applying her views to the outer, societal world to gain new discernment and knowledge. By reintegrating the new learning and insights into her inner world, P13 was able to challenge, affirm or change existing perspectives. For P13, transformative learning is a continuous, lifelong activity of coming to know herself on a deeper, internal level that has a metalearning element reflected in her statement “I’ve got to figure out how to figure it out”, giving her “a deeper sense of understanding.”

P22’s interview was divergent from others in that she provided a clear account

of a pivotal point in her life's journey that was transformative. It changed her career trajectory, her outlook on life and her habit of mind towards self and others. The transformative learning experience was a perspective shift whilst completing her doctoral studies. Prior to her studies, her internal dialogue was "tell me what I have to learn and I will learn by myself" believing that "there was no value in the social element of learning." P22 referred to this point in her perspective as "learning in a silo." She experienced a learning paradox in that "I'm reading, I'm studying the literature about the importance of learning and working in communities" but was "feeling an emotional and intellectual separation" in that she was learning about communities of learning by undertaking solitary reading. This amplified her feeling of disconnection as her taken-for-granted assumption was that she worked best on her own. Being invited to a study group, she heard her inner voice say "You know what, just go." She went with "reluctance" justifying it as a "study break" from her more important solitary study. The transformative moment was in the act of conversation as "I was so excited . . . for the first time I really understood what I knew in the most powerful way." Through conversation with her peers, she came to see many connections, stating:

All these different ways of thinking about things, by talking and engaging with other people and listening to their stories and sharing ideas . . . I felt so excited . . . I was able to talk about stuff. All this stuff just really started clicking and coming together for me. (P22)

P22's sense of self, her identity, and her life shifted into a new domain of personally meaningful professional learning. At that moment, her internal dialogue shifted from adult learning as "drudgery, just focus, head down and get through it" to now "I get to see how all these things are connected to each other. I'm hearing from other people and their stories." P22's reference to "clicking" was her self-discovery of new ways of living and working that gave her a sense of freedom and personal agency in her own life.

P2, P3, P4, P13 and P22 are five transformative learning stories selected from the depth and breadth of insights gained from the research participants' reflective narratives contained within the interview process. Of course, in each phase of design, where theme development was embedded, constructed, trialled and tested, based on the collaborative conversations between the researcher and the research participants,

it is important to acknowledge that these are all narrative accounts of the possibilities of transformative learning. The participants expressed their views of self as they became conscious of, and raised their self-awareness about, their taken-for-granted assumptions, inner belief systems, thoughts, feelings, actions and reflections as they examined their motivations to engage (or not) in professional learning.

Summary points.

Without opportunities for learner self-reflection, connection and control, the energetic, serendipitous nature of learning that manifests as opportunities for perspective transformation are lost, feeding the status quo cycle of professional practice. Perspective transformation is about learning from the inside; the mobility of learning that transforms how we come to know who we are (our sense of self, our multi-faceted identity, our ongoing personal growth) as we interpret and make sense of events in our world. Coming to know one's self, harmonising one's multiple identities, being an activist in one's personal growth was embodied in the participants' learning mobility, concerned with the continuity of connections that span their lives. Based on the participants introspections, creating opportunities for transformative professional learning had the potential to foster a deeper expression of their inner selves and provide a pathway to connect more fully to themselves and others.

Reflection on the Design for Transformation themes from Phase 4 allowed the researcher to extract several key design for professional learning considerations to illuminate the shifting perspective towards designing for effective professional learning, to include:

Knowing one's self

- Less about feeling inhibited by external forces outside the learner's control
- More about becoming conscious of connections to self for change, growth, development and freedom

Knowing one's identity

- Less about being static in the ever-shifting nature of one's identity
- More about the mobility of identity across boundaries and learning contexts to manifest an authentic sense of self that may be multi-faceted

Personal growth

Less about a fixed mindset to the conditions that inhibit the mobility of personal growth

More about personal growth as a transformative learning process of self-empowerment to acquire greater control of one's life as a liberated, mobile, lifelong learner

4.3 Interpretation

Interpretation is a learning activity in itself. Mezirow (2000) views adult learning as a process of using prior interpretation to construct a new or revised interpretation of the meaning of experiences in order to guide future action. Within the context of this research study, a critique of the literature in Chapter 2 identified prior interpretations of how educators as adult learners learn to inform the pragmatic research design (Chapter 3), research problem and research questions. The pragmatic, iterative methodological framework of design-based research enabled the researcher to work in collaboration with the research participants to address the research problem and research questions. The data analysis and findings reported in this chapter supported the researcher's view of a transformative learning framework to develop a deeper understanding of the wholeness of professional learning. The conception of the wholeness of professional learning laid the groundwork for new thinking about the design for effective professional learning that makes provision for the educators' learning mobility, bringing the research full circle to address the purpose of the study (Chapter 1). The consolidated body of work in this study then served to guide the researcher's reflections and interpretations to inform the design principles and conceptual model for future actions which will be addressed in Chapter 5.

Guided by the four phases of design and the research questions, the researcher's reflections and interpretations to inform future actions are:

- How educators come to the learning is about being scholarly, being visible and being open to one's growth and development; and
- How educators learn is about being in control (learner control), being continuous (connection, flow), being empowered (identity, power, personalised), and being conscious (self) of one's learning mobility that transcends the boundaries between

and across one's inner, individual (micro) world and one's outer (institutional), external world; and

- What educators do with the learning is about “who am I becoming.”

The revelation of “Who am I becoming” is the significant finding from Chapter 4 that guided the future actions in Chapter 5. Who am I becoming moves beyond the rational and extrarational processes within the liminal space of individuation and emancipation to reveal our *spirit*. As discussed in Chapter 2, the idea of spirit is not concerned with religion or theology. Rather, becoming conscious of one's spirit is the movement (the learning mobility) towards a fuller realisation of self, where one's inner and outer worlds converge. Spirituality, as revealed in Chapter 2, is the human desire for connectedness to the wholeness of, in this context, learning; coming to know one's Self as separate from collective society (individuation) whilst fully participating in one's self-knowledge, growth, development and freedom (emancipation). Dirkx (2001) referred to this as transformative learning processes that manifest the emergence of the Self to cultivate one's sense of spirituality. Therefore, the forces and dynamics associated with “Who am I becoming” are largely unconscious and embody the spiritual dimensions of our lives. Our spirit moves us into a new space that can only be realised as we move towards a fuller, more authentic sense of self that embodies the mystery and complexity of being human. Discerning the balance of the inner and outer forces that bring wholeness and completeness to our life is about the whole of “Who I am becoming” to cultivate a resilient spirit. Cultivating a resilient spirit both resides in, and moves beyond, individuation and emancipation.

As “Who am I becoming” is abstract in nature, it is best explained by way of example embedded in the findings. At the outset of Phase 2 Design for Engagement, P5's introspections offered a powerful insight to reveal her spirit without, at that stage, fully comprehending the significance of her reflective narrative. She revealed that the characteristics of informal learning contexts offered “an unknown space and potential for more opportunistic learning and probably more dreaming where transformative stuff has the potential to happen, to manifest.” The serendipity of the unknown space was illuminated by P5 as “the vehicle, the application to the embodiment of new learning.” As P5's inner belief system was examined further

through the course of the data analysis, the unknown space where the embodiment of transformation manifested was a “transitional space” that gave balance to her inner and outer world. When her inner world was in balance she experienced a “sense of peace,” “gets excited,” stating it is where the magic happens. When her inner and outer worlds were in balance, her sense of social responsibility contributed to the improvement of student learning, in particular women’s health and education, the improvement to society, to enable the world to be a better, fairer place. P5 demonstrated a spirituality that had its origins in the fabric of her being, where the wholeness of “Who am I becoming” was expansive across her life. Coming to know one’s spirit is an inner journey to more truthful ways of seeing and being in the world, of being at home in our own soul, of coming to our identity, and selfhood – the sense of “I-ness”, referred to by Palmer (1998). P5 articulated her sense of “I-ness,” through the outer expression of her inner dialogue by stating “I am a social responsibility sort of person.” P14 illuminated his innate spirit, revealing he was the sort of person “who is a link in the chain”, whereas P4 revealed her deeper sense of self by declaring I am a “glass is half full” sort of person.

Understanding our developing self-concept of “who am I becoming” as a transformative learning framework for understanding our lives, how we work, live, learn and communicate can be both an illuminating experience and difficult pathway to traverse. Furthermore, people often don’t have the language to express their feelings and emotions to articulate their experiences of the extrarationality (spiritual, imaginative, intuitive) aspects of transformative learning that manifest in the liminal space of individuation and emancipation. Transformative learning scholars (Dirkx, 2006, 2012; King, 2005; Lawrence & Cranton, 2015) recognise that the extrarational aspects of transformative learning are fundamental to deep, significant change and personal growth. P5 was representative of a pattern that surfaced in the participants reflective narratives. Participants often articulated their view of self as “I am the sort of person who” (or words close to that) that served as a more comfortable way for them to express their inner sense of self within their real-world. This is further elaborated in Chapter 5 to reveal *the third space of learning mobility* – a conceptual space to develop a deeper understanding of the transformative potential of the wholeness of professional learning.

The concept of *the third space of learning mobility* will be fully articulated in Chapter 5 as conclusions are drawn on the research problem and the research questions, informed by the theoretical and conceptual framework of Chapter 2, the methodological framework of Chapter 3, and the findings as practical evidence of how educators learn from the perspective of research participants in Chapter 4. Chapter 5 illuminates the design principles and a conceptual model that theorises the educator's learning mobility in professional practice as a framework to transform workplace learning in higher education.

Chapter 5 Discussion and Conclusions

Chapter 5 returns to the wholeness of professional learning conceptual framework illustrated in Figure 2.5 at the end of Chapter 2. The conceptual framework provided a basis for understanding the theoretical conditions and characteristics of the educator's learning mobility within and across their inner and outer worlds. Chapter 3 provided a pragmatic research design to address the research problem and research questions within the four phases of design: Design for Understanding; Design for Engagement; Design for Change; and Design for Transformation. The analysis, findings and interpretation in Chapter 4 revealed the themes across the four phases of design that informed the conditions and characteristics used to articulate the design principles, conceptual model and contributions to theory presented in this chapter.

The researcher's concept of learning mobility provided a mechanism for developing a deeper understanding of how educators come to the learning, how educators learn, and what educators do with the learning (the research questions). This understanding evolved as the research study developed and matured through the process of resolving the research problem. The integrative process of theory (the literature discourse) and practice (the research participants' discourse) development across the chapters was conducted in order to resolve how educators are motivated to engage in their learning mobility to transform their professional practice (research problem). This work has led to:

- Design principles that foster the educator's professional learning mobility;
- An opportunity to theorise the educator's learning mobility in professional practice that could be used as a conceptual model to transform workplace learning in higher education;
- An evidence base to support a shift in the theory and practice status quo of professional learning in higher education; and
- Professional learning practices that will cultivate transformative learning processes to provide a pathway for the educator's learning mobility.

As the essence of the study is situated within the inherent complexities of human nature, the educator's professional learning mobility, established by the researcher as the educator's choice to decide how to collaborate and connect across

learning contexts and boundaries for continuous professional learning and personal growth, means there is no single or simple solution to designing for effective professional learning. It is evident that there is not a “one-size fits all” approach to designing effective, meaningful professional learning that enables educators to continue to learn throughout their working lives. Therefore, the design principles presented in this chapter are not intended to be prescriptive or exhaustive but, rather, provide a shared language for continuing the conversation, reflections and refinement, as part of theory building to address the practical problem of understanding how educators learn.

In this chapter, the originality of this study is highlighted by contemplating the theory and practice of the *third space* of learning mobility. The third space serves as a conceptual place to develop a deeper understanding of the wholeness of professional learning, enabling deeper insight into the development of design principles for effective professional learning; and provides a conceptual model to inform a new way of thinking about learning in professional practice to transform workplace learning in higher education.

5.1 Theorising the Educator’s Learning Mobility

In this section, the theoretical underpinning of the third space of learning mobility is described and how it applies to the practical aspects of how individuals come to know who they are. This realisation ignites their natural motivation, liberates their spirit and brings them to a place of authentic union of the Self, creating a deeper sense of wholeness in one’s life.

5.1.1 Theoretical Underpinning of the Third Space of Learning Mobility

The term *third space* has been used within different domains of knowledge. When critically examining the participants’ introspections, the researcher experienced an intuitive sense that there was further theorising to be explored on the notion of “spaces.” For the researcher, as a transformative learning practitioner, it came as an “a-ha” moment upon closer examination of the research participants’ transcripts (see Section 5.1.2). This led the researcher to revisit all participants’ transcripts (see Section 5.1.2) and investigate the literature further.

Bhabha's (2004) conception of third space is concerned with the generative production of new knowledge and new understandings that challenges the status quo of cultural boundaries to create a locus of new power and authority. In Bhabha's (2004) view, the third space is characterised by challenge, enquiry, empowerment and creativity. Elliott (2011) repurposes Bhabha's conception of the third space for a school-based context to challenge paradigms of learning, and ways of thinking about learning as a means for ongoing development of both the teacher's wisdom and organisational wisdom. Whitchurch (2008, p. 377) uses the term "third space professionals" to illuminate the challenges, changing roles, and identities of professional staff within the United Kingdom higher educator sector. Whitchurch (2008) uses the concept of third space as an emergent territory of blurred boundaries between professional and academic staff to challenge future thinking related to professional identities. Informed by Bhabha's (2004), Elliott's (2011) and Whitchurch's (2008) work, the researcher uses the term third space to challenge thinking about learning within the context of the theory and practice of professional learning for higher education teachers.

In the context of this study, the third space has its theoretical underpinning in the rational and extrarational processes of transformative learning concerned with individual change and empowerment used to rethink the design of effective professional learning. In addition, the unified transformative learning approach is informed by the humanistic assumptions of freedom and autonomy in adult education. The core assumptions of the humanistic approach (as detailed in Section 2.2.2) are situated in the belief that human nature has an unlimited capacity for growth and development, and that the individual's developing self-concept manifests as the desire to take responsibility and control to make major personal choices as one moves towards self-actualisation, the concept of acceptance of self and others (introduced by Maslow, 1970).

In support of the developing understanding of the third space of learning mobility, the researcher makes a further theoretical connection to the educational discourse examined in Chapter 2, related to metalearning (Section 2.2.2) and mindful learning (Section 2.2.2) to help inform a deeper understanding of a new paradigm of workplace learning (Section 2.4.1). The application of the theoretical concepts of metalearning and mindful learning, situated within the educator's creative awareness, openness to new ideas, and reflective actions, advocates for them to take

ownership of and responsibility for their learning mobility across the boundaries of their inner and outer worlds. In addition, the third space of learning mobility resonates with Jung's ([1921] 1971) work on duality and individuation. Jung reconciles the mind-body-spirit outlook not as a duality of mental and physical substances but as a manifestation of an underlying unity (Shelburne, 1988). Unity sits within Jung's perspective of individuation, considered the psychological process of integrating the opposites manifested within the inner dialogue (such as smart-dumb, right-wrong, good-bad) to harmonise our multiple identities and give a voice to our emerging authentic selves (Cranton, 2000). The third space can be conceived as a transformative space offering the freedom of non-dualistic thinking. It does not just change the way one sees things; it transforms the person who sees to embody the wholeness of who we are.

Furthermore, the researcher, building on Cobo and Moravec's (2011, p. 26) term of the "fuzzy metaspaces of learning" (discussed in Section 2.4.1) contends that the third space of learning mobility manifests within the invisible, serendipitous nature of learning as humans become conscious of "Who am I becoming." The third space of learning mobility affirms the bottom-up, inside-out approach to the design for effective professional learning that enables individuals to develop a resilient spirit to take control of their own learning, to grow and thrive. In becoming the architects of their own learning mobility, their natural motivation to make a difference in the world pragmatically extends to actively contributing to institutional learning to support the organisation to grow and thrive.

The third space of learning mobility: Liberating the spirit.

The third space of learning mobility is concerned with the individual *coming to know who they are*. Liberating the spirit in the third space serves to naturally motivate educators to engage in their learning mobility to transform their professional practice. The third space of learning mobility is characterised as our sense of freedom (emancipation) to move towards a fuller realisation of the Self (individuation) that liberates our spiritual well-being. Spirituality was revealed within the research study as a fundamental contributor to the process of deep, significant change and individual growth. This view was supported by the research participants who articulated a connection to their spiritual growth as "*I am the sort of person who*" as outlined in Section 4.3 (and further developed in Section 5.1.2). The

idea of spirituality needs not be a complicated notion, but rather thought of as a profound shift in coming to learn who we are, represented by “Who am I becoming” within the context of this study. The complexities of human nature mean that people interpret and experience a profound shift of “Who am I becoming” differently, as suggested in Section 4.3. Coming to know our spirit gives us the inner courage to take ownership of the uncomfortable aspects of life’s learning dilemmas. Our spirit sustains us in those disconcerting, transformative times of becoming more aware of who we really are, whilst embracing who we were along the way. Lawrence and Cranton (2015, p. 71) refer to this process as “becoming conscious” where a person begins to question their reality, challenge taken-for-granted assumptions, become more self-aware, and even try out new identities, as part of the transformative learning processes of coming to know who we are.

Spiritual completeness challenges conventional thinking, primarily because it remains latent (hidden) within all of us and invisible within the outer world. Coming to know one’s spirit, or spiritual realisation, is an inward journey to reveal our innermost Self. Liberating our spirit offers a sense of wholeness, giving us the inner motivation and courage to better connect to ourselves (and to others). As stated in Section 2.3.2, Cranton (2000) refers to this as “authentic union.”

When applied to this study, liberating our spirit offers a pathway for educators, academic developers, institutions and others to develop a deeper understanding of the wholeness of professional learning, concerned with how educators come to the learning, how educators learn, and what educators do with the learning, to bring about personally meaningful change in professional practice. Through the discussion in previous chapters, the wholeness of professional learning attended to the human condition of meaning making as a continuous learning process that spans the educator’s life. This view suggested that learning mobility is an innate trait within an individual’s sense of autonomy, control, self-efficacy, and identity formation to foster ongoing personal change, growth and development.

