TEACHER SELF-EFFICACY AND PRACTICE: A CASE STUDY OF EIGHT SOUTH AUSTRALIAN RECEPTION TEACHERS

by

SUSAN RAYMOND

Bachelor of Early Childhood Education

Master of Gifted Education

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Glossary

The following key terms are used throughout the thesis and are defined below:

1. *Association of Independent Schools of South Australia (AISSA):* A peak body for the Independent schooling sector of South Australia.
2. *Australian Curriculum, Assessment and Reporting Authority (ACARA):* An independent statutory authority responsible for the development of the national curriculum, the national assessment program, and the national data collection and reporting program.
3. *Australian Curriculum (AC):* A curriculum document for foundation (reception) to year 10.
4. *Australian Human Rights Commission (AHRC):* A national human rights institution.
5. *Australian Institute for Teaching and School Leadership (AITSL):* Provides national leadership for the Commonwealth, state and territory governments regarding the profession of teaching and school leadership.
6. *Australian Professional Standards for Teachers (APST):* Statements of teacher quality defined by AITSL.
7. *Catholic Education South Australia (CESA):* Governs Catholic schools in South Australia.
8. *Council of Australian Governments (COAG):* An intergovernmental forum comprising the federal government, the state and territory governments and the Australian Local Government Association.
9. *COVID-19:* A form of coronavirus that causes respiratory infections. The World Health Organisation declared the COVID-19 outbreak a pandemic in March 2020.
10. *Department for Education (DfE) of South Australia:* Provides a range of services that support children and young people.
11. *Department for Education and Child Development (DECD):* Formerly the Department for Education in South Australia. Now known as the Department for Education (DfE).
12. *Department for Education and Children's Services (DECS):* Formerly the Department for Education in South Australia. Now known as the Department for Education (DfE).

13. *Department of Education, Employment and Workplace Relations (DEEWR):* A department of the Government of Australia responsible for education, employment and workplace relations.
14. *Early Childhood Australia (ECA):* A national early childhood advocacy organisation.
15. *Early Childhood:* The period of a child's life from birth to 8 years.
16. *Early Years Learning Framework (EYLF):* 'A framework to extend and enrich children's learning from birth to five years and through the transition to school' (DEEWR 2009, p. 5). The EYLF is 'a framework which provides general goals or outcomes for children's learning and how they might be attained. It also provides a scaffold to assist early childhood settings to develop their own, more detailed curriculum' (DEEWR 2009, p. 46).
17. *Index of Community Socio-Educational Advantage (ICSEA):* A national scale that represents levels of educational advantage (ACARA 2012).
18. *Ministerial Council on Education, Employment, Training and Youth Affairs (MCEETYA):* A body of state, territory, Commonwealth and New Zealand Ministers with responsibility for the portfolios of education, employment, training and youth affairs.
19. *National Assessment Program - Literacy and Numeracy (NAPLAN):* A series of tests focused on literacy and numeracy skills that are administered annually to Australian children and young people in Years 3,5,7, and 9.
20. *Organisation for Economic Co-operation and Development (OECD):* An intergovernmental economic organisation of 36 countries to stimulate economic progress and world trade.
21. *Pedagogy:* 'what practitioners actually do and think and the principles, theories, perceptions and challenges that inform and shape it' (Moyles ed. 2010, p. 7).
22. *Practice:* The interpretive, pedagogical, discursive, relational and institutional work of the teacher (Comber 2006).
23. *Preschool:* Also known as kindergarten for the non-compulsory education of children aged 3 to 5 years.
24. *Primary School:* Formal and compulsory schooling from reception to year 7 (children aged 4 to 12 years).
25. *Private School:* An independent school overseen by a board of governors or trustees.

26. *Public School:* Schools governed by the Department for Education (DfE).
27. *Reception:* Also known as foundation. First year of formal schooling, for children aged 4 to 6 years.
28. *Self-Efficacy:* the 'beliefs in one's capabilities to organise and execute the courses of action required to produce given attainments' (Bandura 1997, p. 3).
29. *Teacher Education Ministerial Advisory Group (TEMAG):* Advises the Australian Government on initial teacher education provider programs.
30. *Teacher Self-Efficacy (TSE):* teachers' 'beliefs in their abilities to support learning in various task and context-specific cognitive, metacognitive, affective and social ways' (Wyatt 2010, p. 603).
31. *Teachers Registration Board of South Australia (TRB of SA):* Regulates the teaching profession in South Australia.
32. *Teaching for Effective Learning (TfEL):* Describes the Department for Education's position on teaching and learning practices for public schools in South Australia (Department for Education and Children's Services (DECS) 2010).
33. *United Nations (UN) Convention on the Rights of the Child:* A legally binding international agreement on the civil, political, economic, social and cultural rights of children.

Abstract

This research explored the teacher self-efficacy (TSE) beliefs of eight reception teachers in metropolitan Adelaide, South Australia. Reception, the first year of primary school and mid-point of early childhood education (birth to eight years), involves teachers supporting children's transition from prior-to-school contexts to primary school, while navigating complex early years educational policies and practices. This thesis argues that examining the TSE of reception teachers is necessary, given evidence that TSE influences children's achievement, motivation and development of self-efficacy, teacher wellbeing and job satisfaction. Thus, this study contributes to the limited early childhood TSE research field, particularly reception teacher self-efficacy.

To advance TSE research that has predominantly applied quantitative methodology, a qualitative interpretive multiple case study design was applied, capturing reception teacher voice over a ten-month period, to examine their TSE, sources of their beliefs and influence on practice. The study was underpinned by Social Cognitive and Ecological theories, through the conceptual framework of the adapted Integration and Evaluation of Efficacy Information model (Morris, Usher & Chen 2017). A four-phase research process involved semi-structured interviews, observation of practice, video elicitation using think aloud-strategies, participant reflections and completion of the Teachers' Sense of Efficacy Scale (TSES) (Tschannen-Moran & Woolfolk Hoy 2001). Positioned as a partial insider, the researcher drew upon lived experience as a reception teacher and school leader, to contextualise interpretations of the relationship between the participants' TSE and practice.

Findings demonstrated that participants' scoring of the quantitative scale and qualitative descriptions of their TSE did not always align, illustrating importance of this study's qualitative methodology. Qualitative analysis revealed ecological influences including chronosystem life experiences and critical moments on TSE formation as teachers interacted with different systems across their life-course. Analysis of the four sources of TSE guided development of individual source profiles, revealing the significance of and relationship between the four sources, particularly social sources of verbal persuasion and vicarious experience, on TSE development. In examining the interplay of TSE and practice, ecological system factors emerged as potential sources of teacher knowledge and in turn, TSE. Whilst the teachers engaged in different types of practice; specifically interpretive, pedagogical, discursive and institutional work (Comber 2006),

evidence of TSE as a central mechanism of agency was reflected in descriptions of pushing-back, conforming or avoiding practices for which they perceived they had lower TSE. Thus, TSE and agency emerged as interrelated constructs influencing participants' navigation of ecological influences within their practice.

Key ideas emerging from this study and areas for further qualitative research include: the notion of TSE as a malleable construct over time; the ecological influences in the formation of TSE; designing classroom microsystems for continued TSE development; and importance of leaders in navigating ecological influences that enable TSE development and practice. The study proposed an *Ecological Framework for Teacher Self-Efficacy Development* situating TSE formation and continued development within an enabling ecological system. Given teachers with high TSE have positive influences on children, further qualitative research exploring life-course ecological influences on TSE is critical to long-term learning outcomes and wellbeing of children.

Declaration

I declare that:

this thesis presents work carried out by myself and does not incorporate without acknowledgement any material previously submitted for a degree or diploma in any university; to the best of my knowledge it does not contain any materials previously published or written by another person except where due reference is made in the text; and all substantive contributions by others to the work presented, including jointly authored publications, is clearly acknowledged.

Susan Raymond **2nd May 2020**

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Chapter 1: Thesis Introduction

After having worked in the field of education for many years, one of the most joyous times was working with young children in their first year of primary school or reception, as it is known in South Australia. Working with young children is deeply engrained in the fabric of who I am. I am a teacher and importantly, an early childhood teacher. However, as I look back on my career, I also remember the responsibilities and challenges that I faced in my work and the efficacy that I sought amid the various requirements, constraints and tensions of my context. As an early childhood teacher, the core of my beliefs centred on the children. I saw my role as nurturing the innate curiosity, competency and wonder of the child. Teaching young children in the first year of school was a great privilege. I shared the children's fun in learning to read and their excitement in making new friends. The transition to school was important to families and carers and I am proud to have played a small role in providing a positive foundation for their child's learning.

However, in the school context, the broader educational priorities became increasingly centred around academic testing, standardisation, benchmarks and academic outcomes. I found it problematic at times to adhere to some of the expectations of my school context. I felt required to let go of some of my core beliefs, including child centred philosophical and theoretical foundations underpinning my early childhood teacher training. This made me begin to question my role and efficacy as a reception teacher. The difficulties that I faced were not unique and I continued to see similar challenges in the work of my colleagues. In later years I became an early childhood school leader and observed the varied TSE of my staff and the differentiated influence this had on their practice.

In some respects, the challenges have increased, given the intensification and narrowing of the Australian policy agenda on standardisation and performativity. Amidst the changing early childhood educational policy landscape, the young child's enthusiasm and pleasure for learning continues to motivate me today as I work with preservice teachers. This study was borne out of my passion for working with young children and aims to highlight the self-efficacy that reception teachers draw upon as they engage in their work within the complex ecology of the Australian educational context.

1.1 Introduction

This chapter introduces the thesis, outlining the research questions and rationale for the study within the current educational context. An overview is provided of the theoretical underpinnings and research design, which was framed by the researcher's experience and understanding of the central role that reception teachers play in the education of young children.

Early childhood education is consistently purported to provide the critical foundation for the positive long-term health, wellbeing, learning and economic outcomes for children and young people (Arthur, Beecher, Death, Dockett & Farmer 2018; Barnett & Frede 2010; Carter 2018; Conti & Heckman 2013; Jones, Greenberg & Crowley 2015; Shonkoff, Boyce & McEwen 2009; eds Shonkoff & Phillips 2000). The first year of primary school, known as reception in South Australia, is considered the mid-point of early childhood education (birth to eight years) and reception teachers are responsible for facilitating the transition of four and five-year-old children from prior-to-school contexts to the early years of primary school.

As evidenced by the opening vignette, the researcher was positioned as a partial insider (Chavez 2008; Merriam, Johnson-Bailey, Lee, Kee, Ntseane & Muhamad 2001) to provide an informed interpretation of the complexities that reception teachers face within the classroom, local school community context and broader educational context. Teacher self-efficacy (TSE), or teachers' beliefs about their capabilities, is an important construct with significant explanatory potential in understanding how reception teachers negotiate the complexity of their work within an integrated and connected educational context.

Despite TSE being consistently associated with the quality of classroom instruction, teacher effort, goal setting, persistence and resilience (Bandura 1997; Tschannen-Moran & Woolfolk Hoy 2001; Tschannen-Moran, Woolfolk Hoy & Hoy 1998), TSE research within the early childhood education field is reported to be limited (Bullock, Coplan & Bosacki 2015; Guo, Justice, Sawyer & Tompkins 2011; Kim & Kim 2010; Klassen, Tze, Betts & Gordon 2011). Therefore, to investigate reception teachers' self-efficacy and practice, the following research questions have been posed:

a) What are the TSE beliefs of reception teachers?
b) What sources influence the TSE beliefs of reception teachers?

c) What is the relationship between the TSE beliefs of reception teachers and their practice?

To investigate these questions, a qualitative interpretive multiple case study design was utilised to explore the TSE beliefs of eight reception teachers in metropolitan Adelaide, South Australia. Whilst there has been a predominance of quantitative TSE studies (Glackin & Hohenstein 2018; Klassen et al. 2011; Morris, Usher & Chen 2017; Wheatley 2005; Wyatt 2014; 2018), this study elicited the reception teachers' voice through diverse forms of qualitative data collection methods. These methods sought to examine the TSE beliefs of the reception teachers, the sources of their beliefs, and specifically, the role of their lived experience in how their TSE beliefs formed and continued to develop and influence their practice. A four-phase approach to data collection over a ten-month period utilised diverse forms of data collection to enable triangulation (Glackin & Hohenstein 2018) and develop the trustworthiness of the findings (Guba & Lincoln 2005; Lincoln & Guba 1985). Data collection included three semi-structured interviews, observation of classroom practice, video elicitation using play-back and think-aloud strategies, participant reflection and completion of a teacher self-efficacy scale.

This study combined Social Cognitive Theory (Bandura 1997) from the field of psychology with Ecological Theory (Bronfenbrenner 1979; 2005) as its theoretical underpinnings to inform understandings of the role of TSE on the practice of reception teachers within their individual schooling contexts. An adaption of the Integration and Evaluation of Efficacy Information model (Morris, Usher & Chen 2017) provided the conceptual framework for the study. The conceptual framework drew upon the Triadic Reciprocal Causation model (Bandura 1997) and the Bioecological Systems model (Bronfenbrenner 1979; 2005), to guide the methodology of the study and inform the critical analysis and development of the findings. In bringing together these theories and models from different fields, this study has addressed callings regarding the diversity of research methodologies within the TSE research field (Bong 2006; Chang & Engelhard Jr 2016; Chen & Usher 2013; Klassen et al. 2011; Morris, Usher & Chen 2017; Wheatley 2005; Wyatt 2012), and enabled the examination of factors across multiple ecological systems in exploring the relationship between TSE and practice.

Whilst the findings were informed by the theoretical and conceptual frames, the interpretivist paradigm enabled the analysis to also be informed by the researcher's own knowledge and experience of the reception context. Thus, the partial insider positioning of the researcher (Chavez 2008; Merriam et al. 2001) facilitated deep exploration of reception teacher self-efficacy and influence on practice. In examining the relationship between TSE and practice, the interpretivist paradigm and partial insider positioning of the researcher (Chavez 2008; Merriam et al. 2001) enabled the development of thick and rich descriptions (Merriam et al. 2001) of how the reception teachers enacted the analytical and diagnostic work required in making decisions about their practice in maximising children's learning.

This study drew upon the TSE literature in the analysis and subsequent development of the findings. Despite the predominance of quantitative studies within the TSE research field (Klassen & Usher 2010; Tschannen-Moran & Woolfolk Hoy 2001; Wyatt 2014), these studies have significantly contributed to the evidence regarding the importance of TSE to teachers' work. Thus, the analysis in the present study drew upon the extensive body of literature to reveal new perspectives regarding the formation and development of the participants' TSE beliefs, the sources that influenced their TSE, and the relationship between their TSE and practice. These findings contribute to TSE research within the early childhood education field, providing implications for teachers, educational leaders and policy makers to develop ways to support and continue to develop TSE. Therefore, the current study has the potential to benefit the practice of teachers more widely and, in turn, positively influence the long-term educational outcomes for children.

1.2 Statement of the Problem

Whilst early childhood TSE research is reported to be limited (Bullock, Coplan & Bosacki 2015; Guo et al. 2011; Kim & Kim 2010; Klassen et al. 2011), studies have suggested an association between TSE and more developmentally appropriate practices of preschool and elementary school teachers (Cobanoglu, Capa-Aydin & Yildirim 2019; Gerde, Pierce, Kyungsook & Van Egeren 2018; McMullen 1999). More generally TSE has been reported as influencing teachers' willingness to try different teaching methods (Cantrell & Callaway 2008; eds Garvis & Pendergast 2016; Morris-Rothschild & Brassard 2006; Ross 1992; Wolters & Daugherty 2007), engage in high levels of planning (Allinder 1994; Chestnut & Burley 2015; Jerald 2007; Muijs & Reynolds 2002) and develop good subject knowledge

(Bautista & Boone 2017; Cantrell, Young & Moore 2003; Garvis & Pendergast 2011; Garvis & Tekin 2016; Muijs & Reynolds 2002; Riggs & Enochs 1990; Ross 1992). Given the positive affordances of TSE, the influence of TSE on the practice of reception teachers was the central focus of this thesis.

Arguably teachers are the most important factor influencing children's 'success, satisfaction and achievement' (McCallum, Price, Graham & Morrison 2017, p. 1). However, the work of the teacher has been reported to be complex, messy and uncertain (Helsing 2007; McDonald 1991; Toom, Pyhältö & O'Connell Rust 2015) as it necessitates balancing ecological influences including social interactions and relationships, person variables, context variables and the influence of changes to people and systems over time (Bronfenbrenner 2005). Consequently, it is important to consider how the TSE beliefs of reception teachers relates to their capacity to negotiate the various turns (Dahlberg, Moss & Pence 2013) that shape their work. TSE research has evidenced a strong association between TSE and persistence in the face of challenges (de Laat & Watters 1995) as well as teacher wellbeing and job satisfaction (Betoret 2006; Brouwers & Tomic 2000; Caprara, Barbaranelli, Borgogni & Steca 2003; Skaalvik & Skaalvik 2017; Zee & Koomen 2016). Therefore, this thesis aims to examine the significance of TSE in how reception teachers navigate the complexities of their practice within the ecology of the reception teaching context.

The literature is replete with assertions about the importance of early childhood education and, by extension, the critical work undertaken by early years teachers. A prominent theme developed in the literature is the role of early years education in providing the critical foundational skills for positive long-term health, wellbeing, learning and economic outcomes (Barnett & Frede 2010, Conti & Heckman 2013; Jones, Greenberg & Crowley 2015). Cognitive neuroscience and developmental psychology research have evidenced that cognitive processes mature quickly from birth to five years (Bingham & Whitebread 2012) and the context in which young children learn and develop 'holds the key to children's long-term success' (Page & Tayler 2016, p. 2). Early childhood education has attracted significant worldwide attention (Ebbeck & Waniganayake 2016), from global organisations such as the Organisation for Economic Cooperation and Development (OECD), the World Bank and The United Nations Educational, Scientific and Cultural Organisation (UNESCO), who acknowledge that early childhood is a critical time for children's learning (Arthur et al. 2018; Shonkoff, Boyce & McEwen 2009; eds Shonkoff & Phillips 2000) and also longer-term

benefits for society, particularly in enabling workforce participation and breaking cycles of disadvantage (Arthur et al. 2018; Ebbeck & Waniganayake 2016; Page & Tayler 2016). The reception year, at the intersection of the prior-to-school and school contexts, necessitates that reception teachers navigate practices of both sectors (Bingham & Whitebread 2012; Rinaldi 2013) and have a significant responsibility in providing continuity for children and families transitioning from prior-to-school to school contexts (Bingham & Whitebread 2012). The Australian Curriculum, Assessment and Reporting Authority (ACARA), responsible for the development of the national curriculum and assessment program, data collection and reporting, states that in the 'first year of school, students learn through teaching interactions with others, experimentation, practise and play' (2008), recognising the interconnectedness of learning within the reception classroom environment. Furthermore, ACARA (2008) states that 'learning in a classroom and belonging to a school community are key to the first year at school', emphasising the important role of the proximal relationship of the reception classroom within the school context and wider community.

The unique positioning and critical contribution of reception teachers means that TSE, defined here as 'the beliefs that teachers hold about their capabilities to carry out actions to support children's learning in various task and context-specific ways' (Wyatt 2010, p. 603), becomes a central construct in considering how reception teachers navigate their practice. Self-efficacy and by extension, TSE is considered an expectancy belief, rather than a measure of actual ability (Bandura 1997). The term 'TSE beliefs' has been used throughout this thesis to bring to the forefront TSE as an expectancy belief and a changeable or flexible construct. The beliefs that people hold about their capabilities are argued to influence the courses of action they take, their effort, perseverance, resilience and the potential to realise their accomplishments (Bandura 1997). Thus, given the importance of the role of the teacher within early childhood education, exploring the TSE and practice of reception teachers is critical in supporting the transition of young children to primary school.

1.3 Context of the Study

Given that reception teachers do not work in isolation, but within an integrated nested system (Bronfenbrenner 1979; 2005), it is important to provide an overview of the 'policy moment' (Sumsion, Lunn Brownlee, Ryan, Walsh, Farrell, Irvine, Mulhearn & Berthelsen 2015) that shaped the work of the participants in this study. At the time, The Melbourne Declaration on

Educational Goals for Young Australians (the Melbourne Declaration), ratified by state, territory and Commonwealth Education Ministers in 2008, was influential in shaping the purpose and value of education, outlined as follows:

> In the 21st century Australia's capacity to provide a high quality of life for all will depend on the ability to compete in the global economy on knowledge and innovation. Education equips young people with the knowledge, understanding, skills and values to take advantage of opportunity and to face the challenges of this era with confidence' (Ministerial Council of Education Employment Training and Youth Affairs (MCEETYA) 2008, p. 4).

The Melbourne Declaration (MCEETYA 2008) outlined two goals for education: 'Goal One: Australian schooling promotes equity and excellence; Goal Two: all young Australians become successful learners, confident and creative individuals and active and informed citizens' (MCEETYA 2008, p. 7). In December 2019, after a review of the Declaration, the Alice Springs (Mparntwe) Education Declaration was published with revised goals as follows:

> 'Goal one: The Australian education system promotes excellence and equity.
> Goal two: All young Australians become confident and creative individuals, successful lifelong learners and active and informed members of the community.' (Education Services Australia 2019, p. 4)

The revised goals suggest that education was seen as broader than the school and part of a connected ecological system and community working in partnership. This was further evidenced by the statement that: 'achieving these education goals is the responsibility of the Australian Governments and the education community in partnership with young Australians, their families and carers and the broader community' (Education Services 2019, p. 4). Whilst a critique of the goals was not within the scope of this thesis, it is important to note that the Melbourne Declaration (MCEETYA 2008) made no specific reference to young children in the early years of education nor what the two goals meant for early years teachers. However, the Alice Springs (Mparntwe) Education Declaration (Education Services Australia 2019) responded to increasing evidence of the importance of early years education, and hence elaborated on the goals, including specific reference to 'strengthening early childhood education' (p. 12) and the importance of 'building foundational skills through the primary school years' (p. 13).

The Melbourne Declaration (MCEETYA 2008) highlighted quality education as important in 'enabling children to make a successful transition to school, stay longer in school, continue to further education and participate fully in employment and community life as adults' (MCEETYA 2008, p. 11). This prompted Australia, in alignment with other OECD countries, to commit to the funding and development of policies to strengthen early childhood education, particularly to highlight the importance of early childhood in providing a foundation for development, life and learning (Arthur et al. 2018; Barnett & Frede 2010; Conti & Heckman 2013; Ebbeck & Waniganayake 2016; Jones, Greenberg & Crowley 2015; Page & Tayler 2016; Shonkoff, Boyce & McEwen 2009; eds Shonkoff & Phillips 2000). This commitment was evidenced by the Council of Australian Governments' (COAG 2019) development of The National Early Childhood Development Strategy: Investing in the Early Years, following the ratification of the 2008 Melbourne Declaration. This strategy set out 'to ensure that by 2020 all children have the best start in life to create a better future for themselves and for the nation' (COAG 2009, p. 4). The Alice Springs (Mparntwe) Education Declaration (Education Services Australia 2019) further strengthened COAG's (2009) strategy by detailing the government's commitment to 'working with all school sectors to ensure schools are responsive to students' developmental and learning needs in primary school to provide a strong foundation for continued learning success...' (Education Services Australia 2019, p. 13).

Since the Melbourne Declaration (MCEETYA 2008), policies have emphasised the need for quality teaching in enabling children to develop the skills, dispositions and outlooks for learning (Page & Tayler 2016). The term quality, however, has been argued to infer that there is an objective, scientific and universally understood truth that can be measured through prescribed outcomes (Dahlberg, Moss & Pence 2013). The quality teaching policy discourse continued in the Alice Springs (Mparntwe) Education Declaration (Education Services Australia 2019) which stated the government's commitment to 'supporting quality teaching and leadership' (p. 11). To further advance the quality teaching agenda and provide more consistency and standardisation across Australian education, MCEETYA (2009) through the Australian Institute of Teaching and School Leadership (AITSL) developed the Australian Professional Standards for Teachers (the Standards) (AITSL 2009). Practicing teachers were subsequently required to increase accountability through assessment and evidence of meeting these standards.

However, the need to further raise teacher quality resulted in the Teacher Education Ministerial Advisory Group (TEMAG) development of the Action Now: Classroom Ready Teachers policy (TEMAG 2014), linking the Standards to initial teacher education training. Whilst the aim was to improve teaching and, in turn, student outcomes (AITSL 2009) through the implementation of the Standards, it has been argued that a linear relationship between teacher quality and student outcomes was assumed (Cochran-Smith, Carney, Keefe, Burton, Chang, Fernandez, Miller, Sanchez & Barker 2018). TEMAG's (2014) policy outlined six key directions for initial teacher education providers and focused on 'student outcomes as the fundamental driver for teacher quality' (TEMAG 2014, p. v). Raising the quality of teacher education was a key direction of TEMAG's (2014) policy, which stated that 'action to improve the quality of teachers in Australian schools must begin when they are first prepared for the profession' (p. 8).

Given that TSE research has primarily focused on preservice teachers and early career stage teachers (Heisner & Lederberg 2011; Klassen et al. 2011; McMullen & Alat 2002; Vartuli 1999), the TSE construct is therefore, a key consideration, given the reported consistent relationship between TSE and student outcomes (Midley, Feldlaufer & Eccles 1989; Muijs & Reynolds 2002; Ross 1992; Schiefele & Schaffner 2015). Given the focus of this study is within the first year of primary school, it is important to understand the quality teaching policy discourse underpinning not only reception teacher's initial teacher education but also their in-service professional responsibilities.

These policy shifts brought about by the Melbourne Declaration (MCEETYA 2008), have led to critical discussion of what quality practice is, particularly in early childhood. Whilst the Standards provide detail regarding what teachers need to know about their practice, how the Standards have been interpreted and translated into practice by early childhood teachers is argued to be unclear (Connell 2009; Stolz 2017). At the core of TSE lies whether teachers believe they have the capability to enact the Standards or indeed believe in the value of the Standards. TSE is considered an expectancy belief (Bandura 1997) as it is through the beliefs that people hold regarding their capabilities, that they make judgements about their ability to carry out tasks or even undertake them in the first place (Eccles & Wigfield 2002). Therefore, TSE is a key construct in examining the reception teachers' thoughts, feelings, motivation and behaviours within their practice (Bandura 1989; 1997; 2001).

In making interpretations of what quality practice is, reception teachers may be guided by two curriculum documents: The Early Years Learning Framework (EYLF) (Department of Education, Employment and Workplace Relations (DEEWR) 2009) and the Australian Curriculum (AC) (ACARA 2008). The AC is a content framework for reception to year 10, whilst the EYLF is a pedagogical and content framework for children from birth to five years. Both documents overlap in the reception year and are further elaborated in Chapter Three. Whilst some scholars contend that curriculum and pedagogy policy differ in what is intended, taught, received and enacted (Ball, Maguire & Braun 2012; Davis 1996; Stolz 2017), this argument highlights the complexities that reception teachers face. The EYLF takes a clear pedagogical stance regarding how the outcomes of the framework should be enacted, whilst the AC provides the content and *what to teach,* with states and territories entrusted with providing pedagogical guidance informed by their local contexts. However, TSE has been associated with the use of a variety of teaching methods (Cantrell & Callaway 2008; Morris-Rothschild & Brassard 2006; Ross 1992; Wolters & Daugherty 2007; Zee & Koomen 2016), less reliance on curriculum to guide practice (de Laat & Watters 1995; Sandholtz & Ringstaff 2014; Tschannen-Moran, Woolfolk Hoy & Hoy 1998) and more child-centred pedagogies (Czerniak & Schriver 1994; de Laat & Watters 1995; Glackin 2016; Swars 2005). In developing insights into how reception teachers navigate the various policies and curriculum within the school context, TSE is again positioned as an important consideration.

Indeed, De Mesquita and Drake (1994) argue that educational policies can cause teachers to 'experience anxiety or stress affecting their performance' (p. 291) as they take on concerns about both the adequacy of the proposed reforms and their preparedness to implement innovations as expected. This argument was echoed by Wheatley (2015) in relation to the intensification of testing policies in the US and the increase of teacher stress levels and burnout. In this complex work of policy enactment, research into the role of TSE is critical to better understand how reception teachers navigate this part of their professional lives. Such research has the potential to not only inform how leaders, policy makers and reception teachers develop TSE and practice, but also affords the possibility of linking TSE to policy enactment in ways that better support the educational outcomes of young children.

1.4 Purpose of the Study

Whilst the goals of the Melbourne and Alice Springs (Mparntwe) Education Declaration (MCEETYA 2008; Education Services Australia 2019) and the development of the Standards (AITSL 2009), have provided Australia with an opportunity to look carefully at education and the important role of the teacher, the potential impact of the policy context on TSE and practice has been reported to have received limited attention within the field of TSE research (eds Garvis & Pendergast 2016; Morris, Usher & Chen 2017). Nevertheless, understanding the influence that TSE has on practice has been purported to have increased in importance as teachers navigate an intensification of policy regarding assessment and accountability (Gonzalez, Peters, Orange & Grisby 2017; Plank & Condliffe 2013). TSE is therefore an important construct to consider as teachers reflect on their beliefs about their capabilities to enact what is being asked of them and on their responsibilities and perceived agency in questioning the efficacy of the policies themselves (Sarason 1990; Tschannen-Moran & Woolfolk Hoy 2001). It has been argued that to not consider TSE in the development of policy may lead to its failure, negating any positive influence on potential outcomes among the children for whom the policy was intended (Sarason 1990; Tschannen-Moran & Woolfolk Hoy 2001). This thesis therefore explores how the TSE of the reception teacher forms and continues to develop over their professional life; the sources that have influenced and continue to influence their TSE beliefs; and the relationship between TSE and their teaching practice.

1.5 Overview of Key Terms, Theoretical Perspective and Design

Whilst the terms practice and pedagogy are often used interchangeably within the literature (see DEEWR 2009), the term practice has been used throughout this thesis as a broad term to enable the exploration of how teachers engage in all aspects of their work. The term pedagogy describes the physical act of teaching: what teachers do, and what shapes and informs it (Alexander 2004; 2008). Similarly, Moyles (ed. 2010) defines pedagogy as 'what practitioners actually do and think and the principles, theories, perceptions and challenges that inform and shape it' (p. 7). Comber (2006), however, argued that teachers' practice is broader than just pedagogy and involves five types of work; interpretive, pedagogical, discursive, relational and institutional, as described below.

Interpretive work encapsulates the analytical and diagnostic work that is required in making decisions about children's learning. Such work requires 'rich and current pedagogical knowledge and openness to reinterpretation' (Comber 2006, p. 61). Pedagogical work is reported to involve not only knowledge of curriculum content, but also theoretical underpinnings and practical teaching approaches, reflected by the definitions of both Alexander (2004; 2008) and Moyles (ed. 2010). However, Comber (2006) argues that pedagogical knowledge also requires knowledge of communities to enable reflexivity in responding to curriculum and practice, emphasising the teacher as part of an interrelated system. As such, discursive work requires the teacher to be 'conscious of their language use in moment-to-moment interactions within the classroom' (Comber 2006, p. 62) underpinned by an understanding that their words affect the learner, their parents/carers and community. Relational work is, therefore, central to teachers' practice as they interact with children, their parents/carers and community in respectful and authentic ways. Teachers also understand the role of the institution and work to ensure 'routines, resources, physical facilities, and organisational practices work for children, parents/carers and co-workers' (Comber 2006, p. 63). Such arguments contribute to appreciating the complex role of the teacher and the importance of deeper understanding of their self-efficacy in navigating their practice.

Ainley and Carstens (2018) further contribute to this discussion, describing practice as 'the complex and multi-faceted dimensions of teaching as a profession, as well as the professional activities that teachers engage in within and beyond the classroom. Practice also involves 'how teachers interact with one another and their institutions, in pursuit of more effective student learning' (pp. 53-57). The term practice has, therefore, been used in this thesis to refer to teachers' engagement in all the various forms of their work and is viewed from the perspectives of Social Cognitive Theory (Bandura 1997) and Ecological Theory (Bronfenbrenner 1979; 2005).