In response to the research problem, spirituality expands upon the researcher’s idea of the educator’s learning mobility, that is, a deeper layer of the inner world of the Self, represented as the human desire for spiritual completeness, human connectedness, and ultimately, inner freedom (see Figure 5.1). The Self is manifested as a transformative learning process that harmonises the liminal space of (re-)forming one’s identity as separate from others (individuation) and the self-

awareness to fully and freely participate in the perplexities inherent in lifelong learning (emancipation) to reveal the third space of learning mobility.

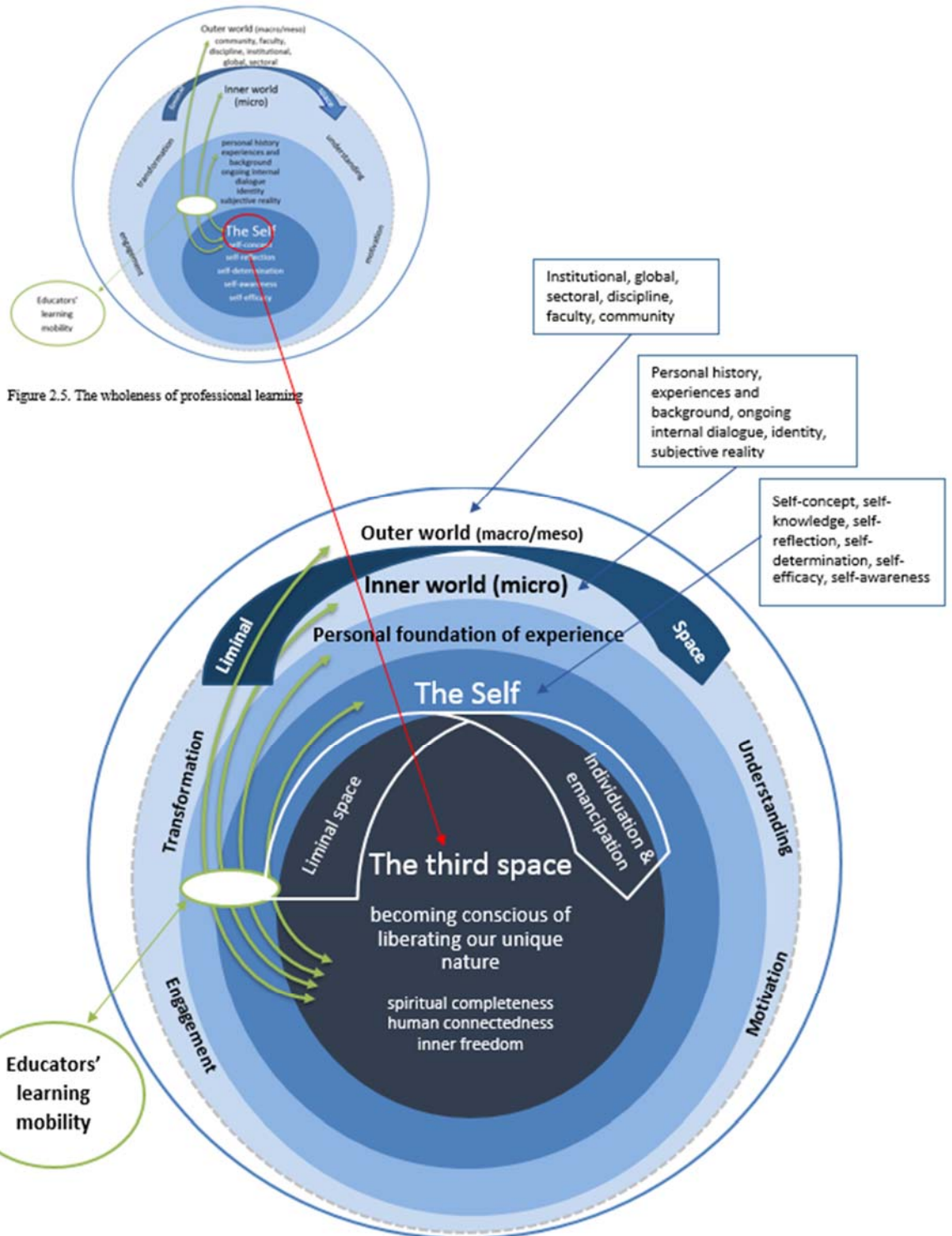


Figure 2.5. The wholeness of professional learning

Figure 5.1. The third space of learning mobility.

This figure expands on the view of the wholeness of professional learning from Chapter 2 (as detailed in Figure 2.5), and illustrates the third space of learning

mobility. The third space is situated within the dynamics of The Self as a pathway to liberating one's spiritual well-being.

Of significance to this study, and the design for effective professional learning, is that the third space of learning mobility is discernible at an individual (micro) level as people individuate. As mentioned in Section 2.3.2, individuation, as a process of transformative learning, is becoming conscious of our very nature; our uniqueness expressed inwardly as the Self and outwardly to the world as ways of knowing, acting and being (Boyd, 1991; Cranton, 2006; Dirkx, 2012; Palmer, 1998). The third space describes the self-reflective, self-determining, self-aware place where we come to understand our very nature. Such a learning process creates a courageous inner being who is resilient to the disruptive, disorienting realisation of "Who am I becoming".

The power of learning in the third space: Authentic union of the head, the heart, the spirit.

At the outset of this study, the researcher had observed that some educators exhibited a *natural motivation* to navigate their own pathway through the inherent complexities of actively contributing to institutional learning and teaching expectations whilst growing and developing their professional identity that sustained their personal learning needs (see Section 1.1). In the concluding stages of the study, this natural motivation has come to be represented as the *power of learning in the third space* where the spirit is liberated and the person is actively engaged in their own learning; they are *an activist*. Being an activist is about becoming aware of the whole of who you are; finding, discerning, embracing, and cultivating one's personal power to actively engage in learning experiences across one's life.

The researcher makes sense of the wholeness of professional learning mobility as unifying the rational aspect of one's habits of the mind (Cranton, 2006; King, 2003; Mezirow, 2000) conceived by the researcher as the *head space*; the extrarational aspects of the habits of the heart (Mezirow, 2000; Palmer, 1998) conceived by the researcher as the *heart space*; and the authentic union of spiritual completeness conceived as the *third space*, as illustrated in Figure 5.2.

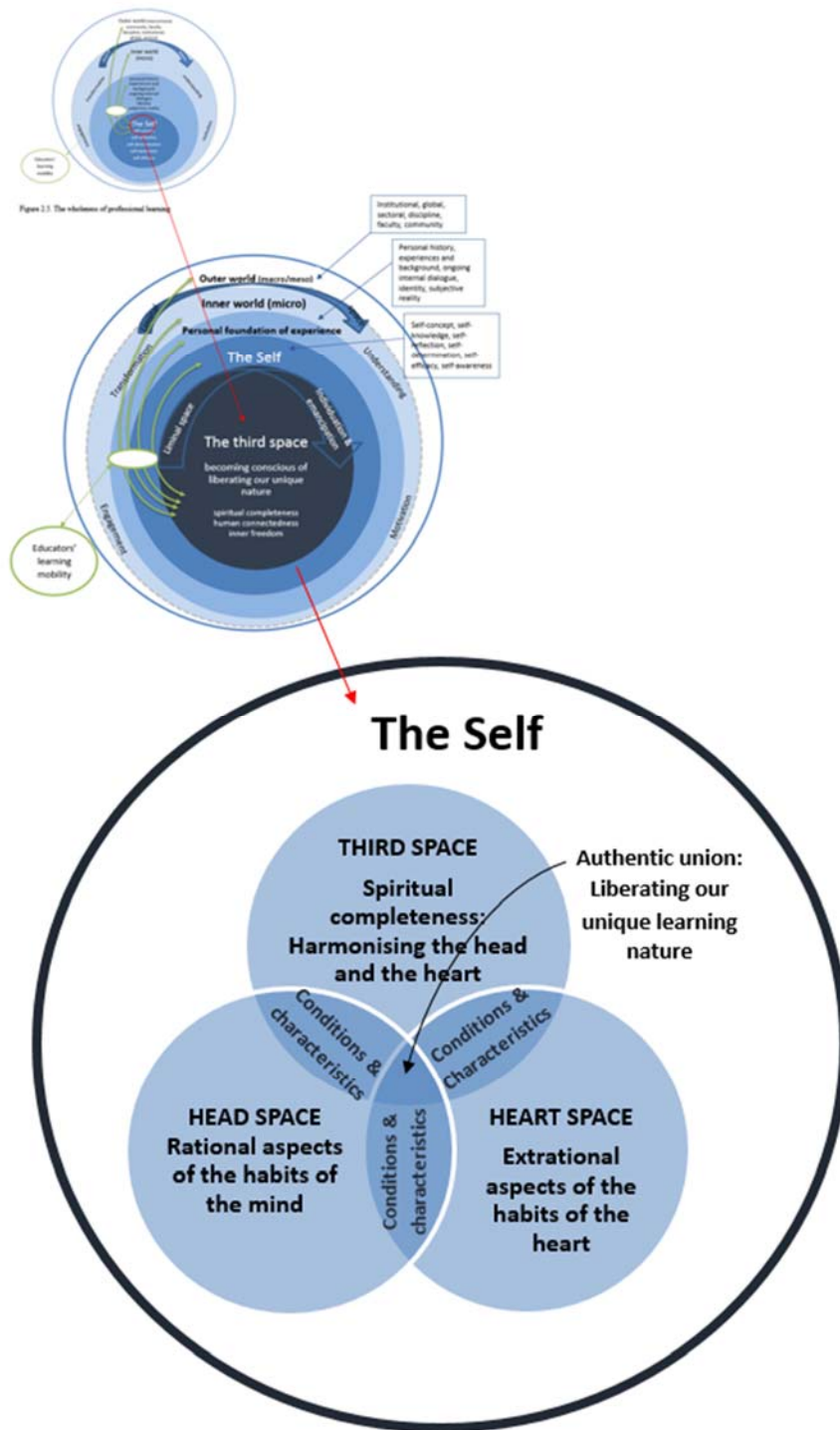


Figure 5.2. The educator's professional learning mobility: Inner transformation of the Self.

Coming to know the Self harmonises the complexities inherent in the rational aspects of the habits of one's mind and the extrarational aspects of the habits of one's heart to manifest the wholeness of learning that activates one's power of learning in the third space. This figure illustrates the authentic union of the Self

which embodies the head space, the heart space and the third space to liberate one's unique learning nature.

5.1.2 The Practice of Third Space Learning Mobility

As mentioned in Section 4.3, closer examination of Participant P5's introspections on informal learning contexts ("an unknown space and potential for more opportunistic learning and probably more dreaming where transformative stuff has the potential to happen, to manifest") provided a catalyst for a deeper investigation across all participants' reflective narratives that served to illuminate the practice of learning in the third space. Participants often expressed their internal narrative as "I am the sort of person who," as a conceptually comfortable means of liberating their spiritual connection to the third space of learning. Table 5.1 provides examples from the pool of research participants' responses to illustrate this articulation of the third space of learning mobility.

For the participants, becoming conscious of their unique nature was nested within the themes of Designing for Understanding, Designing for Engagement, Designing for Change and Designing for Transformation (see Section 4.2), particularly the themes (as identified in Table 5.1) of: Structuring the learning context, continuity of connection, balance of control, power to act, learning in the flow, personal growth, and knowing one's self and one's identity. These themes were inherent in the participants' internal narratives of "Who am I becoming," providing demonstrable evidence of the wholeness of professional learning concerned with the inner transformation of the Self.

Table 5.1. Connecting design themes from the participants' inner narratives of "Who am I becoming."

Participants' inner narratives of "Who am I becoming"		Liberating the third space of learning	Design themes inherent in participants' narratives
P1	<p>I am the sort of person "who wants to be able to navigate my own (learning) path"</p> <p>When asked what <i>navigating your own path</i> gave P1, his response was "satisfaction." When asked whether a sense of satisfaction created a shift on an emotional or behavioural level, P1's response was "absolutely, because not only have I addressed a gap in knowledge, skills or whatever else; finding the answer, it's like finding the answer to life, the universe, and everything."</p>	<p>For P1, learner satisfaction moved beyond the external need of filling gaps in knowledge (instrumental learning) to creating a holistic state of <i>being</i> that manifested a sense of freedom and liberation (emancipatory learning) as demonstrated by "finding the answer to life, the universe, everything." When professional learning opportunities enabled P1 to navigate his own path, he had a sense of identity, purpose and natural motivation to take control of his learning. Learning became more personally meaningful and authentic as he customised the learning to meet the immediacy of his professional needs.</p>	<p>Balance of control: Learner control</p> <p>Structuring the learning context: Learner's needs</p> <p>Knowing one's identity</p>
P2	<p>I am a "try and see what works" sort of person</p> <p>When asked why <i>try and see what works</i> was important to P2, his response was that it was the "joy of discovery." Questioned further on this, P2 articulated that it was "good for my health, makes me feel good" [affective state], made him feel "wiser, smarter, better" [validating his conative state] and the ability to make sense of something [cognitive state]. When learning has all these qualities, P2 felt "relaxed . . . less stress . . . more joy." Furthermore, P2's inner sense of peace was heightened when "you're able to share the solutions, it's even better."</p>	<p>The joy of discovery liberated P2's spirit of learning mobility. P2 was energised by a learning context that enabled him to take control of his learning within and outside the institutional boundaries and structures, whilst fostering learning opportunities for him to be creative, play and explore, using his networks and connections. P2 felt empowered when he was able contribute, share and make a difference in his world, sustaining his natural motivation to engage in learning that was professionally and personally meaningful to him.</p>	<p>Balance of control: Learner control</p> <p>Structuring the learning context: Learner's needs</p> <p>Continuity of connection</p> <p>Learning in the flow: Creativity</p> <p>Personal growth: Growth mindset</p>

Participants' inner narratives of "Who am I becoming"	Liberating the third space of learning	Design themes inherent in participants' narratives
<p>P3 "I'm more of a kinaesthetic sort of person" When asked how she likes to learn, P3 reflected she is <i>more of a kinaesthetic sort of person</i>, using her intuitive senses [patterns in her experiences] to create deeper connections with students, with patients, to her profession, and to her teaching to make a difference to her world [affective and conative state]; and to contribute to knowledge construction [cognitive state] to improve student learning, patient care, and her profession of nursing.</p>	<p>P3's natural motivation was inspired by developing deeper connections with people. It was these connections that drew P3 inwards. Her curiosity manifested as self-inquiry. Feeling good on the inside gave P3 a quiet sense of inner peace to energise her to make a difference in her external environment. For P3, she was opened to her third space when inherently sensing she was making a difference by harmonising her inner and outer worlds, giving her an authentic, balanced sense of self.</p>	<p>Continuity of connection: Intuitive intelligence, authentic union</p> <p>Balance of control</p> <p>Power to act</p>
<p>P4 I am a "glass is half full" sort of person P4 expressed her <i>glass half full</i> as being "a positive, optimistic person (who) loves a good problem." For P4 "humour is the key to learning," making her learning experiences richer and deeper as it established innate connections and trust within her learning communities as the foundation to challenging her views of self.</p>	<p>It was evident that in preparation for and collaborating with P4 as part of the interview process that she was living her optimistic, energetic being. Adopting a growth mindset carried over into all aspects of her life, whether talking about her professional life or her personal life relating to family. It was also evident that she <i>lived</i> those qualities that manifested innate connections to her sense of self, and to others.</p> <p>The interview was a vibrant, conversational space as P4 injected joy, humour and self-trust into her reflective narrative to build a deeper connection to her developing sense of self without losing focus on the bigger picture of balancing the dynamics of her inner world – outer world identity. P4's third space was embodied by her "glass half full" learning blueprint of being playful, energetic and open, through her lens of self-trust, to solve problems and make decisions.</p>	<p>Continuity of connection: Trust</p> <p>Power to act: Living in personal power</p> <p>Knowing one's identity</p>

Participants' inner narratives of "Who am I becoming"	Liberating the third space of learning	Design themes inherent in participants' narratives
<p>P5 I am a "social responsibility" sort of person P5 had a strong inner sense that when she learnt something, it was her social responsibility to do something with it to improve the world, making it a fairer place. Contributing to, and influencing change in the world gave P5 a "sense of peace."</p>	<p>P5 was liberated by her sense of social responsibility to make the world a better place (external world) by harvesting the gifts that come with the serendipity of the "unknown space", as she referred to it. P5 articulated her inward journey to the third space as being open and present to the transformative potential of dreaming life's resolutions into reality. P5 had an inherent inner strength to discern the continuous negotiation of her sense of self within the convergence of her inner and outer world identities. P5 seemed empowered by her sense of well-being which, in turn, sustained her energy to make a difference in the world. When P5 liberated her third space, she had a sense of inner peace and excitement (energy) to embrace the magic (imagination) that comes with living in her spirit.</p>	<p>Continuity of connection: Serendipity, discernment, imagination</p> <p>Power to act: Living in personal power</p>
<p>P7 I am the sort of person "who needs to develop myself" P7 reflected that to "make sense of what I am doing, what I should be doing, why something may be working or may not be working" she needed to develop her own knowledge and understanding otherwise "I get lost in the conversation." P7's internal dialogue to continuously develop herself "drives everything I do." Developing herself compelled P7 to "bring meaning to the table." For P7, learning is about the "give and take to deeper understanding...to get the most out of the [learning] situation ... to build my confidence."</p>	<p>P7 had a natural motivation to take control of her learning, to make sense of life's learning experiences on the inside, and to challenge her taken-for-granted assumptions, inner belief system and sense of identity. This internal negotiation of meaning making was then "tried on" in her outer world. P7 was open to challenging her individuated self within her community to find a sense of self that is both unique to her within her private, inner world, whilst feeling empowered to fully and freely participate in conversations in her outer world. When learning activities fostered these innate qualities, P7 was able to build a sense of personal agency to liberate her spirit.</p>	<p>Continuity of connection</p> <p>Balance of control: Learner control</p> <p>Power to act: Living in personal power</p> <p>Knowing one's identity</p>

	Participants' inner narratives of "Who am I becoming"	Liberating the third space of learning	Design themes inherent in participants' narratives
P14	<p>I am the sort of person "who is a link in the chain"</p> <p>When P14 had a sense of autonomy to address his institutional responsibilities, he felt the power to act on aspects that sustained his personal and professional growth: spending time with his students, responding to students' learning needs and having an impact on learners' mastery. P14 articulated the inherent nature of the flow of learning as "we are all just a link in the chain." P14 saw his impact as far greater than the "physicality" of him. He saw himself as a collection of manifestations, experiences, and insights that spans across his life which were generative in shaping his way of being, knowing and doing. "The only reason why I'm here is because of things other people have done. And the future impact will be whatever impact I've had on other people's lives and then they have impact on people's lives so there's a link ... we are all just a link in the chain."</p>	<p>For P14, living in his personal power enacted his sense of natural motivation to be an active participant in the continuous chain of creation (society, knowledge). For P14, learning spans his life, the people he interacts with, the impact of others on him as he influences others, revealing the boundaryless, limitless fortitude of learning mobility. P14's revelation of being a link in the chain recognised the serendipitous, universal nature of learning in an ecosystem that is greater than any one person. It is the collective energy manifested by the individual and collective society that brings action, change and the possibilities for P14's perspective transformation. P14's reflections were particularly insightful, giving attention to the energetic nature of passing the learning forward to impact on, and create, a better world.</p>	<p>Power to act: Personal power</p> <p>Continuity of Connection: Serendipity, the energetic nature of learning – the ecosystem of humans and their environment</p> <p>Learning in the flow</p> <p>Knowing one's self</p> <p>Knowing one's identity</p>
P18	<p>I am the sort of person "who invests in people to enable a diversity of voices"</p> <p>P18 saw herself as being in a position of privilege. Her inner belief system was one of "academic generosity" cued by her internal dialogue of "how many more people can I pull up with me" and "we need to enable all – everybody's voice so that we can maybe get a clue as to what the truth really is because none of us have it [individually]." P18 had a strong personal and societal need to use her "position and knowledge to help, support, and</p>	<p>P18 liberated her purpose for being, her sense of spirit, by being <i>an activist</i>, that is, being actively engaged in her own learning experiences to help, support, and guide others in their learning journeys. She was self-aware of her life's purpose, intentionally acting as an enabler of other's learning, particularly the underrepresented and minority groups. Her natural motivation transcended the boundaries of her inner and outer world ("there's no reward system for that") to reveal her life's passion to create a world that harnesses a diversity of voices to bring about universal truths.</p>	<p>Power to act: Personal power</p> <p>Continuity of Connection: The energetic nature of learning – the ecosystem of humans and their environment</p> <p>Knowing one's self</p> <p>Knowing one's identity</p>

	<p>guide others so we have more diversity of voices. That's what I do and there's no reward system for that." P18 was not motivated by external rewards. Rather "intrinsically it makes me happy. People appreciate it. I feel like I'm doing a good thing." P18 viewed herself within the ecosystem, where the wholeness of learning was expansive to "try to get the full picture" by "investing in people." By connecting with people "then they go out and multiply . . . helping others because they've been treated well, supported and mentored in this part of their life," resulting in humans "being generous to other people too."</p>	<p>P18, like P14, had an awakened sense of self, illuminated by the view that she existed as part of an interconnected, interrelated ecosystem of humans and their environment. Her role was to live her natural state of "academic generosity." That is to pass-forward, and give back, to the ecosystem of knowledge and truths to bring about change in the world.</p>	
<p>P25</p>	<p>I am the sort of person who sees learning like the flow of jazz music P25 used the metaphor of jazz music revealing that "learning and teaching is about a sense of flow, like riffing in jazz music." P25 worried less about the formal structure of the learning activity, and more about connecting with people, where they really are in their lives stating "it's about balancing the structure of the learning with developing a deeper connection to people." Like riffing, "the interactive stuff is where the juice really is." In a professional learning context, for P25, the core of the "juice" was about "working collaboratively with people, in a safe environment to explore our taken-for-granted assumptions that are an explicit, often unexamined model of our identity."</p>	<p>For P25, deep, meaningful learning was about an energetic exchange of connecting with people in their lives. Learning that cultivated an energetic exchange was like riffing in jazz music – a spontaneous, flowing space of creative energy that cannot be scripted, mandated, or contrived. Rather, learning had a serendipitous sensation where those interacting, connecting and collaborating within the learning exchange were part of a safe, trusting environment to fully and freely express their views of self, to challenge their identity, and to become conscious of who they are in their world. When learning cultivated a creative energy, P25 became fully immersed, open to, and trusting of, the flow of learning to broaden her view of the world and her sense of self within her world.</p>	<p>Structuring the learning context</p> <p>Learning in the flow</p> <p>Power to act: Personal power</p> <p>Continuity of connection: The energetic nature of learning –the ecosystem of humans and their environment</p> <p>Knowing one's self</p> <p>Knowing one's identity</p>

When the participants articulated their growing consciousness of “Who am I becoming,” they illuminated their third space of learning mobility manifested as a deep-seated natural motivation. Realising one’s natural motivation to engage in life’s learning experiences is coming to know, and be accepting of, the dynamics of one’s unique nature of the Self. Coming to know our unique nature harmonises the inner rational aspects of the head space and the extrarational aspects of the heart space whilst feeling empowered to fully and freely connect and interact within the dynamics of the broader ecosystem of humans and their environment. This suggests that the wholeness of professional learning needs to harness the power of the third space which is liberated by the educator’s professional learning mobility. It is the educator’s learning mobility which becomes significant in the design for effective professional learning.

5.2 Principles for Designing Professional Learning Mobility

Professional learning mobility provides an alternative approach to the design of effective professional learning as it shifts the focus towards understanding how individuals experience learning continuously across the liminal spaces of their inner and outer worlds (See Figure 5.1). Taking an inside-out, bottom-up approach, professional learning mobility is directed at the individual (micro, inner world), and the conditions and characteristics that enable or inhibit how they come to the learning, how they learn, and what they do with the learning to create change in their professional practice (See Figure 5.2). However, due attention also needs to be given to the influence of the institution (macro, outer world) in recognition of the complexities inherent in human nature, and the dynamic, interconnected relationship between educators and the institution to effect change in the status quo of professional learning practice in higher education.

The establishment of the design principles for effective professional learning mobility is a function of the aspects of inner transformation, learning mobility and the third space. Guided by the work of A. Herrington et al. (2009), Table 5.2 provides a summary of the purposes of three aspects of designing for effective professional learning mobility (inner transformation, learning mobility, the third space) illuminated within the four phases of design (Design for Understanding, Design for Engagement, Design for Change and Design for Transformation). Furthermore, to provide a sense of wholeness to the process of developing the design principles, the table identifies the characteristics of each aspect (in recognition that the characteristics are not mutually exclusive to just one aspect but are interconnected across the aspects), the perceptual shift to act as a catalyst for change in the

status quo of professional learning, and the actions to be taken at the individual (micro, inner world) and institutional (macro, outer world) levels to represent the complex, interconnected nature of people and their environment within the higher education ecosystem.

Table 5.2. Wholeness of professional learning mobility.

Aspects and purpose	Characteristics	Perceptual shift conditions (Catalyst for change)	Individual and institutional action to bring about change	Alignment to design themes
<p>Inner transformation Professional learning experiences that shift the focus to a learning-centred approach challenge and support educators to explicitly examine their own knowledge, beliefs and teaching practices, providing a platform for transformative insight to change practice.</p>	<p>Context</p> <p>Control</p> <p>Mindset</p> <p>Critical reflection and trust</p>	<p><i>From:</i> Transactional learning context <i>To:</i> Transformative learning context</p> <p><i>From:</i> Institutional control – top-down ownership of knowledge <i>To:</i> Educator as adult learner control – bottom-up creation of knowledge</p> <p><i>From:</i> A fixed mindset <i>To:</i> A growth mindset</p> <p><i>From:</i> transmission of knowledge isolated from social engagement and dialogue that limits learning opportunities for expanded awareness, critical reflection, validating discourse, and reflective action <i>To:</i> a safe environment to critically reflect our the inner belief system to enable movement towards a fuller realisation of self, becoming conscious of our natural human desire for growth, development and freedom</p>	<p>The individual</p> <ul style="list-style-type: none"> • Viewing one’s self as a self-directed learner, taking responsibility and control for their learning needs • Being active, social and creative learners in a learning-centred context • Being open to the emotional and mental complexities of human nature that comes with ongoing growth and development • Building in the practice of reflective action to move towards a fuller realisation of personal agency, growth, and development • Belonging to scholarly communities that offer safe, trusting environments to share, challenge, change and grow professional practice <p>The institution</p> <ul style="list-style-type: none"> • Creating authentic learning-centred contexts that cultivate active, social, creative educators as adult learners • Recognising and accepting that professional learning occurs in many different ways, often outside formal, institution-led events • Supporting and making provision for the informal, serendipitous nature of professional learning that occurs outside institutional structures and control • Fostering a bottom-up approach to professional learning initiatives to optimise individual and organisational growth 	<p>Structuring the learning context</p> <p>Balance of control</p> <p>Personalising professional learning</p>

Aspects and purpose	Characteristics	Perceptual shift conditions (Catalyst for change)	Individual and institutional action to bring about change	Alignment to design themes
<p>Learning mobility Learning mobility empowers educators to take control of their learning, connecting and transcending the liminal spaces of their outer and inner world</p>	<p>Connection</p> <p>Control</p> <p>Power</p> <p>Creativity</p> <p>Resilience</p>	<p><i>From:</i> Limiting professional learning that fosters the human capacity to disconnect from self (inner world) and others (outer world) <i>To:</i> Enabling professional learning that fosters connection to the wholeness of learning</p> <p><i>From:</i> Institutional locus of control <i>To:</i> Individual locus of control</p> <p><i>From:</i> Institutional power that limits the possibilities for cultivating personal power <i>To:</i> Personal power that enables the educator's learning mobility for change, growth and development</p> <p><i>From:</i> Thinking, acting and being connected to traditional structures <i>To:</i> Thinking, acting and being creative, connected to imaginative and intuitive ways of being in control of our learning mobility</p> <p><i>From:</i> Institutional traditions, structures and processes that limit resilience thinking <i>To:</i> cultivating the educator's capacity for emotional and mental resilience, agility and visibility</p>	<p>The individual</p> <ul style="list-style-type: none"> • Recognising one's learning mobility can be invisible; it can occur whether we are conscious of it or not. Reflective action enables perspective transformation processes to become visible to the individual and communicated to others. • Connecting with creative others to foster curiosity, creativity, control, play, reflection, challenge and failure • Creating an "internalised" culture of stretching, challenging and celebrating our efforts and actions in navigating personally meaningfully professional learning contexts • Being change agents, communicating, influencing and impacting scholarly communities to bring about change <p>The institution</p> <ul style="list-style-type: none"> • Loosening control of the professional learning process by enabling and supporting the autonomous, continuous nature of professional learning mobility • Providing institutional mechanisms to make visible the invisible nature of the educator's learning mobility • Celebrating the educator's personal agency in taking control of their learning mobility • Trusting that a personalised approach to professional learning mobility will advance organisational growth, productivity and well-being individually and collectively 	<p>Balance of control</p> <p>Power to act</p> <p>Learning in the flow</p> <p>Continuity of connection</p>

Aspects and purpose	Characteristics	Perceptual shift conditions (Catalyst for change)	Individual and institutional action to bring about change	Alignment to design themes
<p>The third space The third space is a transformative space offering freedom from a dualistic sense of self. It does not just change the way one sees things; it transforms the person who sees to cultivate a resilient spirit, becoming conscious of the wholeness of who we are</p>	<p>Wholeness (unity)</p> <p>Identity</p> <p>Discernment</p> <p>Becoming conscious (continuity)</p>	<p><i>From:</i> Feeling inhibited and fragmented by those external forces outside the educator's control <i>To:</i> Being an activist in one's own learning that creates a sense of personal wholeness</p> <p><i>From:</i> A static, one-dimensional view of our identity <i>To:</i> Accepting the multi-faceted, ever-changing nature of our identity as we continuously grow and change</p> <p><i>From:</i> A view that professional learning is a means for prescribing or mandating a one-size-fits-all way of thinking, doing and acting <i>To:</i> Discerning the individual's unique nature that creates a stronger sense of connection to one's self and to others</p> <p><i>From:</i> An outside-in view of professional learning that diminishes the educator's sense of identity, autonomy and ownership of the learning process <i>To:</i> Becoming conscious of who we are on the inside to cultivate the educator's personal power to harmonises their ever-changing identity for personal growth and freedom</p>	<p>The individual</p> <ul style="list-style-type: none"> • Becoming an activist in one's own learning that heightens the educator's resilient spirit to the comforts and discomforts of professional learning opportunities within and outside their control • Accepting that coming to know one's self requires emotional and mental resilience to respond to the disruptive nature of challenging, changing and transforming our internal view of our selves • Balancing competing demands and expectations within one's external professional environment whilst discerning the internal tensions of one's own cognitive understanding, emotional intelligence and behavioural patterns that enable or inhibit personal and professional growth and development <p>The institution</p> <ul style="list-style-type: none"> • Possessing a collective cultural to ensure institutional readiness and willingness to invest in human growth and potential • Embracing professional learning contexts that extend beyond the boundaries, traditions and conventions of institutional models of professional development • Accepting and optimising the many voices that create diversity of views that challenge organisational structures, policies and processes 	<p>Perspective transformation</p> <p>Knowing one's self</p> <p>Knowing one's Identity</p> <p>Personal growth</p> <p>Continuity of connection</p>

One of the practical tasks when developing design principles is consulting the literature for design principles that other scholars have suggested. The scholarly discourse may not label them as design principles as such but rather characteristics, conditions, or advice on how to create an intervention to address a particular problem (J. Herrington et al., 2007). Normally, design principles contain procedural information and are expressed in active terms starting with a verb. This enables ready use by others to determine how the design principles may have application, relevance and inform practice in their own specific setting and educational problems (A. Herrington et al., 2009; J. Herrington et al., 2007; Wang & Hannafin, 2005). The wholeness of the professional learning conceptual framework presented at the end of Chapter 2 (Section 2.5.3) consolidated the key characteristics and conditions found in the literature.

The pragmatic elements of the conceptual framework were used in conjunction with the iterative cycles of data collection as part of the reflective inquiry across the design based research phases to test and refine the design themes revealed in Chapter 4 to inform the design principles. The articulation of the design principles is one outcome of this study. The design principles serve two key purposes:

- To provide practical guidance for educators, academic developers, institutions and others to design for effective professional learning mobility to address the learning needs within their educational context; and
- To make contributions to broader theory building related to the educator's professional learning mobility.

A second outcome of this study is to create a shift in the theory and practice status quo of professional learning in higher education. As such, the design principles are informed by the theoretical conditions of a social constructivist orientation (see Section 2.2.1), a learning-centred focus (see Section 2.2.1), adult learning characteristics (see Section 2.2.2), transformative learning processes (see Section 2.3.1), and professional learning practices (see Section 2.4.1). These conditions mean that:

- Educators can design a personalised approach to their own learning within, between and outside the traditions of institution-led professional development. This can be a daunting place for the educator as they balance the competing

expectations from their external professional environment (such as institution, discipline, community, students) with the internal tensions relating to their own subjectivity realities, cognitive understanding, emotional intelligence and motivation;

- A learning-centred approach will provide educators as adult learners with choice and freedom while simultaneously holding them more responsible for learning autonomously;
- Recognition that the characteristics of adult learning can only truly be realised by starting the learning process on the inside;
- Applying the process of transformative learning to make sense of the relational nature of the concepts and ideas within this research study amplifies the inner journey of self-awareness from the perspective of educator as adult learner. Transforming aspects of the educator's professional practice considers the rational, cognitive perspective (head space) with the extrarational, affective and conative perspective (heart space) inherent in a unified transformative learning approach. Both perspectives attend to freedom, autonomy, choice and the importance of self-awareness in coming to understand our own nature (third space); and
- A shift in focus on professional learning away from purely formal, structured, didactic, periodic events to more authentic learning activities situated in the workplace as a form of professional practice.

5.2.1 The 7Cs of Designing for Professional Learning Mobility

Overall, designing for effective professional learning mobility for the educator becomes more concerned with how educators engage in their own continuing growth and development and what they do with that learning to transform aspects of the ways they come to act and be in their world. At a conceptual level, the researcher has developed design principles that are framed by the “7Cs of professional learning mobility” that span the inner (personal) and outer (professional) worlds of the educator. The 7Cs are:

1. Context
2. Control
3. Connection

4. Complexity
5. Courage
6. Continuity
7. Creativity

Design principle 1: Context.

Context is a powerful and influential part of learning in adulthood. At the most basic level, the context of learning is concerned with providing a safe, trusting space for the educator to get to know themselves. Being reflective, particularly critically, of our closely guarded beliefs and perspectives requires self-examination of our mindset towards change and growth. Our mindset, informed by our personal foundation of experiences, enables or inhibits our actions towards perspective transformation, growth and development. Although a learning-centred context creates a foundation to promote authentic professional learning activities, the degree to which any learning context configuration (that is, formal, informal or any blend of the two) promotes change is filtered through the individual's subjective, inner sense of self. Context therefore is not a means to indoctrinate or prescribe a way of thinking, doing and acting; rather the learning context should celebrate the many voices (people) that create diversity of views that challenge the individual's meaning structures and the institution's organisational structures.

Therefore, the higher order importance of the learning context moves beyond the conventions of structure to focus on the personally meaningful activity of learning. The learning context therefore needs a balance of flexibility and structure. Flexibility fosters learning in the flow where the educator has autonomy to take control of the learning to meet their needs. Such learning contexts give permission for the educator to be an activist in their own learning journey. Structure enables the educator to have mechanisms in place to influence and impact change, both within themselves and within their outer world. Importantly, the balance of flexibility and structure needs mobility; to be fluid and responsive to the dynamics, characteristics and conditions of any given learning context. Therefore learning contexts are as unique as the individual.

Although these characteristics are an antecedent to enacting a process of personal perspective transformation, Weimer (2012) warns that learning contexts that recognise the uniqueness of the educator's personal foundation of experience

and that provide for self-directed learning may not necessarily develop a commitment to inner transformative learning, which is the catalyst to learning in the third space. The complexities of human nature mean that the design for professional learning mobility to bring about lasting change in professional practice cannot be mandated by external forces or contrived to fit external timelines and expectations. The possibilities of the educator's inner transformation to bring about change in professional practice is not linear, objective or time-bound. However, change can be fostered through bringing into focus the relational nature of the learning context, the activity of learning and the learner's needs that promote the active, social, creative process of personalised professional learning.