Borne out of Social Learning Theory, Social Cognitive Theory (Bandura 1997) 'emphasises the cognitive capacities that mediate social behaviour' (Grusec 1992, p. 776). Bandura (1997) suggested a reciprocal relationship between personal factors in the form of cognitive, affective and biological events (P), the environment (E) and behaviours (B) represented by the Triadic Reciprocal Causation model (Bandura 1997). Bandura (2001) described the three factors of the Triadic Reciprocal Causation model as 'integrated structures that operate as co-determinants of behaviour' (p. 266).

Self-efficacy is considered a key component of Social Cognitive Theory and is defined by Bandura (1997) as the 'belief in one's capabilities to organise and execute the courses of action required to produce given attainments' (p. 3). Self-efficacy is viewed as regulating cognitive, affective, selective and motivational processes, whereby people are viewed as having agency over their behaviour, thoughts, feelings and motivations (Bandura 1997). Social Cognitive Theory acknowledges the human consciousness (Bandura 2001) in being able to self-organise, self-reflect and self-regulate (Klassen & Usher 2010). These cognitive processes regulate the information 'attended to, considered important or credible and what is remembered' (Tschannen-Moran, Woolfolk Hoy & Hoy 1998, p. 230). In other words, people are considered agents, selectively choosing and weighing-up factors that inform their self-efficacy (Klassen & Usher 2010). Thus, TSE is an important consideration in developing insights into how teachers exercise control over their thoughts, feelings and actions in their practice.

The Triadic Reciprocal Causation model (Bandura 1997) has been adapted for this study to reflect teachers' work and the relationship between their TSE and practice within their teaching context. Figure 1.1 depicts behaviour (B) as practice, the personal element (P) as the self-efficacy and TSE of the reception teacher, and the environment (E) as factors within the different contexts of the teacher.

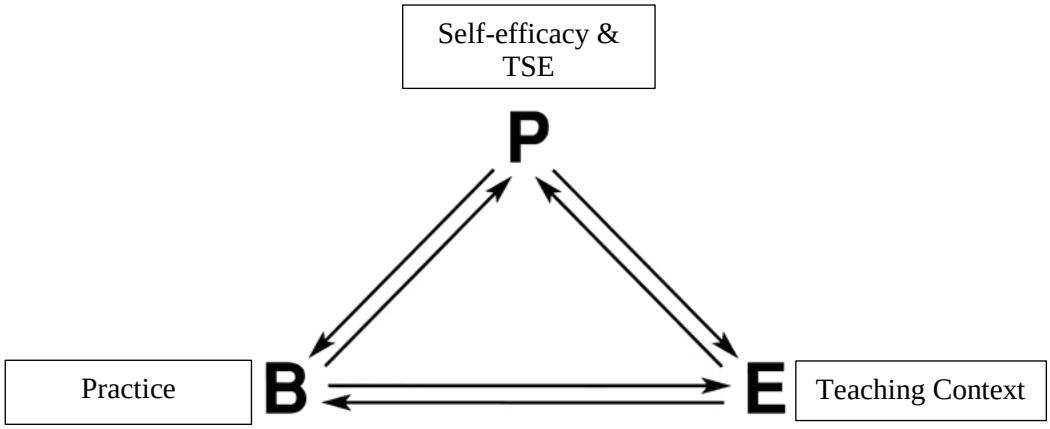


Figure 1.1 Adaptation of the Triadic Reciprocal Causation Model (Bandura 1997)

Bandura (1997) posited that the Triadic Reciprocal Causation model illustrates the interdependent and richly contextualised nature of human functioning within societal systems and representations of the interdependent nature of the different factors through the P-B, B-E

and E-P connections. To explore more closely the E segment of the Triadic Reciprocal Causation model, Ecological Theory (Bronfenbrenner 1979; 2005) has been utilised and is represented by Bronfenbrenner's Bioecological Systems model (1979; 2005) (Figure 1.2). It is posited that Ecological Theory helps to inform Social Cognitive Theory by contextually situating the teacher and suggesting that the relationship between the individual and their environment (Bronfenbrenner 1979) is bi-directional, changeable, dynamic and interrelated (Bandura 1997; 2001).

The Bioecological Systems model (Bronfenbrenner 1979; 2005) depicts four nested systems; the microsystem, mesosystem, exosystem and macrosystem, with the individual positioned at the centre. The microsystem is described as 'the setting within which the individual is behaving at a given moment in his or her life' (Bronfenbrenner 2005, p. xiii) and includes family, friends, classroom, schools, etc. The interaction of the factors and people within and between these microsystems is represented by the mesosystem and influences the individual directly. As an extension of the mesosystem, the exosystem is composed of contexts that the individual is not necessarily a part, such as the media, welfare services etc., but indirectly effects the developing individual (Bronfenbrenner 2005). Similarly, the macrosystem does not contain the developing person, however, 'influences all other levels of the ecology of human development' (Bronfenbrenner 2005, p. xiv) such as cultural attitudes and ideologies. In addition to these four nested systems, the influence of time on the developing individual is represented by the chronosystem which acknowledges the 'dimensions of temporality in changes across the individual's life course' (Bronfenbrenner 2005, p. xv). The Bioecological Systems model (Bronfenbrenner 1979; 2005) considers the:

- process of human development in interaction with their environment;
- the person with individual biological, cognitive, emotional and behavioural characteristics, similar to the P segment of the Triadic Reciprocal Causation model (Bandura 1997);
- the context of human development represented by the nested systems; and
- the influence of time.

In recognising the significance of exploring the educational context in the formation of reception teacher self-efficacy beliefs, the Bioecological Systems model (Bronfenbrenner

1979; 2005) was adapted for this study to represent the ecology of the reception teacher (Figure 1.2).

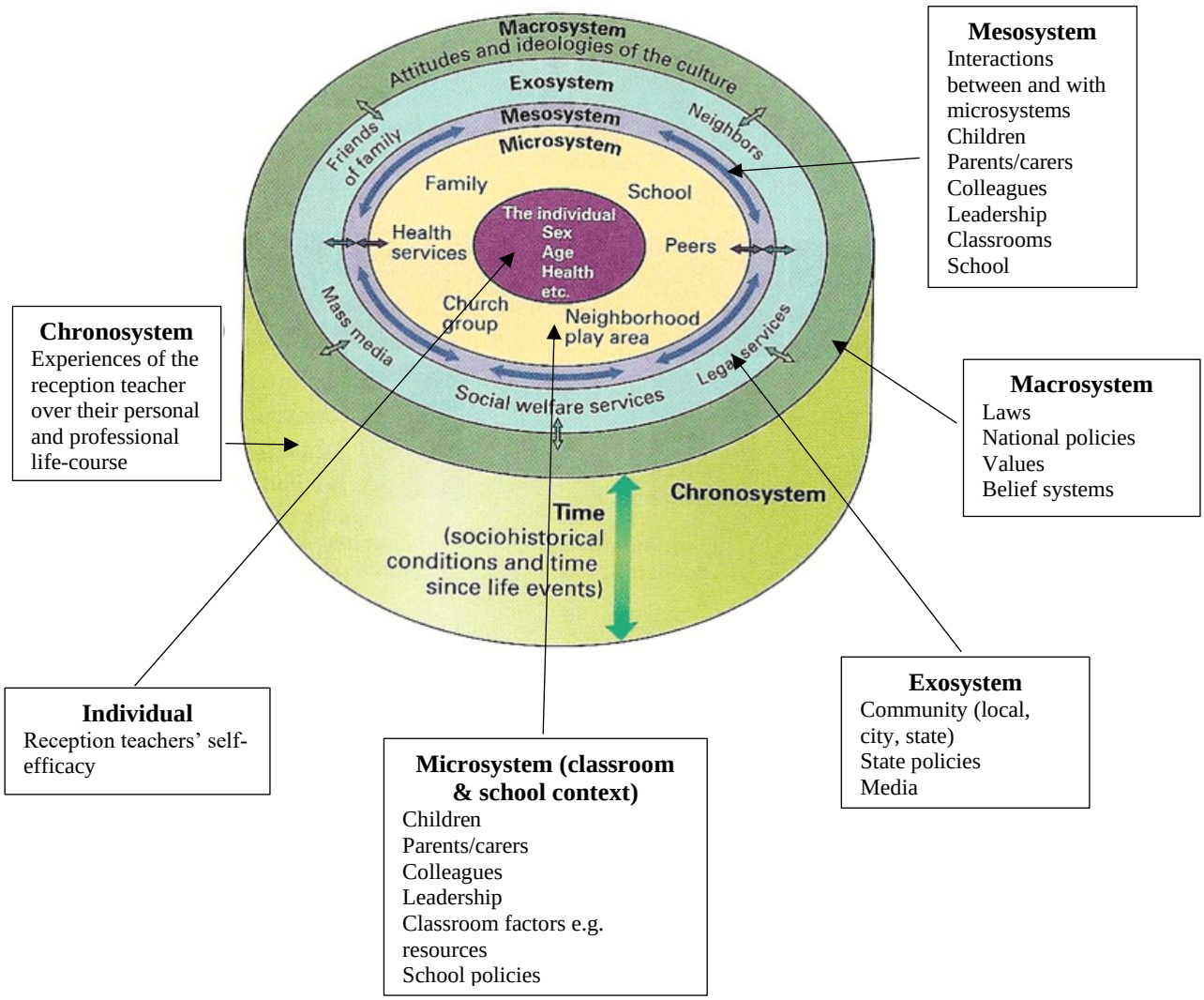


Figure 1.2 Adapted Bioecological Systems Model (Bronfenbrenner 1979; 2005)

For the purpose of this study the individual includes the TSE of the reception teacher positioned within the microsystem of their classroom and school context. Factors in the microsystem include people such as the children and colleagues in the school, as well as factors included within Comber's (2006) facet of institutional work, such as routines, resources, physical facilities, and organisational practices. The mesosystem considers the interaction between these factors and the influence on the TSE and practice of the reception teacher. Whilst the exosystem and macrosystem influence the teacher indirectly, this study nevertheless considers the effect of factors within these system on TSE and practice. Exploration of the chronosystem presents the opportunity to explore the life course and lived

experiences of the teacher and the role of these experiences in the formation of their TSE beliefs and influence on practice.

In drawing together both Social Cognitive Theory and Ecological Theory, the conceptual framework for this study utilised an adapted version of the Integration and Evaluation of Efficacy Information model (Morris, Usher & Chen 2017). Whilst the Integration and Evaluation of Efficacy Information model was significantly informed by Social Cognitive theory and the Triadic Reciprocal Causation model, which enabled the exploration of the development of reception teachers' self-efficacy within the microsystem of the classroom and school context, it was limited in exploring the influence of systems beyond this. Ecological theory and the Bioecological Systems model (Bronfenbrenner 1979; 2005) was therefore utilised to explore the broader ecological system of the Australian educational context and the influence of time reflected through the prior experiences and life-course of the teacher. Drawing on these theories and conceptual frames, an adapted model was created (Figure 1.3), to enable further exploration of how TSE develops over time and the factors within and external to the classroom that directly or indirectly influence the TSE and practice of reception teachers. Question marks have been utilised on Figure 1.3 and TSE and practice have been highlighted to signify areas of exploration within this study. Bi-directional arrows in alignment with the Triadic Reciprocal Causation model (Bandura 1997) have also been added to the Integration and Evaluation of Efficacy Information model to reflect the relationship between TSE, practice and the ecology of the teaching context. This model will be discussed in greater detail in Chapter Two, section 2.4.7 and Chapter Three, section 3.4. The model will also be utilised through the findings Chapters, Five to Seven.

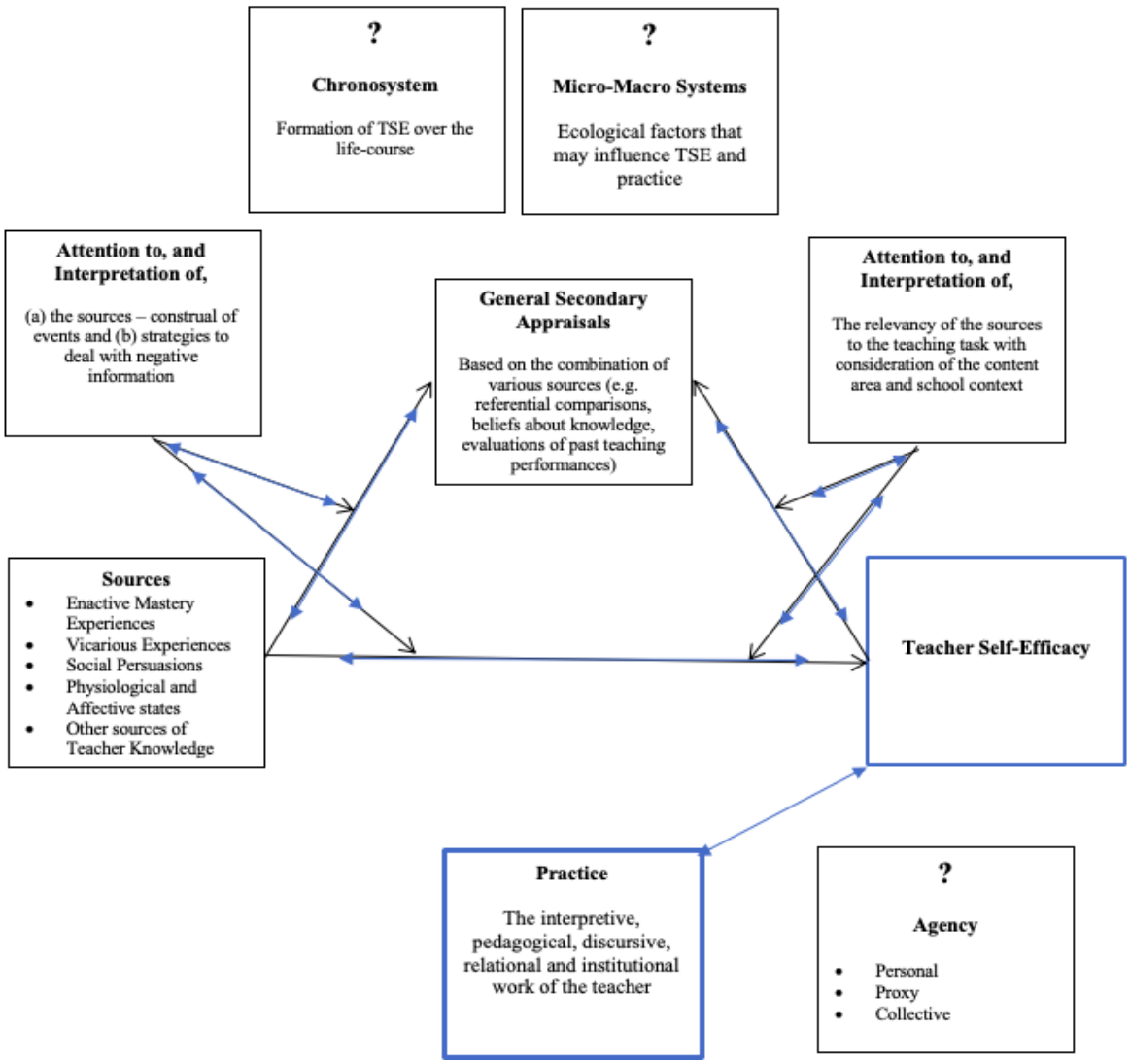


Figure 1.3 Adaptation of the Integration and Evaluation of Efficacy Information Model (Morris, Usher & Chen 2017)

This study draws on an interpretivist paradigm, which views 'each person as making sense of their social world, and that our interpretations of the world influence our behaviour in it' (Hughes 2010, p. 41). Thus, in addressing the research questions outlined in section 1.1, the TSE of the reception teachers was viewed as interpretations of their experiences. The researcher's own experience and knowledge as a reception teacher also played a key role in providing the interpretations of this study. Whilst TSE studies have been predominantly quantitative (Glackin & Hohenstein 2018; Klassen et al. 2011; Morris, Usher & Chen 2017; Wheatley 2005; Wyatt 2014; 2018), a qualitative interpretivist multiple case study design was selected as qualitative methodologies have been purported to provide significant insight into the development of TSE beliefs (Glackin & Hohenstein 2018; Morris, Usher & Chen 2017;

Wheatley 2005; Wyatt 2014; 2015; 2016). The diversity of research methods employed in this study support the investigation of the role of TSE in the practice of the reception teachers from a personal and professional perspective, to enable the analysis to specifically address the research questions (Glackin & Hohenstein 2018).

Qualitative methodologies that use a multiple case study and interpretive design are reported to enable thick and rich descriptions (Merriam et al. 2001) to be used in new and innovative ways to further enhance the field. It is argued that the exploratory and interpretive nature of qualitative methodologies has much to offer in developing more specific understandings of TSE (Morris, Usher & Chen 2017; Wheatley 2005; Wyatt 2014; 2015). Through applying this methodology the study aimed to gain valuable insight into and illustrate 'the richness and complexity' (Wyatt 2015, p. 140) of reception teachers' work and relationship with their TSE beliefs. Whilst the researcher was aware, through personal experience, of the ecological factors that influenced their own work, the methodology aimed to elaborate particularly on the ecological factors that influence the formation and continued development of the TSE beliefs of the reception teachers participating in this study (Morris, Usher & Chen 2017; Wheatley 2005; Wyatt 2014; 2015).

Whilst TSE has been viewed as an important construct in consideration of enhanced educational outcomes for children (Anderson, Greene & Loewen 1988; Guo, Piasta, Justice & Kadaravek 2010; Guo et al. 2011; Justice, Mashburn, Hamre & Pianta 2008; Midley, Feldlaufer & Eccles 1989; Ross 1992), limited research has applied a qualitative approach to examine the TSE of teachers (Bong 2006; Chang & Engelhard Jr 2016; Chen & Usher 2013; Klassen et al. 2011; Morris, Usher & Chen 2017; Wheatley 2005; Wyatt 2012), especially those in the first year of primary school (Bullock, Coplan & Bosacki 2015; Guo et al. 2011; Kim & Kim 2010; Klassen et al. 2011) and fewer still in the Australian and South Australian context (eds Garvis & Pendergast 2016). Given the importance of early childhood education (Arthur et al. 2018; Australian Human Rights Commission (AHRC) 1986; Early Childhood Australia (ECA) 1938; Ebbeck & Waniganayake 2016; Page & Tayler 2016), and the link between TSE and children's educational outcomes (Anderson, Greene & Loewen 1988; Ashton & Webb 1986; Guo et al. 2010; Guo et al. 2011; Justice et al. 2008; Midley, Feldlaufer & Eccles 1989; Ross 1992), consideration to the TSE and practice of the reception teacher warrants further exploration, particularly given the aforementioned complexities of this practice within the reception classroom context.

1.6 Outline of the Thesis

The thesis begins with a review of the literature, framed over two chapters. Chapter Two: *Self-efficacy and Teacher Self-Efficacy* critiques the research on TSE and is followed by Chapter Three: *Teacher Self-Efficacy: An Ecological Perspective,* which explores the formation and development of TSE and its influence on practice, through an ecological lens. This chapter concludes with an outline of the conceptual framework of the thesis.

Following the literature review chapters, Chapter Four, *Methodology*, provides justification for the use of a qualitative interpretivist multiple case study research design and methodological and procedural approaches for data collection and analysis. Key findings from the case studies are then presented in Chapters Five to Seven. An individual case analysis is presented in Chapter Five, *Teacher Self-Efficacy: Examining Reception Teachers' Past to Understand their Present.* This chapter highlights the importance of considering TSE holistically by examining chronosystem influences across the life-histories of the reception teachers in the formation of their TSE beliefs. Chapter Six, *Exploring the Sources of Teacher Self-Efficacy,* builds upon Chapter Five by examining the source profiles of the participants and highlights the significant role of the social sources in the continued development of TSE. The findings chapters conclude with Chapter Seven, *The Relationship between TSE and Practice,* which presents the cross-case analysis of the relationship between the participants' TSE beliefs and their practice. This chapter signals the important role of the ecological factors that the reception teachers attended to, interpreted and evaluated, and what this meant for their practice.

The thesis concludes with Chapter Eight, *Discussion and Conclusion: An Enabling Ecology for TSE,* which provides a discussion of the key interpretations of the study and potential implications for future research and practice. The chapter highlights the value of utilising Social Cognitive Theory (Bandura 1997) and Ecological Theory (Bronfenbrenner 1979; 2005) in examining the TSE beliefs, sources of beliefs and relationship to practice. The chapter also extends the conceptual framework used throughout the study, by proposing an *Ecological Framework for Teacher Self-Efficacy Development* as a way of considering the formation and development of TSE. The chapter argues the strength of utilising a qualitative interpretive multiple case study design and eliciting the voice of the reception teacher in understanding their TSE and practice.

Chapter 2: Literature Review – Self-Efficacy and Teacher Self-Efficacy

2.1 Introduction to the Literature Review

Over the last four decades, TSE has emerged as an important field of research, applying the tenets of self-efficacy to teachers' beliefs about their capabilities. Predominantly, TSE research has focused on the effect of TSE on student outcomes (Klassen et al. 2011; Morris, Usher & Chen 2017; Skaalvik & Skaalvik 2017; Tschannen-Moran & Woolfolk Hoy 2001). To me as an experienced reception teacher and partial insider to this research, having high TSE or a positive belief that you can support children in their learning, seemed an important prerequisite to effective practice. However, as discussed in Chapter One, the TSE of early childhood teachers has received limited attention within the literature (Bullock, Coplan & Bosacki 2015; Guo et al. 2011; Kim & Kim 2010; Klassen et al. 2011). The few TSE studies of early childhood teachers have reported a positive relationship between TSE and the use of more developmentally appropriate practices (see Chapter Three section 3.3.3) and expectations for children's achievement and outcomes (Gerde et al. 2018; Gibson & Dembo 1984; Guo et al. 2010; McMullen 1999; Saklofske, Michayluk & Randhawa 1988; Tournaki & Podell 2005; Woolfolk & Hoy 1990).

Recent callings from the TSE field have been for further exploration in understanding how TSE is formed and how to support and continue to develop positive TSE over time (Glackin & Hohenstein 2018; Morris, Usher & Chen 2017; Wheatley 2005; Wyatt 2012; 2016; Zee & Koomen 2016; Zee, Koomen, Jellesma, Geerlings & de Jong 2016). The formation and development of TSE is important as research consistently purports that TSE influences job satisfaction and practice, as well as children's motivation and learning (Bandura 1997; Caprara, Barbaranelli, Steca & Malone 2006; Gerde et al. 2018; Höltge, Ehm, Hartmann & Hasselhorn 2019; Klassen & Chiu 2011; Krammer, Gastager, Lisa, Gasteiger-Klicpera & Rossman 2018; Von Suchodoletz, Jamil, Larsen & Hamre 2018). The research therefore suggests it is important to know why some teachers appear to have a higher or more positive sense of TSE than others, and to understand where their TSE comes from and how to continue to develop or nurture these beliefs throughout their professional life course.

A comprehensive review of the literature relevant to this study has been organised across two chapters. This chapter provides a critical review of self-efficacy and TSE literature, highlighting the connection between self-efficacy and TSE and a focus on the sources of information critical to the formation and continued development of TSE beliefs. Chapter Two thus provides the foundation for Chapter Three, which explores TSE through an ecological lens, critically examining factors across the multiple systems that may influence the TSE and practice of the reception teacher. Chapter Three also presents an overview of the limited research in relation to early childhood teachers. In addressing the research questions, the literature review critiques key theoretical, conceptual and methodological approaches and findings of TSE research.

The literature reviewed within this study focuses predominantly on publications between 1986, when the Triadic Reciprocal Causation model (Bandura 1997) presented in Chapter One was proposed, and 2019, when the findings of this research study were confirmed. The search process was iterative as the reference list of each publication was scanned for further literature, leading to a review of further studies. This enabled a thorough and critical review of literature that used terminology beyond the search terms utilised by the researcher. To manage the number of potential articles, the abstract of each item was scanned to review its relevance to the search criteria and thus to the study. Databases including Education Resources Information Centre (ERIC), ProQuest Education, PsychINFO and Google Scholar were used to identify relevant literature, using key terms. The literature search specifically targeted research originating from Australia to provide contextualised research perspectives. International literature addressing the first year of formal schooling were also extensively reviewed to provide global research perspectives. The analysis of the literature included only publications in English, in high-quality peer reviewed publications. Key journals from the research fields of education, sociology and psychology emerged from the literature search, including Psychology of Education, Teaching and Teacher Education, Teachers and Teaching, Cambridge Journal of Education, Australian Educational Research, Educational Psychological Review and the British Journal of Educational Psychology.

In scoping the literature in relation to early childhood teachers in the first year of school, consideration was given to the differing policy interpretations, within the ecological macrosystem, of the term *early childhood education*, which presented challenges regarding the literature search for studies specifically pertaining to TSE and reception teachers. The

United Nations Convention on the Rights of the Child (Committee on the Rights of the Child (CRC) 1990) defines early childhood education as education and care for children below the age of four or below the age of eight, which may also differ across countries and regions. In South Australia, the context of this study, early childhood is defined as the period of a child's life from birth to eight years, in alignment with the Australian Human Rights Commission (AHRC 1986), Early Childhood Australia (ECA 1938), the Melbourne Declaration (MCEETYA 2008) and Alice Springs (Mparntwe) Education Declaration (Education Services Australia 2019). Across this period, multiple and overlapping early childhood services exist, including childcare for children birth to five years, preschool for children aged three to five years and school for children aged four to 18 years (AHRC 2019; ECA 1938; Press & Hayes 2000). Reception teachers are positioned in the first year of formal schooling (children aged between four and six years), at the cross-section of early childhood education, providing a transition point for young children as they move from one sector of early childhood education to another (Hard, Lee & Dockett 2018).

The term *early childhood education,* therefore, presented multiple meanings, which in the early childhood TSE studies located for this study, revealed a focus on either teachers within the prior-to-school context, or teachers across multiple or unspecified year levels within the primary school context. Multiple search terms were used, such as *primary [school], foundation, elementary, reception, early years, kindergarten, preparatory, grade one, preschool and infant.* These terms were utilised to locate literature specific to teachers within the first year of formal schooling. The term *foundation* was used to search for TSE literature within the Australian context as *foundation* is the term used by the Australian Curriculum (see section 3.3.4) to define the first year of primary school. The term *reception* was included as this term is used in South Australia and in some international contexts, to describe the foundation year.

Search terms specifically pertaining to TSE included; *self-efficacy, efficacy, teacher self-efficac*y, *teacher beliefs* and *teacher confidence*. In relation to the sources of self-efficacy and TSE, terms such as *sources, antecedent* and *development* were used to broaden the scope of studies that did not necessarily refer to the sources of self-efficacy or TSE. The seminal work of Bandura (1997) was then used to locate literature specific to the four sources, namely: *mastery experience, verbal persuasion, vicarious experience,* and *affective states* which are examined in 2.4. The literature search regarding the formation and development of

TSE included terms such as *TSE framework, self-efficacy framework, formation, development of TSE* and *growth in TSE.* To critically analyse the literature in relation to how teachers make sense of the sources of TSE, the literature search included terms such as *interpretation, evaluation, perception, reflection, self-reflection, self-reflective practice, reflexivity* and *teaching thinking.* Whether teachers are free to act on the information gained through the interpretation of the sources and how this may influence their practice, led to a critical analysis of the role of agency, a key component of Social Cognitive Theory (Bandura 1997) underpinning this thesis. Search terms for agency included *agency, teacher agency, pedagogical agency, types of agency* and *classroom agency.* In exploring reception teachers' self-efficacy from an ecological perspective, search terms included *ecological*, *environment, context, habitus, [social] systems* and *bioecological systems.*

As will be discussed, not all literature aligned with the seminal approaches of Social Cognitive Theory or Bandura's (1997) definition of self-efficacy. Nonetheless, these studies were important to include given their contribution to the body of research that has aided in understanding teachers' beliefs about their capabilities and how their beliefs may influence their practice. In addition to analysing seminal TSE research, attention was given to literature that utilised qualitative methodology to ensure that a balance of research traditions was included within the search, which will be further discussed in this chapter.

To lay the foundations for understanding the nature of TSE (Section 2.3) and the sources of TSE (Section 2.4), it is first necessary to review the place of the *self* in the development of the TSE concept.

2.2 The Self as a Theoretical Construct

It is important to conceptualise how TSE has originated from developments in the understanding of the *self* as a construct, both in general and in the field of education, and, building on that, the concept of self-efficacy and its potential influence on the practice of the reception teacher.

2.2.1 Understanding the origins of TSE

To provide an insight into the origins of TSE, a brief historical account is provided here of the developments leading to the formation of Social Cognitive Theory (Bandura 1997) within

which self-efficacy beliefs have a pivotal role. Whilst the theory of *self* can be traced back to metaphysical thinkers such as Plato, it was the writings of French philosopher Descartes in the 17th Century that have continued to prompt philosophers to theorise and conceptualise notions of the self (Hertler, Krauss & Ward 2015). Descartes' ego theory viewed the self as a single mental entity, capable of making assessments of the world and of reflexive self-assessment (Hertler, Krauss & Ward 2015). In the 18th Century, Scottish philosopher, Hume extended this view by theorising that the self was a collection of mental events, bundled together, representing a distinct time in a person's life (Hertler, Krauss & Ward 2015). In challenging this notion of a singular view of the self, James, influenced by the work of Hume and English philosopher, Locke, proposed the multiplicity of the self: the self as 'I' or the self as knower (consciousness) and the self as 'me' or the self as 'known' (Beike, Lampinen & Behrend 2004; Hermans 2001; James 1950; McAdams, Josselson & Lieblich 2002). James extended the multiple view of the self by including the 'social self', the 'material self' and the 'spiritual self' (Beike, Lampinen & Behrend 2004; Hermans 2001; James 1950; McAdams, Josselson & Lieblich 2002). Although James' work was fundamental, the early twentieth century saw a rejection of interest in the concept of the self. Psychological theorising turned to establishing the field of psychology as the science of behaviour, and through the seminal work of Watson, behaviourism was borne and began to dominate the US field of psychology, inspiring the work of Thorndike and later Skinner (Bandura 2001).

Behaviourist principles focused on an input-output model, where behaviour was viewed as being externally controlled by environmental stimuli (Bandura 2001). This approach likened the human mind to a computer, where information was inputted, and solutions were outputted to pre-ordained rules (Bandura 2001). Thus, learning within behaviourism, could be predicted, explained and generated in a linear manner using a stimulus and response approach (Bandura 2001). Growing debate challenging the linear behavioural approach emerged towards the end of the 1970's resulting in a focus on the role of cognition and the potential of external influences on the self. As such, a significant shift in how the self was conceptualised emerged (Hobshawn 2005). Behaviourism was critiqued for being inadequate in describing the socio-cognitive experience brought about through the multiple interactions and contextual factors that exist within the educational environment (Schunk 1991). In 1977, Bandura introduced Social Learning Theory, which later became Social Cognitive Theory (Bandura 1997). The addition of cognition emphasised the potential of people's thoughts in mediating their actions. Self-efficacy was a key concept within Social Cognitive Theory (Bandura

1997) as the beliefs that people hold about their capabilities were argued to influence their motivation, persistence and resilience in carrying out courses of action (Bandura 1997).

In recent years, interest has grown in self-research and multiple theories now exist. For example, within early childhood education, where notions of the 'image of the child' underpin pedagogical philosophy (Fleer 2009), self-constructs such as self-esteem and self-concept have been popularised. Self-esteem refers to an 'attitude, namely the individual's evaluation of their self-concept' (Guindon 2010, p. 11) and reflects how they feel about their self-evaluations (Harter 2006; Smith & Mackie 2014). Self-concept was thought of in more general terms and likened to 'a repository of information that one may consult for purposes of making decisions about behaviour' (Gergen 1984, p. 74). According to Zhu, Liu, Fu, Yang, Zhang & Shi (2018) self-concept is a 'general self-assessment of competence' (p. 792). External factors were thought to influence the self-concept in a causational, rather than intentional manner (Bandura 1997; Sullivan 1989) and in isolation, self-concept does not explain or predict human behaviour (Bandura 1986; 1997). In contrast the construct of self-efficacy has received less attention within education and yet it is argued to be fundamental to how teachers make evaluations about themselves and interpret these evaluations (Bandura 1997; Chen & Usher 2013; Klassen & Usher 2010).