Therefore, in designing for the activity of learning, the context must make provision for the educator's own awareness of their developing sense of self, characterised as the effort and intent which is often linked to their core values and ideals; influencing the intellectual and emotional meaning attributed to the experience; and acting as a filter or magnifier to frame the educator's confidence, perspective, actions, thoughts, feelings and reflections.

Fostering personally meaningful learning activities that have immediacy and application to the educator's practice to solve their professional problems can trigger a deeper, natural motivation to engage in any learning context configuration. Essentially, this means that the role of the learning context is to provide a space to meet the educator as adult learner where they are, not retrospectively try to fit the educator's learning needs to the context. Additionally, when learning contexts promote time for play, practice and experimentation to build connection, collaboration and communication, professional learning takes on a deeper level of authenticity that empowers the educator's learning mobility across contexts.

Design principle 2: Control.

Adult learners should have a high level of choice and freedom (control) over what they do and learn. Greater autonomy and degree of choice offer educators flexibility to meet their learning needs, draw on their own strengths and experiences, build connections with others, and make new concepts and skills their own. It also means the educator may have to be self-determining and self-reflective in establishing their own support networks to make decisions on what and how to learn.

The intrinsic benefits of creating, collaborating, experimentation and discovery, sharing and contributing to the learning context bring about a shift in the locus of control. This enables educators to build confidence to shape, choose, direct, and take responsibility and ownership for their own learning. When educators perceive a high internal locus of control (their personal belief about their ability to control events), their self-efficacy and motivation reinforces personal effort and engagement. In contrast, when educators perceive an external locus of control, they believe success or failure is outside their control and the responsibility of others.

Professional learning contexts that cultivate the possibilities for inner perspective transformation need to be designed for emancipatory learning – the natural human desire for growth, development and freedom. Personal control becomes a critical component in the design for professional learning mobility that liberates an educator to transform elements of their professional practice. The challenge to institutions is in providing and resourcing skilled practitioners who can offer relevant support, particularly when the educator’s own self-directed growth, development and learning mobility may not be visible to institutional structures. Potentially, this asks for a perceptual shift in the organisation’s culture to provide institutional mechanisms to make visible the invisible nature of the educator’s learning mobility as importantly, it asks for the educator to (re-)form an “internalised” culture of stretching, challenging and celebrating their efforts and actions in navigating personally meaningful professional learning contexts.

Design principle 3: Connection.

Adult learners need to form meaningful connections. When the learning context focuses on the educator’s learning needs to form meaningful connections, the educator’s natural motivation manifests as a sense of personal power to take control of their learning, make decisions, take risks, and openly engage in the possible dissonance of their inner belief system. Therefore designing for professional learning mobility needs to amplify the complex, interconnected nature of the macro (institution) and micro (individual) forces existing within the higher education ecosystem from the perspective of the educator’s inner world. Building connections within the dynamics of the educator’s inner world can be a liberating and/or disconcerting experience for the individual. Becoming conscious of who we are awakens our innate spirit in the third space. This liminal space can cultivate a deeper,

more intimate connection to the Self to give meaning and purpose to our lives. It can arouse the educator's personal power which manifests as natural motivation and spiritual resilience to withstand the disturbances, complexities, confusions, and intellectual and emotional turmoil as individual's move (learning mobility) through life's liminal spaces of shedding old identities as they come to realise who they are. Becoming more self-aware cultivates an openness and energy for change. Conversely, the liminal space may be too distressing and emotionally exhausting to move through, limiting any meaningful and lasting change to the educator's professional practice.

Translating this perceptual shift to an institutional level needs to focus on professional learning as a social, situated process as educators like to connect with, and learn from, others within the context of work. Educators like to work collaboratively with work teams as well as in the external networks and communities to which they belong, which supports the informal nature of learning. Learning contexts that foster the mobility of connections inherent in the serendipitous nature of social, informal learning offer creative opportunities for educators to develop meaningful connections within their developing sense of self (inner world) and to others (outer world). The social aspects of learning connects with the deeper human motivation that drives our behaviour to more freely and fully participate in the transformative potential of meaningful professional learning activities.

Therefore, the social aspects of learning in any configuration expand learning connections beyond formal, institution-led professional development contexts as educators share ideas, experiences, and resources continuously, in their networks, in the flow of work. The social aspects of formal and informal learning networks provide learning mobility opportunities for any spaces, including institutional ones, to challenge, change and grow personally meaningful professional practice. Furthermore, the social nature of professional learning affords opportunities for collaborative and cooperative, and possibly cross-disciplinary, construction of knowledge. This gives a depth to the learning experience reflecting that how people like to learn is about learning continuously across the boundaries of time, space and the activity of learning to enrich the sense of professional learning mobility.

Design principle 4: Complexity.

The intimate nature of coming to know who we are is inherently complex. In this study, complexity is a constant as the researcher gains a deeper understanding of how educators learn which, in essence, is a study in human nature. The complex task of designing for the educator's professional learning mobility needs to pay closer attention not only to the individual, who is unique in their learning needs to address their professional learning and teaching problems, but to the broader professional learning environment within which the individual is connected. The emotional and behavioural aspects educators attach to their professional identity in their outer world may also be in contrast to, or in agreement with, their internalised sense of self and identity. The complexity is further heightened, as whether in conflict or harmony, our multi-identities are also ever-changing as we react and respond to the conditions and characteristic that motivate us to engage (or not) in professional learning initiatives. Furthermore, when our multiple identities are in harmony we are more open to challenging, changing and growing our professional practice. When our multi-faceted identity is in a state of dualism, that is, our inner (personal) and outer (professional) identities may be in conflict causing uncertainty within our sense of self, we are prone to inner conflict and confusion, self-doubt and distress. Feeling uncertain about our place in the world, and how we come to know, act and be in our world, limits self-efficacy, and the courage to take responsibility and ownership for our professional learning.

Therefore, designing for professional learning mobility needs to cultivate the educator's personal power to be self-directed, self-determining, and self-reflective. Our personal power builds resilience to the rational, emotional and behavioural complexities inherent in the inner transformative learning processes that may ask us to critically examine our sense of self, our identity, and our purpose in life. Additionally, the fluid nature of learning mobility means that the educator's learning experiences can get messy, further challenging the foundations of our inner being. When the learning context invites us to explore the liminal spaces of who we are, how we see ourselves is often strongly defended, emotionally charged, and not easily changed. The third space of learning mobility offers a space of renewed equilibrium as we as shed old identities and our afflictions that hold us back from harmonising the tensions and troubles inherent in coming to know who we are in the world.

Design principle 5: Courage.

Engaging in one's own professional learning mobility requires the educator to be courageous, "To speak one's mind by telling all one's heart" (Brown, 2010, p. 12). The courage to challenge and change one's most guarded beliefs to transform aspects of professional practice requires the individual to have an open, growth mindset, which inherently is concerned with accepting one's own vulnerability. The idea of showing vulnerability as part of our learning journey is particularly daunting for adult learners and often not encouraged or supported within institution-led professional learning contexts.

At the individual level, courage is situated within the educator's creative awareness, openness to new ideas, and reflective actions. Being courageous requires the educator to take ownership of, and responsibility for, their learning mobility across the boundaries of their inner and outer worlds, within and outside their control. Being vulnerable enables the educator to be open to the movement towards a fuller realisation of the Self, becoming conscious of one's natural human desire for growth, development and freedom of learning in the third space. It takes courage to activate one's sense of spiritual completeness. Celebrating one's spirit means discerning those cognitive, affective and conative states that can manifest the rational and extrarational aspects of inner perspective transformation, which, in turn serves to enable or inhibit one's natural motivation to be an activist in engaging in all of life's learning experiences. At the core, the educator can no longer rely on others to determine what they need to know, when they need to know it, and what they do with it to bring about change within themselves and others. The educator must be the architect of their own learning mobility to liberate their unique learning nature.

At the institution level, King (2003) affirms that institutions willing to invest in human growth and potential have, at the core, the ability to tap into the power of transformative learning. This takes courage as it requires institutions to move beyond the traditions and cultural boundaries that serve to inhibit organisational change.

Design principle 6: Continuity.

The continuity of professional learning means that learning occurs naturally as part of the workflow, and is designed and self-managed by the individual. When designing for professional learning mobility, continuity is concerned with the flow (mobility) of learning across boundaries, contexts and structures. Learning continuity

empowers educators to work better, more efficiently, and with greater agility and opportunities to be innovative, if needed, and connect with their learning networks to solve their problems. The active process of learning in the flow merges feelings of action (doing something with the learning) and awareness (of being in control of the learning). Educators as adult learners can feel confident and clear-minded, forget their normal worries (in their outer world) and self-doubts (in their inner world), lose track of time as the activity totally absorbs their focus, and emerge with a sense of satisfaction and growth. Such feelings can trigger the individual's natural motivation to engage in (meaningful) learning activities just for the joy of doing them, liberating the spirit, regardless of external rewards in their outer world. The continuity of learning in the (mental and emotional) flow cultivates a sense of wholeness, enabling educators to act with spontaneity and clarity, have reactions that are automatic and effortless, manifested as a feeling of being in full control. When the conditions of flow are present, the focus of learning becomes both more intense with the transformative potential of learning, yet easier to achieve as the learning leaves no time or mental or emotional energy to drift from the present. The presence of the continuity of learning creates a framework to cultivate the third space of learning mobility.

At the individual level, the challenge of learning continuously is that educators as adult learners must feel confident, have a sense of control over their work and consider the learning activities to be meaningful and relevant to assume personal responsibility in advancing their professional practice.

At the institutional level, creating and embedding a transformative learning framework to professional learning initiatives requires a safe, supporting, collegial learning community where educators feel empowered to take control of their own learning, to grow and thrive, which in turn, enables the individual to feel empowered to actively contribute, influence and impact institutional learning to enable the organisation to grow and thrive.

Design Principle 7: Creativity.

A key element that all the design principles have in common is the preparedness to be creative. The wholeness of professional learning mobility asks the individual and the institution to critically reflect on their meaning and organisational structures, the rationalities of knowledge production, and the extrarationalities of

their individual and collective emotional and behavioural patterns as internal and external catalysts to learn, grow and change. A liberating quality of the third space of learning mobility is unlearning old patterns and behaviours and relearning new ways of thinking, acting and being creative. Therefore, when designing for effective professional learning, the activity of learning becomes concerned with stretching, challenging and changing our unexamined, unconscious views of ourselves manifested as our actions, intent and effort towards our professional practice. Being open to our inner perspective transformation fosters a culture of educating ourselves into our creative capacity to continuously bring us back to a space of spiritual well-being.

In summary, the 7Cs of professional learning mobility cultivate dynamic learning contexts that design for the educator's choice, autonomy and freedom to authentically connect with, and actively address, the complexities inherent in how they learn. The perceptual shift to the educator being in control of their learning has the ability to create a culture of organisational learning that addresses the individual's learning needs whilst balancing institutional expectations. Therefore, designing for educator engagement in professional learning needs to create a culture of learning mobility. However, the dynamics of designing for educator's learning mobility almost certainly promises the disconcerting space of liminality, where educators experience a degree of mental, emotional and behavioural disorientation. This messy space, characterised as uncertainty of identity and purpose of life (Meyer & Land, 2013), emphasises the need for individuals and institutions to be courageous, think imaginatively, and act from the inside-out. This does not need to be a complex endeavour but seen rather as the educator's engagement in their natural motivation, unique to the individual. The professional learning initiative, in any form, promotes the continuity of learning across contexts, structures and conditions, bringing a sense of meaning and wholeness to the educator's professional learning. In institutions, professional learning mobility enables the individual to feel empowered to actively contribute, influence and impact organisational learning.

5.2.2 Challenge to Designing for Professional Learning Mobility

When considering the 7 design principles ("7Cs") previously outlined, designing for effective professional learning mobility needs to make provision for

educators to learn at their own pace, to build communities, share and collaborate, to shape personal experiences, and to navigate information and resources just-in-time to resolve their problems. Such a dynamic learning context cultivates the educator's self-directed skills and personal agency, encouraging the serendipitous and incidental aspects of informal learning. This suggests educators' sense of personal power to move with a degree of mobility across any range of professional learning contexts that may be independent of institutional structures and conditions as they come to know how they learn. The implication of this for the study is the shifting emphasis from the institution's operational structures to the individual's meaning structures to bring about change in professional practice, for the betterment of organisational learning.

Overall, designing for effective professional learning mobility becomes more concerned with how educators engage in their own continuing growth and development and what they do with that learning to transform aspects of the ways they come to act and be in their world. These conditions suggest a shift in the locus of control which must then also recognise the potential invisibility of the educator's learning mobility to institutional expectations. It also acknowledges the potentially problematic aspect in that the power of the educator's learning mobility as a framework to perspective transformation may be invisible, disorienting or perplexing for the individual. It will challenge the educator's self-efficacy, natural motivation and sense of identity as anchor points to their ongoing and ever-changing self-concept, identity and spiritual well-being. In other words, at the individual and institutional level, for learning to be valued as a catalyst for change to professional practice, the cultural capacity needs to be accepting of the disorienting and disconcerting nature of the individual's learning mobility due to the liminality of learning. To reiterate, liminal spaces (see Figure 5.1) are points of intersection between the individual's inner and outer world, and more significantly, the transformative threshold of harmonising the rational, emotional and behavioural aspects of human nature experienced within the Self to cultivate authentic union (third space).

Implementing professional learning mobility: Addressing resistance to outer change and inner transformation.

Implementing a professional learning mobility design acknowledges that the educator's and the institution's needs and expectations are not wholly convergent. Finding common ground that both serves the learning needs of the individual and the institution requires a growth mindset which embraces outer change and inner transformation; an openness, willingness and resilience by the individual and by the collective (institution) to think, be and act creatively. The challenge for evoking imagination to make sense of ourselves and the world we inhabit is that imagining alternatives requires people (individually, and collectively as a representation of the institution) to paradoxically break free from existing patterns of thoughts, actions, structures and perspectives. Whether the focus is on the learning patterns to cultivate inner transformation of the individual or outer change of the collective (institution), the pivot point is fostering authentic, powerful learning activities that create a shift in perspective. For the individual, a shift in the status quo of professional learning practices is concerned with becoming conscious of developing a deeper sense of self that awakens the inner transformations nested in one's innate spirit; recognising and celebrating the power of meaningful connections to the Self and to others that brings a deeper sense of perspective, meaning, identity and purpose to the educator's life.

At the individual level, learning-centred approaches that design for the rational and extrarational aspects of inner transformative learning experiences (the precursor to liberating the spirit in the third space) can be confronting for educators as the possibility of shifts in perspective are based on disorienting dilemmas as a catalyst for change. Resistance to inner transformation is grounded in the mental and emotional complexities, confusions, and reactions that challenge professional and personal identity manifested within a developing sense of self in the educator's internal world. When narrowing the focus to how individuals learn, attention needs to be given to the educator's subjective sense of self that serves to enable or inhibit their inner belief system to move through (and survive) the confronting experiences of learning in the liminal spaces of deep-seated perspective transformation.

Furthermore, education scholars (Cranton, 2006; Doyle, 2008; Weimer, 2013) claim many adult learners come to professional learning conditioned by years of experiencing passive, instructional professional development initiatives making them very dependent learners, resistant to learning-centred approaches and transformative

learning processes that cultivate the conditions for the third space of learning mobility. Perceptual shifts need to focus on the educator's mindset. Creating the conditions for a growth mindset illuminates the educator's openness to the flow of learning across their inner world of rational and extrarational processes to experience deep, structural shifts to deal with the dynamics of inner (personal) perspective transformation and outer (professional) change.

At the institutional level, addressing the challenge of cultural and structural change needs to focus on the flow of learning. Institutional policies and processes need to actively support learning in the flow (across boundaries, contexts and convention) by situating academic development units to work in union with individuals rather than managing or controlling the learning context. Therefore for outer change to prosper, management, professional development units, and academic developers may need to consider how, at an institutional level, to integrate learning-centred approaches to support more autonomous, authentic professional learning experiences that encourage continuous, meaningful, and possibly transformative learning experiences that position educators as adult learners to come to know who they are in the third space of learning mobility.

Outer change in the status quo of professional learning practices is contingent on an institutional perspective shift. Institutions need to take a balanced approach between controlling and delivering content (as a means of communicating institutional expectations), whilst fostering a dynamic scholarly community culture that celebrates and makes visible the powerful aspects of the serendipity of learning in the flow of informal, social learning that may be invisible to institutional structures and functions. The liberating, yet challenging, aspect of an institutionally balanced approach of structure and flexibility to professional learning practices that has the ability to transform workplace learning is that it is not a one-size-fits-all approach. It needs a pragmatic approach that moves beyond pushing top-down institutional professional learning events onto educators or pulling individuals into a bottom-up personalised professional learning expectation of personal agency to change themselves and their institution. Thinking from the view of a top-down or bottom-up approach paradoxically creates a healthy climate for the status quo of professional learning. The third space of learning mobility recognises the centrality of coming to know the Self which provides freedom for non-dualistic thinking to embody a deeper inner connection. The individual experiences an innate pull

towards deeper meaning, sense of purpose and identity that embodies the spiritual well-being to embrace living and learning in any space. Significantly, the genesis of this study was positioned within a bottom-up, inside-out approach. The concluding stages of this study reveal that a bottom-up, inside-out approach is anchored much deeper, concerned with becoming conscious of the innate spiritual connection of who we are.

5.3 Contribution to Theory Building: A Conceptual Model

There is a lot to be digested in this research study. A way that the researcher stayed grounded through the lived experience of making sense of this study to clearly inform the readers, whilst providing a compelling argument to theory building in adult learning, is through her view that the “The lesson is simple: The student is complicated” (Rasp, n.d., as cited in Millman, 2000, p. 14). At the foundation, the lesson is simple; concerned with understanding how people (educators) learn. The complication is that, in making a meaningful contribution to theory to bring about change in the status quo of professional learning in higher education, the essence of this study is situated in the inherent complexities of human nature. Our human nature makes each of us unique (complicated) in any given learning context as we react and respond to the conditions and characteristics (unique to that context) that enable or inhibit the individual’s motivation to engage in their learning mobility to transform their professional practice (research problem).

In the concluding stages of the study, a pragmatic way of consolidating and integrating the richness of this study into a key message that makes the lesson simple to digest is to stop *thinking* of professional learning as fragmented, component parts that happen to us and start *feeling* in control of our learning mobility, where our actions and awareness merge to create a sense of personal wholeness. The wholeness of the educator’s professional learning mobility is best represented as the infinity symbol (Figure 5.3). This symbol acknowledges the continuous nature of professional learning that is situated within educator’s inner and outer worlds but from the viewpoint of the individual’s journey of coming to know who they are.

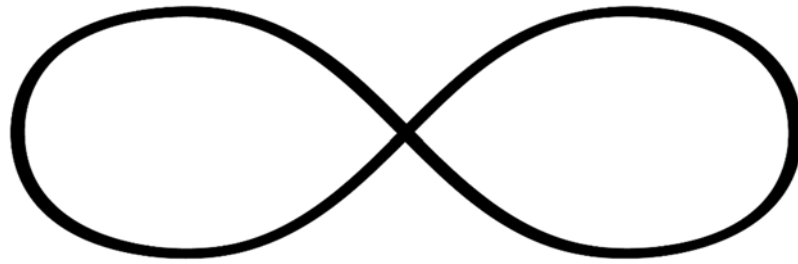


Figure 5.3. Symbolising the continuous nature of professional learning.

The infinity symbol signifies the continuous nature of professional learning. Like learning in adulthood, professional learning is conceived as a continuous journey of change, growth and development in the educator's professional practice.

From a design-based research perspective, theory building in educational research has limited credibility if not connected back to the practical research problem under investigation. Theorising the educator's learning mobility directly addresses the practical problem of how educators learn, adding new evidence to understand how educators are motivated to engage in their learning mobility to transform their professional practice. This evidence base creates a shift in the theory and practice status quo of professional learning in higher education by revealing the paradigm of professional learning mobility that transcends the liminal spaces of the whole of who we are. Coming to know who you are is the ultimate journey of learning mobility that transcends the boundaries of the educator's inner and outer worlds into the deeper innermost being of the Self (see Figure 5.4). Therefore, professional learning, as a construct, is about embracing an attitude (Dewey, 1933) of open-mindedness, whole-heartedness and personal responsibility, to enable movement towards a fuller realisation of the Self, becoming conscious of our natural human desire for growth, development and freedom. Therefore a conceptual model of the infinite nature of professional learning is presented as a continuous journey of professional learning mobility of the head space, the heart space and the third space in coming to know the whole of who we are (see Figure 5.4).

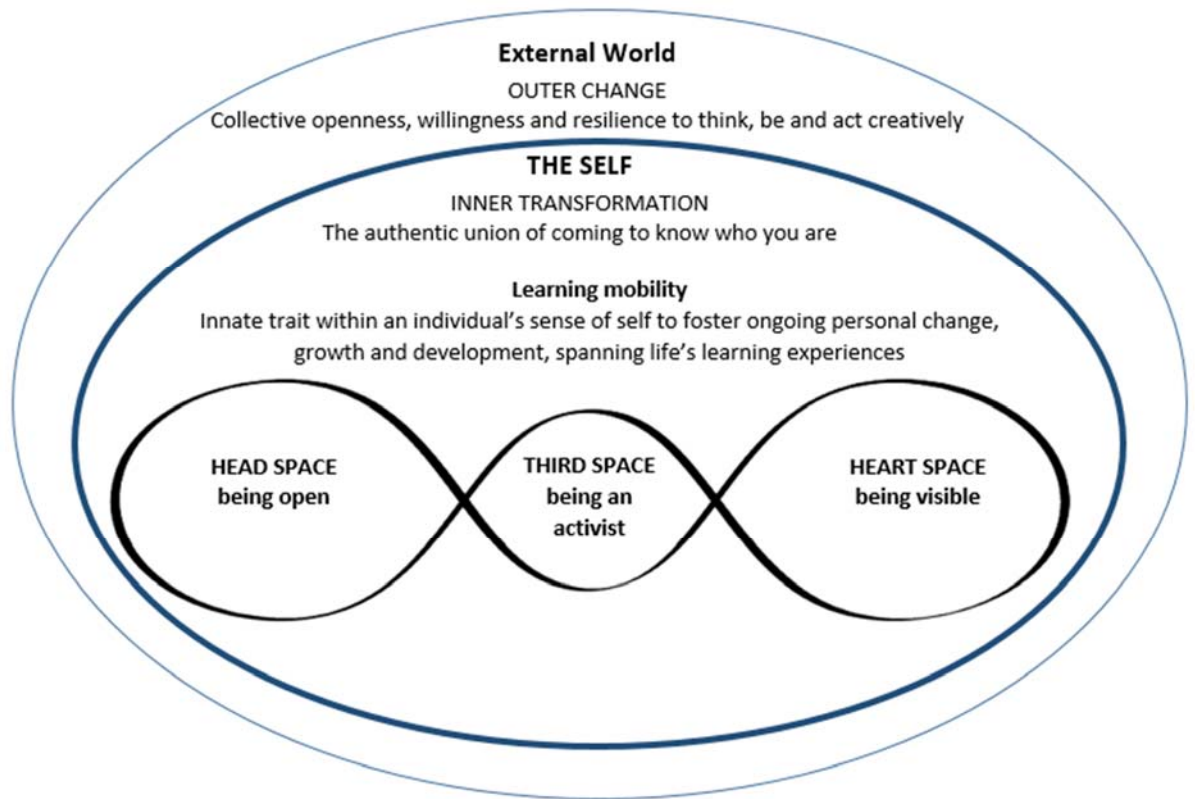


Figure 5.4. Conceptual model: Continuous journey of the wholeness of professional learning mobility.

This figure illustrates that the continuous journey of the wholeness of professional learning mobility is concerned with coming to know the Self by unifying the head space, heart space and third space.

Applying the process of transformative learning to making sense of the complex and relational nature of how educators learn within this study amplifies the inner journey of self-awareness from the perspective of educator as adult learner. The transforming aspects of the educator's professional learning mobility considers the rational, cognitive perspective (head space) with the extrarational, affective and conative perspective (heart space) inherent in a unified transformative learning approach. Both perspectives address the characteristics of freedom, autonomy, choice and the importance of self-awareness in coming to understand our own nature (third space).

5.3.1 The Head Space: Being Open

The head space represents the individual's rational processes of thinking and knowing referred to by transformative learning scholars (Cranton, 2006; King, 2005; Lawrence & Cranton, 2015; Mezirow, 2000) as habits of mind. The head space is concerned with the cognitive process of learning, such as the ways we think about professional learning, and the judgements and decisions we make about the value of actively participating in any range of professional learning contexts. An individual's inner perspective transformation is contingent on our meaning structures housed in our head space that act as a perceptual filter to interpret the meaning of learning experiences, and inform our actions and efforts to challenge, change and grow our professional practice. Therefore our head space, if not attended to, can create fluctuations, distraction and self-doubt to limit our ability to become conscious of our natural motivation to weather the mental complexities of our head space. When we start to become aware of our meaning structures through such activities as being critically reflective of our assumptions, we become more open to our knowledge formation, assumptions and beliefs, behavioural patterns, and emotional responses. The continuous journey of professional learning mobility reveals the need for a head space that is open to becoming aware of our very nature as we come to discern how we come to the learning, how we learn, and what we do with the learning.

5.3.2 The Heart Space: Being Visible

The heart space represents the individual's extrarational processes of emotions, feelings, intuition, imagination and behaviour referred to by Mezirow (2000) as habits of the heart. Palmer (1998) views the heart space as a place where the intellect (thinking and knowing of the head space), emotion, and spirit (third space) converge in the human self. The heart space has a powerful capacity for connectedness that navigates the complex web of authentic connections within one's self and meaningful connections within our outer world.

However, like our head space, our heart space is prone to duality, manifesting emotional trauma and troubles, worry and fear, behavioural fluctuations and uncertainty of identity. This confronting and disorienting space of learning liminality is harmonised by our emotional and intuitive intelligence which opens the heart space so that we can become visible to ourselves. Being visible takes courage as we

surrender prior perspectives and views of our world and our identity in that world. Being visible give rise to (critically) seeing and hearing ourselves; seeing the whole of who we are and hearing our inner voice that acts as a powerful filter to enable or inhibit the resilience of our natural motivation to sustain us in our inner transformative journey.

5.3.3 The Third Space: Being an Activist

The third space in the wholeness of professional learning mobility (Figure 5.4) brings us back to a place of inner wholeness by actively harmonising the obstacles of the head space and heart space. The third space of learning mobility is an abstract concept as it is conceived through an awakening of a deeper layer of the human fabric, and can only *truly be seen and felt* by those who have experienced their own transformative awakening into their innermost being. Even then the individual may not have the language, desire or self-awareness to express the experience of their deep, inner perspective shift to their outer world.

Most significantly, awakening the spirit of the third space is dependent on the individual being an activist in their own learning. Being an activist rests on the individual becoming conscious, open and visible in their own readiness, willingness, and commitment to experience the inner journey of transformation. In other words, the third space transcends into a deeper inner space that moves beyond the rationalities of the head space and extrarationalities of the heart space that one attaches to their deep-seated sense of identity which is often strongly defended, emotionally charged, and not easily changed. The third space is nested within and moves beyond one's inner belief system, our psychological sense of self, to embody our very nature. Coming to know, and be accepting of, our nature sustains our natural motivation and ignites our inner power to navigate the complexities of being human. Embracing the third space gives us permission to harmonise all of who we are, bringing a deeper sense of union to our inner being.

5.4 Concluding Remarks

The evidence contained within this study contributes to theory building by rethinking the educator's professional learning mobility as the activity of harmonising the head space, heart space and third space within any learning context. The study revealed that designing for effective professional learning is concerned

with cultivating change in the educator's professional practice, whilst transforming thinking about workplace learning in higher education to bring about change in institutional practice. Professional learning that cultivates opportunities for the individual's journey towards authentic union in coming to know who they are fosters the educator's own growth and development. Such learning awakens the spirit, revealed as the educator's natural motivation, which transcends the complexities of institutional structures, conditions and policies that are outside the educator's control. This inward journey also cultivates the educator's emotional and mental resilience to respond to the disruptive nature of being human as they become conscious of who they are on the inside.

Educators are empowered to be agents of change, within their own habits of mind and habits of heart to transform their views of the world, and towards influencing and impacting change within the institution. With this in mind, designing for effective professional learning needs to foster safe, trusting and creative learning contexts, built on a foundation of flexibility and structure that arouses learner autonomy, control and ownership of the activity of learning. Professional learning becomes a catalyst to the educator's inner transformation(s), boundaryless learning mobility, and ultimately liberates one's spirit in the third space. Such a fluid learning context fosters the educator's natural motivation to engage in their ongoing, personally meaningful approaches to professional learning that connects with, and spans across, the liminal spaces of their lives.

Furthermore, the wholeness of professional learning mobility reflects that the continuous learning of individuals (inner world) and environments (outer world) that make up the higher education ecosystem is experimental and imaginative. In this conceptual view, the higher education ecosystem is the broader external environment acknowledged at the macro- and meso- levels in the educator's outer world. The educator's inner world is considered their personal foundation of experience, and their developing sense of self. This inward journey of self-concept serves as a liminal space of being conscious of "Who am I becoming" (individuation), and the inner freedom to explore, express and transform who we are (emancipation) to realise the Self. This deeper layer of learning mobility harmonises the fluctuations of the head space and the heart space to illuminate our own nature, liberating our spirit in the third space.

However, the researcher is not suggesting, advocating, or worse, mandating that professional learning activities must push or pull educators into a spiritual awakening so that they can “reach their third space.” Rather, the suggestion is that professional learning activities that are mindful of, and design for, the possibilities of spiritual growth and development as a mechanism for deep-seated change are concerned with fostering an individual’s openness to change. This leads to the educator’s natural desire to take control of their own learning, feel empowered to harmonise the inner voice, and give agency to express their inner voice in their outer world. Theorising the design for effective professional learning is actioned by the practice of a transformative learning framework. Such a framework triggers the educator’s self-awareness, self-determination and self-reflection to be responsible for their own learning pathways that serve their learning needs within their professional context, and that gives personally meaningful outcomes to sustain their purpose for being. Furthermore, a transformative learning framework that develops a deeper layer in coming to know one’s self creates inner peace from the afflictions of dualistic thinking, fragmenting our sense of identity. An individual’s growth and development towards an authentic sense of the Self provides a fertile ground for individuals to contribute to, and actively participate in, organisation learning.

The compelling arguments to theory building in adult learning presented in this study to transform workplace learning in higher education are specifically concerned with designing for effective professional learning that is responsive to the educator’s learning needs. However, in recognition that how educators learn is inextricably connected to the broader, external environment, the contributions to theory building need to extend to inform new ways of thinking about professional learning at the institutional level. Theorising the educator’s professional learning mobility in this chapter address the gaps and shifts in knowledge and understanding illuminated through the work of the previous chapters. Evoking a culture of the educator’s learning mobility takes both an individual (micro level) focus situated within personalising professional learning mobility, and an institutional (macro level) focus concerned with professional learning mobility approaches to provide a holistic perspective to address the pragmatic problem of how educators learn. Creating a shift in the theory and practice status quo of professional learning involves rethinking the educator and institution roles (see Table 5.2). As evidenced within the theory of how educators learn (Chapter 2) and the practice of how educators learn

(Chapter 4), fundamental to the shifting perspective is that it is the mobility of the educator and the learning that is significant.

5.5 Future Research Opportunities

The outcomes of this study add new thinking to the development of workplace learning from the perspective that professional learning is purposefully situated and established as academic work as a function of professional practice. The possibilities of transforming workplace learning in higher education hinges on the pivot point of enabling educators to experience learning continuity across learning contexts that may be invisible to, and outside of, the institution's control and organisational structures, whilst recognising the educator's needs, intentions and processes for learning are not going to be wholly aligned with that of the institution.

When considering the 7Cs of designing for professional learning mobility, emphasis is placed on there being no single or simple solution to the ways context, control, connection, complexity, courage, continuity, and creativity advance an understanding of professional learning good practice. Every professional learning opportunity needs to be assessed on its own merits to enable a "best fit" rather than "one-size-fits-all" approach to designing effective, meaningful professional learning that situates the learner to continue to learn throughout their working life. Therefore the synergistic power of the 7Cs, and the continuous learning journey of the wholeness of professional learning mobility, represented as harmonising the head space, heart space and third space, provides a balance of structure and flexibility to empower those designing for effective professional learning to develop their own transformative learning processes to create a shift in the status quo of professional learning within their field.

Future research will focus on how the design principles might be interpreted and applied within and outside the higher education sector, a key outcome of design-based research methodology. Within the higher education ecosystem, two areas particularly stand out. The first area would focus on specific discipline-based contexts in recognition that educators often feel a sense of academic connection and belonging, and an established professional identity and values within their discipline. Discipline homogeneity (teaching practices, culture and norms) can create an invisible boundary that inhibits the educator's openness and willingness to evoke their natural motivation to engage in the disconcerting, often confronting, possibly

exposing space of the scholarship of teaching to challenge, change and grow their professional practice. Using the intervention of the 7Cs of designing for professional learning mobility to challenge and support individual and collective discipline-based ways of knowing, being and acting through the conception of the head space, heart space and third space has promise in unlocking the status quo in professional learning to impact change in discipline specific professional practice.

The second area within the higher education ecosystem would focus on applying the 7Cs of designing professional learning mobility to the work of academic developers. In their role as facilitators of transformative learning processes, academic developers are involved in supporting their peers (other higher education teachers) to bring their taken-for-granted assumptions about teaching into critical awareness. Academic developers work with their peers so that personally meaningful action can be taken by their peers to advance aspects of their professional practice to meet their needs and solve their problems, within their learning context. This is a challenging, and possibly daunting place for academic developers. As academic developers help their peers become conscious of their inner sense of self which can manifest as deep shifts in perspective leading to new ways of seeing the world, it asks academic developers to be open to being critically reflective of their own inner transformative processes of meaning making.

Outside the higher education sector, particular focus will be given to applying the 7Cs intervention to the context of workplace learning and development consultants in the private sector. This emerging field is concerned with the business of learning in the business sector, providing independent advice, support and guidance in modern workplace learning to create authentic learning initiatives for workers as well as supporting managers and organisations to continuously grow and prosper in a constantly changing global marketplace.

The biggest challenge across all discipline contexts, industries and fields is that the design principles to foster professional learning mobility are built on a theoretical framework of a socio-constructivist orientation, learning-centred approaches and transformative learning processes. This theoretical foundation has the potential to provide an agile and responsive framework to discern the “idiosyncrasies” of any learning context, within or outside individual and organisational control, boundaries and structures, in a globalised market place. However, as Weimer (2012) rightly points out (see Section 2.3.1), this theory-practice basis is primarily only known to

adult educators although it is significant to “teachers” and “learners” in every context. This could continue to be a limitation to the researcher’s work on theory generation.

With this in mind, the researcher recognises that the interpretation and application into other disciplinary fields, sectors or industries will need refinement and continuous improvement to address the characteristics and conditions unique to that learning context, and the complexities of human nature, making them unique. The researcher’s particular area of investigation would be to focus on how the 7Cs, as a pathway to the wholeness of professional learning mobility, address the organic, dynamic nature of any learning context. Of particular personal interest to the researcher, as a means to challenge and contribute new thinking to professional learning theory and practice, is to continue the educational inquiry into the conception of the third space of learning mobility.

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Appendix A: Overview of Key Communication with Research Participants

An overview of the steps taken during the initial contact phase, confirmation of participation, and interview confirmation.

The initial contact phase included:

- Introducing myself and my research study, attaching a copy of my PhD study abstract;
- Establishing a connection point (e.g., “I met you at a conference where you delivered a paper on”; “I’m coming to the conference where you will be presenting a paper on”; “Your funded research project has caught my attention”);
- Inviting the educator to participate in my research project, outlining the expectation and time commitment (i.e. pre-interview online questionnaire [5-10 minutes] and interview [1 hour]); and
- Seeking their endorsement of my PhD research study to colleagues, and/or suggesting names of colleagues I could contact.

Appendix B provides an example of the initial email sent to research participants.