2.2.2 Self-efficacy

The field of TSE research originated from self-efficacy theory. As such the theoretical underpinnings and tenets of self-efficacy have highly influenced TSE research. Bandura (1997) defined self-efficacy as the 'beliefs in one's capabilities to organise and execute the courses of action required to produce given attainments' (p. 3). In other words, self-efficacy refers to a person's belief that they are able to carry out behaviours that may lead to desired outcomes. Bandura (1977; 1986; 1997) argued that people need to believe they have the capability to carry out the action required to enable them to decide which courses of action to pursue and whether to persist in the face of adversity (Zee & Koomen 2016). Self-efficacy was reported to be domain and task-specific and context-dependent (Bandura 1986; 1997), with interactions and contextual factors playing a role in shaping behaviour. The distinction between self-efficacy and concepts such as self-esteem and self-concept, is the degree of specificity of information that people draw on to make judgements of their self-efficacy. This distinction is important as people make 'judgements of their capabilities in diverse

areas' (Morris, Usher & Chen 2017, p. 818). For example, if a person is asked: 'how well can you teach mathematics?', they make a general assessment of their capabilities, drawing on diverse information to make a judgement of their self-efficacy. However, self-efficacy is task and domain specific; therefore lines of questioning need to be more specific to the task and context. For example, when asked: 'how well can you teach a unit on volume and capacity to reception children?', a person is then required to draw on domain and context-specific information to make a judgement of their self-efficacy. The first question may have elicited a response that suggested a high sense of self-efficacy in relation to mathematics in general, whereas the second domain and context-specific question may have elicited a response that suggested a lower sense of self-efficacy. Making more general or global assessments of self-efficacy is in greater alignment with self-esteem and self-concept (Wyatt 2015). The levels of specificity will be discussed again in section 2.3.3 in relation to TSE scales.

Whilst self-efficacy is considered to be a mediating factor that helps determine one's thoughts, feelings, motivations and behaviours (Bandura 1989; 1997; 2001), self-efficacy does not necessarily guarantee the outcome, as it is a belief about one's capabilities and not a measure of actual capability (Bandura 1989; 1997; 2001). Therefore, caution is required in claiming impact on, or direct relationship with, children's learning outcomes (Bandura 1997; Tschannen-Moran & Woolfolk Hoy 2007). Beliefs about our capabilities are thought to determine the goals we set for ourselves and the courses of action we choose to undertake in achieving our goals (Bandura 1997; Wigfield, Muenks, Rosenzweig 2015). Through the beliefs that people hold regarding their capabilities, they make judgements about whether they can do the task and whether they indeed even wish to undertake the task (Eccles & Wigfield 2002). Self-efficacy is therefore, considered an expectancy belief, as self-efficacy is an assessment that people make prior to performing a task (Bandura 1997).

Self-efficacy beliefs have been associated with performance through their influence on effort, perseverance and regulation of thoughts, actions and plans (Bandura 1991; 1997; Klassen & Usher 2010; Mackay & Parkinson 2010; Pajares & Schunk 2001; Ryan & Deci 2000; Schunk & Meece 2006). The plans and choices that people make and the goals that they set for themselves, have been argued to be important determinants of behaviour and influenced by their self-evaluation of their capabilities (Bandura 1997; Kanfer 1996; Locke & Latham 1990; 2002; Wigfield, Muenks, Rosenzweig 2015). For example, before teaching a unit on

volume and capacity to reception children, the teacher makes a judgement about their capabilities to plan and implement the unit. This may lead them to undertake certain actions such as seeking out extra information or support. According to Bandura (1997), the strength of commitment a person applies and the strategies they use to achieve their goals are believed to be determined by their self-efficacy. Thus, if a teacher has a high or positive belief in their ability to plan and implement a unit on volume and capacity, they are more likely to put in greater effort in creating engaging learning experiences for the children.

2.3 What is TSE?

TSE extends the tenets of self-efficacy to teachers by critically analysing teachers' goals and choices and the effort and motivation they apply in achieving their goals (Bandura 1991; 1997; Klassen & Usher 2010; Mackay & Parkinson 2010; Pajares & Schunk 2001; Ryan & Deci 2000; Schunk & Meece 2006; Zee & Koomen 2019). Achievement and motivation have been reported to be important to the teacher because of the association with children's learning outcomes (Gerde et al. 2018; Gibson & Dembo 1984; Guo et al. 2010; Guo et al. 2011; McMullen 1999; Morris, Usher & Chen 2017; Saklofske, Michayluk & Randhawa 1988; Tournaki & Podell 2005; Woolfolk & Hoy 1990). Therefore, it is argued that TSE is critical in understanding the motivations of teachers in relation to their practice, their expectation for success, and the value they attach to that success. For example, the challenges of the reception context for this particular researcher were associated with the tensions, constraints and requirements that were brought about by the narrowing of curriculum and a sense of needing to negotiate personal beliefs about children's learning within the context. As stated at the outset of Chapter One, the researcher's TSE played an important role in navigating challenging factors, staying motivated and maintaining high expectations for success.

2.3.1 Defining TSE

Whilst many definitions have been developed to explain the TSE construct, arguably the most significant has emerged from Tschannen-Moran, Woolfolk Hoy and Hoy (1998). In alignment with Bandura's (1997) definition of self-efficacy Tschannen-Moran, Woolfolk Hoy and Hoy (1998) defined TSE as the 'capability to organise and execute courses of action required to successfully accomplish a specific teaching task in a particular context' (p. 233). Tschannen-Moran, Woolfolk Hoy and Hoy's (1998) definition of TSE was, however,

criticised for its lack of specificity in identifying what teachers actually do (Dellinger, Bobbett, Olivier & Ellett 2008; Wyatt 2015). Subsequently, Tschannen-Moran, Woolfolk Hoy and Hoy (1998) later revised their definition to include student engagement and learning. In their article '*Teacher efficacy: capturing an elusive construct',* Tschannen-Moran and Woolfolk Hoy (2001) adapted and extended Gibson and Dembo's (1984) definition of TSE, describing TSE as 'a judgement of his or her capabilities to bring about desired outcomes of student engagement and learning, even among those students who may be difficult or unmotivated' (p. 783). This change in definition challenged Tschannen-Moran, Woolfolk Hoy and Hoy's (1998) earlier definition and Bandura's (1997) definition of self-efficacy, taking an agent-ends rather than an agent-means perspective, suggesting that the successful accomplishment of a teaching task is a direct determinant of student outcomes (Skinner 1996; Wyatt 2015).

Indeed, significant debate has surrounded the definition of the TSE construct, specifically the misalignment of TSE definitions with Bandura's (1997) conceptualisation of self-efficacy (Klassen & Chiu 2011; Klassen & Tze 2014). Bandura's (1997) definition of self-efficacy took an agent-means perspective, signifying the role of the individual in making an assessment of their capabilities prior to performing a particular task and their cognition in deciding upon certain behaviours to enable them to work towards their goal (Skinner 1996; Wyatt 2015). In contrast, TSE definitions have taken more of a means-ends or agent-ends approach (Skinner 1996; Wyatt 2015), assuming that 'given behaviour will lead to certain outcomes' (Bandura 1977, p. 193). The distinction that Bandura (1997) made in his definition of self-efficacy and outcome expectations, was that self-efficacy involves the beliefs one has regarding their capability to organise and execute courses of action, whilst outcome expectations address beliefs about whether certain behaviours will lead to particular outcomes (Wyatt 2015).

More recently, Wyatt (2010; 2015) suggested an alternative definition of TSE making an explicit connection between TSE beliefs and learners, whilst also addressing the specificity of teacher's practice. Wyatt (2010) defined TSE as teachers' 'beliefs in their abilities to support learning in various task and context specific cognitive, metacognitive, affective and social ways' (p. 603). This definition aligned with Bandura's (1997) agent-means definition of self-efficacy, making the distinction between outcome expectancy and self-efficacy beliefs. Wyatt's (2010) definition reflected the goal of TSE in supporting learning, which is arguably

at the core of teachers' work, as well as the specificity of their work within a given context. The desire to make a difference to children's learning and development (Page & Tayler 2016) was at the heart of the researcher's own practice as a reception teacher and thus has been utilised for this thesis in framing and understanding the work of the reception teachers of this study. In addition to the varying definitions of TSE within the research field were the efforts to measure TSE, which are discussed below.

2.3.2 Measuring TSE

As discussed in section 2.2.1, self-efficacy and in turn TSE, were borne at a time when psychology was predominantly based on behaviourist principles and measurement of cognition (Bandura 2001). Measurement of the TSE construct began in 1976 with the US based Research and Development (RAND) Corporation. In their study of teacher characteristics and student learning, the RAND Corporation included two items to investigate what would later be known as teacher efficacy (Tschannen-Moran & Woolfolk Hoy 2001; Zee & Koomen 2016). At this seminal stage, the RAND researchers utilised Rotter's (1966) locus of control theory to explore the extent to which teachers believed that contextual or external factors influence student outcomes; and the extent to which they themselves control student learning. The two items were:

> RAND Item 1: When it comes right down to it, a teacher really can't do much because most of a student's motivation and performance depends on his or home environment.
>
> RAND Item 2: If I really try hard, I can get through to even the most difficult or unmotivated students (Armor, Conroy-Oeguera, Cox, King, McDonnell, Pascal & Zellman 1976, p. 34).

The sum of the two items were later termed teacher efficacy and were purported to measure whether teachers believed that motivation and learning were internally or externally controlled, in alignment with Rotter's (1966) theory (Tschannen-Moran & Woolfolk Hoy 2001; Zee & Koomen 2016). Item one sought to reveal the extent teachers believed that external factors within the family microsystem, such as the value of education, family violence, social and economic status to name a few, influenced the learning outcomes of the child. Item two addressed the teacher's beliefs regarding their ability to bring about student outcomes despite adverse environmental and developmental factors of the child (Zee & Koomen 2016). In furthering the work of the RAND Corporation and in an effort to measure

the link between teacher efficacy and improved student outcomes, researchers concentrated their efforts on developing tools to capture the construct. However, early scales were critiqued for failing to take into account the differentiation that Bandura (1997) made between self-efficacy and outcome expectancy (Henson 2002; Klassen et al. 2011; Pajares 1996; Tschannen-Moran & Woolfolk Hoy 2001; Zee & Koomen 2016) as discussed earlier.

2.3.3 TSE Scales

Questions regarding the validity and reliability of existing TSE instruments in relation to the specificity of what the instrument was measuring have been consistently debated by researchers (Bong 2006; Tschannen-Moran & Hoy 2001; Wheatley 2005; Wyatt 2012; 2014). Throughout the past four decades, the specificity, correspondence and wording of scales has been continually revisited (Bandura 1997; 2006; Morris, Usher & Chen 2017; Pajares 1996; Schunk & Pajares 2009) to clarify and develop a better understanding of the TSE construct. Klassen and Usher's (2010) review of the literature revealed 'faulty conceptualisation of the construct' and 'flawed or atheoretical measures' (p. 20), a position echoed by Chang and Engelhard Jr (2016), in their later review of TSE scales. The prevailing issues in measuring the TSE construct and the validity of what the various TSE scales were attempting to measure, have continued to be reported as problematic within the field (Bandura 1997; 2006; Chang & Engelhard Jr 2016; Chestnut & Burley 2015; Klassen et al. 2011; Morris, Usher & Chen 2017; Schunk & Pajares 2009; Tschannen-Moran & Woolfolk Hoy 2001).

Whilst the theoretical underpinnings of the scales themselves have been reported as problematic, so too has the aggregation of scores in creating a global score of TSE (Morris, Usher & Chen 2017; Wheatley 2005). As discussed in section 2.2.2, self-efficacy and therefore TSE, is domain and task-specific (Bandura 1997; Morris, Usher & Chen 2017). The levels of specificity are important in understanding the diversity of TSE beliefs in relation to the diverse areas of their practice (Morris, Usher & Chen 2017). Arguably, creating a global score negates specificity in understanding the construct, as TSE becomes critiqued as being either high or low with no explanation as to what these beliefs mean to individual teachers or what information was attended to, or how it was interpreted (Morris, Usher & Chen 2017; Pajares, Hartley & Valiante 2001; Wheatley 2005). The scale's use of a self-reporting system has also been critiqued for requiring participants to draw upon their self-knowledge, reflecting on what they can do as well as strategies they may take (Chestnut

& Burley 2015) in making assessments of their capabilities and representing this on a scale. Drawing upon self-knowledge requires participants to recall experiences that have informed their TSE beliefs, which have been reported as potentially leading to inaccurate TSE appraisals, with participants under or overestimating their capabilities (Chestnut & Burley 2015; Dunning, Heath & Suls 2004). Chestnut and Burley (2015) contest that scales also rely on participants to be honest in their self-assessments and to understand and interpret questions in the same way. The use of Likert scales in TSE instruments has also been questioned for potentially restricting the variability of responses, with participants avoiding using the extreme ends of the scale (Bandura 2006; Chestnut & Burley 2015).

The most frequently used scales between 1998 and 2009, as reported by Klassen et al. (2011) and Zee et al. (2016), were the Gibson and Dembo (1984) Teacher Efficacy Scale and Schwarzer and Jerusalem's (1995) General Efficacy Scale. These scales have been widely criticised regarding their validity in capturing the specificity of the TSE construct (Bandura 1997; Kagan 1992; Pajares 1996; Wheatley 2005). Zee et al. (2016) stated that the 'scales are considered ambiguous' (p. 40) with teachers having to make interpretations regarding the meaning and context of their responses (Bandura 1997; Wheatley 2005). The scales were therefore considered to be too generalised to have any 'explanatory or predictive merit' (Zee et al. 2016, p. 40). Domain-specific scales and scales that focused on TSE as an expectancy belief, i.e. what participants *can do* in relation to a particular domain and task, were therefore developed in particular curriculum areas and different areas of teacher knowledge such as behaviour management, providing student feedback, working with parents, etc. (Klassen et al. 2011).

However, as more has become known about TSE, scales have emerged that are reported to be in closer alignment with the theoretical tenets of the construct (Zee et al. 2016). For example, the Science Teacher Efficacy Belief Instrument (STEBI) (Riggs & Enochs 1990) has been widely used in assessing the TSE of science teachers. The STEBI has also been adapted to be more specific to examine the TSE of chemistry teachers with the development of the STEBI-CHEM (Rubeck & Enochs 1991). However, the STEBI (Riggs & Enochs 1990) has also been criticised given its development from Gibson & Dembo's (1984) instrument, which, in turn, was based on Rotter's (1966) theory. Most recently, Tschannen-Moran and Woolfolk Hoy's (2001) Teachers' Sense of Efficacy Scale (TSES) has been widely used, with reports that it is the most valid in terms of gradations of challenge and invariance of

items (Chang & Engelhard Jr 2016; George, Richardson & Watt 2018; Klassen, Bong, Usher, Chong, Huan, Wong & Georgiou 2009; Woolfolk Hoy & Burke-Spero 2005). The TSES included items related to efficacy for instructional strategies, classroom management and student engagement (Tschannen-Moran & Woolfolk Hoy 2001) and thus, provided an aggregate as well as general domain sub-score. Whilst the TSES has been widely used, it has also been critiqued as not providing the specificity required in relation to a content or subject area (Morris, Usher & Chen 2017). Thus, teachers in each domain of the scale may rate their TSE more generally rather than thinking about a specific subject or task (Morris, Usher & Chen 2017).

The use of both domain-general scales, such as the TSES (Tschannen-Moran & Woolfolk Hoy 2001), as well as domain-specific scales have been argued to provide diversity within the TSE research field (Klassen et al. 2011). Domain-general measures may be applied to most teaching situations, whilst domain-specific measures are relevant for specific groups of teachers (Klassen et al. 2011; Morris, Usher & Chen 2017; Rubeck & Enochs 1991; Tschannen-Moran & Woolfolk Hoy 2001). In being mindful of the limitations of quantitative TSE measures within the context of this study, employing a domain-general scale such as the TSES was considered useful in providing initial data to complement further qualitative methodologies. Specifically, the domain-general scale aimed to provide initial exploration of the TSE beliefs of the reception teacher as reception teachers work across multiple curriculum areas and support young children's learning in 'various task and context-specific cognitive, metacognitive, affective and social ways' (Wyatt 2010, p. 603).

2.3.4 TSE research methodologies

Despite the short comings outlined above, the predominant application of quantitative studies utilising scales, has significantly advanced the field of TSE research (Klassen & Usher 2010; Tschannen-Moran & Woolfolk Hoy 2001; Wyatt 2014). Klassen et al.'s (2011) methodological review of 218 TSE studies between 1998 and 2009 revealed 76.7 percent used quantitative methods, with large sample sizes and data collection comprising of surveys and questionnaires. In Wyatt's (2014) review of TSE literature in terms of qualitative and quantitative research designs and alignment with Social Cognitive Theory (Bandura 1997), he found few qualitative case studies published in English in international peer-review journals. A later review of the literature examining the sources of TSE by Morris, Usher and

Chen (2017), continued to highlight the under representation of qualitative research in the field of TSE. Out of the 82 studies reviewed by Morris, Usher and Chen (2017) approximately 43 percent of the studies were found to be quantitative, 37 percent mixed-methods and 18 percent qualitative. The predominance of quantitative methodology was also reflected in Glackin and Hohenstein's (2018) review of the literature in which they compared qualitative and quantitative data to assess the TSE of secondary science teachers in the UK participating in a two-year professional development programme.

Critics have argued that interpretations from studies 'heavily steeped in one methodological approach are potentially limited and may lead to misconceptions and misapplications of theory' (Wyatt 2015, p. 117). It is, therefore, necessary to be cautious in the way that results are interpreted from these studies (Bandura 1997; 2006; Chestnut & Burley 2015; Klassen & Usher 2010; Klassen et al. 2011; Morris, Usher & Chen 2017; Schunk & Pajares 2009; Tschannen-Moran & Woolfolk Hoy 2001). Arguably the use of TSE scales alone cannot reveal what teachers' responses really mean, as attentional and interpretive processes are reported to be neglected by this methodology (Morris, Usher & Chen 2017; Wheatley 2005; Wyatt 2014). Thus, calls from the field have emphasised the need for increased mixed methods and qualitative methodologies (Chang & Engelhard Jr 2016; Glackin & Hohenstein 2018; Klassen et al. 2011; Morris, Usher & Chen 2017; Wheatley 2005; Wyatt 2012).

The use of mixed methods in TSE research has predominantly used self-report scales in combination with interviews and open-ended questionnaires (Klassen et al. 2011; Morris, Usher & Chen 2017). A small number of studies have included examination of participant documents such as teaching journals and observation of practice (Morris, Usher & Chen 2017, p. 801). Klassen et al.'s (2011) review of TSE studies revealed 14.7 percent of the studies were mixed-method, with Morris, Usher and Chen's (2017) review reporting a 39 percent increase of mixed-method studies over a seven-year period. Whilst mixed-method studies are on the increase, issues with the construction and scoring of TSE scales have continued, with callings from the field for greater application of qualitative studies to deepen understandings of how TSE can become operationalised (Glackin & Hohenstein 2018; Klassen et al. 2011; Labone 2004; Tschannen-Moran, Woolfolk Hoy & Hoy 1998; Wheatley 2005; Wyatt 2012; 2014).

Data collection within qualitative studies has included observations, written reflections,

interview, focus group interview, analysis of participant documents, open-ended questionnaire, and talk-aloud protocols (Brand & Wilkins 2007; Cantrell & Callaway 2008; Glackin & Hohenstein 2018; Morris, Usher & Chen 2017; Onafowora 2005; Ross & Bruce 2007). As reported by Glackin and Hohenstein (2018), few qualitative studies used multiple data sources, thus limiting the triangulation of findings. Aside from Wyatt's (2013) study of English language teachers in Oman and Klassen and Durksen's (2014) mixed-methods study of preservice teachers in relation to work related stress, there has also been limited use of analytical frameworks in qualitative studies (Glackin & Hohenstein 2018). Wyatt's (2013) longitudinal study analysed three data sources; interview, observation and participant reflections, to make interpretations of TSE. A coding framework based on Bandura's (2006) scale construction guidelines was used within Klassen and Durksen's (2014) study, to code for attributes associated with high or low TSE such as effort, persistence and agency. However, Glackin and Hohenstein's (2018) iterative qualitative analysis led to the development of a framework to 'identify attributes and practices associated with higher or lower levels of TSE' (p. 284). On reflection, Glackin and Hohenstein (2018) noted their analytical framework as being preliminary with further refinement necessary. In summary, it is argued that further qualitative TSE studies are needed (Wheatley 2005; Wyatt 2012) and for these studies to be useful, multiple data sources and the development of a framework for analysis would be potentially helpful in capturing the TSE beliefs of teachers, the sources of these beliefs, and how these beliefs influence their practice (Glackin & Hohenstein 2018).

Within the review of TSE literature, the majority of studies have been conducted in the US with limited TSE research originating from Australia (Bullock, Coplan & Bosacki 2015; Garvis & Tekin 2016; Kim & Kim 2010). Klassen et al.'s (2011) review of the TSE literature between 1998 and 2009 revealed that the proportion of qualitative and mixed method studies was 56.8 percent originating from the US, with 17.8 percent from Europe, 15 percent from Asia and less than one percent from Oceania, to which Australia belongs. South America, Africa and multiple other regions made up the remaining percentage of publications. Similarly, Morris, Usher and Chen's (2017) review revealed that the US continued to lead the field of TSE research with 62 percent and the remainder from countries around the world including Australia (one percent), Canada (less than one percent) and Turkey (less than one percent). Asian and European statistics were not reported. Wyatt's (2018) literature review, however, which focused on studies in relation to the TSE of language teachers from 2005 to 2016, revealed a drop in US based research (16 percent of the

studies) and an increase in research originating from Asia (59 percent of the studies) while research from Oceania remained relatively the same (2-3 percent). Wyatt (2018) noted that this may be due to language teachers carrying out their research in their home country, with a predominance from Asia.

2.3.5 What have we learned from the research?

Despite the reported limitations of quantitative methodologies, studies within this tradition have contributed significantly to the field of TSE research. The findings have been relatively consistent regarding a more global sense of TSE, across varied contexts. Teachers with high TSE generally have evidenced: good subject knowledge (Bautista & Boone 2017; Cantrell, Young & Moore 2003; Garvis & Pendergast 2011; Garvis & Tekin 2016; Muijs & Reynolds 2002; Riggs & Enochs 1990; Ross 1992); developed high levels of planning, organisation and enthusiasm (Allinder 1994; Chestnut & Burley 2015; Jerald 2007; Muijs & Reynolds 2002); and a willingness to experiment with new teaching methods and persisting when presented with challenges (Cantrell & Callaway 2008; de Laat & Watters 1995; eds Garvis & Pendergast 2016; Morris-Rothschild & Brassard 2006; Ross 1992; Wolters & Daugherty 2007).

TSE research has tended to focus on the role of TSE in student motivation and achievement (Midley, Feldlaufer & Eccles 1989; Ross 1992; Muijs & Reynolds 2002; Schiefele & Schaffner 2015), teachers' professional commitment (Ware & Kitsantas 2007) and teacher burnout (Skaalvik & Skaalvik 2017). The focus of TSE research has predominantly addressed preservice, elementary school and high school teachers from the US (Klassen et al. 2011). Given the influence of self-efficacy on student achievement and motivation (Bandura 1997; Brown 2006; Gibbs & Powell 2012; Guo et al. 2010; Holzberger, Philipp & Kunter 2014; Schiefele & Schaffner 2015) and the continued focus on preparing young children for school (eds Hedegaard & Fleer 2019; Meisels 2006), the limited research regarding the TSE of early childhood teachers is notable. That said, caution is required when reviewing the literature as early childhood teachers who work in the early years of primary school, may have been included within the elementary school TSE research, however the year level of such research is often undefined. Klassen et al. (2011) argued differentiation between teaching levels would enable a greater understanding of how context influences the formation of TSE beliefs.

In the limited studies of teachers of young children, perceived higher levels of TSE have been associated with the use of more developmentally appropriate pedagogies (see Chapter Three section 3.3.3) in the preschool and elementary school contexts (Cobanoglu, Capa-Aydin & Yildirim 2019; Gerde et al. 2018; McMullen 1999). Moreover, higher levels of TSE have been generally associated with the use of a variety of teaching methods (see Chapter Three, section 3.3.3) (Cantrell & Callaway 2008; Morris-Rothschild & Brassard 2006; Ross 1992; Wolters & Daugherty 2007; Zee & Koomen 2016), with less reliance on curriculum to guide practice (de Laat & Watters 1995; Sandholtz & Ringstaff 2014; Tschannen-Moran, Woolfolk Hoy & Hoy 1998). Teachers with high TSE have also been reported to have a tendency to develop cross-curriculum links and opportunities for children to engage in problem solving through the use of questioning, whilst also emphasising child-led inquiry (Czerniak & Schriver 1994; de Laat & Watters 1995; Glackin 2016; Swars 2005). This has been extended with the reports of more inquiry and small group pedagogies, rather than teacher directed pedagogies (Ashton & Webb 1986; Chacon 2005; Muijs & Reynolds 2002; Sandholtz & Ringstaff 2014; Tschannen-Moran, Woolfolk Hoy & Hoy 1998). Teachers with high TSE also viewed errors as part of learning, persisted in supporting children who found learning challenging, and catered better for individual differences (Ashton & Webb 1986; Gibson & Dembo 1984; Ross 1992; Sandholtz & Ringstaff 2014; Tschannen-Moran, Woolfolk Hoy & Hoy 1998). High TSE was also consistently attributed to teacher wellbeing (Betoret 2006; Brouwers & Tomic 2000; Zee & Koomen 2016) and job satisfaction (Caprara et al. 2003; Moe, Pazzaglia & Ronconi 2010; Skaalvik & Skaalvik 2017; Woolfolk Hoy & Davis 2006; Zee & Koomen 2016).

As discussed, callings from the TSE field regarding qualitative methodologies have centred around the potential to add to the depth of understandings established by quantitative studies (Glackin & Hohenstein 2018; Klassen et al. 2011; Labone 2004; Wheatley 2005; Wyatt 2015). These methodologies have been suggested to provide greater utility in further developing understandings regarding how TSE forms and continues to develop (Glackin & Hohenstein 2018; Klassen et al. 2011; Labone 2004; Wheatley 2005; Wyatt 2015). Research exploring the formation of TSE beliefs among early childhood educators, has primarily focused on the influence of initial teacher education (Heisner & Lederberg 2011; McMullen & Alat 2002; Vartuli 1999), teaching experience (Brownlee & Chak 2007; Cassidy & Lawrence 2000; Gilbert 2009; Hindman & Wasik 2008; Kim 2011) and culture (Clarke-Stewart, Lee, Allhusen, Kim & McDowell 2006; McMullen, Elicker, Wang, Erdiller, Lee,

Lin & Sun 2005; Rothbaum, Nagaoka & Ponte 2006), but not specifically on how the TSE beliefs of early childhood teachers form and change over time. Therefore, in the context of this study it is important to review literature examining the sources of self-efficacy in the formation of reception TSE beliefs.

2.4 Sources of TSE

Bandura's (1997) seminal work proposed that self-efficacy beliefs develops through four sources; mastery experience, vicarious experience, verbal persuasion and physiological arousal/affective states. In analysing the data in this study, the physiological arousal/affective states category will be referred to as 'affective states' or 'the affective source' as these are the terms that most closely reflect the data.

For self-efficacy beliefs to develop, information gained from the sources undergoes cognitive processing and reflective thought, enabling people to consider the significance of the information and integrate it into existing perceptions of self-efficacy and make adjustments to their beliefs (Bandura 1997; Chen & Usher 2013; Klassen & Usher 2010). The heuristics or the shortcut routes to process information, integrating and making adjustments to their self-efficacy or TSE, has become the subject of more recent research to understand how TSE beliefs develop over time (Klassen & Usher 2010; Labone 2004; Morris, Usher & Chen 2017; Webb-Williams 2018). This will be discussed in greater detail in section 2.4.7 regarding making sense of source information. The following sections present current understandings and raise questions regarding the four sources of self-efficacy purported by Bandura (1997) in relation to teachers.

2.4.1 Mastery experience

Bandura (1997) asserted that mastery experience, that is, 'the beliefs that people hold regarding whether they have the skills and resources to be successful which have developed from their prior experiences' (Bandura 1997, p. 80), is the most powerful source of self-efficacy beliefs. Other sources of self-efficacy are believed to be less influential after an abundance of mastery experience accumulates (Bandura 1997; Morris, Usher & Chen 2017; Tschannen-Moran & Woolfolk Hoy 2001). Interpretation of previous mastery experience has been reported to provide the most reliable information about past performance with the suggestion that successes and failures develop memory patterns and self-knowledge, which

an individual draws upon to make decisions about future courses of action (Bandura, 1997). In the context of teaching, this may be the teacher's interpretation of their successful implementation of a teaching strategy within their practice. Klassen and Usher (2010) extended this work and reported that successful mastery experiences build self-efficacy, whilst failures undermine it.

Whilst research into mastery experience has been the most prevalent, perhaps due to Bandura's (1997) assertion regarding its influence on self-efficacy (Morris, Usher & Chen 2017), measuring mastery experience has proven to be challenging as the self-knowledge that teachers draw upon in assessing their competence is complex and variable. The interpretations that teachers make regarding their perceived success or failure have been reported to reflect a more general sense of competence (Morris, Usher & Chen 2017). Questionnaires for example that ask: *'I have had many positive opportunities to teach'* (Kieffer & Henson 2000, p. 16) or *'rate your satisfaction with your professional performance this year'* (Tschannen-Moran & Woolfolk Hoy 2007, p. 949) are more general questions of mastery, rather than perceptions of mastery in a specific domain and task e.g. a mathematics unit on fractions. Qualitative research using more semi-structured lines of questioning are reported to be valuable in developing more nuanced understandings of mastery experiences (Morris, Usher & Chen 2017). Questions such as '*what experiences affected your choice and decision to integrate technology in your teaching?'* (Al-Awidi & Alghazo 2012, p. 929) or '*what experiences contributed to your confidence in working on the lesson plans?'* (Chong & Kong 2012, p. 270), enable greater exploration of the quantity and quality of mastery experiences. Nonetheless, studies of mastery experience have consistently reported a positive relationship between general perceptions of success and TSE (Tschannen-Moran & Woolfolk Hoy 2007; Weaver Shearn 2008; Woolfolk Hoy & Burke-Spero 2005). However, Morris, Usher and Chen (2017) argued that other sources also play a role in informing TSE beliefs and that mastery experience must be considered alongside or in unison with other sources. For example, Phan and Locke (2016) suggested that vicarious experience and verbal or social persuasion may exert more influence than first thought.

2.4.2 Vicarious experience

The source of vicarious experience involves the 'observation of others and the modelling of successful accomplishments' (Bandura 1997, p. 86). In measuring the types of vicarious

experiences that have influenced TSE beliefs, more generalised questions have been used including, *'rate the influence on your self-efficacy beliefs of watching people similar to oneself succeed at teaching'* (Heppner 1994, p. 502). Bandura (1997) identified four types of vicarious experience; '1) actual modelling, observing someone similar; 2) symbolic modelling, observing others through media sources; 3) self-modelling, observing self via video play-back and; 4) cognitive self-modelling, visualising one's self successfully carrying out an action' (pp. 93-95).