Confirmation of participation

The confirmation of participation phase occurred when the educator responded favourably to the initial contact invitation to participate in my research study. The confirmation of participation phase was via email and included:

- Thanking the educator for agreeing to participate in the study;
- Setting up an appointment for the interview, including time, date, venue, and other logistical matters;
- A link to the pre-interview online questionnaire (see Appendix C: Pre-interview questionnaire), asking the educator to complete it prior to the interview so that I could learn more about their background and experiences;
- Attaching a copy of the Participant Information Sheet (PIS) and Consent Form for the pre-interview questionnaire and interview (see Appendix D: Interview PIS and consent form), seeking their signature. The PIS and Consent Form outlines the ethical responsibility of the research and researcher, the aims of the research and the commitment sought from the research participant; and
- If they included the names of potential colleagues to contact, thanking them for their support and confirming the use of their name as endorsement of my study when contacting their colleagues.

Interview confirmation

The interview confirmation phase occurred in the days leading up to the scheduled interview. The interview preparation phase was via email and included:

- Re-confirmation of the time, date and venue of the interview;
- Thanking the educator for completing the pre-interview questionnaire (or re-sending the link if they hadn’t completed the questionnaire);
- Confirmation of receipt of the signed Consent Form (or re-attaching the form to the email and mentioning that I would also bring a hard-copy of the Form to the interview if I had not received their signed consent); and
- Giving the educator my mobile number if they needed to contact me quickly.

Appendix B: Example of the Initial Email Sent to Research Participants

Dear X

You may recall that we meet and chatted briefly at the Ascilite Conference. Your presentation followed mine within the themed session on mobile learning. My presentation was based on the early stages of my developing PhD thesis at the University of Southern Queensland. I have now passed confirmation of candidature and recently received USQ Human Ethics Approval (approval no.: H14REA084). The title of my study is *Learning mobility in professional practice: Transforming workplace learning in higher education*. I have attached my PhD study abstract.

Based on your presentation and research (and our conversation) at the conference, I would like to invite you to participate in my study and am hoping you may consider being involved in my data collection. This would consist of a 1 hour face-to-face interview. Prior to the 1 hour interview, there is also a 5-10 min pre-interview online questionnaire which will enable me to find out a little more about your background and experiences.

Also, I would be grateful if you would consider endorsing my PhD study with members of your research project listed on your conference paper, as I would be interested in approaching them to participate in my study too.

I am very happy to talk further with you on this and I look forward to hearing from you.

[Signature]

[Contact details]

Appendix C: Pre-interview questionnaire (PIQ)

[cover page]

In preparation for your interview as part of my PhD data collection, I would like to find out a little about your background and experiences to help focus the interview questions to your context.

Any information or personal details gathered in the course of the research will remain confidential. No individual will be identified by name in any publication of the results.

This survey should take about 5-10 minutes of your time.

Please complete prior to our scheduled interview time.

Thank you for completing this short survey.

Maxine Mitchell
PhD Student
mitchell@usc.edu.au | +61 404867855

This project has been approved by the Human Research Ethics Committee of the University of Southern Queensland (HREC Approval Number: H14REA084).

[questionnaire]

1. Please enter your full name and title

2. How many years have you been teaching in the higher education sector?
(Australia)

2. How many years have you been teaching in the higher education
(university/college) sector? (USA)

Less than 12 months

1-3 years

4-6 years

7-10 years

10+ years

Other (please specify)

3. What is your main teaching discipline area? (e.g., engineering, psychology, business)

4. What types of scholarly teaching practice have you been/are you a participant in*?
For each response you give provide the name of the most recent ACTIVITY(s) and the YEAR(s) you participated in it.

*There is no expectation that you have participated in any of these activities.

(a) Graduate Certificate in Higher Education/professional learning/academic practice or similar (Australia)

- (a) Certificate in college teaching or instruction or similar (USA)
- (b) Master of Education or similar (Australia)
- (b) Doctorate in college teaching or similar (USA)
- (c) Foundations of University Teaching or similar (Australia)
- (c) Certificate in teaching/online teaching or similar (USA)
- (d) Peers Assisted Teaching Scheme, mentor, mentee or similar
- (e) Presented/attended at a conference(s) within the learning and teaching in higher education context
- (f) Published in a journal(s) within the learning and teaching in higher education context
- (g) Other activities
- (h) Do you plan to participate in any scholarly activities in the future? If yes, provide the name of activity(s)

5. Are you a member of a committee/team/network/community/organisation within the learning and teaching in a higher education context. It may incorporate social media. It may be formal or informal, personal or professional in nature. Please provide the name(s) and the role(s) you play.

6. In what ways do you use technology(s)*. For each response provide the name of technology platform(s) you use.

*Consider this question within the context of your own learning, within your teaching team, with your peers and/or with your students.

- (a) To enable you/teaching team/peers/students to ACCESS course materials
- (b) To enable you/teaching team/peers/students to CREATE course materials
- (c) To enable you/teaching team/peers/students to SHARE course materials
- (d) To enable you/teaching team/peers/students to COLLABORATE and INTERACT
- (e) To enable you/teaching team/peers/students to REFLECT on learning
- (f) Other. Please specify

7. Digital literacy

Read each statement and decide whether you mostly agree or mostly disagree with EACH ONE: [Note: Digital literacy is the ability to locate, organise, understand, evaluate, analyse, and create information using technology]

- (a) Your digital literacy is something very basic about you that you can't change very much
Response options: mostly agree; mostly disagree
- (b) You can learn new things, but you can't really change your level of digital literacy
Response options: mostly agree; mostly disagree
- (c) No matter how much digital literacy you have, you can always change it quite a bit
Response options: mostly agree; mostly disagree
- (d) You can always substantially change how digitally literate you are
Response options: mostly agree; mostly disagree

8. Personal qualities

Look at these statements about personality and character, and decide whether you mostly agree or mostly disagree with EACH ONE:

- (a) You are a certain kind of person, and there is not much that can be done to really change that

Response options: mostly agree; mostly disagree

- (b) No matter what kind of person you are, you can always change substantially

Response options: mostly agree; mostly disagree

- (c) You can always change basic things about the kind of person you are

Response options: mostly agree; mostly disagree

- (d) You can do things differently, but the important parts of who you are can't really be changed

Response options: mostly agree; mostly disagree

Appendix D: Interview Participation Information Sheet (PIS) and Consent Form

Participant Information Sheet - Interview

The overall goal of this study is to investigate the potential for learning mobility to create conditions for flexible, personal, contextual, collaborative and informal learning experiences. The research is primarily concerned with ways of supporting educators as they learn how to live, learn and work in a mobile society to transform their professional practice.

Research Project	<p>Learning mobility in professional practice: Transforming workplace learning in higher education</p> <p>The aims of the study are to:</p> <ul style="list-style-type: none"> • Reconceptualise professional development models in higher education; • Contribute to the body of knowledge on the changing nature of the higher education teacher’s professional learning in the modern academy; • Use an “as-lived” experience approach which looks at higher education teachers’ experience of learning mobility in natural settings to gain a deeper understanding of the ways educators learn about working and living in a mobile society to transform professional practice.
Aim of the research	
Format	Interviews will be held face to face and/or online and take approx.. 60 minutes to complete.
Confidentiality	Any information or personal details gathered in the course of the research will remain confidential. No individual will be identified by name in any publication of the results. All names will be replaced by pseudonyms; this will ensure that you are not identifiable.
Participation is Voluntary	<p>Please understand that your involvement in this study is voluntary and I respect your right to withdraw from the study at any time. You may discontinue the completion of the interview at any time without consequence and you do not need to provide any explanation if you decide not to participate or withdraw at any time.</p> <p>If you choose to withdraw from the study, your responses will not be used in the dissertation or related publications.</p>
Questions	The interview questions will not be of a sensitive nature: rather they are general, aiming to ascertain your attitudes and perceptions towards your learning mobility.
Use of information	The information from this research will be used to design a <i>learning mobility in professional practice</i> conceptual model that is responsive to the changing nature of academic work, and reflective of ways of living, learning, and working in a mobile society to transform professional practice in higher education. The data collected may be used to inform future research projects in which the researcher is involved. At all times, your identity will be safeguarded by presenting the information in a way that will not allow you to be identified.

Storage of information	All electronic data will be kept on a password protected computer, backed-up to password protected cloud storage and password protected USB. Only the PhD student and her supervisory team will have access to the data.
Disposal of information	All the data collected in this research will be kept for a minimum of five years after successful analysis and dissemination of the data, after which it will be disposed of by deleting relevant computer files.
Approval	This project has been approved by the Human Research Ethics Committees of the University of Southern Queensland (HREC Approval Number: H14REA084) If required, please contact the researcher with any questions about this research using the following details:
Contact	Ms Maxine Mitchell Digital Futures – Collaborative Research Network Australian Digital Futures Institute, University of Southern Queensland [PhD student’s contact details]

Further details on the PhD student are as follows:



Maxine Mitchell, PhD Student, Australian Digital Futures Institute, University of Southern Queensland

This study will investigate the potential for learning mobility to create the conditions for flexible, personal, contextual, collaborative and informal learning experiences that support educators as they learn how to live, learn and work in a mobile society to transform their professional practice. The purpose of the study is to contribute to the body of knowledge on the changing nature of the higher education teacher’s professional learning in the modern academy. The main research question is: *How are educators motivated to engage in their learning mobility to transform their professional practice?* This study holds the key tenet of educators as adult learners and adopts a social constructivist theoretical framework. The study will address an emerging gap in the research on how learning mobility and professional learning can work in union to transform professional practice, enabling educators to work, learn, live and achieve their full potential within the changing nature of academic work.

If you have any ethical concerns with how the research is being conducted or any queries about your rights as a participant please contact the University of Southern Queensland Ethics Officer:
Queensland Ethics Officer:
[contact details of USQ Ethics Officer included]

Consent Form - Interview

HREC Approval Number: H14REA084

TO: Research Participants

Full PhD Title: learning mobility in professional practice: workplace learning in higher education.

PhD Student: Ms Maxine Mitchell

PhD Supervisory Team: Associate Professor Shirley Reushle (USQ)
(Principal Supervisor); Associate Professor Stijn Dekeyser (USQ)

- I have read the Participant Information Sheet and the nature and purpose of the research project has been explained to me. I understand and agree to take part.
- I understand the purpose of the research project and my involvement in it.
- I understand that I may withdraw from the research project at any stage and that this will not affect my status now or in the future.
- I understand that if I withdraw from the study, my responses will not be used in the dissertation or related publications.
- I understand that the interview will be recorded using audio or video recordings, depending on my preference.
- I understand that I can request certain or all components of the interview to remain confidential and anonymous.

Name of participant:

Signature:

Date:

If you have any ethical concerns with how the research is being conducted or any queries about your rights as a participant, please contact the University of Southern Queensland Ethics Officer:
[contact details of USQ Ethics Officer included]

Appendix E: Pre-interview Questionnaire (PIQ) Personal Foundation of Experiences Classifications

Classifications: Demographics; Scholarly Activities; Personal Qualities

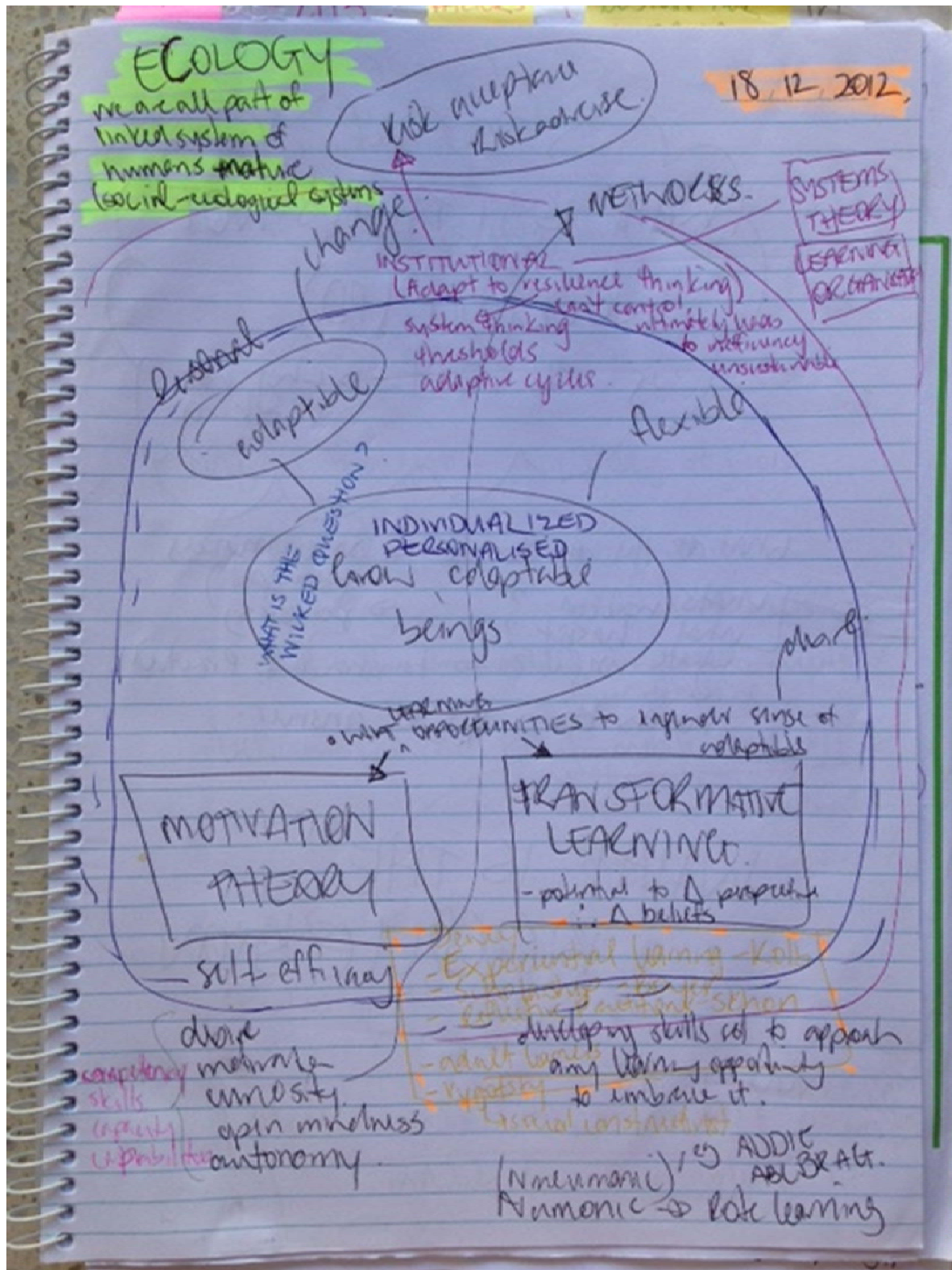
Background and experience attributes	(Qualitative) Category	Value
Demographic	Pseudonym	P1; P2; P3;...;P25
Demographic	Gender	Male Female
Demographic	Title [Q1 – Pre-interview Questionnaire (PIQ)]	Doctor Associate Professor Professor Mr Miss/Ms/Mrs
Demographic	Position [Q1 – PIQ; online profile; further informed by interview]	Visiting Fellow Lecturer Senior lecturer Assistant professor [USA term] Associate professor Professor Course Coordinator (UG) Course Coordinator (PG) Program Coordinator (UG) Program Coordinator (PG) Director of Studies (UG) Director of Studies (PG) Director Institute Head of Discipline Head of School
Demographic	Doctorate [Q1 – PIQ]	Yes Currently completing No
Demographic	Career stage [Q2 - PIQ]	Early-career (7 or fewer years), Mid-career (8-20 years) Late-career (more than 20 years) staff. (Bexley et al., 2011, p.30)
Demographic	Teaching Discipline [Q3- PIQ]	Allied health (occupational therapy, public health, psychology) Business and Management (human resources, leadership, information systems) Education (adult education) Medical (paramedicine, nursing and midwifery) Sciences (vet science, virology)
Demographic	Country	Australia USA

<p>Scholarly activities</p> <p><i>Professional practice theme</i></p>	<p>Learning and Teaching in higher education [Q4 - PIQ]</p>	<p>Learning and teaching qualification (U/Grad Education; Foundations of University Teaching; G/Cert Education; Master Education; PhD/EdD)</p> <p>Learning and teaching mentor</p> <p>Learning and teaching conferences</p> <p>Learning and teaching research (including grants)</p> <p>Learning and teaching publication</p> <p>Learning and teaching award</p> <p>Other learning and teaching</p> <p>Future learning and teaching activities</p>
<p>Scholarly activities</p> <p><i>Professional practice theme</i></p>	<p>Scholarly leadership [Q5 – PIQ]</p>	<p>Formal institutional learning leadership</p> <p>Professional body leadership</p> <p>Assumed leadership</p> <p>Informal distributed leadership</p>
<p>Scholarly activities</p> <p><i>Professional practice theme</i></p>	<p>Innovative pedagogical practices [Q6 - PIQ]</p>	<p>Access</p> <p>Create</p> <p>Share</p> <p>Collaborate and interact</p> <p>Reflect</p>
<p>Personal qualities</p> <p><i>Learning mobility theme</i></p>	<p>Learning literacy [Q7 - PIQ]</p>	<p>(a) Your digital literacy is something very basic about you that you can't change very much <input type="checkbox"/> Mostly agree [FIXED] <input type="checkbox"/> mostly disagree [GROWTH]</p> <p>(b) You can learn new things, but you can't really change your level of digital literacy <input type="checkbox"/> Mostly agree [FIXED] <input type="checkbox"/> mostly disagree [GROWTH]</p> <p>(c) No matter how much digital literacy you have, you can always change it quite a bit <input type="checkbox"/> Mostly agree [GROWTH] <input type="checkbox"/> mostly disagree [FIXED]</p> <p>(d) You can always substantially change how digitally literate you are <input type="checkbox"/> Mostly agree [GROWTH] <input type="checkbox"/> mostly disagree [FIXED]</p> <p><i>questions (a) and (b) are fixed-mindset. questions (c) and (d) reflect the growth mindset. You can be a mixture but most people lean towards one or the other (Dweck, 2006).</i></p> <p><i>Key:</i> if 4 out of 4 responses are growth = growth mindset if 3 out of 4 responses are growth = growth mindset if 2 out of 4 are growth = mixed mindset if 1 out of 4 are growth = fixed mindset</p>

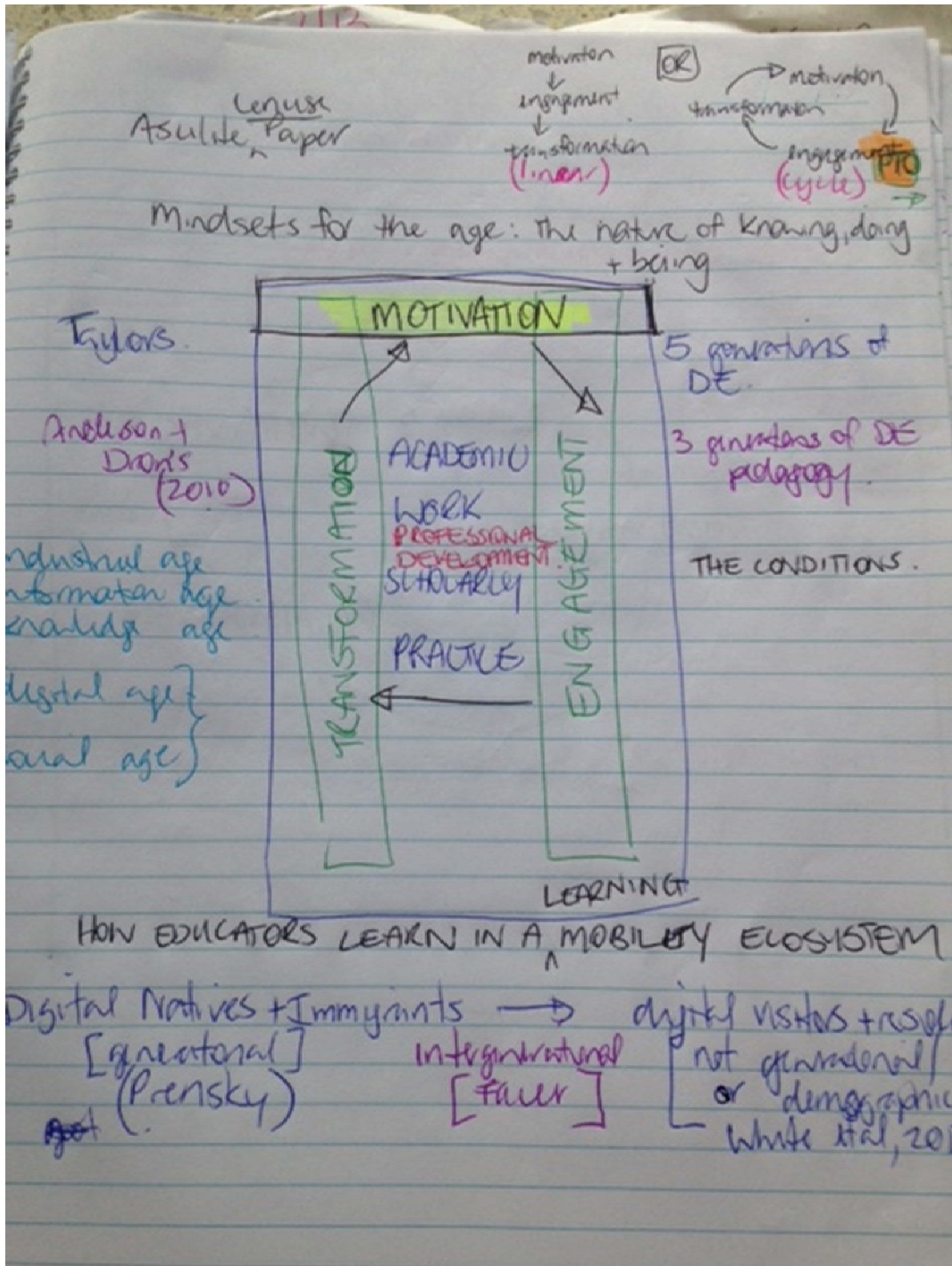
<p>Personal qualities</p> <p><i>Learning mobility theme</i></p>	<p>Personal change [Q8 - PIQ]</p>	<p>(a) You are a certain kind of person, and there is not much that can be done to really change that <input type="checkbox"/> Mostly agree [FIXED] <input type="checkbox"/> mostly disagree [GROWTH]</p> <p>(b) no matter what kind of person you are, you can always change substantially <input type="checkbox"/> Mostly agree [GROWTH] <input type="checkbox"/> mostly disagree [FIXED]</p> <p>(c) you can always change basic things about the kind of person you are <input type="checkbox"/> Mostly agree [GROWTH] <input type="checkbox"/> mostly disagree [FIXED]</p> <p>(d) you can do things differently, but the important parts of who you are can't really be change <input type="checkbox"/> Mostly agree [FIXED] <input type="checkbox"/> mostly disagree [GROWTH]</p> <p><i>questions (a) and (d) are fixed-mindset Questions (b) and (c) are the growth mindset. You can be a mixture but most people lean towards one or the other (Dweck, 2006)</i></p> <p><i>Key</i> if 4 out of 4 responses are growth = growth mindset if 3 out of 4 responses are growth = growth mindset if 2 out of 4 are growth = mixed mindset if 1 out of 4 are growth = fixed mindset</p>
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Appendix F: Mind maps

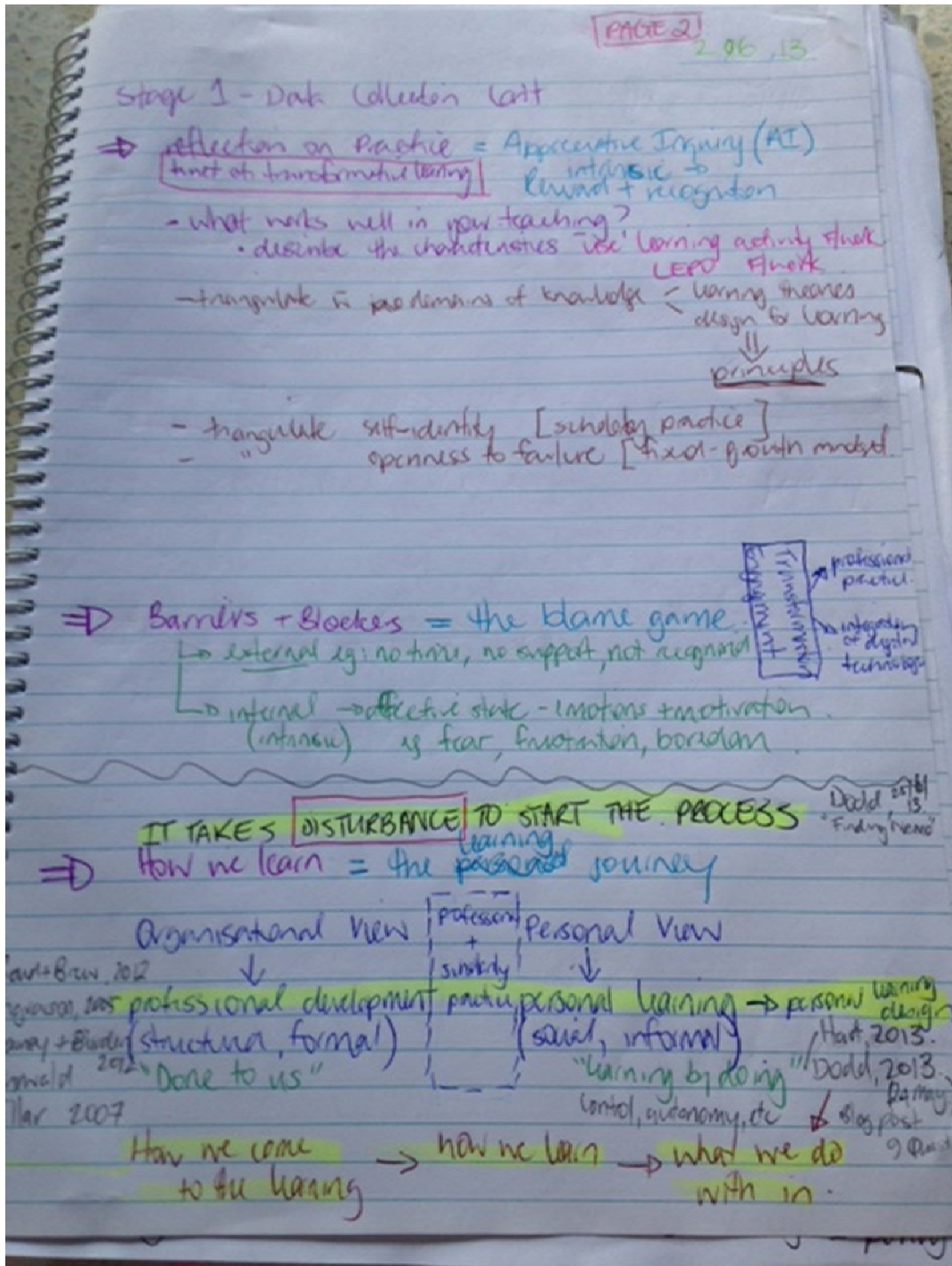
Examples of the researcher's mind maps documenting her reflections and observations during the literature review and during the iterative phases of data collection and data analysis



Mind map 1: Early phase understanding of the theoretical elements of educators' learning ecology as part of the literature review development



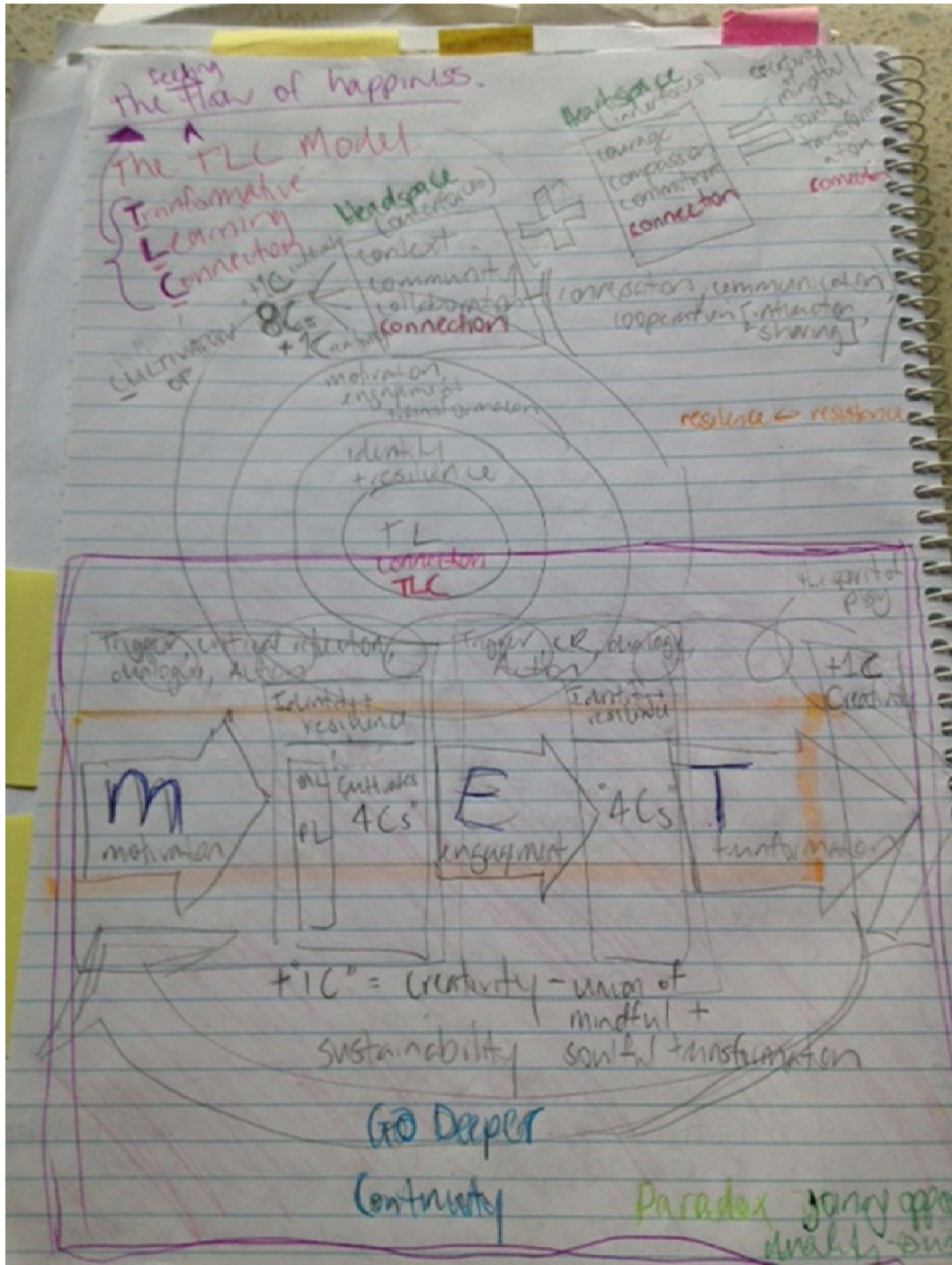
Mind map 2: Early phase theoretical conditions of how educators learn as part of the literature review development



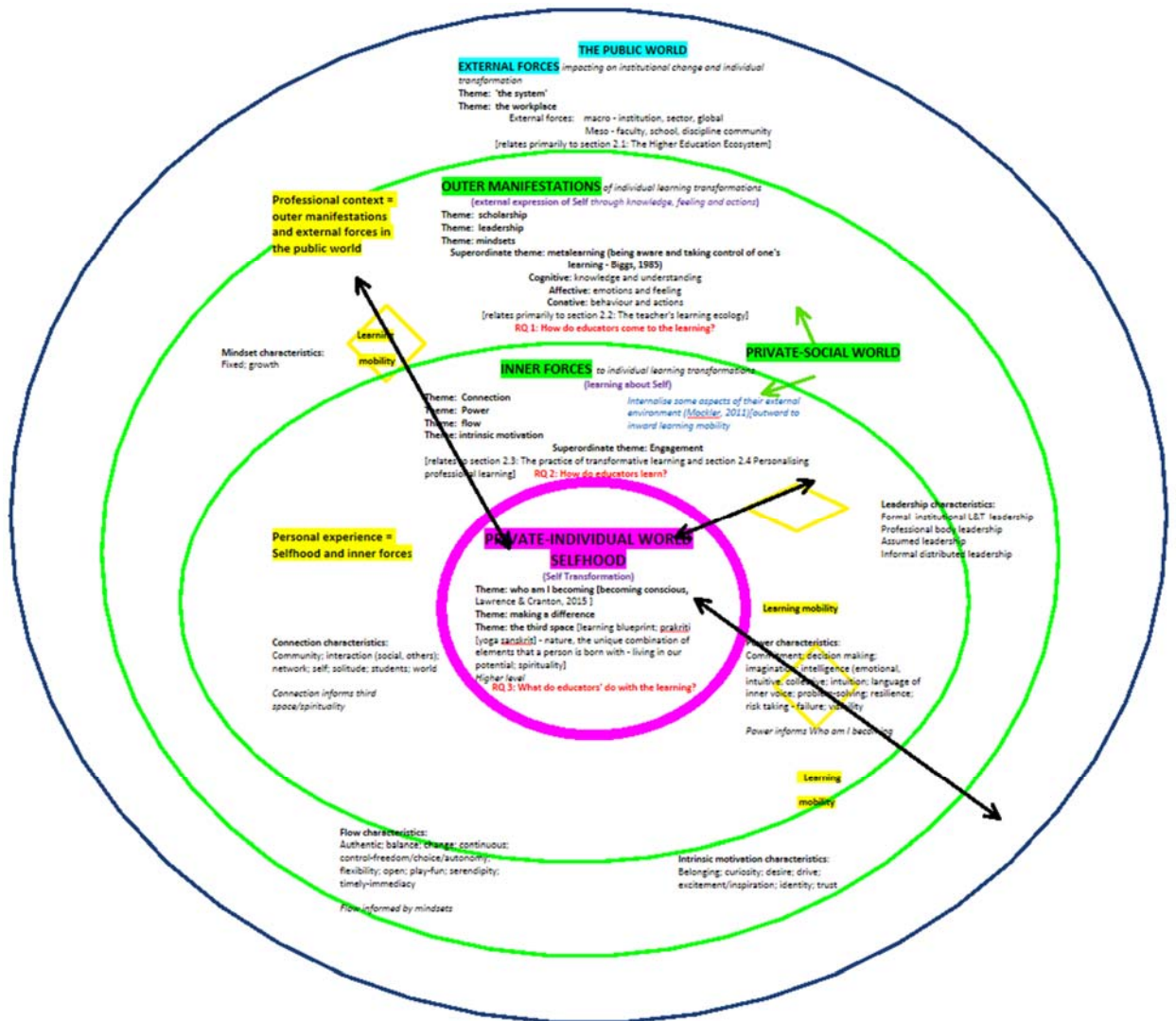
Mind map 3: Early phase research design relating to the research questions



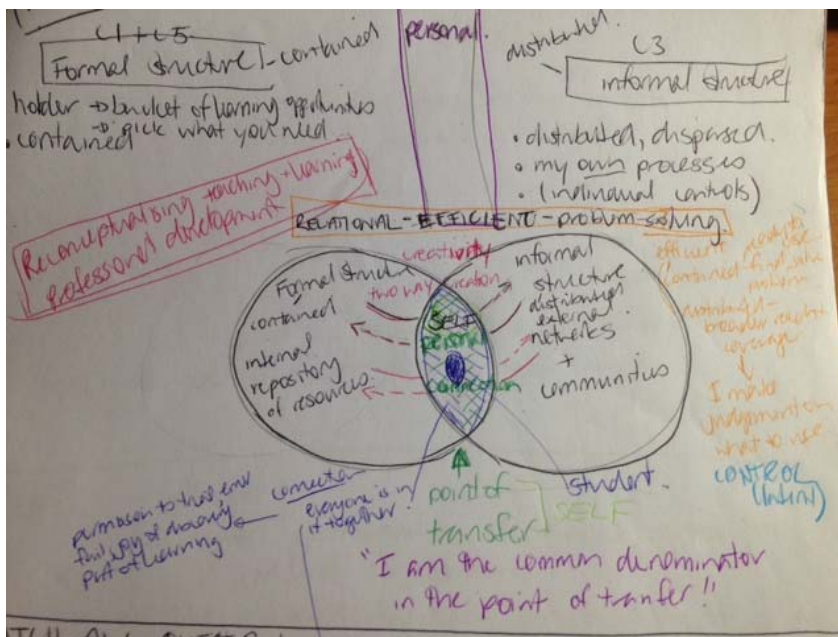
Mind map 4: Early phase patterns (themes) from the interviews, with possible connection point to the theoretical concepts from the literature