While limited research has focused on symbolic modelling, Morris, Usher and Chen (2017) argued that the availability of the internet and influence of media resources may be useful in providing a more holistic view of the use of vicarious experience in informing TSE beliefs. Studies that focus on the role of self-modelling, which Bandura (1997) emphasised as an important source of TSE, have also been reported to be neglected within the field (Morris, Usher & Chen 2017). The use of video play-back has been suggested as helpful in enabling teachers to make more accurate evaluations of their capabilities (Morris, Usher & Chen 2017) with potential to provide opportunity for cognitive self-modelling, whereby teachers watch themselves successfully carry out pedagogical practices. Limited video play-back methodology has been utilised in TSE research; however a study of 62 first year early childhood preservice teacher science majors, at the University of Central Florida, reported the positive correlation between using video simulation and development of positive TSE beliefs (Bautista & Boone 2017).

Morris, Usher and Chen (2017) contend that research has tended to focus on actual modelling through the use of 'live' models, such as teachers observing other teachers. Quantitative research, in measuring the influence of live models, has focused on the general quality of opportunities to observe others teach, rating the effectiveness of potential models and the quality of the learning from observation and influence on pedagogical knowledge (Capa Aydin & Woolfolk Hoy 2005; Kieffer & Henson 2000; Mohamadi & Asadzadeh 2012; Morris & Usher 2013). Given the increased frequency of teachers working in collaboration with one another in the microsystem of the school context, and the increased prevalence of open-planned classrooms, consideration to live models is important. Teachers are required to work together more than ever before (Bacharach, Heck & Dahlberg 2010; Brinkman & Twiford 2012; Krammer et al. 2018) and thus critical analysis of the teaching environment, and how it may support or challenge TSE, requires consideration. For example, in an open-

planned classroom, colleagues provide a constant model and a ready source of social comparison. Therefore, how do teachers reflect on and interpret this information in making assessments as to the accuracy of their beliefs about their capabilities? The influence that these comparisons have on TSE is unclear, with research evidencing only weak correlations between social comparisons with different types of models and TSE (O'Neil & Stephenson 2012; Oh 2011; Poulou 2007). Indeed, research into co-teaching is limited (Bacharach, Heck & Dahlberg 2010; Krammer et al. 2018) and thus, the influence on the personal and/or collective efficacy of teachers who work cooperatively with children or in other ways, is relatively unknown (Krammer et al. 2018). Lockwood, Jordan and Kunda (2002) purport that self-evaluations as the result of social comparisons may have varied influences including inspiring future accomplishments or leading to self-deprecation and despondency (Bandura 1997; Rahimi, Hall, Wang, & Maymon 2017), or influencing feelings of satisfaction, belongingness and closeness with others (Bergin & Bergin 2009; Niemiec & Ryan 2009).

2.4.3 Verbal persuasion

The interaction of others within different ecological systems is, therefore, vital in providing information that informs a person's self-efficacy beliefs and develops not just through vicarious experience but also through the source of verbal persuasion. Bandura (1997) described verbal persuasion as the 'evaluative feedback provided to an individual by others' (p. 101). For verbal persuasion to have an effect, appraisal must be realistic, therefore the person receiving the feedback must believe they have the prospect of success (Bandura 1997; Chambliss & Murray 1979). Verbal or social persuasion, like vicarious experience, is thought to be most potent early in a teacher's career due to teachers being new to the task and yet to develop a stable sense of competence, and arguably more easily persuaded by others (Bandura 1997; Milner & Woolfolk Hoy 2003; Morris & Usher 2011; Morris, Usher & Chen 2017). However, further research into the specific feedback that teachers receive about their capabilities, rather than generalised perceptions of support, is needed to fully understand how social persuasion informs TSE beliefs (Bandura 1997; Chong & Kong 2012; Morris, Usher & Chen 2017; Pajares 1996). Bandura (1997) asserted that verbal persuasion alone may not contribute greatly to a person's sense of personal efficacy, however it may be useful in conjunction with other sources to increase effort and persistence.

Within the field of TSE research, assessing social persuasion using both quantitative and

qualitative methodologies has also been reported as problematic because questioning has not addressed the specificity nor influence that verbal persuasion may have on an individual's TSE (Bandura 1997; Morris, Usher & Chen 2017; Pajares 1996). For example, survey items such as *'rate the interpersonal support provided by your colleagues at your school'* (Tschannen-Moran & Woolfolk Hoy 2007, p. 949) and open-ended prompts used in semi-structured interviews, such as *'how did people around you encourage you to integrate technology in teaching?'* (Al-Awidi & Alghazo 2012, p. 929), are more general. Bandura (1997) argued that the messages teachers receive about their practice need to enable them to make evaluative judgements of their capabilities. To date, scales and even open-ended prompts used in qualitative studies, have tended to focus more on the quality and type of support teachers feel they have received (Capa Aydin & Woolfolk Hoy 2005; Tschannen-Moran & Woolfolk Hoy 2007; Woolfolk Hoy & Burke-Spero 2005), rather than the evaluative feedback. In addition, the less explicit messaging teachers receive, such as being sought after for advice and support by colleagues, has received limited attention with the field (Bandura 1997; Morris, Usher & Chen 2017; Pajares 1996). Chong and Kong (2012) in their case study of ten high school teachers in Singapore, investigated the explicit and implicit messages that the teachers received about their capabilities. Open-ended questions, such as *'what did people (colleagues, senior colleagues, students) say to you as you worked on developing lesson places? What sort of messages did you get from these people?',* were reported to enable participants to talk more in-depth about the verbal feedback they had received, enabling them to make assessments of their capabilities (Chong & Kong 2012, p. 270).

2.4.4 Affective states

Bandura (1997) described the source of affective states as 'the processing of sensory experiences such as physical states, stress levels and emotional patterns' (p. 106). For this affective information to be useful in informing a person's self-efficacy beliefs, the intensity, the circumstances of the arousal and interpretation of the experience all need to be considered (Bandura 1997). For example, if a teacher experiences feelings of stress or anxiety in performing a task, such as parent/teacher interviews, then these affective states may inhibit their perception of their capability. Bandura (1997) asserted that both vicarious experience and social persuasion influence judgements of TSE through the 'affective states aroused by comparative self-evaluation' (p. 90). What teachers are comparing and with whom they are

comparing has been reported to have affective consequences (Bandura & Jourden 1991; Goethals & Darley 1977).

The affective source has been suggested to be the least researched field with existing evidence focused mainly on negative states (Heppner 1994; Kieffer & Henson 2000; Morris, Usher & Chen 2017; O'Neil & Stephenson 2012; Poulou 2007). Questions such as, *'rate the degree to which your teaching efficacy stems from feelings of stress or anxiety during your teaching sessions'* (Poulou 2007, p. 198) and '*how stressful was your practicum this week?'* (Klassen & Durksen 2014, p. 162), have explored factors such as stress, fear, anxiety and fatigue in investigating the affective states. Qualitative studies have been less focused on the negative states, instead asking teachers to reflect more generally on significant feelings and emotions whilst preparing to teach and whilst teaching using questions such as *'how do you feel when you integrate technology in your teaching?'* (Al-Awidi & Alghazo 2012, p. 929) and *'how would you describe your feelings and beliefs as you worked on the lesson plans?'* (Chong & Kong 2012, p. 270). Attempts to measure affective states have also been reported to be problematic with scales often not being consistent with how Bandura (1997) conceptualised this source. For example, Ruble, Usher and McGrew (2011) used a series of scales such as The Maslach Burnout Inventory, to assess the sources of TSE for mastery experience, social persuasion and affective states amongst 35 special education teachers of students with autism. However, burnout has been argued to potentially be perceived as an outcome rather than a source (Bandura 1997; Morris, Usher & Chen 2017; Schwarzer & Hallum 2008). Morris, Usher and Chen (2017), suggested that more research is required to capture the affective source as teachers reflect on their lessons and continue to inform TSE beliefs in reflecting on their effectiveness. This signals the need for more research focusing on positive affective states, as teachers who have more positive self-efficacy are suggested to have higher intrapersonal intelligence (Di Fabio & Palazzeschi 2008) and more adaptive coping strategies in managing stress levels (Morris & Usher 2011; Shen 2009; Sutton 2004; Sutton, Mudrey-Camino & Knight 2009).

2.4.5 The possibility of other sources

Recent research has identified the potential existence of other sources of TSE including self-regulation, (Buehl & Fives 2009; Butz & Usher 2015; Klassen & Usher 2010; Morris, Usher & Chen 2017; Palmer 2006, Usher 2009; Webb-Williams 2018), defined as 'the cyclical and

context specific process to achieve personal goals' (Schunk & Zimmerman 2007, p. 8). Cognitive mastery has also been proposed as an additional source of TSE, whereby teacher knowledge provides information that informs TSE beliefs (Bautista 2011; Bautista & Boone 2017; Palmer 2006; 2011; Phan & Locke 2016). Morris, Usher and Chen (2017) however, contend that for teachers to be effective they need to have knowledge of pedagogical strategies, resources and content, and that the experiences of highly efficacious teachers provide them with the opportunity to develop this knowledge. Thus, it is not mastery alone that makes them highly efficacious, it is the relationship between their knowledge and their mastery experience. For example, Cobanoglu, Capa-Aydin and Yildirim's (2019) study of 251 preschool teachers in Turkey, found that content knowledge and pedagogical strategies were important in developing TSE beliefs in relation to the implementation of developmentally appropriate practices (DAP) (see Chapter Three, section 3.3.3). However, it was unclear as to whether teacher knowledge was the original source, as the article concluded that 'teacher efficacy beliefs constitute one of the important sources of teacher beliefs about DAP' (Cobanoglu, Capa-Aydin & Yildirim 2019, p. 195), suggesting that TSE was necessary in developing knowledge of DAP. A further consideration was presented by Bjerke and Solomon's (2019) study on developing the TSE of preservice teachers in mathematics in Norway, which reported that the 'preservice teachers' perceptions of the role of knowledge in the various contexts in which they learn was central to understanding the development of self-efficacy in teaching mathematics' (Bjerke & Solomon 2019, p. 14). This finding suggests that knowledge and context may be important for the continued development of TSE but may not necessarily be a source of TSE.

2.4.6 The role of the sources in the formation of TSE

By developing a better understanding of what and how information from different sources informs TSE beliefs, an environment that supports the formation of positive TSE beliefs can be created (Butz & Usher 2015; Chen & Usher 2013; Wheatley 2005). Thus, Social Cognitive Theory (Bandura 1997) and an ecological perspective (Bronfenbrenner 1979; 2005) together provide an opportunity to critically examine the systems and contexts which influence teachers' practice.

Various models have been produced to explore how TSE may form and change over time, with Tschannen-Moran, Woolfolk Hoy and Hoy (1998) Multidimensional Model of Teacher

Efficacy (Figure 2.1) reported to be the most utilised in the field (Burton, Bamberry & Harris-Boundy 2005; Morris, Usher & Chen 2017; Ross, Cousins, Gadalla & Hannay 1999). The model illustrates 'a cyclical interplay between the sources of self-efficacy, cognitive processing and analysis of teaching task in relation to judgements of personal teaching competence' (Tschannen-Moran, Woolfolk Hoy & Hoy 1998, p. 228).

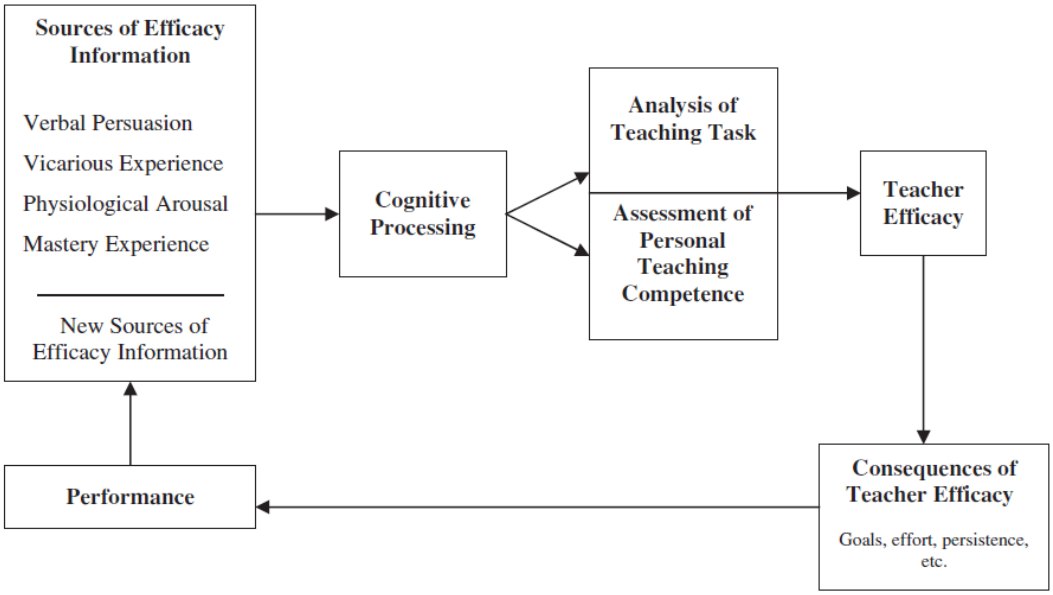


Figure 2.1 Multidimensional Model of Teacher Efficacy (Tschannen-Moran, Woolfolk Hoy & Hoy 1998)

The Multidimensional Model suggests that a teacher's interpretation of the sources influences self-efficacy and in turn the quality of instruction performance (Morris, Usher & Chen 2017; Tschannen-Moran, Woolfolk Hoy & Hoy 1998). This causational link between the sources and TSE is underpinned by an agent-ends (Skinner 1996; Wyatt 2015) perspective to TSE. The model also suggested that TSE was the outcome of the assessment of the teaching task, rather than a precursor to it.

Other researchers such as Ross et al. (1999) and Burton, Bamberry and Harris-Boundy (2005) have also attempted to explain the sources of self-efficacy through a cyclical model whereby the sources, TSE and teaching practices influence one another. However, critiques of such models include misalignment with definitions of TSE, by depicting a means-ends (Skinner 1996) or more linear approach to conceptualising the development of TSE beliefs (Wyatt 2014). Bandura's (1997) Triadic Reciprocal Causation model and Tschannen-Moran, Woolfolk Hoy and Hoy's (1998) own definition recognised the importance of context – the

social, situational and temporal circumstances (Bandura 1997) informing TSE beliefs – which is omitted from the Multidimensional Model (Tschannen-Moran, Woolfolk Hoy & Hoy 1998).

In contrast, Wyatt's (2016) Growth in Language Teachers' Self-Efficacy Beliefs model (Figure 2.2) placed greater emphasis on the micro-meso teaching context in the development of TSE beliefs. Wyatt (2016) emphasised the role of practical knowledge (PK) –'knowledge that is directly related to action, that is readily accessible and applicable to coping with real-life situations' (Calderhead 1988, p. 55) – in the continued development of global self-efficacy and teacher self-efficacy. Global self-efficacy was viewed by Wyatt (2016) as the more general beliefs teachers hold about their capabilities, akin to self-esteem and self-confidence. Arguably less visible within the model was the role of reflection, which Wyatt (2016) highlighted within his explanation of the model as critical to the continued development of TSE and practical knowledge.

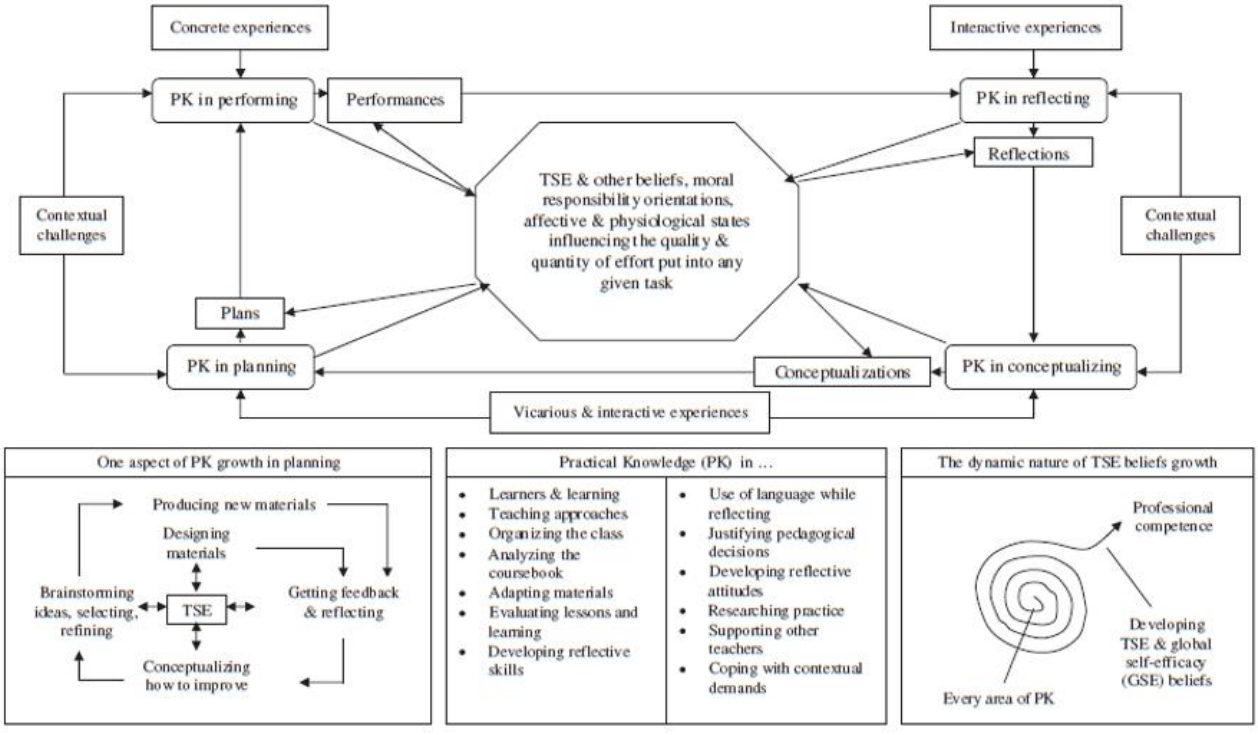


Figure 2.2 Growth in Language Teachers' Self-Efficacy Beliefs Model (Wyatt 2016)

Within Wyatt's (2016) model, challenging contextual factors were highlighted as influencing the sources of TSE, and, as discussed in section 2.4.4 in relation to the affective source,

negative affective states have been the predominant focus within TSE research (Heppner 1994; Kieffer & Henson 2000; Morris, Usher & Chen 2017; O'Neil & Stephenson 2012; Poulou 2007). This distinction is important in the context of this study in aiming to develop further understandings of how the sources provide supportive information to enhance the development of TSE. Examining more closely the sources of TSE within a context may uncover more supportive factors as well as the challenges (Morris, Usher & Chen 2017). Wyatt's (2016) model lends itself to exploring further contextual considerations in the reception teacher's practice and the potential interplay of TSE in this process.

2.4.7 Making sense of source information

Whilst Tschannen-Moran, Woolfolk Hoy and Hoy's (1998) Multidimensional Model and Wyatt's (2016) Growth in Language Teachers' Efficacy Model have significantly contributed to the growing body of research concerned with the formation of TSE beliefs, the models arguably do not explain how teachers make sense of the sources that inform their TSE and the role the sources play in their ongoing TSE development and practice. Tschannen-Moran, Woolfolk Hoy and Hoy's (1998) model applied a linear approach, suggesting that through cognitive processing there is a direct correlation between the sources of TSE and successful performance. Wyatt (2016), however, suggested that language teachers' pedagogical knowledge was reflected upon, conceptualised, planned, performed and mediated by contextual challenges. Introduced in Chapter One as the conceptual model for this thesis, Morris, Usher and Chen (2017) proposed the Integration and Evaluation of Efficacy model (see Figure 2.3). The Integration and Evaluation of Efficacy Information model 'identified factors that potentially mediate or moderate the relationship between the sources and TSE in explaining how information from these factors are integrated and evaluated' (p. 819).

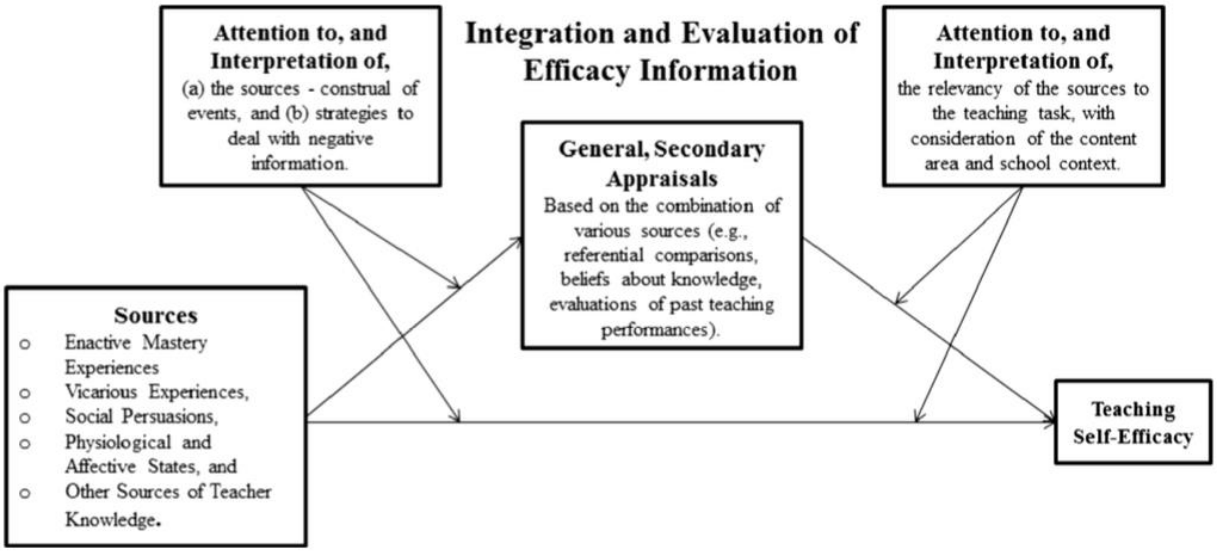


Figure 2.3 Integration and Evaluation of Efficacy Information (Morris, Usher & Chen 2017)

Consideration of Morris, Usher and Chen's (2017) Integration and Evaluation of Efficacy Information Model may enable the critical examination of how reception teachers interpret and make sense of the sources, as well as explore what sources are important to their ongoing TSE development and practice. Morris, Usher and Chen (2017) proposed through the Integration and Evaluation of Efficacy Information model that TSE 'is derived from the four hypothesised sources and other sources of teacher knowledge and the relationship between the sources and TSE is mediated by secondary appraisals and moderated by attention and interpretive processes' (p. 819). Thus, Morris, Usher and Chen's (2017) model affords the opportunity to examine other sources that may arise from examining the ecology of the reception teacher as well as how teachers go about appraising source information and what this means for their TSE and practice.

However, similar to Tschannen-Moran, Woolfolk Hoy and Hoy's (1998) Multidimensional Model, the Integration and Evaluation of Efficacy Information model (Morris, Usher & Chen 2017) may be considered linear, as the arrows leading into TSE are unidirectional, rather than bi-directional as represented by the Triadic Reciprocal Causation model (Bandura 1997). It is also unclear as to why TSE is disproportionally smaller than the other components of the Integration and Evaluation of Efficacy Information model. As TSE is proposed to develop in a cyclical manner (Burton, Bamberry & Harris-Boundy 2005; Ross et al. 1999; Tschannen-Moran, Woolfolk Hoy & Hoy 1998), TSE is thought to influence practice and the teaching

ecology in a reciprocal manner. Nonetheless, in critiquing the potential of the Integration and Evaluation of Efficacy Information model (Morris, Usher & Chen 2017), the model was considered significant to the examination of how reception teachers reflect upon and interpret source information in the continued development of their TSE and the role of TSE in their practice.

The literature search failed to locate any studies which had incorporated the Integration and Evaluation of Efficacy Information model (Morris, Usher & Chen 2017). However, the interpretation of the sources and general secondary appraisal components have been explored. For example, in the upper elementary classrooms of 69 teachers in Holland, Zee, Koomen and de Jong (2018) investigated the ways relationships with students influenced TSE. Zee, Koomen and de Jong (2018) found that 'the mental processes that support teachers to make sense of the sources' (p. 189) were important in the perception teachers had regarding their TSE in establishing relationships with their students. In a study of the effects of the implementation of a professional development program using project-based learning (PBL) on the TSE of 139 Korean teachers, Choi, Lee and Kim (2019) found teachers' interpretation of their teaching experiences in PBL positively influenced their TSE. Barton and Dexter's (2019) study, of the role of the sources of TSE in integration of technology in teachers' practice, found that professional development that enabled access to the sources of verbal persuasion, vicarious experience and mastery experiences 'prompted teachers to reflect on source information to impact on TSE' (Barton & Dexter 2019, p. 1).

In the review of the literature presented in this chapter, studies exploring the sources of TSE in early childhood education have been few, however a quantitative cross-cultural study of 261 Japanese and 11243 Finnish primary school teachers investigated the interaction and influence of the four sources of TSE purported by Bandura (1997) in relation to the implementation of inclusive practices (Yada, Tolvanen, Malinen, Imai-Matsumura, Shimada, Koike & Savolainen 2019). Yada et al. (2019) found mastery experience to be the most significant source, followed by verbal persuasion. The influence of verbal persuasion had both a positive and detrimental influence on their TSE and was dependent on who delivered the evaluative messages and how the messages were delivered. For Finnish teachers who were accustomed to receiving feedback from students, parents and colleagues, verbal feedback was viewed positively and necessary for TSE (Yada et al. 2019). For teachers in Japan, whose feedback was typically provided by principals and school management,

feedback was viewed as formal appraisal, which was found to have a negative influence on TSE (Yada et al. 2019). Vicarious experience was reported to be highly contextual and dependent on whether teachers identified closely with another colleague within their environment, their opportunity to observe colleagues and the stage of career, with novice teachers identified as being highly influenced by vicarious experience (Yada et al. 2019). The findings from Yada et al.'s (2019) research suggest that the context in which the sources operate may also be important in regard to how the sources were interpreted by teachers.

These limited studies highlight the importance of further exploration of the sources of TSE in understanding how reception teachers interpret and moderate the information regarding their capabilities and how this information continues to influence the development of their TSE beliefs (Klassen & Usher 2010, Morris, Usher & Chen 2017; Tschannen-Moran & Hoy 2007). Whilst Bandura (1997) contends that once established, self-efficacy beliefs are relatively stable, there have been few longitudinal TSE studies to examine this notion (George, Richardson & Watt 2018). More recently, longitudinal methodologies have been utilised to address the calling from the field to investigate whether TSE beliefs change over time (Morris, Usher & Chen 2017; Wyatt 2015). For example, George, Richardson and Watt's (2018) five-year longitudinal study, of 74 primary and secondary early career teachers in their first to sixth year of teaching in Australia, applied the TSES (Tschannen-Moran & Woolfolk Hoy 2001) in investigating changes to TSE. The findings highlighted that primary teachers were more efficacious than their secondary counterparts in classroom management and student engagement, which they attributed to differences in their teacher education program (George, Richardson & Watt 2018). Further to this, the study reported slight increases in TSE for all their participants over the five-year period, suggesting that TSE may develop over time (George, Richardson & Watt 2018).

Tschannen-Moran & Woolfolk Hoy (2007) purported that preservice teachers have an apprenticeship of at least 17 years as students and called for qualitative studies to investigate more closely the influence of this apprenticeship on their TSE, along with their university experiences. Woolfolk Hoy and Burke-Spero's (2005) longitudinal study of preservice teachers enrolled in a masters of elementary school education, examined the TSE of 53 preservice teachers in the first year of their program, in their final year and in their first year of teaching. The study found that the participants' TSE increased in their first year of their master's program but then decreased in their first year of teaching, which Woolfolk Hoy and

Burke-Spero (2005) attributed to the level of contextual support the participants received. This study will be re-visited in Chapter Three in relation to the ecology of the teacher. Bandura (1997) suggested that self-efficacy is changeable early in life and Tschannen-Moran and Woolfolk Hoy (2007) extended this perspective to teachers and suggested that the most significant change to TSE occurs early in the teaching career. However, longitudinal studies that have examined early career teachers over the first five years of their career, have reported varied results regarding the malleability of TSE over time (George, Richardson & Watt 2018). The inclusion of a life-course perspective in this study aimed to contribute to the examination of the intersection of the teachers' apprenticeship into teaching, i.e. their personal life and professional life, and the continued development of TSE. The Integration and Evaluation of Efficacy Information model (Morris, Usher & Chen 2017) will be revisited again throughout this thesis as the conceptual framework of this thesis.

2.5 Conclusion

TSE research has expanded and built upon self-efficacy research, sharing theoretical underpinnings and extending the findings of self-efficacy research to teachers. Whilst much can be learned from the field of self-efficacy, the shortcomings of research traditions within the field have also transferred to TSE. As such, considerable TSE research has continued to be predominantly within the psychology domain and quantitative in nature, with the measurement challenges evidenced within the field of self-efficacy research extended to TSE research. The research analysed in this literature review, however, has helped to refine and expand theoretical understandings of TSE, as well as the sources and their potential influence on practice. Directly of relevance to this study was the call for further qualitative approaches to explore more deeply areas of TSE, including the formation of TSE through various sources and how teachers interpret the sources to inform their TSE beliefs. In particular, this chapter has highlighted the gap in qualitative TSE studies within the foundational early years of schooling, specifically reception teachers who have responsibility for supporting children as they transition into their first year of primary school. Given the reported positive influence of TSE on children's learning, wellbeing and achievement, deeper examination of TSE beliefs, the sources that inform their beliefs and how these beliefs influence practice within the classroom microsystem is essential. Applying a qualitative lens to the predominant psychological approaches to TSE research including Social Cognitive Theory (Bandura 1997) aims to contribute to the field, with emerging literature suggesting the need to expand

the field to explore the potential ecological influences on TSE. Thus this study proposes the potential affordance of combining psychological (Social Cognitive Theory) and sociological (Ecological Theory) lens. Chapter Three further explores the literature, investigating TSE through an ecological lens, and highlights the factors across various ecological systems that have the potential to influence their TSE and practice.

Chapter 3: Literature Review – Teacher Self-Efficacy: An Ecological Perspective

3.1 Introduction

As discussed in Chapter Two, understanding how TSE forms and continues to develop is important given the purported influence of TSE on teachers' practice and children's learning (Anderson, Greene & Loewen 1988; Guo et al. 2010; Guo et al. 2011; Justice et al. 2008; Midley, Feldlaufer & Eccles 1989; Ross 1992; Tschannen-Moran, Woolfolk Hoy & Hoy 1998; Tschannen-Moran & Woolfolk Hoy 2001; Wyatt 2015). Chapter Two considered the formation of TSE beliefs from a Social Cognitive perspective, and specifically examined four sources of TSE; mastery experience, verbal persuasion, vicarious experience and affective states (Bandura 1997), as well as raising the possibility of other sources. Chapter Three extends this perspective by utilising an ecological lens to explore the formation and continued development of TSE beliefs. An ecological lens provides the opportunity to examine the interactions of the reception teacher within distinctive interdependent environments or systems which may have a direct or indirect influence on their TSE and practice. An ecological perspective contextualises the sources of TSE and enables closer examination of the E segment (environment/teaching context) of the adapted Triadic Reciprocal Causation model (Figure 1.1) (Bandura 1997). Building on the Chapter Two review of literature, a critical analysis of the limited TSE research in relation to early childhood teachers is presented in this chapter, specifically the literature regarding the practice and ecology of the reception teacher. The chapter concludes by drawing on the literature to conceptualise and provide the rationale for the adapted Integration and Evaluation of Efficacy Information model (Morris, Usher & Chen 2017) to be adopted as the conceptual framework for this thesis.