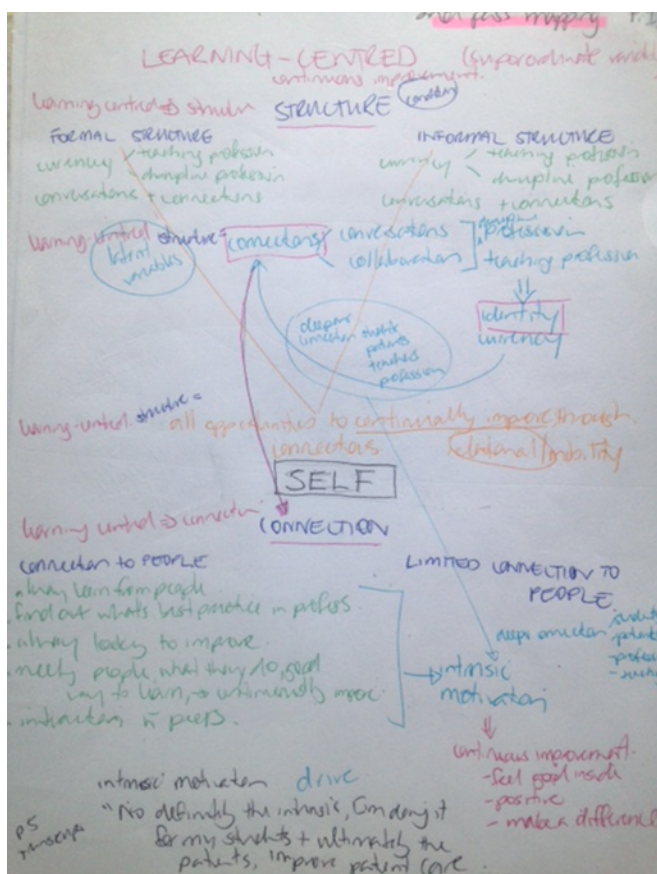
Mind map 5: Theme development from the interviews, connection points to theoretical concepts from the literature, and early phase model building



Mind map 6: Early phase model building



Mind map 7: Patterns informing theme development from an interview with a research participant



Mind map 8: Iterative pattern and theme development from an interview with a research participant

Appendix G: Theme Development: Four Phases of Design

Design themes across the four phases of design-based research

Summary of themes

Phase 1: Designing for Understanding

Data collection method: Pre-interview questionnaire

Themes: Professional practice, learning mobility

Theme	Qualitative categories	Characteristics
Professional practice	Scholarly activities	Learning and teaching in higher education Innovative pedagogical practices Scholarly leadership
Learning mobility	Personal qualities (inner belief system)	Learning literacy Personal change

Explanatory Note: Phase 2, 3 and 4

Below are the personal constructs elicited from the structured interview to inform Phases 2, 3, and 4. As part of the analytical process of thematic analysis each phase identified themes. Theme development (reviewing, defining and naming themes) involved taking a systematic approach with a focus on the features and patterns in the data (personal constructs and the research participants' rich descriptions that characterised their personal constructs) and across the entire data set, and then collating data relevant to each code. The codes are the numbers in brackets within the table below. For example the codes *less structured (1.1)* and *more structured (1.1)* represents research participant 1's (P1) first emergent and pole construct (hence code 1.1) (see Section 3.2.4).

Where more than one code is given in brackets for that personal construct it means that personal construct was elicited from more than one research participant. For example the informal-informal personal construct was elicited from 10 research participants. Research participant 3 (P3) offered it as their first personal construct (hence code 3.1); research participant 4 (P4) offered it as their third personal construct (hence code 4.3), and research participant 6 (P6) offered it as their fifth personal construct (hence code 6.5).

Phase 2: Designing for Engagement

Data collection method: Structured interview

Themes: Structure, control, personalised

Theme: Structure	
Less structured (1.1) Informal (3.1; 4.3; 5.1; 6.5; 7.3; 10.4; 11.1; 12.1; 14.4; 24.1) Unknown learning agenda (5.3) Flexible (1.5) Personal (2.1) Distributed (2.4) Unstructured (8.2) Unplanned, unguided interaction (9.1) Open (9.2) Reasonably flexible (10.6) Generalizable (11.2) Open (11.4) No organisation structure (12.2) No agenda (15.1) Transformative (15.2) Individual level (19.3)	More structured (1.1) Formal (3.1; 4.3; 5.1; 6.5; 7.3; 10.4; 11.1; 12.1; 14.4; 24.1) Specific learning agenda (5.3) Linear (1.5) Institutional (2.1) Contained (2.4) Contrived (8.2) Planned, guided interaction (9.1) Less open (9.2) Reasonable fixed (10.6) Professional (11.2) Structured (11.4) Organisation structure (12.2) Other's agenda (15.1) Transactional (15.2) Institutional level (19.3)
Theme: Control	
<i>Learner control</i> More control (1.2) Self-paced (3.3) Bottom-up (2.2; 6.2) Not institutional driven (5.4) My choice (7.1) Exploration - I'm driving, my own (7.5) Individual led (7.6) My input in creation (9.3) I develop (10.1) Focussed perspective (11.5) Control (12.4) Autonomy (14.3) I seek information (16.1) Freedom (18.3) Self-contained learning [19.1] Network facilitated (23.1)	<i>Institutional control</i> Less control (1.2) Community based (3.3) Top-down (2.2; 6.2) Institutional driven (5.4) Scheduled (7.1) Exploration - developed and structured (7.5) Institutional led (7.6) No input in creation (9.3) Others develop (10.1) Broader perspective (11.5) No control (12.4) Plurality (14.3) Information offered to me (16.1) Mandated (18.3) Pre-determined learning [19.1] Institutional facilitated (23.1)
Theme: Personalised	
Personal (3.4) People (4.2) Fun - greater change (10.2) Individual (11.3) Personal (12.5) Personal learning (14.1) Fun (17.1) Personalised agenda (18.4)	Non-personal (3.4) Topic (4.2) Fun - lesser change (10.2) Team (11.3) Impersonal (12.5) Institutional learning (14.1) Constrained (17.1) Institutional agenda (18.4)

My personal needs (23.2) Individual learning (23.3) Personal (23.4)	All educators needs (23.2) Group learning (23.3) Impersonal (23.4)
Latent Theme: Intrinsic motivation	
Intrinsic & immediate interests and situation [informal] (13.1) Intrinsic motivation (18.1)	General interest and situation [formal] (13.1) Extrinsic motivation (18.1)

Phase 3: Designing for Change

Data collection method: Structured interview

Themes: Flow, power, connection

Theme: Power	
Synergies of opportunities (5.2) <i>[projecting the change inward]</i> Intuitive (6.4) Self-regulation (18.2) Me (8.3)	Opportunity to influence (5.2) <i>[projecting the change outwards]</i> Hidden accessibility (6.4) Others regulation (18.2) Them (8.3)
Theme: Flow	
Immediacy (6.1) Timely (7.2) Immediacy to teaching (12.3) Just-in-time (13.2) Fluid/emergent learning (14.2) Dynamic (16.2) Serendipity (22.1) Wide flow of information (24.2) Process (24.3)	Aligned with academic calendar (6.1) Not time relevant (7.2) Distance from immediacy to teaching (12.3) Just-in-case (13.2) Largely pre-programmed (14.2) Static (16.2) Structured (22.1) Narrow flow of information (24.2) Product (24.3)
Theme: Connection	
Individual outcome (1.3) Individual collaboration (1.4) Group (2.3) Connection with people (3.2) Connection creates engagement (4.1) Two-way interaction (9.4) [See 15.3] Inspiring models of practice [change] (10.3) Social learning (13.3) Two-way (15.3) Social aspect of learning (16.4) People (22.3)	Community outcome (1.3) Shared collaboration (1.4) Independent (2.3) Limited connection with people (3.2) Don't require connection to engage (4.1) One-way interaction (9.4) [see 15.3] Uninspiring models of practice (10.3) Social facilitated learning (13.3) One-way (15.3) Impersonal aspects of learning (16.4) Materials (22.3)

Phase 4: Designing for Transformation

Data collection method: Structured interview

Themes: Self, identity, personal growth

Theme: Self	
<i>Inward</i> Self-agenda (6.3) Sense making: on my own (7.4) Self-directed discovery: Connection to self (16.3) Inside-out learning (19.2)	<i>Outward</i> Self-purpose with institution (6.3) Sense making: interaction with people (7.4) Interactive discovery: Connection to others (16.3) Outside-in learning (19.2)
Theme: Identity	
My voice (4.5) Me (8.3) Professional identity – career (8.4) Reflect - high ability [change] (10.5) Conscious raising reflection (15.4)	No voice (4.5) Them (8.3) Institutional-job/professional identity-career (8.4) Reflect - low ability [change] (10.5) No reflection (15.4)
Theme: Personal growth	
Knowledge and skill development (4.4) Conscious raising reflection (15.4) Personal growth (22.2)	Process development (4.4) No reflection (15.4) Ongoing growth (22.2)
Latent theme: Perspective transformations	

Appendix H: Interview Transcript Excerpt

An interview transcript excerpt demonstrating the researcher’s reflective questioning and active listening skills to paraphrase and synthesis the rich narrative descriptions underpinning the research participant’s (P14) emerging personal constructs. Paraphrasing enabled the researcher to check for understanding of the research participant’s views of self. This conversational space enabled a systemic, unbiased (without researcher interference) approach to identify characteristics and patterns to develop themes.

Transcript excerpt	Theme development
<p>P14 transcript eliciting the personal construct of ‘autonomy’ that informed the theme development</p> <p>A = Answer from participant Q = Question from the researcher</p>	
<p>A: I would say autonomy.</p> <p>Q: Autonomy?</p> <p>A: That you can make choices.</p> <p>Q: So for you, in the ways that you learn, does autonomy motivate you to engage in your own learning, and if so is it important to-?</p> <p>A: To a large extent, yes.</p> <p>Q: And why does autonomy motivate you?</p> <p>A: I think it’s just more that I can direct what I’m engaged in to my own immediate needs, desires, necessities at that point.</p> <p>Q: Does autonomy help you with-?</p> <p>A: Intrinsic motivation.</p> <p>Q: Tell me a little bit more about intrinsic motivation for you. Do you consider yourself as having intrinsic motivation for your work and if so, what drives that?</p> <p>A: I would say that yes, I definitely do have intrinsic motivation for my work. And I guess I’m not real clear what really drives it other than the fact that I just have always found it personally satisfying. Maybe it happens to fit in some ways or matches my natural talents whatever they may happen to be.</p> <p>Q: Okay. So tell me a little bit about how it is you understand the relationship between autonomy, where you can direct what you need and time [to participate in professional learning within your role].</p> <p>A: That’s a very relevant one, a very interesting one. One of the things that there is always the issue of having to try to balance time obviously, but one of the things I guess I would do is sometimes I find I just have to, given the luxuries of my job I sort of set priorities and ignore certain things</p> <p>Q: are you more motivated to learn if the circumstances lend themselves to be informal in nature or more formal in nature?</p> <p>A: Well in any particular instance it may vary but I would say that the majority of the time I would go to the informal</p> <p>Q: Because? A: Because I can be driven much more by my own intrinsic interest</p>	<p>control</p> <p>control power</p> <p>control power</p> <p>motivation</p> <p>power control motivation</p> <p>structure</p> <p>learning context</p> <p>power control</p> <p>motivation</p>

Appendix I: Theme Development: Coding Interview Transcripts

Screenshots taken from the NVivo qualitative data analysis tool capturing the researcher's work in coding the participant's descriptive narratives (as part of the personal construct elicitation process of the structured interview) to identify characteristics and patterns to develop themes. The screenshots are from P1 and P5s' interview transcripts.

The screenshot displays the NVivo interface. On the left, a window titled 'P1' shows a transcript with the following text:

Q: Yeah, and if there's another personal construct in which two of them share a similarity in a characteristic, but are different to a third.

A: Yeah, I guess this is about **ownership** of the knowledge, and I think the difference here is that I'd see a greater sense of ownership of the knowledge where the knowledge in these is a function of predetermined curricula, or the knowledge is a function of the knowledge of the individuals within the team. Whereas I'm essentially the one generating the knowledge without those supporting **structures** and supporting networks. So there's collaboration in both of these.

Q: Okay, so, is the personal construct then around collaboration where card 4 and 5 have a shared collaboration, and card - so, card 5 and 6 have a shared collaboration, and card 4 is it a personally driven?

A: Yeah, yeah because this is essentially **closely aligned with lifelong learning and personal responsibility for learning**, where in these examples there's usually some prerequisites or predetermined structure and purpose. The other thing about this is this tends to be much more **spontaneous** than these. This is **just in time learning** [self-directed], this is I need an answer right now [immediacy].

On the right, a 'Coding Density' chart shows various themes represented by colored bars. The themes and their corresponding colors are:

- decision making (orange)
- mindfulness awareness (yellow)
- workplace (grey)
- Structured-formal (light blue)
- personal blueprint-who am I becoming (purple)
- community (green)
- interaction (social others) (dark blue)
- discovery (light green)
- serendipity-surprise (yellow-green)
- relational nature (light blue)
- leadership (green)
- transformative (light blue)
- structure-informal (light blue)
- control (purple)
- meaningful (light blue)
- structure-formal (red)
- self (purple)

characteristic of being informal and this one is structured yeah?

A: Mmm hmm.

Q: And why is it important to you to have a way of learning that's informal?

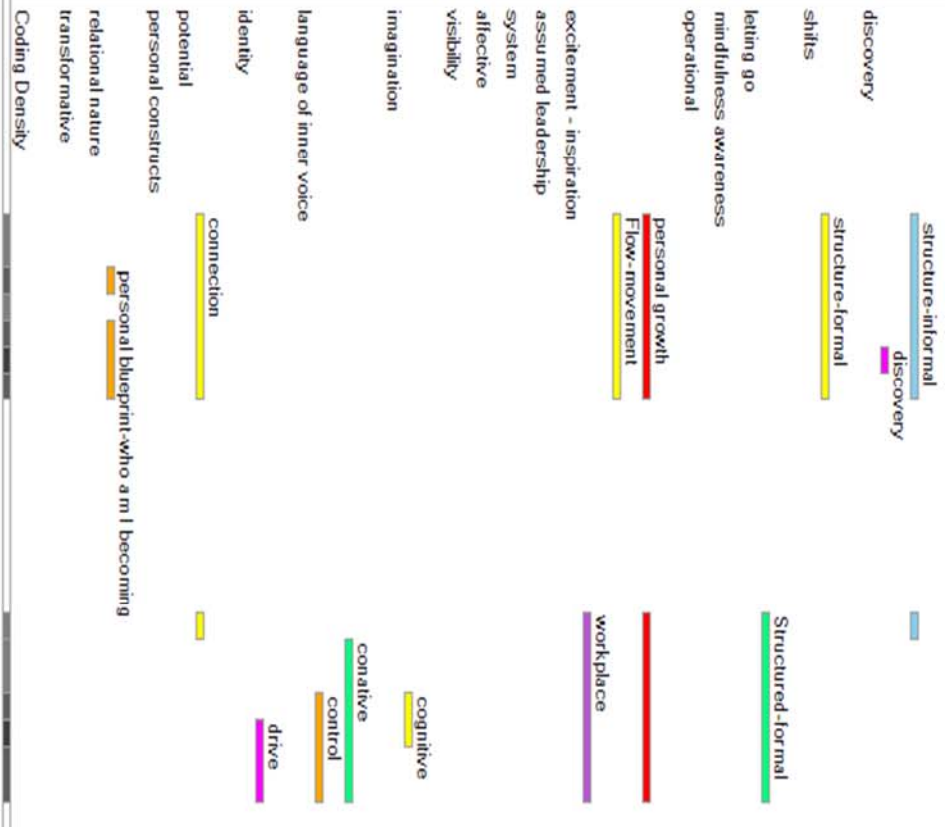
A: Because I think it's an [MM informal learning - C2 & C3] opportunity to have the conversations around maybe more formal learnings and to be able to translation, so it's that translation of that learning, so to be able to have and to have those conversations [connection > interaction] with others probably for the purpose of maybe validation or for interrogating ideas and exploring potential applications [personal growth > validation > application; flow > authenticity.

Q: So validating, exploring ideas-

A: For application.

Q: Okay. Alright and then so this one is structured, so when you say structured in what ways would that be different for informal learning?

A: This one I think probably there's, this one's more purposeful [MM structured C1], so if you're going to a workshop, you're going to a seminar, you're doing a course it's about something and you'd probably, I'd go and do it because I feel like I need, [learner control] I've got a gap there or I'm really interested or there's some driver for me to do it which maybe about [personalised] personal professional development or interest or it may be a required thing [workplace > external world].



Appendix J: The Cyclic Nature of the Structured Interviews

The interviews were a demonstration of the cyclic nature of data collection, where surfacing trends and patterns in earlier interviews was tested for within the latter interviews. Note: Participants were coded P1-P25 as a representation of the chronological sequence of interviews, that is, P1 was interviewed first and P25 was interviewed last, and all 12 participants in Australia were interviewed prior to the 13 participants from the United States of America. However, the table below groups participants by scholarly communities to represent the cyclical nature of the generation of themes and patterns; and to collectively ensure that the sample of participants were from a variety of disciplines, and cross-institutional.

Scholarly community	Participant	Country
Adult Education	P9	Australia
Adult Education	P13	United States of America
Adult Education	P15	United States of America
Adult Education	P18	United States of America
Adult Education	P19	United States of America
Adult Education	P20	United States of America
Adult Education	P21	United States of America
Allied health	P2	Australia
Allied health	P5	Australia
Allied health	P6	Australia
Allied health	P7	Australia
Allied health	P8	Australia
Allied health	P25	United States of America
Business & Management	P11	Australia
Business & Management	P12	Australia
Business & Management	P14	United States of America
Business & Management	P17	United States of America
Business & Management	P22	United States of America
Business & Management	P23	United States of America
Business & Management	P24	United States of America
Medical	P1	Australia
Medical	P3	Australia
Medical	P4	Australia
Science	P10	Australia
Science	P16	United States of America