3.2 Why Consider the Ecology of the Reception Teacher?

The ecology of the school context is important to examine given that TSE is purported to be context and domain-specific (Bandura 1997; eds Garvis & Pendergast 2016; Tschannen-Moran & Woolfolk Hoy 2001). Thus, in addressing callings from the field for research to examine how TSE beliefs form and continue to develop (Burton, Bamberry & Harris-Boundy 2005; Ross et al. 1999; Tschannen-Moran, Woolfolk Hoy & Hoy 1998; Wyatt 2016; Zee & Koomen 2016), Chapter Three explores the context-specific nature of TSE utilising an

ecological frame. At the core of Social Cognitive Theory (Bandura 1997) is the Triadic Reciprocal Causation model (Figure 1.1) (Bandura 1997) which depicts the reception teachers' environment (E segment) in a reciprocal or bi-directional relationship with their TSE (P segment) and practice (B segment). In utilising an ecological lens, the E component of the Triadic Reciprocal Causation model (Bandura 1997) may be explored across multiple interacting systems, specifically the influence of factors within and between these systems. As outlined in Chapter One (Figure 1.2), the Bioecological Systems model (Bronfenbrenner 1979; 2005) depicts a series of concentric circles which represent different micro, meso, exo and macro systems. The outer circle represents the indirect influence of the macro system, whilst the inner circle represents the direct influence of the classroom microsystem on both TSE and practice. The influence that time and events may have on the systems and the experiences of the individual teacher is depicted by the chronosystem.

Ecological Theory has evolved over time, illustrating the potential for theory to remain dynamic rather than static in nature (Einarsdóttir 2014). Bronfenbrenner (1979; 2005) adapted the original ecological model to reflect both the changes in society that have occurred over time (Rosa & Tudge 2013) and also his emergent views of the 'importance of the dynamic and multi-tiered ecology of human development' (Bronfenbrenner 2005, p. xiii). As discussed in Chapter One, the ecological model was revised to become the Bioecological Systems model to reflect person, proximal processes, context and time (Bronfenbrenner 2005; Perry & Dockett 2018; Rosa & Tudge 2013). The positioning of the individual at the centre of the model highlights the need to understand the individual within multiple environments (Perry & Dockett 2018). Critiques of the Bioecological Systems model have argued that not all contexts prioritise the individual and the model has neglected the social and cultural context of the individual and power relations within contexts (Perry & Dockett 2018; Petriwskyj 2014; Rogoff 2003). Furthermore, the conceptualisation of the contexts as distinct, but interrelated systems has been critiqued as, whilst 'elegant' (Vogler, Crivello & Woodhead 2008, p. 25), it 'risks objectifying boundaries and assuming internal sub-system coherence' (Vogler, Crivello & Woodhead 2008, p. 25). In addressing these criticisms, Bronfenbrenner (2005) drew on Vygotsky's (1962; 1978) socio-cultural theory to consider the proximal processes of the individual and the interactions between individuals and their environment (Rosa & Tudge 2013). Lewin's (1936) concept of life space and Elder's (1998) life course theory led to the conceptualisation of the chronosystem (Perry & Dockett 2018; Rosa & Tudge 2013). The chronosystem enabled the examination of the influence of both

time and timing and thus, consideration given to the past, present and future in understanding 'issues of continuity and change' (Perry & Dockett 2018, p. 606).

TSE research, however, has predominantly focused on research within the micro-mesosystem of the classroom and school context including interrelations with school community members (Tschannen-Moran, Woolfolk Hoy & Hoy 1998; Wyatt 2016; Zee & Koomen 2016). Previous TSE research has shown that mesosystem interactions, involving feedback, support and interaction with colleagues, influence TSE (Bandura 2012; Pas, Bradshaw & Hershfeldt 2012; Tschannen-Moran, Woolfolk Hoy & Hoy 1998). However, teaching occurs within a broader and more complex interactive system. For example, the reception year is a transition point for young children moving from the preschool to primary school context. The microsystem of the reception classroom therefore interacts with both the primary school and preschool contexts as well as their respective ecological system influences, which results in an entangled mesh of practices from both sectors. This includes influences across mesosystem educator and parent/carer interrelations, exosystem family and community activities that may influence children's engagement in the classroom, macrosystem educational policies, cultural and societal values and beliefs as well as chronosystem time related events and occurrences (La Salle, Meyers, Varjas & Roach 2015). Navigating the complexities and tensions that the interactions between systems may create within the first year of primary school has been described by the researcher in the introduction to Chapter One and provided the provocation for this study.

As described, TSE research has tended to focus on the micro-meso system influences (Tschannen-Moran, Woolfolk Hoy & Hoy 1998; Wyatt 2016; Zee & Koomen 2016). Zee and Koomen (2016) for example, extended Tschannen-Moran, Woolfolk Hoy and Hoy's (1998) Multidimensional Model of Teacher Efficacy (section 2.4.6) to develop the Heuristic Model of Teacher Self-efficacy. Similar to the Teachers' Sense of Efficacy Scale (TSES) (Tschannen-Moran & Woolfolk Hoy 2001), Zee and Koomen (2016), drawing on the work of Pianta and Hamre (2009), suggested that TSE influences three domains at the micro classroom level: instructional support, classroom organisation and emotional support. Instructional support was defined as the degree that teachers could scaffold learning and support children's thinking and application of thinking, whilst classroom organisation included teaching practices that directed learning and the degree to which teachers prevented behavioural issues (Zee & Koomen 2016). The domain of emotional support was used in

place of student engagement on the TSES. Emotional support considered the interpersonal and affective classroom dynamics (Zee & Koomen 2016). Whilst these models are useful in examining TSE within the microsystem of the reception classroom, caution is necessary in assuming that the 'microsystem operates in similar ways for individuals' (Perry & Dockett 2018, p. 605). Thus, the utility of qualitative research to examine the uniqueness of the individual's TSE is significant (Morris, Usher & Chen 2017; Wheatley 2005; Wyatt 2014).

Zee and Koomen's model (2016), similar to Wyatt's (2016) Growth in Language Teachers' Self-Efficacy Beliefs model (section 2.4.6), explored both global TSE and domain-specific TSE, which, as discussed in Chapter Two, section 2.3.3, are argued to provide diversity within the TSE research field (Klassen et al. 2011). Thus, the domain and context specificity of TSE, that is how teachers feel about their teaching more generally and in specific areas and in specific contexts, provides the opportunity to examine the development of TSE beliefs within the reception classroom context. However, whilst Zee and Koomen (2016) and Wyatt's (2016) models have provided a lens through which to examine the reception classroom and school context, the macrosystem social and political systems that influence the classroom, in alignment with previous research, have not been a focus of these models.

In analysing macrosystem influences, it is notable that Australia's policy agenda has focused on developing teaching quality through accountability frameworks, curriculum and pedagogical documents (Cochran-Smith et al 2018; Gonzalez et al. 2017; Lingard 2018; Plank & Condliffe 2013; Wheatley 2015). Such influences have been purported to increase the demands on teachers and job-related pressures (Ballet & Kelchtermans 2009; Butt & Lance 2005; Putwain & von der Embse 2019). However, the potential influence of the macrosystem policy context on TSE and practice has received limited attention within the field of TSE research (eds Garvis & Pendergast 2016; Morris, Usher & Chen 2017). The limited TSE research available has focused on geographic settings (urban, suburban or rural), supporting students from different socioeconomic and cultural backgrounds, and academic abilities and teaching resources (Auwarter & Aruguete 2008; Lumpe, Haney & Czerniak 2000; Mosley & Taylor 2011; Raudenbush, Rowan & Cheong 1992; Tschannen-Moran & Johnson 2011; Tschannen-Moran & Woolfolk Hoy 2007).

Most recently, Putwain and von der Embse's (2019) study of 839 primary school teachers in England, found that when macrosystem influences, such as imposed changes to curriculum

and assessment, were high, teachers had lower TSE and higher stress levels and the 'protection that TSE offered against stress gradually diminished' (Putwain & von der Embse 2019, p. 61). Whilst TSE has been suggested as important construct for teachers' wellbeing (Betoret 2006; Brouwers & Tomic 2000; George, Richardson & Watt 2018), Putwain & von der Embse's (2019) research suggests that macrosystem factors do influence TSE in less than positive ways. The exosystem is less clear within TSE research as it does not directly include the teacher. This reflects the criticism of the Bioecological Systems model in conceptualising the contexts of the teacher as distinct systems (Vogler, Crivello & Woodhead 2008), however Bronfenbrenner (1979; 2005) argues the systems are interconnected and nested and thus not distinct. The boundaries between systems have been reported to be 'blurred' (Perry & Dockett 2018, p. 605) and thus, the relationship and interactions within and between the systems is not always clear. The exosystem is viewed as an extension of the mesosystem and thus concerns the interactions across the ecological systems that indirectly influence the microsystem of the reception context (La Salle et al. 2015). The exosystem includes the relationship and interaction with factors such as friends and family, neighbours and community services (Bronfenbrenner & Ceci 1994), which have not previously been a focus of TSE research.

Within the chronosystem of the ecological model, the interaction between systems and individuals over time has also received limited attention within the TSE research field (George, Richardson & Watt 2018; Watt & Richardson 2010; Zee & Koomen 2016). Typically, TSE research has examined the formation of TSE beliefs at the preservice teacher stage (Tschannen-Moran & Woolfolk Hoy 2007) with some longitudinal studies examining how TSE beliefs continues to develop throughout different career stages (Dicke, Parker, Marsh, Kunter, Schmech & Leutner 2014; Holzberger, Philipp & Kunter 2014; Poulou, Reddy & Dudek 2019). Whilst Bandura (1997) proposed that self-efficacy was a 'relatively stable construct' (George, Richardson & Watt 2018, p. 220), longitudinal studies have examined the malleability of TSE throughout a teacher's career and have revealed varied results (George, Richardson & Watt 2018; Holzberger, Philipp & Kunter 2014). Woolfolk Hoy and Burke Spero's (2005) longitudinal study, for example, tracked the TSE of 53 preservice teachers enrolled in a masters of elementary teaching degree at a mid-western university in the US, into their first year of teaching. The study found that of the 29 respondents, there was a decline in their TSE from the initial survey in their first year of their degree, to the end of their first year of teaching. Woolfolk Hoy and Burke Spero (2005)

attributed the decline to new graduates being 'confronted with the realities and complexities of the teaching task' (p. 353), suggesting that their mastery experience gained throughout their preservice teaching experiences did not necessarily translate into their new teaching context. Woolfolk Hoy and Burke Spero's (2005) findings were echoed by Watt and Richardson's (2010) study of 96 high school maths and science teachers in Australia, which tracked the TSE of beginning teachers throughout their first five years of teaching. Watt and Richardson (2010) found that there was a distinct decline of TSE over this time period which was again attributed to an idealistic perception of teaching versus the experienced reality of their work. However, George, Richardson and Watt's (2018) five-year longitudinal study of 74 beginning primary and secondary teachers in Victoria, Australia, found that the participants' TSE increased. George, Richardson and Watt (2018) attributed this change to TSE to an increase in the mastery experience of the participants provided through targeted professional development.

Bandura (1997) has argued that a significant chronosystem event, such as a critical moment (Thomson, Bell, Holland, Henderson, McGrellis & Sharpe 2002) or turning point (Mandelbaum 1973; Rutter 1996) is required in order to bring about a change to TSE beliefs. Therefore, in addressing callings from the TSE field regarding how to develop and grow TSE (Klassen & Usher 2010; Morris, Usher & Chen 2017; Tschannen-Moran & Hoy 2007; Wyatt 2015), further attention to the chronosystem influence of critical moments (Thomson et al. 2002) or turning points (Mandelbaum 1973; Rutter 1996), beyond the reality shock purported by George, Richardson and Watt (2018) of graduate teachers entering the profession, may reveal important information.

Mastery experience has long been purported as the most significant source of TSE (Bandura 1997; Morris, Usher & Chen 2017; Tschannen-Moran & Woolfolk Hoy 2001), which Morris, Usher and Chen (2017) highlighted within their Integration and Evaluation of Efficacy Information model discussed in Chapter Two, section 2.4.7. Morris, Usher and Chen (2017) argued that TSE is 'moderated by the extent to which teachers believe their past experiences, and self-appraisals based on those experiences, provide information that is relevant to the current teaching task and context' (p. 822). Whilst Morris, Usher and Chen (2017) were making reference to previous teaching experiences, Edwards and Loveridge's (2011) qualitative case study of seven early childhood teachers in childcare in New Zealand found that their negative feelings toward implementing science curriculum stemmed from their own

early schooling experiences. This finding was echoed by Gerde et al.'s (2018) study of 67 preschool teachers in the US, examining the influence of TSE on science, mathematics and literacy instruction. Past schooling experiences were found to influence the TSE of the preschool teachers in their implementation of science and mathematics and in turn predicted the time that the teachers dedicated to providing learning opportunities in the classroom (Gerde et al. 2018). Thus, examining the chronosystem, that is the influence of time on systems and individuals, may provide further insight into how TSE beliefs are formed. The following section presents a critique of the literature that specifically examines the ecology of the reception teacher and the factors that may influence the formation and continued development of their TSE and practice from this perspective.

3.3 TSE and Practice

The importance of the ecology of teaching was highlighted by both Wyatt's (2010) definition of TSE and Comber's (2006) definition of teaching practice. Wyatt's (2010) definition of TSE described teachers' practice as occurring within a specific context, reflecting teachers' beliefs regarding their ability to 'support children's learning in cognitive, metacognitive, affective and social ways' (p. 603). Comber's (2006) definition of practice, however, provided greater specificity in outlining the 'ways' in which teachers engage in their work. Comber (2006) argued that practice involved interpretive, pedagogical, discursive, relational and institutional work. This work, however, as illustrated by the Bioecological Systems model (Bronfenbrenner 1979; 2005), operates within an interconnected system. The interpretive and relational work of the teacher, for example, is in relationship with the children in the microsystem of the classroom, whilst pedagogical and institutional work is directly and indirectly influenced by macro factors such as curriculum, community, available resources and facilities (Comber 2006). Thus, the relationship between the factors within various systems that the reception teacher perceives as influencing their work and their TSE is an important consideration given the assertion that self-efficacy influences 'the courses of action people take, the effort they apply, their perseverance and resilience in overcoming adversity and their ability to cope with taxing environmental demands' (Bandura 1997, p. 3). Thus, the role of TSE in navigating system influences and mitigating the negative effects (Putwain & von der Embse 2019) of such macrosystem influences is outlined in the following sections.

3.3.1 TSE and policy

The role of TSE as teachers navigate an intensification of legislation regarding assessment and accountability (Gonzalez et al. 2017; Plank & Condliffe 2013) has been argued to be an important consideration as teachers reflect on their beliefs about their capabilities to enact what is being asked of them and their agency in questioning the efficacy of the policies themselves (Sarason 1990; Tschannen-Moran & Woolfolk Hoy 2001). Cochran-Smith et al. (2018) suggest that there are four key trends that currently influence education globally: '(1) the quality of the education system; (2) high expectations for teachers; (3) teacher quality and; (4) initial teacher reforms' (p. 17). The underlying assumptions of these ideas have led to various reforms positioning teachers as both the problem and solution of these ideas (Cochran-Smith et al. 2018). Reid (2016) for example, has argued that the 'dominant discourse [in Australia] is that education is failing students, which has led to the development of policies aimed at 'fixing' the problem and also a narrowing of curriculum' (p. 76). Thus, since the Melbourne Declaration (MCEETYA 2008) and the recent Alice Springs (Mparntwe) Education Declaration (Education Services Australia 2019), educational reforms in Australia have indeed reflected Cochran-Smith et al.'s (2018) worldwide trends of education reform (Reid 2013; 2016). Consequently, in exploring TSE, critical examination of these educational reforms is important in further understanding the ecological context and influences which impact on the work of the South Australian reception teacher within their classroom microsystem.

Chapter Two, section 2.1, highlighted the differing terms, policies and curriculum that guide and overlap within the sector of early childhood in Australia (Press & Hayes 2000). For early childhood teachers in schools, the most significant change has been the introduction of the Australian Professional Standards for Teachers (the Standards) (AITSL 2009). The Standards (AITSL 2009), developed in 2009, aimed to lift the quality of the teaching profession by attracting, supporting and retaining quality teachers. The Standards outlined three domains of quality; Professional Knowledge, Professional Practice and Professional Engagement, and seven focus areas under which sub-headings provide further elaborations. Teachers are required to compare themselves to 37 statements defined as quality teaching indicators to move through different career stages; graduate, proficient, highly accomplished and lead, so that teachers 'improve their practice inside and outside of the classroom' (AITSL 2009). The Standards also aimed to 'provide national leadership for the Commonwealth, state and territory governments in promoting excellence in the profession of teaching and

school leadership' (Education Council 2013).

Ball (2015), however, has argued that an increase in accountability and standardisation in Australian education has the potential to become counterproductive as teachers find themselves in 'perpetual states of comparison against their colleagues and former selves, in an effort to be more effective and excellent' (Holloway & Brass 2018, p. 363). As discussed in Chapter Two (section 2.4.2) in relation to vicarious experience, the role of TSE in how teachers make comparisons of self is an important concept to consider. Bandura (1997) argued that through social comparison people seek out information to inform their own self judgements (Festinger 1954) and make comparative self-evaluations (Bandura 1997) in an upward, horizontal or downward direction. Whilst these comparisons may inspire accomplishments (Lockwood, Jordan & Kunda 2002; Tschannen-Moran & Woolfolk Hoy 2007) and lead to feelings of satisfaction, belongingness and closeness with others (Bergin & Bergin 2009; Niemiec & Ryan 2009) and in turn develop more positive self-efficacy beliefs (Locke 2003), self-comparisons may also lead to self-deprecation and despondency (Bandura 1997; Rahimi et al. 2017). Aiming to understand the influence of the Standards and accountability on performativity, Holloway and Brass' (2018) study of five middle-school teachers in the US, found that teachers became 'increasingly reliant on indicators of quality and accepted the scrutiny of accountability policies' (Holloway & Brass 2018, p. 379), arguably conforming to the policy context that shaped their work.

Ford, Van Sickle, Clark, Fazio-Brunson and Schween's (2017) study of 37 elementary school teachers in Louisiana implementing Compass, a high-stakes teacher evaluation system, found that despite teachers performing well in their teacher evaluations, the stress of the evaluation process itself diminished their TSE. Importantly, TSE was found to stem from 'low levels of system-wide policy support for teacher learning and restrictions to their autonomy' (Ford et al. 2017, p. 232). Autonomy or agency are key interrelated constructs as 'unless people believe they can produce desired effects by their actions, they have little incentive to act' (Bandura 1997, p. 3). Furthermore, Wheatley (2018) argued that if teachers do not perceive a sense of agency within their teaching, this in turn influences children's sense of agency in their learning.

Social Cognitive Theory (Bandura 1997) and Ecological Theory (Bronfenbrenner 1979; 2005) position reception teachers as agents who are 'active, thinking decision-makers in

making instructional choices, drawing on complex, practically orientated, personalised and context-sensitive networks of knowledge, thoughts and beliefs' (Borg 2003, p. 81). As discussed in Chapter One, Social Cognitive Theory (Bandura 1997) takes an emergent and interactive agentic perspective to human functioning (Bandura 1986), whereby people are viewed as contributors to 'their own motivation and action within a system of triadic reciprocal causation' (Bandura 1989, p. 1175). Similarly, human development from an ecological perspective considers that 'individuals influence the people and institutions of their ecology as much as they are influenced by them' (Bronfenbrenner 2005, p. ix). Whilst this perspective is underpinned by the view that the self is socially constructed and human agency enables individuals to influence life events (Bandura 1997, p. 6), there are multiple factors within the ecology of the teacher that influence their agency and in turn their work, such as the quality agenda detailed in Ford et al.'s (2017) research which currently shapes the education reform in Australia (Reid 2013; 2018).

Developing alongside the quality agenda of education reforms in Australia, including professional standards (AITSL 2009) and initial teacher education (TEMAG 2014), has been the intensification of standardised testing (Lingard 2018). Whilst there are currently no mandated assessments for children in reception in South Australia, Gonzalez et al. (2017), in their mixed-methods study of 145 elementary, middle and high school teachers in the US, found that regardless of the year level of the high-stakes testing, all teachers, including those in the first year of formal schooling, felt the influence of the tests. The tests impacted teachers both personally and in the microsystem of their classroom, through changes to the school timetable, expectations from leadership to prepare children for testing, and requirements to adjust teaching strategies (Gonzalez et al. 2017). Barblett, Knaus and Barratt-Pugh's (2016) qualitative study of 200 preschool teachers in Western Australia, which investigated preschool teachers' perception of the most important pedagogical issues that affected their work, found that the pressures of Australia's National Assessment Program – Literacy and Numeracy (NAPLAN) (ACARA 2008) were felt to be encroaching on the pedagogical practices of preschool teachers. Barblett, Knaus and Barratt-Pugh (2016) reported the downward pressure that preschool teachers felt, for the teaching and acquisition of literacy and numeracy, which Barblett, Knaus and Barratt-Pugh (2016) described as the 'schoolification' (p. 39) of preschool.

Whilst Gonzalez et al.'s (2017) study found that the quantitative data that they gathered

through surveying the teachers did not highlight any significant influence of high stakes testing on TSE, the qualitative data revealed a significant negative effect on the TSE of the participants. This finding supports the importance of qualitative studies that seek to capture the voice of the teacher in understanding their TSE (Glackin & Hohenstein 2018; Morris, Usher & Chen 2017; Wheatley 2005; Wyatt 2013). The qualitative data from Gonzalez et al.'s (2017) study, regarding teacher agency, echoed Ford et al.'s (2017) study, revealing a need for school administrators to 'allow teachers an opportunity to contribute to discussions regarding curriculum and take ownership of these changes' (Gonzalez et al. 2017, p. 528). Similarly, Aldridge and Fraser's (2016) quantitative study of 781 high school teachers in Western Australia, investigating teachers' views of their school climate and relationship with TSE, found that school principals 'contribute directly and indirectly to teachers' self-efficacy and job satisfaction' (p. 302). In particular, the creation by principals of 'a supportive community in which teachers could work, share ideas and practices was beneficial for teachers in terms of their self-efficacy and job satisfaction' (Aldridge & Fraser 2016, p. 302). Thus, teachers' sense of agency within the microsystem of the school context is an important consideration for principals and other school leaders.

Agency may, however, be viewed on a continuum from least to most agentic, whereby teachers with a lower sense of TSE and agency react and comply with external conditions, whilst teachers with higher TSE and agency use their agency to plan courses of action to bring about outcomes (Goller & Harteis 2017). The Triadic Reciprocal Causation model highlights agency as the interrelationship between the teacher and their environment through the interaction of the B-E-P segments (Hitlin & Kwon 2016; Jääskelä, Poikkeus, Vasalampi, Valleala & Rasku-Puttonen 2017; Kahn, Qualter & Young 2012). The Bioecological Systems model (Bronfenbrenner 1979; 2005) however, provides opportunity to examine the interaction within and between different systems to identify factors that may influence the agency and TSE of reception teachers.

3.3.2 TSE and curriculum

Given the current focus on teacher quality and accountability (Lingard 2018; Reid 2013; 2016), 'knowledge of content and the ability to teach that content (pedagogical content knowledge) have become a primary focus for teachers' (Dassa & Nichols 2019, p. 157). As discussed in Chapter Two, section 2.4.5, teacher knowledge, defined as teachers' knowledge

of pedagogical strategies, resources and content (Morris, Usher & Chen 2017), has been the focus of research concerned with the sources of TSE beliefs (Bautista 2011; Bautista & Boone 2017; Palmer 2006; 2011; Phan & Locke 2016). Whether TSE for one curriculum area or domain is related to their TSE or practice in another is also the subject of current TSE research (Gerde et al. 2018). In examining the domain specific nature of TSE, previous research has found that teachers need to feel confident in their content knowledge to feel confident to teach it (Gerde et al. 2018; Vartuli 1999; 2005). Content knowledge has been positively related to TSE for teaching mathematics (Newton, Leonard, Evans, Eastburn & Tatum 2012), social studies (Holt 2009) and science (Maier, Greenfield & Bulotsky-Shearer 2013) and thus, content knowledge has been argued to be a source of TSE (Bautista 2011; Bautista & Boone 2017; Palmer 2006; 2011; Phan & Locke 2016).

Given the current focus on content knowledge and its relationship to TSE, the complexity of the reception teachers' ecology extends to tensions regarding curriculum. Reception teachers in South Australia predominantly work with two documents; the Early Years Learning Framework (EYLF) (DEEWR 2009) and the Australian Curriculum (AC) (ACARA 2008). Whilst efforts were made to promote the complementary nature of the two documents (Connor 2011; Hard, Lee & Dockett 2018), the aims of each were different, arguably limiting the alignment between the two (Barblett, Knaus & Barratt-Pugh 2016; Hard, Lee & Dockett 2018). The EYLF (DEEWR 2009) is a transitional document, supporting the learning and development of children from birth to five years as they transition from preschool to school. It is both a pedagogical and curriculum framework, underpinned by sociocultural, poststructuralist, postmodern and critical theories, and promotes child-centred, play-based and dialogic and democratic approaches to practice (DEEWR 2009; Fleer 2010). These approaches advocate for teachers to promote 'dialogic inquiry and knowledge building with children to collaboratively co-construct learning experiences' (Anning, Cullen & Fleer 2004, p. 18). The second key document, the AC (ACARA 2008), is a reception to Year 10 document, which overlaps with the EYLF in the reception year. The AC (ACARA 2008) is a content document outlining what to teach across developmental levels or bands, with schools provided with the opportunity to 'decide how best to deliver the curriculum' (ACARA 2008).

The AC (ACARA 2008) is depicted as a three-dimensional curriculum (Figure 3.4), with disciplinary knowledge, skills and understandings, positioned at the centre (ACARA 2008).



Figure 3.1 The three dimensions of the Australian Curriculum (ACARA 2008)

ACARA (CC BY-NC 4.0)

Disciplinary knowledge within the AC was designed to be developed through eight learning areas; English, Mathematics, Science, Health and Physical Education, Humanities and Social Sciences, The Arts, Technologies and Languages. Each learning area is further divided into strands and elaborations, containing a content description and achievement standard to specify what 'young people will learn' and the 'depth of understanding and the sophistication of knowledge and skill expected of students' (ACARA 2008). Alongside the learning areas are seven general capabilities which are viewed as integrated and interconnected; literacy, numeracy, information and communication technology, critical and creative thinking, personal and social capability, ethical understanding and intercultural understanding (ACARA 2008). In addition, there are three cross curriculum priorities of Aboriginal and Torres Strait Islander Histories and Cultures, Asia and Australia's Engagement with Asia and Sustainability (ACARA 2008), which are to be addressed through the learning areas (ACARA 2008).

The AC (ACARA 2008) has been criticised for the 'complexity in its conceptualisation and implementation as a multi-dimensional model' (Moss, Godinho & Chao 2019) and for providing limited pedagogical advice regarding its implementation (Moss, Godinho & Chao 2019). As Reid (2018) argues, it is important to distinguish between the intended and enacted curriculum. The fact that the AC (ACARA 2008) document places disciplinary

knowledge at the centre potentially poses complexities for reception teachers in enacting the sociocultural, poststructuralist, postmodern and critical theories of the EYLF (DEEWR 2009). In response, and to provide pedagogical guidance for the teachers and educational leaders of South Australia, the Department for Education developed the Teaching for Effective Learning (TfEL) document (Department for Education and Children's Services (DECS) 2010) for public schools. The TfEL (DECS 2010) document shares similar socio-cultural theoretical underpinnings as the EYLF (DEEWR 2009), and describes practice as constructivist, dialogic and democratic (DECS 2010), potentially supporting reception teachers in public schools to navigate both the EYLF (DEEWR 2009) and AC (ACARA 2008) in their contexts.

The TfEL (DECS 2010) document is underpinned by two concepts: learning for effective teaching and teaching for effective learning, which are elaborated through four domains: (1) learning for effective teaching; (2) teaching for effective learning: create safe conditions for rigorous learning; (3) teaching for effective learning: develop expert learners and; (4) teaching for effective learning: personalise and connect learning. The document aims to provide an 'internal compass to guide designs for learning and decision-making about practice' (DECS 2010, p. 7) and makes clear the need to develop the disciplinary knowledges of the AC. Whilst the document states that teachers are responsible for 'making learning about learning an explicit part of the curriculum' (DECS 2010, p. 45) so that 'students consciously develop their capacities as expert learners' (DECS 2010, p. 45), it also recognises the 'balancing act' (DECS 2010, p. 9) required of teachers to realise the dual emphasis on developing 'curriculum that is connected to students' lives and the communities in which they live' (DECS 2010, p. 63).

The 'balancing act' that the TfEL document describes (DECS 2010, p. 63), requires knowledge of both curriculum and pedagogy and highlights the complexities facing reception teachers within the context of the early years of primary school. Moreover, the 'balancing act' (DECS 2010, p. 63) required of teachers, illustrates the current debate within TSE research regarding whether knowledge is a source of TSE or a precursor to it (Bautista 2011; Bautista & Boone 2017; Palmer 2006; Phan & Locke 2016).

TSE is an important construct to consider in supporting teachers to navigate these complexities. Whilst reception teachers may hold philosophical and pedagogical beliefs,

their beliefs operate at the microsystem classroom level in interaction with the macrosystem policy and curriculum contexts, which is currently influenced by teacher accountability frameworks and standardised testing mandates. The curriculum context for reception teachers is even more complex due to the provision of two curriculum documents to guide their work. Whilst schools may have autonomy and agency to decide how to enact curriculum (ACARA 2008), this study seeks to explore whether the same agency is extended to reception teachers within their school context and the role TSE plays in navigating potential challenges to their practice.

Consideration regarding how reception teachers may exert influence within the school context is important in developing understandings of how they navigate the challenges within their practice. For example, as discussed in section 3.2, Gerde et al.'s (2018) study of early childhood teachers' implementation of science reported that the pressure from 'policymakers and administrators to focus on literacy was so strong that early years teachers focused on literacy to the exclusion of science' (p. 83). Similarly, Gonzalez et al.'s (2017) study of 145 elementary, middle school and high school teacher in Texas, found that macrosystem influences such as high-stakes testing of curriculum areas influenced the time that teachers dedicated to those curriculum areas to the exclusion of other curriculum areas not assessed. Teachers' personal agency or their ability to influence practice, was therefore indirectly influenced by factors at the macrosystem level.

Personal agency can be extended to two additional modes of agency; proxy and collective. Proxy and collective agency acknowledge the role of the socio-structural influences and the social world in which teachers' function (Bandura 2001). These modes of agency are important, given that teachers are socially situated and may therefore be influenced by such social forms of agency. Proxy agency is the indirect influence a person can exert on circumstances beyond their immediate control, by acting through others who they perceive to have more influence than themselves (Bandura 2001). For example, in the context of this study, the reception teacher may rely on a colleague to teach a part of the curriculum that they perceive themselves to have a lower level of TSE. The use of proxy agency may indeed create more time and allow for greater effort to be applied in other areas considered important to the reception teacher (Baltes 1996; Bandura 2001; Brandstätter 1992).

The role of collective agency in the teaching profession is argued to be an important

consideration to explore, given that contextual factors that increase collective efficacy have shown higher levels of personal self-efficacy and enhanced student achievement (Goddard & Goddard 2001; Goddard, Hoy & Woolfolk Hoy 2000; 2004; Tschannen-Moran & Barr 2004). Collective agency describes the coordinated and interdependent effort of the group to exert influence (Bandura 1997) and is 'people's shared belief in their collective power to produce desired results' (Bandura 2001, p. 14). The dynamic and interactive nature of the collective group, combined with the shared beliefs, are argued to ultimately determine the collective performance, motivation and effort of the group (Bandura 2001). Cansoy and Parlar's (2017) study of 427 elementary, middle school and high school teachers in Istanbul, for example, found that school leaders who encouraged teachers' agency in decision-making processes 'strengthened teachers' beliefs in their efficacy' (p. 561). However, the current focus on curriculum standardisation and associated policies has the potential to 'take away teachers' use of discretion and expertise to determine and address learner needs' (Ford et al. 2017, p. 211). Thus, the role of teacher agency in the continued development of TSE is central in examining the relationship between TSE and the pedagogy of the reception teacher.

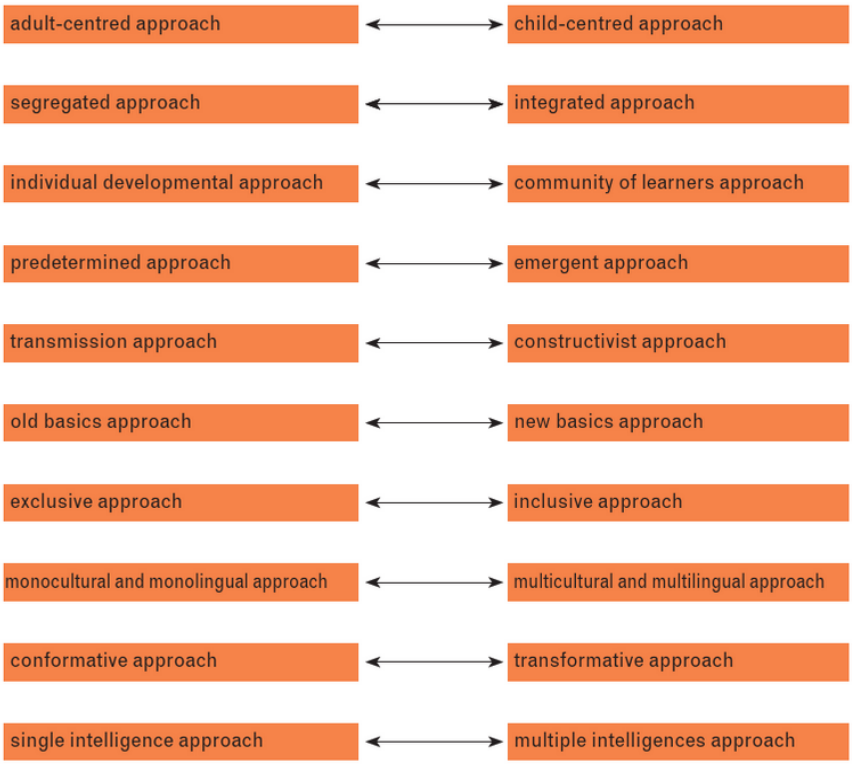
3.3.3 TSE and pedagogy

In examining the role of agency, Niemiec and Ryan (2009) in their critique of the effect of external controls such as accountability measures on teachers' practice, concluded that the more that 'teachers' satisfaction for autonomy is undermined, the less enthusiasm and creative energy they can bring to their teaching endeavours' (p. 140). Thus, for reception teachers to be effective in undertaking their pedagogical work (Comber 2006), they must also have agency within the classroom microsystem. TSE judgements are therefore 'intimately tied to perceptions of autonomy' (Ford et al. 2017, p. 212). Agency will be returned to in section 3.4.

As outlined in Chapter One, section 1.2, TSE has generally been associated with teachers' willingness to engage in different teaching methods (eds Garvis & Pendergast 2016; Klassen & Tze 2014; Skaalvik & Skaalvik 2017; Zee & Koomen 2016), high levels of planning (Chestnut & Burley 2015) and developmentally appropriate practices (Cobanoglu, Capa-Aydin & Yildirim 2019). In early childhood, a diversity of pedagogies have emerged (Irving, Carter, Burton, Colville, Hooper, Hughes & Pestana 2018) which Farmer, Dockett and Arthur (2014) have conceptualised as a continuum (Table 3.1) to provide teachers with the

opportunity to examine and make decisions about their pedagogy.

Table 3.1 A continuum of pedagogical approaches (Farmer, Dockett & Arthur 2014)



As described, developmental, behaviourist, sociocultural, poststructural, postmodern and critical theories have informed the different approaches to Australian early childhood educational practice (Arthur et al. 2018; DEEWR 2009; Irving et al. 2018). Developmental theories are based on the premise that development and learning progress through the chronosystem influence of predetermined and linear stages (Arthur et al. 2018; Bredekamp & Copple 1997; Copple & Bredekamp 2009; Irving et al. 2018). Researchers such as Fleer (2010) and Dahlberg, Moss and Pence (2013) have argued that developmental theories exclude the ecological influence and interactions of the social and cultural context of the child and need to be updated to reflect the changing world (Arthur et al. 2018; Chung & Walsh 2000; Fleer 2006; 2009; 2010; Walsh 2002). Whilst previous TSE research among preschool teachers in Turkey, discussed in Chapter Two, suggested that teachers with a higher sense of TSE used more developmentally appropriate practices (Cobanoglu, Capa-Aydin & Yildirim 2019), the findings of such research may not be as applicable in the Australian context, given the criticisms of such approaches. Similarly, pedagogical practices based on behaviourism, where behaviour is 'externally controlled by environmental stimuli

with no internal influence' (Bandura 2001, p. 2) have been equally as criticised for being too teacher-initiated and directed, excluding the role of children's cognition in learning (Arthur et al. 2018; Fleer 2006; 2009; 2010; Irving et al. 2018).

In contrast, pedagogical practices underpinned by socio-cultural theories emphasise the importance of social interaction and participation in the teaching and learning process and view these experiences as embedded within the social and cultural context (Arthur et al. 2018). Thus, the mesosystem interactions between teachers and families/carers, fundamental to the pedagogical and relational work of the teacher (Comber 2006), are important considerations. Reception teachers need to view themselves as capable in developing relationships with parents (Thompson, Marvin & Knoche 2017) as the mesosystem interaction of teachers and parents/carers has been attributed to positive academic and social outcomes for children (Chung, Marvin & Churchill 2005; Fantuzzo, Perlman, Sproul, Minney, Perry & Li 2012; Thompson, Marvin & Knoche 2017).

In positioning the reception teacher as a critical part of the child's ecological system, poststructural, postmodern and critical theories challenge teachers to interrogate the underlying assumptions within their pedagogies (Irving et al. 2018). Poststructural and postmodern theories contest the notion of truth and posit that truth and knowledge are constructed through authority and power (MacNaughton 2005). An increased focus on more democratic and child-centred approaches, advocated by socio-cultural, postmodern, poststructuralist and critical theorists, has however been critiqued for potentially making the role of the teacher unclear as they attempt to balance more intentional approaches with child-centred and democratic approaches (Cherrington 2018; Kilderry 2015; Leggett & Ford 2013; Rinaldi 2013; Scottish Executive Education Department 2001; Siraj-Blatchford 2009).

Reception teachers are therefore faced with a dilemma in not only understanding the complex nature of the different educational practices of early childhood, but also finding a balance in achieving desired outcomes and negotiating child-centred approaches within their contexts. It has been argued that such approaches require the reception teacher to view their role as more facilitative and less directive, responding to the needs and interests of the children through the learning environment (Cherrington 2018; Siraj-Blatchford 2009). Schleicher (2015), in a review of the OECD Teaching and Learning International Survey (TALIS) identifying ways to strengthen TSE in 21st century learning environments, indicated that

teachers with a higher sense of TSE were reported to be engaged in more 'child-centred and dialogic practices that supported children to manage complex situations and learning independently and continuously' (Schleicher 2015, p. 51). The opposite was found among less efficacious teachers. Therefore, if child-centred and dialogic philosophies are viewed as important for children's learning, then a focus on developing reception teacher's self-efficacy is essential given the relationship between TSE, student achievement and motivation (Schleicher 2015; Skaalvik & Skaalvik 2017; Tschannen-Moran & Woolfolk Hoy 2001; Tschannen-Moran & Barr 2004).

The role of self-reflection is, therefore, critical in understanding the relationship between their TSE and practice. Dassa and Nichols' (2019) study of 146 preservice teachers' content knowledge and TSE, whilst undertaking a teaching practicum, found that 'teachers need opportunities for ongoing reflection on their levels of content knowledge and abilities to promote increased learning outcomes among their students' (Dassa & Nichols 2019, p. 171). Reflective practice requires 'sophisticated reflective skills and knowledge' (Cherrington 2018, p. 328) to have the potential to bring about transformative change (Dassa & Nichols 2019; Jones & Nimmo 1999; MacLellan 2016). However, reflective practice is argued to be influenced by macrosystem factors such as the teacher education program, personal attributes such as TSE and the microsystem climate of the teaching context (Cherrington 2018). For example, Ford et al.'s (2017) study on the effects of the Compass, a high-stakes evaluative teaching process on TSE, reported earlier, found that such an approach to teacher evaluation diminished the teacher's motivation to engage in reflective practice. Thus, whilst reception teachers may have knowledge of a variety of pedagogies (Irving et al. 2018) and a continuum of approaches on which to reflect (Farmer, Dockett & Arthur 2014), their TSE is tied to their perceptions of agency (Deci, Koestner & Ryan 1999; Ford et al. 2017; Niemiec & Ryan 2009; Skaalvik & Skaalvik 2017; Tschannen-Moran, Woolfolk Hoy & Hoy 1998). Therefore, further exploration of influences across all ecological systems (micro, meso, exo, macro and chrono) on the formation and development of the reception teacher self-efficacy beliefs, sources of TSE and influence on practice is necessary, as well as the perceived agency that reception teachers perceive they have within the classroom microsystem.

3.4 The Conceptual Framework

Recent callings from the field of TSE research have been for qualitative methodologies and clear conceptual and analytical frameworks (Glackin & Hohenstein 2018; Klassen & Durksen 2014; Wyatt 2013) responsive to the specific ecological influences and context of the teacher. In addressing this call and drawing from TSE literature reported in Chapters Two and Three, a conceptual framework has been developed for this study (see Figure 3.2). The Integration and Evaluation of Efficacy Information model (Morris, Usher & Chen 2017) has been adapted to explore the TSE beliefs of reception teachers, the role of the sources in the formation and continued development of their TSE beliefs, and the relationship between the reception teachers' practice and TSE.

Whilst the Integration and Evaluation of Efficacy Information model (Morris, Usher & Chen 2017), was informed by Social Cognitive Theory (Bandura 1997) and the Triadic Reciprocal Causation model (Bandura 1997), an ecological lens and specifically, the Bioecological Systems model (Bronfenbrenner 1979; 2005), have been included to extend the framework to consider the contextual and ecological influences on TSE.

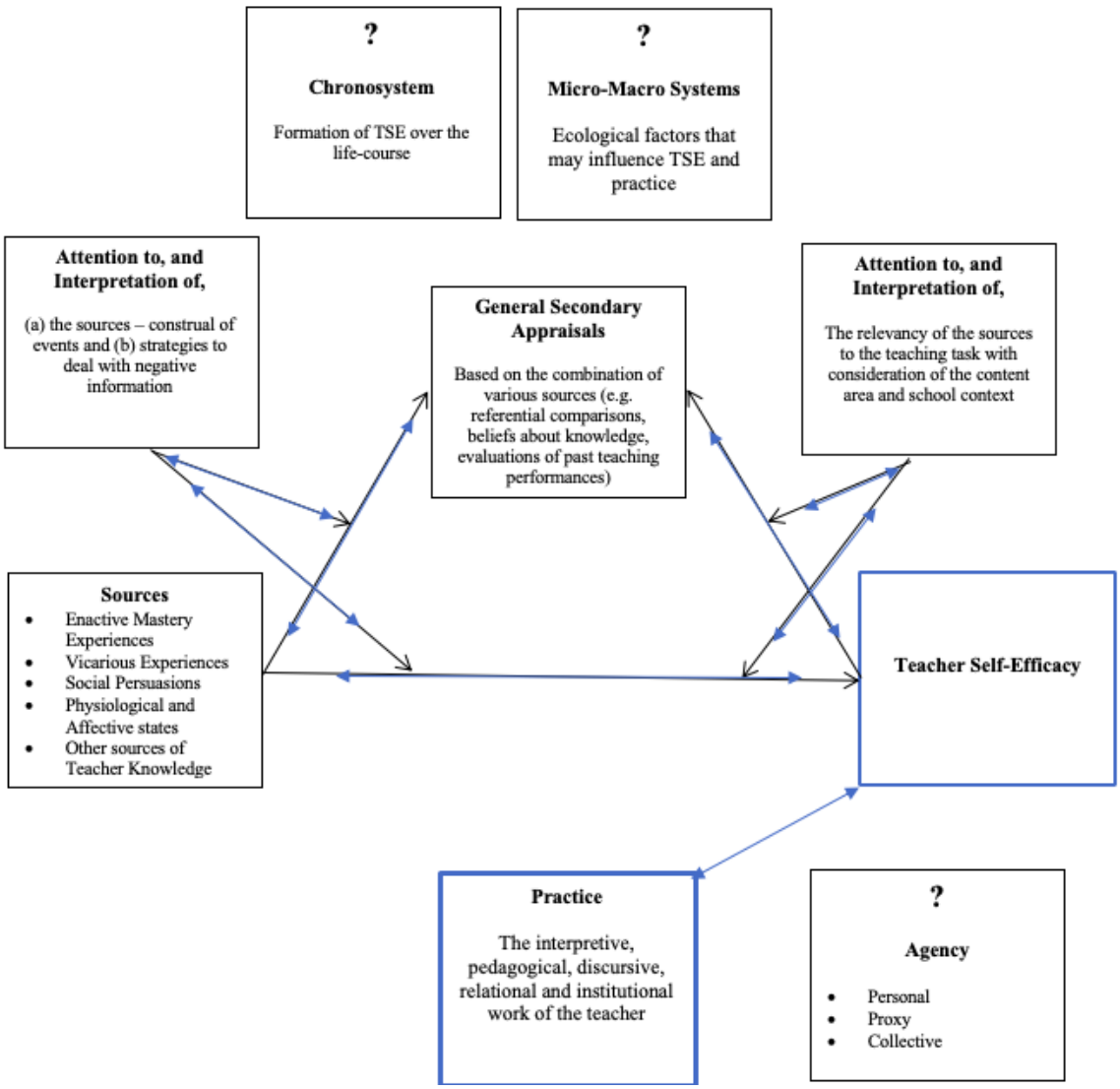


Figure 3.2 Adaptation of the Integration and Evaluation of Efficacy Information Model (Morris, Usher & Chen 2017)

The Integration and Evaluation of Efficacy Information model (Morris, Usher & Chen 2017) suggests that the sources of TSE – mastery experience, vicarious experience, verbal persuasion and affective states (Bandura 1997) – as well as other sources of teacher knowledge, operate within the microsystem of the school context. The model suggests that source information is attended to, interpreted and appraised to inform TSE (Morris, Usher & Chen 2017). However, an ecological lens enables examination of factors beyond the micro-meso system of the classroom and school context and thus, added to the conceptual framework is consideration of factors across the ecological system that may directly and indirectly influence the TSE and practice of reception teachers. The chronosystem was considered important to the conceptual framework to examine the influence of the reception teachers' life-experiences on their TSE and practice. The interaction with and between the

various ecological systems was included within the framework to enable further exploration regarding how TSE forms and continues to develop.

The agency of the reception teacher has also been raised as a possibility for further exploration within the adapted Integration and Evaluation of Efficacy Information model (Morris, Usher & Chen 2017). Agency was purported within the literature to be an important consideration in teachers exercising control over their thoughts, feelings and actions (Bandura 1997). However, current models (see Chapter Two, section 2.4.6 and 2.4.7) concerning the development of TSE do not explicitly depict agency. Furthermore, Wyatt's (2015) definition of TSE highlights the interrelatedness of agency and TSE as teachers are viewed as agents who plan and execute courses of action to support the learning of the children with whom they work. Also, Wyatt's (2016) model did acknowledge challenges to the development of TSE and perhaps agency, which provides the opportunity to examine the contextual factors that may be biases and barriers (MacLellan 2016) within the formation and continued development of TSE and agency. Therefore, agency was deemed important to explore and has been added to the framework to enable consideration of the factors that may support or challenge the teachers' interpretations of their agency and how this may influence their TSE and practice.

Given that practice was another key focus of this study, this section was added to the framework utilising Comber's (2006) definition of the five elements of teachers' work: interpretive, pedagogical, discursive, relational and institutional. As discussed in Chapter Two, section 2.4.7, bi-directional arrows in alignment with the Triadic Reciprocal Causation model (Bandura 1997) have been added to the Integration and Evaluation of Efficacy Information model to reflect the relationship between TSE, practice and the ecology of the teaching context. As discussed in section 2.4.7, the TSE section has been enlarged in proportion to the other components to reflect the reciprocal relationship of the B-P-E segments of the Triadic Reciprocal Causation model.

Understanding how these elements interact and influence one another is complex and it is argued that qualitative research would diversify the field of TSE research by contributing to the richness of knowledge gained through quantitative studies. Qualitative research that explores the information that reception teachers attend to in making assessments of possible courses of action (Morris, Usher & Chen 2017) and how they go about interpreting this

information, may be valuable in understanding how teachers, administrators and policy makers construct supportive environments that continue to develop positive TSE beliefs, facilitate effective teacher practice and quality teacher educational reform.

3.5 Conclusion

Chapter Three reinforces the gap in TSE research, particularly within the early childhood education field and specifically the reception teaching context of this study. The challenge in distinguishing reception teachers within TSE research highlights the need for specific exploration to understand the applicability of TSE studies in relation to reception teachers. Given the importance of TSE to practice and in turn the learning outcomes for children (Anderson, Greene & Loewen 1988; Ashton & Webb 1986; Guo et al. 2010, Guo et al. 2011; Justice et al. 2008; Midley, Feldlaufer & Eccles 1989; Ross 1992; Schleicher 2015), greater specificity within the field of TSE research that addresses the TSE of reception teachers has the potential to inform policymakers, researchers and school leaders of the formation and sources of reception TSE beliefs and potential approaches to continue to develop TSE beliefs.

The policy, curriculum and pedagogical considerations of the reception teacher were outlined to highlight the complexity of their educational context, and to inform the exploration of potential sources and formation of TSE beliefs and influence on practice. This led to an adaptation of the Integration and Evaluation of Efficacy Information model (Morris, Usher & Chen 2017) as the conceptual framework for this study. Given the need for development of frameworks to guide the methodology, analysis and findings of TSE qualitative studies (Glackin & Hohenstein 2018), the conceptual framework has the potential to contribute deep and rich understandings of the TSE of reception teachers. Within the context of this study, integrating Social Cognitive and Ecological systems theories provides an innovative approach to the theoretical and conceptual exploration of TSE. Chapter Four outlines the research design, methodological considerations and analytic procedures of this study, informed by the literature reviews presented in Chapter Two and Chapter Three, to explore the TSE and influence on practice of eight South Australian reception teachers.

Chapter 4: Methodology

4.1 Introduction

Chapter Four presents the qualitative interpretive multiple case study research design for exploring the TSE, sources of beliefs, and relationship to practice of eight South Australian reception teachers. The research design utilised diverse forms of qualitative data collection methods to examine TSE from multiple perspectives and facilitate deep and rich understandings (Merriam et. al. 2001) of the TSE beliefs, sources of beliefs, and practice of the reception teachers. These methods included a series of three semi-structured interviews, observation of classroom practice, video elicitation using play-back and think-aloud strategies, participant reflection and completion of a teacher self-efficacy scale. Chapter Four begins with an outline of the research rationale for applying an interpretivist paradigm and case study methodology, followed by an in-depth justification and presentation of the data collection methods. A detailed description of the data analysis procedure follows, and the chapter concludes with a comprehensive outline of the ethical considerations applied to this study.

4.2 Outline of the Research

4.2.1 The theoretical underpinnings and conceptual framework of the study

The methodology of the study was underpinned by Social Cognitive Theory (Bandura 1997) and Ecological Theory (Bronfenbrenner 1979; 2005), combining the fields of psychology and sociology to explore the relationship between the TSE beliefs, sources of beliefs, teaching practice and educational context of the reception teachers of this study. Self-efficacy has been viewed as a key component of Social Cognitive Theory (Bandura 1997) as the beliefs that people hold in relation to their capabilities are argued to regulate their behaviour, thoughts, feelings and motivations (Bandura 1997) and the relationship between these factors is represented by the Triadic Reciprocal Causation model (Bandura 1997). As the tenets of self-efficacy have been extended to teachers and the field of TSE research, the Triadic Reciprocal Causation model (Bandura 1997) was adapted to view behaviour as practice, environment as the teaching context and personal as self-efficacy and TSE. Ecological Theory was particularly important in understanding the different systems in which the reception teacher operates and the influence that the interconnected and complex interaction of these systems had on their TSE and practice. Bronfenbrenner's Bioecological Systems

model (1979; 2005) was adopted with the aim to deeply analyse the participants' TSE in their role as a reception teacher within the microsystem of their classroom and school context. The macro and exo systems were also examined to analyse the indirect influence of factors within these systems on TSE and practice as reception teachers as well as the influence of interactions and relationships of individuals and groups within the mesosystem. Consideration given to the chronosystem enabled the exploration of the life-course of the participants; the personal and professional, including critical moments and events to be examined in the formation and continued development of their TSE beliefs.

Informed by Social Cognitive Theory and the Triadic Reciprocal Causation model (Bandura 1997), an adapted Integration and Evaluation of Efficacy Information model (Morris, Usher & Chen 2017) was developed as the conceptual framework for this thesis (Figure 3.2). As discussed in Chapter Three, Ecological Theory, which specifically utilised the Bioecological Systems model (Bronfenbrenner 1979; 2005), further extended the Integration and Evaluation of Efficacy Information model (Morris, Usher & Chen 2017) to graphically illustrate key factors for exploration within the research and provide a guide for the research (Glackin & Hohenstein 2018; Miles & Huberman 1994). The micro-macro systems were added to the Integration and Evaluation of Efficacy Information model (Morris, Usher & Chen 2017) to enable exploration of the influence of systems beyond the microsystem of the classroom or school context. The chronosystem was also added to explore the formation and development of TSE from a life-course perspective.

In addressing current criticisms from the TSE research field regarding the limited use of multiple data sources and analytical frameworks in qualitative studies (Glackin & Hohenstein 2018), Chapter Four outlines the theoretical underpinnings and the conceptual framework of this study. Social Cognitive Theory (Bandura 1997) and Ecological Theory (Bronfenbrenner 1979; 2005), along with Morris, Usher and Chen's (2017) Integration and Evaluation of Efficacy Information model were critical in informing the methodological and analytical processes, which will be outlined in the following sections.

4.2.2 The research paradigm and approach

The interpretivist paradigm was applied to explore contextualised understandings regarding the reception teachers' truth or interpretations of their reality (Wheatley 2005) from a life-

course perspective. Interpretivism views truth to be derived from what the social context considers real, useful and meaningful (Guba & Lincoln 2005) and in using an interpretivist paradigm, this thesis considered the statements that the reception teachers made to be constructions of their own truths which were socially and contextually situated (Campanario & Yost 2017; eds Feist & Gorman 2013; Gergen 2001).

However, interpretive perspectives using qualitative methodology have been largely neglected in the field of self-efficacy and TSE research (Labone 2004; Wyatt 2014) and, as discussed in Chapter Two, the quest to objectively measure and uncover deeper understandings regarding the TSE construct through quantitative approaches has been problematic (Morris, Usher & Chen 2017; Zee & Koomen 2016). Arguably a more useful, meaningful and coherent understanding of TSE is effectively constructed using a qualitative approach as it has 'better explanatory power and much greater utility' (Wheatley 2005, p. 759). Interpretivism supports the disassembling of the reception teachers' statements in order to develop interpretations that reveal embedded TSE beliefs and which aspects of practice these beliefs relate to (Wyatt 2014). Qualitative methodology, using an interpretivist paradigm, therefore provided an opportunity to explore the meaning behind reception teachers' responses as '...goals and beliefs about teachers, students, and teaching methods are often irreducible parts of a teacher efficacy belief' (Wheatley 2005, p. 759).

In alignment with Social Cognitive Theory (Bandura 1997) and Ecological Theory (Bronfenbrenner 1979; 2005), interpretivism situates the reception teacher as an agent who is shaped by and exerts influence over their social and cultural world (Hughes 2010). The interpretivism paradigm thus provided the opportunity to develop understandings of the TSE beliefs of reception teachers and the sources of those beliefs from this perspective. In the context of this study, the reality or the truth behind the participants' responses enabled a wider understanding of the potential influence of TSE on practice, which provided implications for the teaching profession regarding how to effectively create conditions for the growth of positive TSE beliefs (Morris, Usher & Chen 2017; Wheatley 2005).

Whilst the interpretivist paradigm acknowledges that each teacher has their own truth, which is deeply contextualised, Williams (2003) argued that one of the limitations in using an interpretivist approach is in how the teacher understands and interprets their own truth or reality. Creswell (2009) advanced the critique by suggesting that interpretivism may also be

limited by how statements are interpreted and explained by the researcher. These critiques were addressed through a comprehensive justification and description of the data analysis process outlined in section 4.5.2, with issues of trustworthiness examined in section 4.5.3. In addressing the research questions of this study, an interpretivist qualitative multiple case study design enabled the voices of the teachers' to be elicited, analysed and explained (Wheatley 2005) to find connections and themes between the participants' experiences.

A multiple case study enabled an in-depth study of the TSE beliefs of reception teachers, the sources of their beliefs and the influence of TSE on the participants' practice. The term 'case study' has been used in this study to refer to the individual reception teacher and the collective participant group (Creswell 2007a, p. 73). Stake (2006) described cases as 'entities' (p. 1) or an 'arena' (p. 2) that allows for the study of 'functions' (p. 2) and relationships and suggests that multiple methods of data collection are used to generate a picture of the case (Stake 2006, p. 2). The eight reception teachers who took part in the research were considered members of a specific target group or 'quintain' (Stake 2006, p. 4), enabling the phenomenon of TSE to be explored from this perspective.

As an experienced reception teacher, the researcher was positioned within the study as a partial insider (Chavez 2008; Merriam et al. 2001). Positioning of the researcher (Creswell 2007a) in such a way was important in developing insightful understandings of the participants' perspectives. However, the researcher acknowledges the potential bias her own experiences have in informing her own ontological and epistemological beliefs, and thus the interpretations of this study (Creswell 2007b). The researcher was therefore conscious of bias, which will be discussed further in section 4.5.3 in relation to trustworthiness. However, as a partial insider, the researcher was familiar with the reception context and quickly gained the participants' trust, enabling rich understandings of the participants' TSE beliefs and practice to be developed (Merriam et. al. 2001).

Within the research design and implementation, reported limitations of case studies regarding data management and analysis, as well as the generalisations that may be drawn from the findings (Yin 2003) were acknowledged. To address these, the researcher employed diverse data collection methods to capture the depth of the participant perspectives (see section 4.4). The researcher dedicated ten-months to the data collection process, which was reflexive to enable ongoing data analysis throughout the data collection phases. Considerable time at the

conclusion of data collection was spent iteratively and recursively analysing the data, as Merriam and Grenier (2019) advise. A conceptual framework was utilised to facilitate the in-depth and contextualised understanding of the TSE and practice of the reception teachers of this study.

4.2.3 Research aim and questions

The aim of the study was to explore the TSE beliefs and practice of eight reception teachers in South Australia. Three questions for the research were inductively developed to address the aim of the study:

a) What are the TSE beliefs of reception teachers?
b) What sources influence the TSE beliefs of reception teachers?
c) What is the relationship between the TSE beliefs of reception teachers and their practice?

To explore the TSE beliefs of reception teachers in research question (a), consideration was given to Wyatt's (2010) definition of TSE: 'teachers' beliefs in their abilities to support learning in various task and context-specific cognitive, metacognitive, affective and social ways' (p. 603). Research question (b), sought to explore the information that may influence the TSE beliefs of reception teachers. The seminal work of Bandura (1997) and the prominence of research regarding the four sources of self-efficacy – mastery experience, vicarious experience, verbal persuasion and affective states – underpinned the analysis of the formation and development of the TSE of reception teachers of this study. Informing research question (c) was the notion of practice discussed in Chapter One, which was described as the interpretive, pedagogical, discursive, relational and institutional work of the teacher. Together these definitions and concepts provided the specificity necessary in exploring the beliefs that teachers hold about their capabilities in attending to, reflecting on and enacting their practice within their teaching contexts.

4.2.4 Overview of the study

The participant group consisted of eight female reception teachers: a sample considered relatively typical because of their gender, of the South Australian teaching profession (see section 4.3.2 for further explanation of the teaching profession in South Australia). Whilst each teacher was treated as representing a single case, collectively the eight participants were

considered a multiple case study (Stake 2006). In using a multiple case study, descriptive explanations and interpretations about TSE and practice could be explored more deeply, enabling a better understanding of the complexities and uniqueness of each participant as well as the contributions they make to the quintain (Stake 2006) and wider field of TSE research.

The context of the teacher was considered important in understanding the reception teacher's contextual lens, and in using a case study approach the research was able to 'study the experience of real cases operating in real situations' (Stake 2006, p. 3). A four-phase approach to data collection, depicted by Figure 4.1 in section 4.4, was utilised and involved semi-structured interviews, observation of classroom events and video elicitation using play-back and think-aloud strategies, reflective prompts for participant reflection and the 12-item, Teachers' Sense of Efficacy Scale (short form) (TSES) (Tschannen-Moran & Woolfolk Hoy 2001) (see Chapter Two, section 2.3.3 for a critical review of TSES). The multiple forms of data collection were critical to triangulation (Glackin & Hohenstein 2018) and supported the participants in expressing their own understanding of their TSE in relation to their practice. The use of such a variety of methods of data collection also accommodated construal bias or the participants' subjective interpretation of reality (Paluck & Shafir 2016; Ross & Nisbett 1991). Thus, how participants interpreted and assigned meaning to the questions asked by the researcher was important to the overall analysis of the data in extending the conceptual framework for this study (Morris, Usher & Chen 2017). The multiple forms of data collection allowed for the development of the self-efficacy narrative (Zeldin & Pajares 2000) of each participant to be constructed, interpreted and explained. This design addressed callings from the field of TSE research to better understand 'what teachers' perceived self-efficacy interpretations mean to them' (Wheatley 2005, p. 761). The qualitative interpretive multiple case study design and diversity of data collection methods provided opportunity to advance the research regarding the sources of information reception teachers attend to and how this information influences their TSE beliefs.

4.3 Context and Participant Selection

Purposeful selection was used to canvass 46 South Australian schools from December 2014 to January 2015, inviting reception teachers to participate in the qualitative interpretive multiple case study to support the exploration of the research questions (Creswell 2009;

Merriam 2009). Thus, the research was bound by the year level taught by the participants and the geographical location of the study in metropolitan Adelaide, South Australia. To generate a picture of the case (Stake 2006), purposeful selection considered (a) where the research was to take place, (b) the participants as contributing to the quintain, (c) what would be asked of the participants or observed and (d) the order of the research process (Miles & Huberman 1994).

The schools in which the research took place were considered a typical sample (Merriam 2009) and were 'not in any major way atypical, extreme, deviant or intensely unusual' (Patton 2002, p. 236). As detailed in Table 4.2, the schools were from three sectors across the metropolitan area: public, private and Catholic. As per Table 4.1, letters were sent via email to 30 principals (Appendices A & C) whose website documented they had a reception year at their school, to canvas their interest in permitting their reception teachers to take part in the study. The number of cases was not pre-determined, and the sample size was determined in part by redundancy (Lincoln & Guba 1985), when acceptance to participate was no longer forthcoming. From this sample nine reception teachers consented to their involvement (Appendix D). After the life-history semi-structured interview (phase One), one participant decided not to continue. The reason for the participant's withdrawal was not given, however the participant was thanked for their time and their data was destroyed as per ethical requirements in section 4.6. Recruitment to replace this participant was deemed unnecessary as eight participants was considered an appropriate sample in addressing the research questions and in providing enough data (Merriam 2009; Smith & Eatough 2007). Table 4.1 provides a summary of the participant and context selection process.

Table 4.1 Overview of the recruitment process

Timeline	Procedure
Term 4 Dec 2014	Letters with information sheets and consent forms (Appendices A, B & C) were sent to 30 principals whose schools had reception as a year level, seeking permission to approach their reception teachers for participation in the research.
Term 1 Jan 2015	Due to the low response rate in Dec 2014, an additional 16 letters with information sheets and consent forms were sent to principals whose schools had reception as a year level, seeking permission to approach their reception teachers for their participation in the research.

	Phase 1 – Life-story semi-structured interview conducted. Consent forms received at time of interview. (Appendices B, D & E)

4.3.1 Context

At the time of data collection, there were 528 public schools in South Australia, of which 360 were primary schools, responsible for the years of schooling from reception to year seven (Department for Education and Child Development (DECD) 2011). The Catholic sector consisted of 103 schools, of which 73 were primary settings (Catholic Education South Australia (CESA) c. 1950). The private sector had 115 member schools with 39 reception to year seven schools and 40 reception to year 12 (Association of Independent Schools of South Australia (AISSA) 1975). All educational sectors and school types were considered for inclusion in the research if the school (1) had reception teachers, (2) the principal consented to the study, and (3) reception teachers were willing to participate in the research. Table 4.2 provides an overview of the schools involved in the research.

Table 4.2 Overview of schools involved and number of participants

Sector	Number of schools	Number of participants
Catholic	1	2
Private	2	3
Public	1	3

Further information about the school context is provided below in Table 4.3 using The Index of Community Socio-Educational Advantage (ICSEA) (ACARA 2012). The ICSEA (ACARA 2012) tool is used in Australia to measure and correlate educational achievement mapped against NAPLAN (ACARA 2008) results and to provide specific information regarding the socio-educational backgrounds of students, expressed as quartiles and reported on the MySchool website (ACARA 2010). Pseudonyms have been used to protect the identity of the participants and their schools.

Table 4.3 Overview of the context

The Parish School: A Catholic, metropolitan preschool to year seven school, with an enrolment of 302 students and 22 teaching staff. The ICSEA value was 1063 with a percentile of 75 (ACARA 2015). The ICESA (ACARA 2012) further noted 59 percent of the parent population in the middle third of the ICSEA (ACARA 2012), with 13 percent in the bottom third and 28 percent in the top

third. One percent of the school population identified as Indigenous Australian and 28 percent spoke a language other than English (ACARA 2012).
The Water's Edge Primary School: A public preschool to year seven school. The reception year at The Water's Edge was unique with children from three and a half to six years of age sharing the same learning environment. The school had a total of 264 enrolments and 23 teaching staff. In 2015 the ICSEA value was 951 with a percentile of 24 (ACARA 2015). The ICSEA (ACARA 2012) recorded 41 percent of the parent population in the bottom third, 46 percent in the middle third and 13 percent in the top third. The student cohort consisted of 28 percent who identified as Indigenous Australian and 38 percent who spoke a language other than English (ACARA 2012). Categories from one to seven are used in South Australia's public schools to indicate the level of (dis)advantage, one being the highest level of disadvantage and seven being the lowest. At the time of the third interview, The Water's Edge was classified as a Category 2 school. The preschool had been awarded an 'excellent' rating by the Australian Children's Education and Care Quality Authority (ACECQA 2012).
The Shire School: A private school which had undergone significant growth in the two years prior to data collection, with expansion from a preschool to year seven school to a preschool to year ten school and plans to extend to year 12 by 2017. Enrolment was 378 students, employing 26 teaching staff. The ICSEA value was 1089 with a percentile of 83 (ACARA 2015). Thirty-seven percent of the parent population were in the top third of the ICSEA (ACARA 2012), with 57 percent in the middle third and six percent in the bottom third. There were no Indigenous students enrolled and two percent of the student population spoke a language other than English (ACARA 2012).
The Foothills School: A preschool to year 12 private school with a total enrolment of 891 students and 79 teaching staff. The ICSEA value was 1129 with a percentile of 92 (ACARA 2015). Fifty-nine percent of the parent population were in the top third of the ICSEA (ACARA 2012), two percent in the bottom third and 39 percent in the middle third. There were no Indigenous students enrolled and one percent of the student population spoke a language other than English (ACARA 2012).

4.3.2 Participants

Whilst all genders were invited to participate in the research, the reception teachers who agreed to participate in the study were all female. In South Australia at the time, there was a total of 37 568 registered teachers, with 72.6 percent being female (Teachers Registration Board (TRB) 2004). Future research may benefit from the selection and inclusion of male reception teachers to address any potential gender differences in the formation of TSE beliefs and the relationship between TSE and practice, however in the context of this study, gender

was not the focus. Table 4.4 outlines the participants' ages, age range and percentage of South Australia's teachers within this range, as well as the number of years teaching experience. Pseudonyms have been assigned to protect the anonymity of the participants.

Table 4.4 Overview of participant ages in relation to the teaching profession in South Australia

Name of school	Name of participant	Number of years Teaching	Career Stage	Age of participant	Age range determined by TRB	% of SA's teaching population
The Water's Edge	Ellen	7	Mid	29	25-29	10.92
The Water's Edge	Kate	1	Early	35	35-39	9.94
The Water's Edge	Mary	38	Late	59	55-59	13.5
The Shire School	Jean	10	Mid	31	30-34	11.4
The Parish School	Emma	12	Mid	32	30-34	11.4
The Parish School	Anna	11	Mid	32	30-34	11.4
The Foothills School	Donna	18	Mid-late	41	40-44	10.8
The Foothills school	Jo	25	Late	55	55-59	13.5

4.4 Data Collection Methods

Multiple methods of data collection were employed throughout four research phases (see figure 4.1 below), over a ten-month period. Methods of data collection included:

- semi-structured interviews;
- classroom observations;
- The TSES (short form) (Tschannen-Moran & Woolfolk Hoy 2001);
- participant written reflections/reflective prompts;
- artefacts such as photographs of the context; and
- planning documentation.

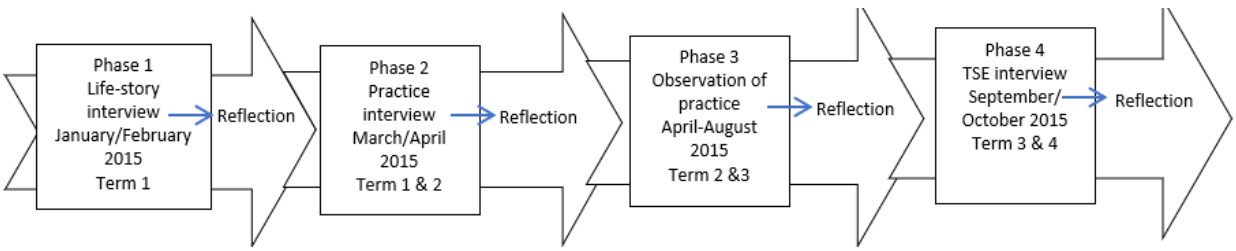


Figure 4.1 Research phases

Table 4.5 summarises the time frame in which data collection took place.

Table 4.5 Summary of the timeframe for the phases of data collection

Term 1 2015 February	 Phase 1 – Life-history semi-structured interview conducted (Appendix B)
March	Phase 2 – Practice semi-structured interview conducted (Appendix C)
April	Phase 2 – Practice semi-structured interview conducted Phase 3 – Observation of practice conducted using time sampling (Appendix D)
Term 2 May	 Phase 3 – Observation of practice conducted using time sampling
June	Phase 3 – Observation of practice conducted using video
Term 3 July	 Phase 3 – Observation of practice conducted using video
August	Phase 3 – Observation of practice conducted using video
September	Phase 4 – TSE semi-structured interview conducted (Appendix E)
Term 4 October	 Phase 4 – TSE semi-structured interview conducted

4.4.1 Semi-structured interviews (phases one, two and four)

Semi-structured interviews provide a balance between highly structured or standardised interviews and unstructured or informal interviews (Merriam 1998). They consist of flexible and less structured questions, 'guided by a list of questions or issues to be explored' (Merriam 1998, p. 74). This approach facilitated flexibility for the reception teacher participant to respond to questions with their own viewpoints and ideas, whilst the interviewer was free to explore lines of questioning (Merriam 1998; Smith & Eatough 2007; Yin 2003). The research involved three semi-structured interviews (discussed in detail below): (1) life-history; (2) practice; and (3) TSE. The semi-structured interviews were conducted systematically as per Figure 4.1 above, and the reflexive and iterative analytical nature of the process provided consistency across the data set by enabling factors raised by one participant to be pursued with another (Merriam & Grenier 2019). For example, three participants discussed previous teachers as significant in informing their TSE beliefs in their life-history interview. This resulted in a question regarding previous teachers being included for all participants in the following practice interview. The time interval between each semi-structured interview was largely determined by three factors: 1) convenience to the participant; 2) the length of time taken for inductive analysis; and 3) the length of time taken to member check data by the participant. The average time between each interview was eight to ten weeks.

Each interview was approximately one hour in duration and took place either before or after school in a quiet and private area of the participants' choosing. In alignment with Creswell's (2007b) recommendations, interviews were recorded using an audio device and field notes were collected throughout. Transcription by a professional transcriptionist took place shortly after each interview, so that data could be analysed and interpretations could be used to 'follow-up on questions and pursue any new ideas' (Rubin & Rubin 2005, p. 202) in subsequent interviews. Participants member checked the interview notes and the transcription of their interview to ensure the trustworthiness of the data (see section 4.5.3). Following is a detailed justification and description of each semi-structured interview.

Life-history interview (phase one): The first interview was the life-history interview which explored the chronosystem or significant life events of the participants and was viewed as a powerful tool in understanding the significance of the participants' past experiences and social context in the construction of their current TSE beliefs (Connelly & Clandinin 1999; Sisson 2016). Participant welfare, particularly issues of privacy and protection from harm (Merriam 2009), were a consideration at this early stage of the research process. As such the life-history interview was followed by reflective prompts and member checking so that participants could expand or clarify any information disclosed (Merriam 2009). Furthermore, the life-history interview was referred back to in subsequent interviews once trust was established between the researcher and the participant, allowing for further details to be elaborated on and discussed. The life-history interview included questions regarding critical moments or events that had important consequences for the participants' lives (Thomson et al. 2002). Critical moments were explored through high and low points and positive and negative childhood memories. Questioning also included reference to turning points or single events or experiences that altered life events or self-beliefs (Mandelbaum 1973; Rutter 1996). Turning points were considered events that were persistent enough to effect change over time either negatively or positively. Turning points may be considered experiences that 'shut down or open-up opportunities, such as dropping out or continuing in education' (Rutter 1996, p. 614); 'an event that brings about a lasting change to the person's environment, such as a bereavement' (Rutter 1996, p. 614) or 'an experience that has a lasting effect on a person's self-concept such as peer rejection' (Rutter 1996, p. 614).

The participants' reflection on their critical moments and turning points enabled the researcher, in understanding the formation of the participants' TSE, to examine how the

participant made sense of their experiences and events across their life course. The life-history was therefore considered the intersection of the participants' personal and professional histories and important in the formation and continued development of their TSE beliefs and practice (Beijaard, Meijer & Verloop 2004). For the purpose of the analysis, personal history was considered to incorporate the experiences of the participant prior to them becoming a teacher, whilst the professional history related to the participants' experiences as a teacher. These experiences, both personal and professional, were viewed as potentially shaping and influencing the participants' TSE.

As argued in Chapter Three, the ecology of the reception teacher is important in understanding their TSE, and thus the life-history interview was significant in informing understandings of the participants' current and past contexts (Sisson 2016), and how the sources within these contexts shaped and informed their personal history and in turn their TSE in their professional history. This supports Downey, Schaefer and Clandinin's (2014) view of teachers having professional and personal landscapes, with the 'professional knowledge landscape set within their personal landscape' (p. 183). Furthermore, Downey, Schaefer and Clandinin (2014) suggest that teachers 'do not step out of and into their professional and personal knowledge landscapes, they live in both knowledge landscapes simultaneously' (p. 183). Downey, Schaefer and Clandinin (2014) contend that the personal knowledge landscape is known first and is shaped by experience and the environment.

Initial questioning gathered information about the participants' age, years of teaching experience, years at their current school, current position and qualifications. Subsequent questions addressed critical moments and turning points (see Appendix J for the full life-history interview protocol):

1. *High point - a moment that stands out as an especially positive experience*
2. *Low point - a moment that stands out as a low point - a challenge, a failure or regret*
3. *Turning point - key moments that stand out as turning points*
4. *Positive childhood memory - an early memory that stands out as especially positive*
5. *Negative childhood memory - an early memory that stands out as especially negative*
6. *The next chapter - plans, dreams, or hopes for the future*

Challenges or impediments (Bandura 2006) in the participants' life were discussed through low points, turning points and negative childhood memories, to understand how these events had been interpreted by the participant and what this might mean for their TSE and subsequent teaching practice. Positive affective sources were explored in relation to high points and positive memories to specifically address this calling from the field (Morris, Usher & Chen 2017). Given TSE is considered an expectancy belief (Bandura 1997), participants were asked about their future goals. The life-history interview was referred to in the subsequent practice and TSE interviews, which allowed for inductive exploration of the personal and contextual factors significant to the development of the participants' TSE in relation to their practice.

Practice interview (phase two): The practice interview followed the life-history interview (approximately eight to ten weeks later) and focused on understanding the beliefs that each participant held in relation to their practice. These questions were informed by the partial insider positioning of the researcher (Chavez 2008; Merriam et al. 2001) and therefore understandings of reception teachers' practice. However, Comber's (2006) five types of work provided greater specificity to the questions concerning the participants' interpretive, pedagogical, discursive, relational and institutional work. The questions for the practice interview were as follows (see Appendix K for the full practice interview protocol):

1. *Interpretive - how do you determine the focus of your planning?*
2. *Pedagogical - how do you use policy documents such as the Australian Curriculum, Early Years Learning Framework and Teaching for Effective Learning?*
3. *Institutional - who do you feel accountable to and why?*
4. *Relational - do you have a particular person that you look to for support or inspiration when you are planning?*
5. *Discursive - do you seek out feedback about your practice? Who do you seek feedback from? What do you do with this feedback?*

The practice interview sought to uncover experiences, both positive and negative, that the reception teacher felt had impacted on their practice (Morris, Usher & Chen 2017). The practice interview enabled the exploration of the source of mastery experience through the significant factors that reception teachers considered within their practice, such as policy and curriculum documents. The affective states associated with their teaching practice were explored through questioning regarding accountability that evoked potential challenges and supports to TSE. Messages that reception teachers receive about their capabilities (verbal

persuasion) were explored through questioning regarding mentors and people who inspire them as teachers, as well as who they seek out feedback from and what they do with this feedback.

Throughout the second interview participants were involved in sharing documentation in relation to their practice which involved reference to different parts of their classroom, as the participants pointed to the children's work samples associated with their practice. Photographs of documentation and work samples were taken for participants to refer to in the TSE interview and to also support the researcher's clarity in understanding the participants' transcripts. However, the documentation and photographs were not the focus of the study and were not used in the data analysis, which relied on the participants' descriptions of them when exploring their TSE beliefs and its relationship to their practice. Providing documentation and photographs for the participant to refer back to, enabled the researcher to revisit ideas raised in previous interviews to then discuss further with the participant.

TSE interview (phase four): The final interview enabled the participant to voice their opinion and communicate their decisions about their teaching practice by reflecting on the phase three video recordings (Hadfield & Haw 2012). The interview enabled the triangulation of data through the inclusion of three distinct sections to the interview protocol:

> 1) completion of the TSES (short form) (Tschannen-Moran & Woolfolk Hoy 2001) to elicit the participants' domain-general understanding of their TSE, followed by a discussion regarding the participants' scoring of the TSES (Tschannen-Moran & Woolfolk Hoy 2001) to provide a greater level of specificity of their TSE beliefs;
> 2) self-observation using play-back and think-aloud of the video recording of the participants' practice to capture the TSE beliefs underpinning their teaching and;
> 3) questioning that aimed to explore ideas in relation to the participants' TSE beliefs and the sources of their beliefs, that had started to emerge through the analysis process.

The TSES (short form) (Tschannen-Moran & Woolfolk Hoy 2001) asked participants to report their TSE in the domains of instructional strategies, classroom management and student engagement. Tschannen-Moran and Woolfolk Hoy (2001), argued that the domains encompass a 'broad range of teaching tasks and represent the richness of teachers' work lives and the requirements of good teaching' (p. 801). As discussed in Chapter Two, TSE scales

have been subject to issues with the definition and measurement of the construct. That said, the Tschannen-Moran and Woolfolk Hoy (2001) scale has been utilised consistently within the field of TSE research and arguably presents the soundest construct validity of all the TSE scales (Chang & Engelhard Jr 2016; Klassen et al. 2009). Chang and Engelhard Jr (2016) in their US study of 554 elementary, middle school and high school teachers, found, using Rasch measurement, the TSES to have a high internal reliability (close to 1).

The TSES (short form) was considered appropriate as it could be answered within the timeframe of the interview. It included a total of 12 questions or items (four in each of the domains) and used a nine-point Likert scale anchored on the following descriptions: 1 *nothing*, 3 *very little*, 5 *some influence*, 7 *quite a bit* and 9 *a great deal* (Appendix O). An overall aggregate score was not created, for reasons discussed in Chapter Two, section 2.3.3; however the scale was used to elicit responses from the participants to understand their justifications for choosing a particular score in each domain of the scale. General terms were used in the findings of this study to describe the participants' TSE i.e. *low*, *low-moderate*, *moderate*, *moderate-high*, *high*. However, the analysis of the interview data revealed these terms to be limited in understanding the TSE beliefs of the participants. Analysis of the qualitative data provided greater understanding of the complex meanings and interpretations of the participants' TSE. Thus, it is argued that whilst the TSES (Tschannen-Moran & Woolfolk Hoy 2001) provided some indication of the participants' TSE in three general domains, the qualitative methodology of this study provided the opportunity to explore the participants' TSE with greater specificity (Wheatley 2005).

The participants were asked to fill out the TSES (short form) (Tschannen-Moran & Woolfolk Hoy 2001) and were invited to think-aloud during or discuss their responses at the conclusion of the completion of the scale. This enabled the researcher to understand the participants' scoring choices and for the participants' thoughts and responses to be later interpreted. The timing of the scale as the final phase of the research process was important to increase the trustworthiness of the data and reducing the influence of social desirability in the participants' responses to the scale. It was acknowledged that whilst the term think-aloud has been used here, the method used may also be viewed as talk-aloud. The think-aloud process has usually been associated with asking participants to verbalise what they are doing at the time, so that that the researcher can access the thoughts and feelings of the participant, whilst they are undertaking a particular task (Barkaoui 2011; Fox, Ericsson & Best 2011). The

process used may also be considered talk-back because the participant was asked to retrospectively verbalise their thoughts and feelings after the teaching had occurred (Barkaoui 2011; Fox, Ericsson & Best 2011). This self-reflective process was important to understand how the participants made sense of source information that had informed their TSE beliefs and its influence on practice.

Self-reflection was a key component of the methodology of this study in considering the information the reception teachers attended to and interpreted in appraising their TSE beliefs (Morris, Usher & Chen 2017). Within the field of education self-reflection is reported to be central component of professional practice and considered to be a 'meaning-making process and a systematic way of thinking' (Civitillo, Juang, Badra & Schachner 2019, p. 343). Thus, engaging the participants in self-reflection, supported by the think-aloud method, was critical in understanding the influence that source and other forms of teacher knowledge (Morris, Usher & Chen 2017) had on shaping their TSE beliefs and practice. This methodology enabled the researcher to access the participants' 'internal thought processes' (Cherrington 2018, p. 321) and the opportunity to 'describe their thinking and decision-making' (Cherrington 2018, p. 321).

Following the discussion of the TSE scale, each participant then viewed observational video of their practice (see 4.4.2 for video recording process) and were again encouraged to reflect on their practice and verbalise their thoughts and feelings using the think-aloud strategy during the play-back session. The methodology enabled the reception teacher to 'step back from the moment and reflect on classroom activities' (Civitillo et al. 2019, p. 343) facilitated by the semi-structured questioning that followed the video play-back. Whilst it is acknowledged that video play-back of practice may be considered a form of vicarious experience, specifically self-modelling (Bandura 1997), the video was used for this study to elicit the current TSE beliefs of the participants in relation to their practice. However, it is acknowledged that the video play-back may have had the unintended consequence of influencing the future TSE beliefs and practice of the participants and was considered as part of the ethical considerations regarding the participants' welfare (see section 4.6.2).
Following the play-back session the participants answered the following questions relating to their perception of what they had seen (see Appendix L for the full practice interview protocol):

1. *Tell me about what you saw*
2. *Describe what you were doing – what were you thinking and feeling?*
3. *Were there any clips that you consider you saw your best practice? Why?*
4. *Were there any clips where you would have changed your practice? Why?*
5. *Can you pick a clip that you feel best shows your approach to practice?*

The video play-back and questioning aimed to understand the participants' interpretations of their capabilities in relation to their practice. Questioning specifically sought to address the relationship between the participants' TSE and the interpretive, pedagogical, discursive, relational and institutional work of the reception teacher, reflected in Comber's (2006) definition of practice. The questions aimed to uncover the analytical and diagnostic work of the participants as they engaged in decision-making about children's learning. Questioning also enabled discussion of the participants' practical teaching approaches as they interacted with children as well as the theoretical underpinnings of their practice (Comber 2006). The questions were open to encourage the participant to share their own thoughts and feelings but structured to support later analysis in examining the information the participants attended to as they reflected on their practice. This was important in understanding how this information potentially influenced each participant's TSE beliefs and the relationship these beliefs had on their practice. The use of video facilitated access to the participants' thinking as close to real-time as possible.

The interview concluded with questions that were more deductive in nature to confirm ideas in relation to the participants' TSE beliefs and the sources of their beliefs that had started to develop as the result of the analysis of the life-history and practice interviews. The questions were individualised for each participant; however, for consistency across the data set, questions followed similar lines of inquiry. These included: 1) potential sources informing the participants' TSE beliefs; 2) incongruences between the statements that the participant made in relation to their interpretations of their TSE and practice; 3) following-up on any unclear or information omitted from the data set due to the reflexive nature of the questioning. The three sections of the interview protocol enabled for the interpretations of the data to be triangulated in relation to the research questions i.e. the TSE beliefs of the participants, the sources of their beliefs and the relationship between their beliefs and their practice.

4.4.2 Observation (phase three)

Observation was utilised between the practice and TSE semi-structured interview: phases two and four of the research process. Each participant was observed twice, for a duration of approximately two hours at a time, in the participant's classroom. Two hours enabled the researcher to document a full block of uninterrupted teaching and did not disrupt the day-to-day routine of the participant's work. The researcher was a non-participant observer (Cohen, Manion & Morrison 2007) and utilised note taking for the first observation (see Appendix N for an example) and video for the second observation. Ethical considerations regarding the use of video observation are discussed further in section 4.5. For each observation the researcher was positioned in a corner of the participant's classroom so that observation was kept as unobtrusive as possible and to not interfere with the day-to-day role of the participant. A letter informed the parents/carers of the researcher's presence (Appendix F) and the children were informed when the researcher arrived by their teacher, of the purpose of the researcher's visit. For example, Kate introduced the researcher and stated; *'well you know Susie's learning. She's here to learn about my teaching'* (Kate TSE Interview 2015, p. 20). As the researcher had been at the school on two previous occasions for the life-history and practice interviews, the children were familiar with the researcher by this phase of the research process and aware that they were interested in the practice of their classroom teacher, as part of their university study. For the video observation, participants wore a lapel microphone so that audio could be captured, and the researcher wore headphones to ensure the audio remained clear. The camera was on a tripod that could be turned to follow the participant as they engaged in their work. Participants nominated time periods for the observations that they felt best represented their practice. The time, day and curriculum area were not stipulated by the researcher; however, participants were invited to choose a day and time that they (1) felt typified their practice, (2) did not interfere with or influence the learning program, and (3) considered themselves to be most confident. The researcher considered the possibility that the third criteria may influence the data as only the participants' practice where they considered themselves to have high TSE may be recorded, therefore the participants were asked if they felt the video typified their practice and whether there would be any aspects they would change. However, this may be considered a limitation of this aspect of the study.

Shortly after the video observation of each participant, the researcher reviewed the two-hours of video footage with the intent to edit the video into short episodes for the participant to

view in phase four of the research process, the practice interview. The video observation enabled a record of practically orientated knowledge; the knowledge generated through and as a reflection of mastery experience (Bandura 1997; Beijaard, Meijer & Verloop 2004; Borg 2006; 2015) to be captured and provided a narrative to prompt questions to explore in the TSE interview (phase four). Video observation was considered important in the data collection process as it enabled participants to verbalise their own interpretations of their practice as they viewed themselves in the recording for the final interview.

In preparation for the final TSE interview the video was edited by the researcher into multiple episodes to provide a narrative of the key pedagogical events that took place on the day (Morris, Usher & Chen 2017; Wyatt 2015). Footage focused on the three general domains of the TSES (short form) (Tschannen-Moran & Woolfolk Hoy 2001), which were: 1) student engagement; 2) classroom organisation; and 3) cognitive support and Zee and Koomen's (2016) domain of emotional support. The researcher considered whether the participants may have edited their own video footage, however participant welfare concerns regarding infringement of time, prevented this from occurring. Consideration was also given to whether the participants editing their own footage may have influenced the data as the participants may have selected practice where they considered themselves to have high TSE. Whilst each episode was approximately two minutes in duration, with a total running time of 10 to 15 minutes. The length of the video was important as each episode needed to be considered carefully in preparation for the TSE interview. It was important that it 'was not too long, contain too many events or create a burden for remembering the details, or be so short that it was difficult to achieve an understanding of the meaning of the participants' actions' (Angelillo, Rogoff & Chavay 2007, p. 204). Thus, the full two-hours of footage were not analysed as the focus was on the voice and interpretations of the participants, which was evidenced through the short episodes as part of the phase four, TSE interview. The episodes were played back and used as a source of reflection with the participant in phase four, the TSE interview (Hadfield & Haw 2012). Participants were asked to confirm if they considered the episodes to be or not to be representative of their practice (Haw & Hadfield 2011) and were invited to voice opinions, thoughts and feelings as part of the reflective process (Hadfield & Haw 2012) detailed in the following section.

4.4.3 Use of reflection

Following each phase participants were invited to record their reflections on the experience and contribute any further information that they felt was important. Self-reflection was utilised to examine the reception 'teachers' perspectives and understandings about their thinking in relation to their teaching' (Cherrington 2018, p. 320). Reflective questions were emailed to participants after each contact so that they had the opportunity to add to the information already shared and to also provide further insight into their TSE, sources of their TSE beliefs and practice (Morris, Usher & Chen 2017). This enabled the metacognitive processes or cognition in relation to knowledge, experiences and strategies (Capobianco, Morris & Wells 2018), detailed in Wyatt's (2010) definition of TSE, to be explored as well as the affective states of the reception teacher participant. The questions aimed to provide further insight into the participants' thoughts and feelings throughout the interview and observation process (Lodico, Spaulding & Voegtle 2006). Given that the reflective questions followed the semi-structured interview as an opportunity for the participants to provide additional information, the participants did not always complete the reflective questions (approximately 50 percent). However any statements that added to the data, were included in the analysis process to further support understandings of the participants' TSE and practice. Reflective prompts were sent as a Word document via email, and an example of the prompts sent following the life-history interview are below, while all reflective prompts have been included as Appendix M:

1. *Looking back over your life story and ahead into the future, do you think there is a central theme, message, or idea?*
2. *What were your thoughts and feelings during the interview? How do you think this interview has affected you?*
3. *Do you have any other comments?*

How the participants felt and the invitation to contribute freely was important to the research process as it provided further opportunity to develop trust between the researcher and participant. Therefore, the data can be considered a reliable interpretation of the participants' TSE beliefs (see section 4.5 on participant welfare for more information on the use of reflective prompts).

4.5 Data Analysis

4.5.1 Overview of the data analysis process

Data analysis took place throughout the four phases of data collection, over the ten-month period, using inductive and deductive approaches with theoretically driven coding (King 2004). Data analysis was conducted as soon as practically possible after each phase of data collection to enable emerging insights to inform subsequent research phases and to inductively derive meaning from the data (Merriam 2009). Throughout phases one to four, analysis involved the annotation of interview and field notes and the researcher's use of a reflexive diary to keep track of thoughts and speculations about the data to discuss with the researcher's supervisors (Merriam 2009; Smith & Eatough 2007). The flexible and iterative approach to data analysis was to ensure decision-making was informed by the conceptual framework, but not driven by it (Coyle 2010; Merriam 2009; Miles & Huberman 1994; Smith & Eatough 2007). Following phase four of the research process, a more in-depth, systematic and methodical analysis of the individual cases occurred in the following stages:

(1) several close and detailed readings of the data;

(2) identification of initial themes, organised into clusters and checked against the data;

(3) refinement, reduction and examination of themes to establish connections; and

(4) the production of a narrative of the participants' perceptions of their experiences as interpreted by the researcher (Smith & Eatough 2007; Smith & Osborn 2008).

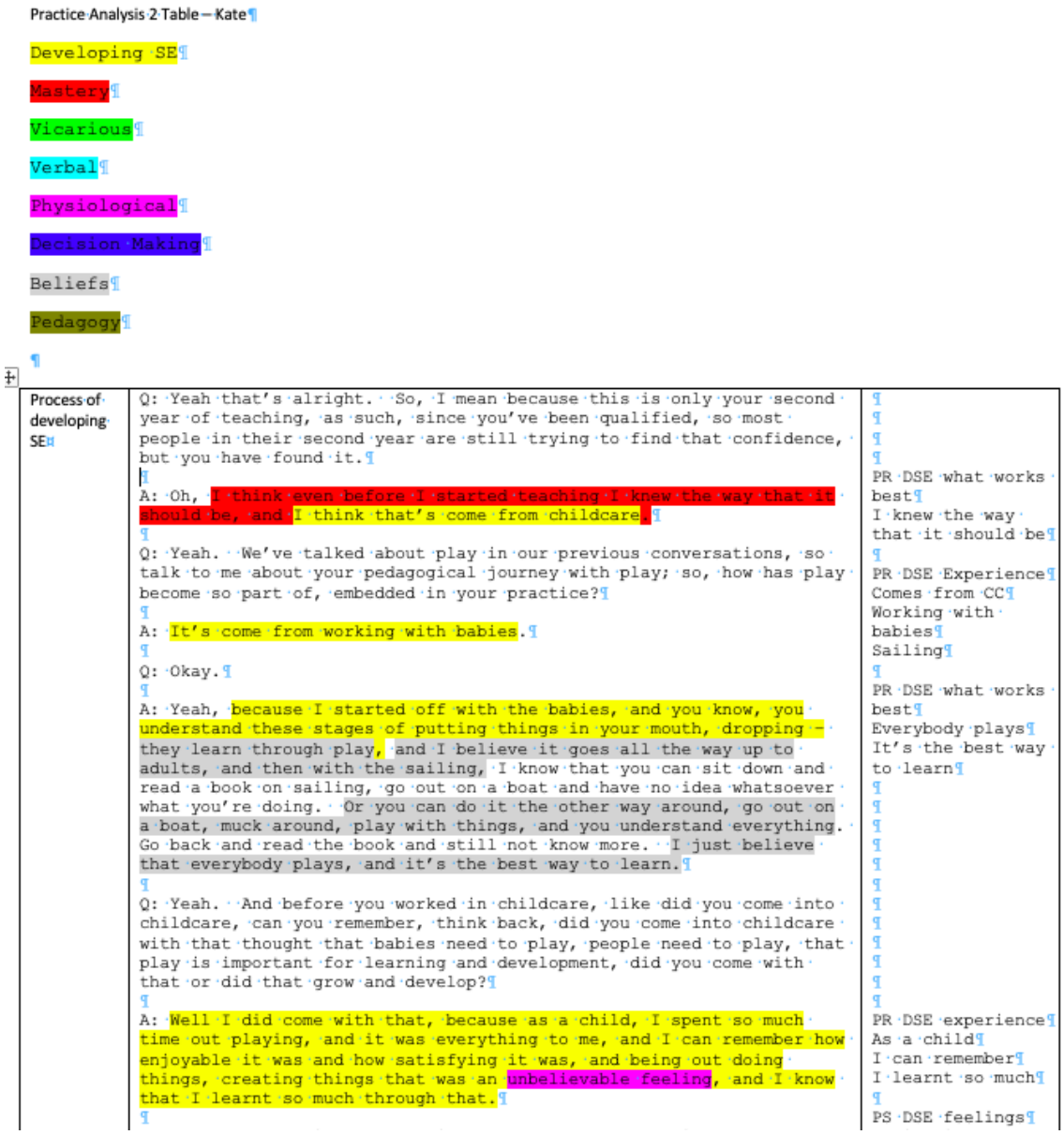
Stages one to four were applied to the transcript of each participant, which enabled cross-case comparisons and the production of a group-level table of superordinate themes (Stake 2006). The stages of data analysis are outlined in the following sections.

4.5.2 Stages of analysis

4.5.2.1 Stage 1: close and detailed readings of the data

Analysis began with the careful re-reading of the transcripts of each participant. Pre-coding occurred and involved highlighting significant words and quotes within each transcript (Creswell 2007b; Hennink, Hutter & Bailey 2011). Initial thoughts and comments were recorded as memos on each transcript, so that points of significance could be returned to at a later stage in the analysis process (Smith & Eatough 2007; Storey 2007). This stage of the analysis was akin to a 'free textual analysis, whereby initial attempts were made to make

sense of the participants' thoughts and feelings and identify convergences and/or contradictions' (Smith & Eatough 2007, p. 46). The following extract illustrates the first stage of analysis.



Practice Analysis 2 Table – Kate

Developing SE

Mastery

Vicarious

Verbal

Physiological

Decision Making

Beliefs

Pedagogy

Process of developing SE	Q: Yeah that's alright. So, I mean because this is only your second year of teaching, as such, since you've been qualified, so most people in their second year are still trying to find that confidence, but you have found it. A: Oh, I think even before I started teaching I knew the way that it should be, and I think that's come from childcare. Q: Yeah. We've talked about play in our previous conversations, so talk to me about your pedagogical journey with play; so, how has play become so part of, embedded in your practice? A: It's come from working with babies. Q: Okay. A: Yeah, because I started off with the babies, and you know, you understand these stages of putting things in your mouth, dropping – they learn through play, and I believe it goes all the way up to adults, and then with the sailing, I know that you can sit down and read a book on sailing, go out on a boat and have no idea whatsoever what you're doing. Or you can do it the other way around, go out on a boat, muck around, play with things, and you understand everything. Go back and read the book and still not know more. I just believe that everybody plays, and it's the best way to learn. Q: Yeah. And before you worked in childcare, like did you come into childcare, can you remember, think back, did you come into childcare with that thought that babies need to play, people need to play, that play is important for learning and development, did you come with that or did that grow and develop? A: Well I did come with that, because as a child, I spent so much time out playing, and it was everything to me, and I can remember how enjoyable it was and how satisfying it was, and being out doing things, creating things that was an unbelievable feeling, and I know that I learnt so much through that.	PR DSE what works best I knew the way that it should be PR DSE Experience Comes from CC Working with babies Sailing PR DSE what works best Everybody plays It's the best way to learn PR DSE experience As a child I can remember I learnt so much PS DSE feelings

Figure 4.2 Extract of stage 1 analysis: close and detailed reading of the data (Kate)

The reading and re-reading of the transcripts, one participant at a time, enabled the researcher to gain an overall feel for the data and identify an overarching theme for each transcript and participant (Storey 2007). Descriptive coding was used to note and describe key ideas using memos (Hennink, Hutter & Bailey 2011). The descriptive coding detailed in Figure 4.2 utilised the research questions and included codes associated with practice, and Bandura's

(1997) sources of self-efficacy, whilst remaining open to other sources of TSE as discussed in section 2.4.5.

Analysis of the TSES (short form) (Tschannen-Moran & Woolfolk Hoy 2001) also took place at this initial stage, which included noting the participants' score for each section of the scale, recording their explanation recorded in the practice interview transcript and creating memos (Smith & Eatough 2007; Storey 2007). An example of an extract from the TSES (Tschannen-Moran & Woolfolk Hoy 2001) analysis for Emma is provided in figure 4.3.

Question	Score	Participant Comment	Memo
11. How much can you assist families in helping their children do well in school	6	Just a little bit lower at the moment. Again, too, I have got a high number of EAL students in the class. So even just at the moment I'm having a few issues communicating with those families, they don't speak English. And one in particular is - he's just not ready for school and he tried to communicate that to them. I'm finding it a bit tricky. They're saying - they're talking about we need a tutor and we need to get - and it's no, the last thing that little boy needs is to be made to sit still- And to do more. He actually needs to play and develop some of those skills before he's ready. Trying to communicate that is a challenge. And again if you were to say next year Kim you're teaching 5 or 6 and then asked me this again- Because I think I've been in the early years for a very long time.	SE - externally influenced by children 'EAL', families expectations Mastery experience lifts SE 'I've been in the EYs for a very long time' but also doesn't transfer to another year level 'ask again if I were teaching year 5 or 6'. Whilst she has been teaching for a long time this does not necessarily inform her SE. It is externally influenced by children and families

Figure 4.3 Extract of stage 1 analysis of the TSES (short form) (Tschannen-Moran & Woolfolk Hoy 2001) (Emma)

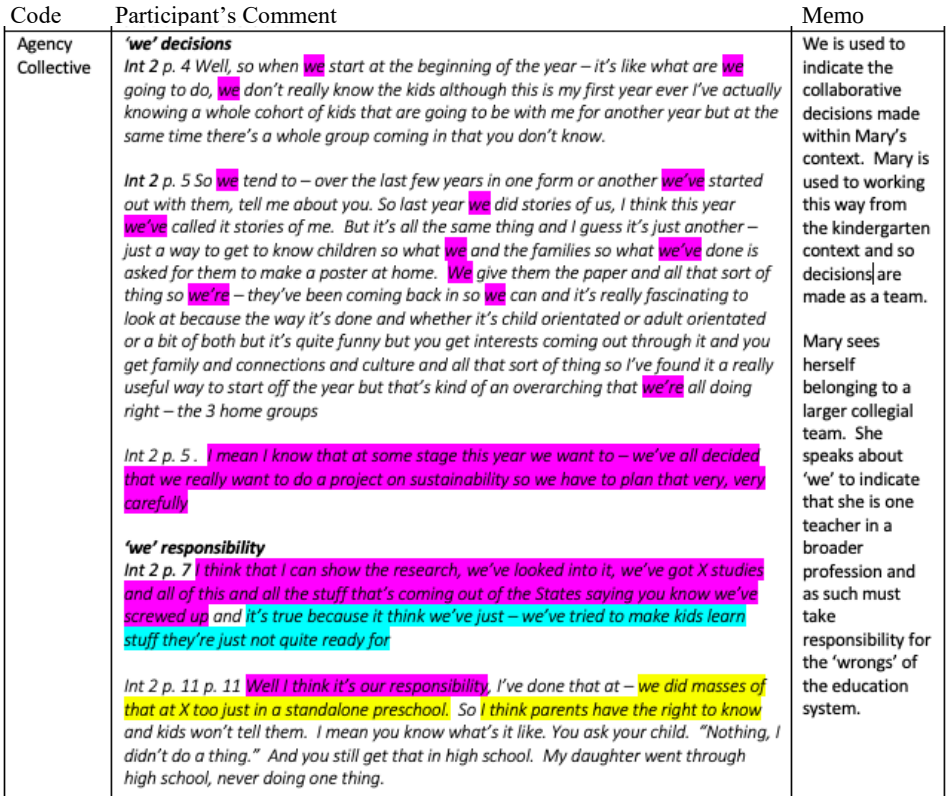
Whilst this initial analysis process was helpful, the researcher was mindful of her partial insider positioning (Chavez 2008; Merriam et al. 2001), to avoid initial theme identification conforming to the researcher's own experiences or colouring future interpretations (Storey 2007). This was supported through inter-rater reliability processes undertaken with the researcher's supervisors (Howell Major & Savin-Baden 2010) as discussed in section 4.5.3 in relation to trustworthiness. However, the rudimentary analysis was essential in considering the interpretive frameworks that would be utilised in the next stage of analysis.

4.5.2.2 Stage 2: identification of initial themes and clusters

The ideas and notions that emerged from the re-reading of the transcripts were interrogated using the conceptual framework. The initial memos from stage one were utilised to develop more specific themes utilising understandings of TSE. Analysis focused on statements that the participants made about their self-efficacy, TSE, the factors that influenced their TSE beliefs and their practice. Topic codes were utilised to consider similarities and differences across the cases (Creswell 2007b), to develop heuristic and interpretable meanings from the data (Lincoln & Guba 1985). Topic codes enabled interpretations relevant to the research questions to emerge and for greater transparency of the analytic process (Storey 2007). Analytic coding followed and utilised the literature to further interrogate the data using the following pre-set definitions to guide the analytic process (Creswell 2007b):

- *TSE:* 'teachers' beliefs in their abilities to support learning in various task and context-specific cognitive, metacognitive, affective and social ways' (Wyatt 2010, p. 603).
- *Sources of TSE:* mastery experience, vicarious experience, social persuasion and affective states (Bandura 1997).
- *Practice:* The interpretive, pedagogical, discursive, relational & institutional work of the teacher (Comber 2006).
- *Agency:* having the capability to influence with intentionality one's own functioning, events and life circumstances (Bandura 2008).

The extract in Figure 4.4 illustrates the more specific use of theory to analyse the transcript in relation to agency.



Code	Participant's Comment	Memo
Agency Collective	***'we' decisions*** *Int 2 p. 4 Well, so when we start at the beginning of the year – it's like what are we going to do, we don't really know the kids although this is my first year ever I've actually knowing a whole cohort of kids that are going to be with me for another year but at the same time there's a whole group coming in that you don't know.* *Int 2 p. 5 So we tend to – over the last few years in one form or another we've started out with them, tell me about you. So last year we did stories of us, I think this year we've called it stories of me. But it's all the same thing and I guess it's just another – just a way to get to know children so what we and the families so what we've done is asked for them to make a poster at home. We give them the paper and all that sort of thing so we're – they've been coming back in so we can and it's really fascinating to look at because the way it's done and whether it's child orientated or adult orientated or a bit of both but it's quite funny but you get interests coming out through it and you get family and connections and culture and all that sort of thing so I've found it a really useful way to start off the year but that's kind of an overarching that we're all doing right – the 3 home groups* *Int 2 p. 5 . I mean I know that at some stage this year we want to – we've all decided that we really want to do a project on sustainability so we have to plan that very, very carefully* ***'we' responsibility*** *Int 2 p. 7 I think that I can show the research, we've looked into it, we've got X studies and all of this and all the stuff that's coming out of the States saying you know we've screwed up and it's true because it think we've just – we've tried to make kids learn stuff they're just not quite ready for* *Int 2 p. 11 p. 11 Well I think it's our responsibility, I've done that at – we did masses of that at X too just in a standalone preschool. So I think parents have the right to know and kids won't tell them. I mean you know what's it like. You ask your child. "Nothing, I didn't do a thing." And you still get that in high school. My daughter went through high school, never doing one thing.*	We is used to indicate the collaborative decisions made within Mary's context. Mary is used to working this way from the kindergarten context and so decisions are made as a team. Mary sees herself belonging to a larger collegial team. She speaks about 'we' to indicate that she is one teacher in a broader profession and as such must take responsibility for the 'wrongs' of the education system.

Figure 4.4 Extract of stage 2 analysis: identifying initial themes (Mary)

Whilst theoretical definitions were identified to guide the data analysis and ensure that interpretations arose directly from the data, the researcher was conscious of maintaining the integrity of the data and therefore the voice of the participant was preserved so that interpretations could be returned to at future stages of the analytic process (Storey 2007).

4.5.2.3 Stage 3: refinement, reduction and examination of themes

The themes that arose out of stage two analysis were numerous and, to further reduce the data, connections between the initial themes were clustered to identify the connections between the most important themes in the transcript (Smith & Eatough 2007). Evidence to support the research questions was sought from the data until a point of saturation and no further information or evidence was found (Merriam 2009). Analytic coding using the literature required codes to be re-visited to develop emergent themes (Merriam 2009, p. 181) and were iterative in 'robustly search[ing] for more and better units of relevant information or evidence' (Merriam 2009, p. 182). Tables were used to summarise and record the frequency of codes (see Figure 4.5 below) and to organise and manage the coded data (Creswell 2007b). Frequency of codes were incorporated to highlight the significance of each code to each

participant and assist in understanding the TSE, the sources and practice. In Figure 4.5, codes included cognitive processes, beliefs, self-perceptions etc. Self-perception was identified as a significant code for the participant and thus required further exploration and more refined coding.

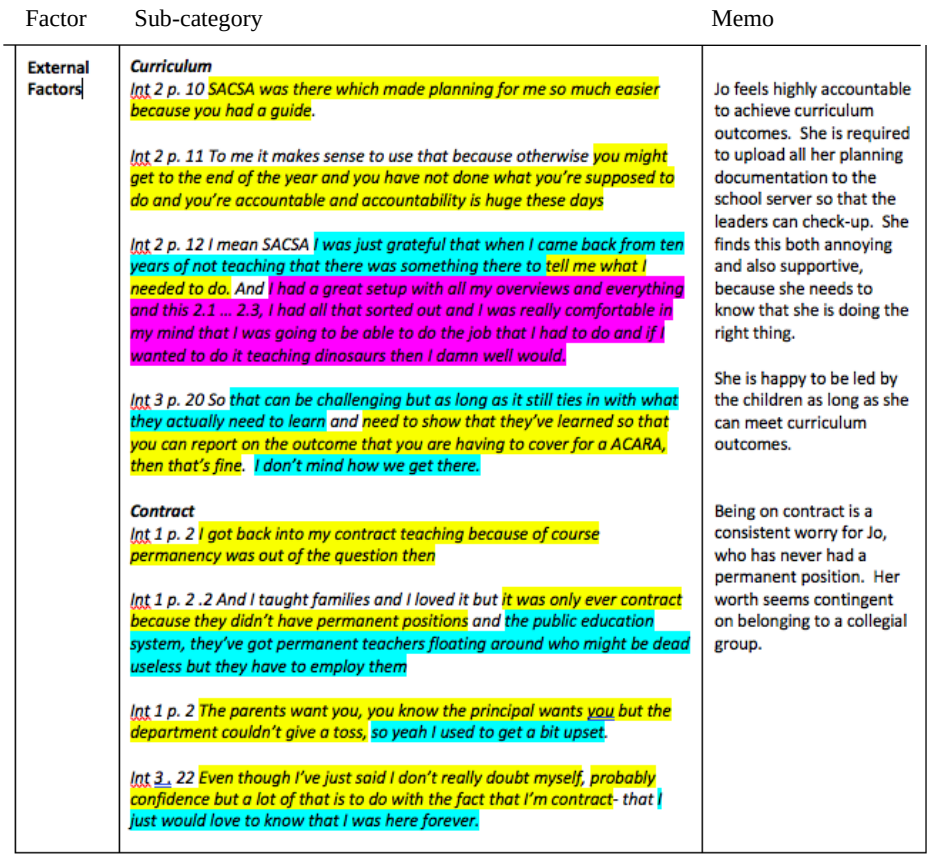
Factor	Code	No. times used
Cognitive Processes	Unable to articulate (1), assimilation (2), wondering (1), reasoning (1), I thought (1)	6
Beliefs	Thinking too much is over analysing (1), not nice to be solo – hard (1), children (2), learning (2), behaviour (2), PCK (3)	11
Self-perception	Not good at maths (1), not structured (1), critical of PCK (8), I had no idea (2), not studious (1), ask too many questions (1), I don't know CK (1), I would struggle (1), I know CK well enough (1), positive (1), easy going (1), confident with PCK (1)	20
Self-regulation	stress came from me (1), frustrating (1)	2
Goals & Intentions	I finally got there (1), I don't want them to feel different (1)	2
Attitude	I always take it as a positive (1), not to worry – take life as it is (1), grateful (1), always learning something (1), I take it on board (1)	5
Self-doubt	Do I or not (1), challenging (1), I try (1), what are my strengths (1), never have thought of that (1), I suppose (2), unsure (1), I don't know why I did that (1), I didn't really (1), I just don't think (1), I probably should have (2), not confident in PCK (1)	14
Hope	They get it (1), to spark their interests (1), they use it (1)	3
Expectations	sometimes it actually works (1)	1

Figure 4.5 Extract of stage 3 analysis: identifying frequency of initial themes (Ellen)

The analytic process remained iterative and the researcher returned to stages one to three several times, to continue to refine themes and check ideas and thoughts (Merriam & Grenier 2019). A table was produced to document each superordinate theme (a descriptive label) and the themes of which it was comprised (Smith & Eatough 2007). In the extract below the broad superordinate theme was 'factors that influence agency'. Factors that were internal or external to the participant and interpreted as influencing their agency, were clustered and colour codes were used to identify the different factors:

> ***Internal Factors:*** *used to describe what Bandura terms Personal Factors to make clear the distinction between aspects that are situated internally within the participant. Internal factors may include cognitive processes, self-regulation, expectations, beliefs, self-perceptions, goals and intentions, self-doubt and hope.*
>
> ***External Factors:*** *used to describe what Bandura terms Environmental Factors to make clear the influences that may impact on the person that are situated externally to them. External factors may include the context, family, friends, colleagues and other social influences.*
>
> ***Agency:*** *having the capability to influence with intentionality one's own functioning, events and life circumstances. (Bandura 2008). Bandura (1997) proposed three modes of agency: personal, proxy and collective.*

In the extract below, external factors were clustered and then separated into sub-categories of curriculum and contract teaching.



Factor	Sub-category	Memo
External Factors	***Curriculum*** *Int 2 p. 10 SACSA was there which made planning for me so much easier because you had a guide.* *Int 2 p. 11 To me it makes sense to use that because otherwise you might get to the end of the year and you have not done what you're supposed to do and you're accountable and accountability is huge these days* *Int 2 p. 12 I mean SACSA I was just grateful that when I came back from ten years of not teaching that there was something there to tell me what I needed to do. And I had a great setup with all my overviews and everything and this 2.1 ... 2.3, I had all that sorted out and I was really comfortable in my mind that I was going to be able to do the job that I had to do and if I wanted to do it teaching dinosaurs then I damn well would.* *Int 3 p. 20 So that can be challenging but as long as it still ties in with what they actually need to learn and need to show that they've learned so that you can report on the outcome that you are having to cover for a ACARA, then that's fine. I don't mind how we get there.* ***Contract*** *Int 1 p. 2 I got back into my contract teaching because of course permanency was out of the question then* *Int 1 p. 2 .2 And I taught families and I loved it but it was only ever contract because they didn't have permanent positions and the public education system, they've got permanent teachers floating around who might be dead useless but they have to employ them* *Int 1 p. 2 The parents want you, you know the principal wants you but the department couldn't give a toss, so yeah I used to get a bit upset.* *Int 3. 22 Even though I've just said I don't really doubt myself, probably confidence but a lot of that is to do with the fact that I'm contract- that I just would love to know that I was here forever.*	Jo feels highly accountable to achieve curriculum outcomes. She is required to upload all her planning documentation to the school server so that the leaders can check-up. She finds this both annoying and also supportive, because she needs to know that she is doing the right thing. She is happy to be led by the children as long as she can meet curriculum outcomes. Being on contract is a consistent worry for Jo, who has never had a permanent position. Her worth seems contingent on belonging to a collegial group.

Figure 4.6 Extract of stage 3 analysis: superordinate themes (Jo)

The superordinate themes were a record of the researcher's own interpretations of the data and every effort was made to ensure the integrity of the participants' account of their own experiences by including their direct quotes or voice as illustrative evidence of the theme. Social Cognitive Theory (Bandura 1997), Ecological Theory (Bronfenbrenner 1979, 2005) and the conceptual framework were used more extensively at this stage of the analysis to make sense of the data; however the use of theory was foregrounded by the participants' description of their experience (Smith & Eatough 2007). Once the superordinate themes were developed for each participant, peer auditing took place with the researcher's supervisors (see section 4.5.3 trustworthiness). Data was compared across cases, and codes were revisited, re-organised and refined (Merriam 2009). Cross-case analysis developed the final superordinate themes to represent the whole data set:

- Relationship between self-efficacy and TSE
- Sources of TSE

- Relationship between TSE and practice

4.5.2.4 Stage 4: a narrative account

Analysis continued as the findings were written using code weaving (Saldana 2009), whereby a narrative was created to converge the codes and themes in determining the key findings. A descriptive narrative of the researcher's interpretations, utilising the participant's voice as evidence of the superordinate themes was created, followed by a return to the literature to ensure the data was interrogated critically and the findings could be considered trustworthy. An extract from the narrative of Donna is provided below to illustrate this stage of the analysis:

The structure of Donna's play program is informed by the Walker Learning Approach (Early Life Foundation & The Walker Learning Group 1995).

> *"For me Walker was the first thing that sort of was, acknowledged that play's really important and actually we can do this in a school setting and here's an idea and here's the research that can all go with it. Previous to that I sort of had to…things, but its' more like activity time, but I knew it was really important but how do I make it so that I could justify it?"*

Donna publishes learning intentions that the VIP children select to focus their play. The play session begins with a 'mini-lesson' (question of the day) and the VIP children's play experience concludes the play session.

> *"Kids actually, one at a time come up the front, have a bit of a chat with, talk about which learning intention they would like to talk about, and throughout the two weeks we get through talking about them."*

Donna believes in play and feels that the school's leadership is supportive of the approach.

> *"We have school tours come through all the time and so it's never 'oh, we'll schedule it', we're all going to be sitting at desks doing something, it's chaos. I think that [the] school's very; 'this is what we value'. We've been given extra money on top of our class budget. We've been able to buy things like a kitchen and a shop and those sort of things...So yeah, I think it is valued."*

Figure 4.7 Extract of stage 4 analysis: narrative account (Donna)

Care was taken at this stage of the analytic process to ensure interpretations were reflective of the participants' account of their experiences. Evidence was selected to provide a coherent analytic narrative (Storey 2007) and every effort was made to maintain the context of the participant's voice within the analysis to increase the trustworthiness of the study.

4.5.3 Trustworthiness

To ensure the trustworthiness of the data, dependability, confirmability, credibility and transferability were considered (Guba & Lincoln 2005; Lincoln & Guba 1985). Triangulation was used throughout the research process to ensure that the research methods and analytic process remained coherent with the research questions (Glackin & Hohenstein 2018; Howell Major & Savin-Baden 2010). The four phases of data collection and stages of data analysis kept the research focused and stable, taking place over a ten-month period which allowed the researcher to engage in time-series analysis (Yin 2003) to thoroughly understand the participants' context and establish trust and confidence.

Dependability refers to the transparency of the documentation processes used throughout the data collection phases as well as the analyses. Multiple methods of data collection (Creswell 2007b) and extensive member checking were used to assure the reader of trustworthiness. An audit trail of the research documentation of the processes used for data collection and analyses have been provided in section 4.4 to allow the reader to make an assessment as to the reasonableness of the interpretations made within the findings (Howell Major & Savin-Baden 2010; Lincoln & Guba 1985; Merriam 1998).

Extensive member checking with participants, as well as triangulation with the researcher's supervisors was used as a form of peer auditing (Howell Major & Savin-Baden 2010). Member checking was used significantly to ensure understandings were developed from the participant's perspective (Merriam 1998). Peer auditing was important for confirmability to ensure the analyses and interpretations presented in the findings were sound. The process of triangulation or inter-rater reliability, with the researcher's supervisors, was also considered important to confirmability and credibility (Howell Major & Savin-Baden 2010). The two supervisors were provided with unmarked transcripts for one participant and the pre-set codes. The supervisors and researcher coded independently and the degree of agreement between the three coded transcripts was discussed (Creswell 2007b; Howell Major & Savin-Baden 2010).

The credibility of the research findings needs to be considered in relation to whether the analysis of the research is reliable and whether the findings are representative of the participants' reality and are believable and dependable (Guba & Lincoln 2005; Howell Major & Savin-Baden 2010). Multiple data sources were used to support credibility (Petty,

Thomson & Stew 2012), whilst reflexivity enabled changes to be built into the study with intent (Guba & Lincoln 2005). Data analysis was iterative and informed each phase of the research process and enabled the researcher to reflexively respond to the ideas that emerged from the data. Through triangulation with supervisors, rival explanations (Yin 2003) or evidence that did not support the data, were also considered (Howell Major & Savin-Baden 2010) in the creation of the findings.

The thick descriptions (Merriam et al. 2001) in the findings section of the thesis are specific to the participants to enable the reader to assess transferability of whether the interpretations are applicable to other cases (Guba & Lincoln 2005). However, it is acknowledged that, from a small sample size, it is not possible to make generalisations from this study, rather the reader may use their knowledge of their own contexts and participants (Petty, Thomson & Stew 2012) to determine the transferability of the findings. However, the researcher has made every attempt to ensure the reasonableness of the findings in contributing to the field of TSE research and early childhood education pertaining to the first year of primary schooling.

4.6 Ethical Considerations

4.6.1 Participant consent

University of South Australia (UniSA) Human Resources Ethics Committee (HREC) approval (Appendix G) was obtained and consent to approach each of the educational sites was sought from their respective governing bodies; Department for Education and Child Development (DECD), now known as the Department for Education (DfE) (Appendix H) and the Catholic Education South Australia (CESA) (Appendix I). For private schools, permission was sought from the principals of the individual schools, who have authority for ethical approval. Once approval was gained from DECD and CESA, teachers were then canvassed for participation.

Ethical considerations included 'the protection of participants from harm, the right to privacy, informed consent and the issue of deception' (Merriam 2009, p. 230). Participants were provided with contact details of UniSA's HREC as well as supervisor details and informed that their participation was voluntary and of their right to withdraw from the study without prejudice. An information sheet about the research study which clearly stated the aim of the project and research process was provided to each participant prior to agreement to

participate (see Appendix C). Informed consent was sought through a signed permission form at the first interview from participating teachers and the site's principal (Appendices B, D & E). Confidentiality and anonymity were assured through the consent process and throughout the phases of data collection (Vasconcelos 2010).

A letter to parents (Appendix F) regarding the use of video in the participants' classroom was provided and that images of their child may be captured. However, parents were also assured that every effort would be made to exclude their child from the video data as the focus of the research was on the practice of the teacher. Parents were informed of their right to withdraw their child without prejudice. If a parent were to withdraw their child, video footage that may have included the child would have needed to have ceased and resumed when the child was not in view. No parents withdrew their child from the video phase. Due to the nature of teaching, some children were captured on video, however children's anonymity was protected as the video was viewed only by the participant and researcher for the practice interview, and the children were not the focus of the research. Children's names were not included within the transcript and video footage will be destroyed after a period of seven years (see section 4.5.3 regarding data security and confidentiality).

4.6.2 Participant welfare

Anonymity and confidentiality were important to the research methodology so that participants could speak freely about their TSE beliefs and practice. The researcher-participant relationship was particularly important in regard to the purpose of the research and issues of privacy and protection from harm (Merriam 2009). Information about the researcher being a qualified, registered and experienced teacher in South Australia, positioned the researcher as a partial insider (Chavez 2008; Merriam et al. 2001). As such the participants were aware that the researcher had undertaken Criminal History Screening and Responding to Abuse and Neglect (RAN) training and was a mandated notifier of any child protection issues. The positioning of the researcher was also important in establishing trust to carry out the study in an ethical manner and reduce the risk of there being any conflict of interest (Merriam 2009).

The case study took ten-months to carry out and over such a period the researcher-participant relationship developed, whereby considerable personal information was disclosed. As

previously discussed, reflective prompts and extensive member checking were used so that participants felt that they could expand or clarify any information disclosed and offset any feelings of embarrassment caused by particular questions or by unintentionally disclosing information (Merriam 2009). Table 4.6 provides a summary of the processes undertaken to ensure the participants felt involved throughout and to optimise the trustworthiness of the research.

Table 4.6 Member checking processes undertaken throughout phases 1-4

Phase 1	Phase 2	Phase 3	Phase 4
Researcher notes & transcript member checked by the participant	Researcher notes & transcript member checked by the participant	Observation - no member checking	Researcher notes & transcript member checked by the participant
Reflective prompts sent to the participant	Reflective prompts sent to the participant	Reflective prompts sent to the participant	Reflective prompts sent to the participant
Transcript checked for errors by the researcher	Transcript checked for errors by the researcher		Transcript checked for errors by the researcher
Personal narrative created by the researcher & member checked by the participant	Personal narrative continued by the researcher & member checked by the participant		Personal narrative completed by the researcher & member checked by the participant

Observation of practice could have placed participants in an uncomfortable position, potentially feeling embarrassed or that their practice was being judged by the researcher. Therefore, the observation was implemented at the mid-point of the data collection phase and discussion as the final phase of the research process, when the researcher-participant relationship had been established. Every effort was made to reassure participants that the purpose of the research was to understand their TSE beliefs in relation to their practice. Therefore, the interpretations of the participant, not the researcher's view of practice, were the important focus of the research in understanding this relationship.

The feedback from all the participants was that they considered the opportunity to reflect on and discuss their practice, throughout the research process, to be of benefit to their practice. Reciprocity was extended to the participants by the researcher providing afternoon tea, which also enabled the semi-structured interviews to be more conversational, whereby the

participants were able to develop a greater sense of trust. Extensive member checking of interview transcripts, where participants were encouraged to make notes and highlight any questions, changes or disagreements, developed a sense of trust between the researcher and participant. Only one participant edited their transcript by removing comments, the reason for which was followed-up in the subsequent interview.

4.6.3 Data security and confidentiality

Research data and consent forms were stored securely and separately in a locked filing cabinet and a password protected computer at UniSA. In adherence with UniSA HREC and DECD (DfE) ethics protocol, the data will be disposed of after a minimum retention period of seven years. Following this minimum retention period written permission must be obtained from UniSA's HREC for the disposal or destruction of the data. Participant names were replaced with pseudonyms for the storage of files, analysis of data and dissertation and to maintain the confidentiality and anonymity of participants and their sites. Data was shared with supervisors to ensure the reliability and validity of the research and participants were made aware of this through the consent process.

4.7 Conclusion

Using a qualitative interpretive multiple case study design has enabled the exploration of the TSE beliefs and relationship with practice of eight South Australian reception teachers. Social Cognitive Theory (Bandura 1997), Ecological Theory (Bronfenbrenner 1979; 2005) and the adapted conceptual framework of the Integration and Evaluation of Efficacy Information model (Morris, Usher & Chen 2017) provided the theoretical and conceptual underpinnings for the development of the research process and analysis of the data to develop the findings of this thesis.

Qualitative data collection included semi-structured interviews, observation of classroom events and video elicitation using play-back and think-aloud strategies, as well as the use of the 12-item, Teachers' Sense of Efficacy Scale (short form) (TSES) (Tschannen-Moran & Woolfolk Hoy 2001). Secondary sources of data was also collected and included participant reflections, planning documentation and photographs, which informed the semi-structured interview process. The qualitative approach was significant in collecting the perspectives and voice of the reception teachers across a ten-month four-phased process. The data was

therefore rich enabling the participants' TSE beliefs to be considered in relation to their practice, as well as cross-case analysis.

Key findings from the research are presented in the following chapters in alignment with the superordinate themes that were developed and utilising the conceptual framework to extend understandings of how TSE may continue to develop. Chapter Five explores the formation of the participants' TSE by examining the interconnection of their personal and professional histories. Chapter Six extends the analysis by examining the sources of TSE and Chapter Seven concludes the findings chapters, investigating the relationship between the TSE beliefs of the reception teachers and their practice. Following the findings chapters is the discussion chapter, which presents the *Ecological Framework for Teacher Self-Efficacy Development* that emerged out of the analysis, along with potential limitations and opportunities for future research.

Chapter 5: Teacher Self-Efficacy: Examining Reception Teachers' Past to Understand their Present

As I immersed myself in this study and reflected on my career as a reception teacher, I was able to identify influences outside of teaching that had shaped my TSE and in turn my educational practice. The most significant was my early childhood, growing-up in the country where I felt a great sense of belonging within the microsystems of my family and local town. I was particularly close to my grandmother and connected to my small, tightknit community, facilitated by rich mesosystem interactions and relationships with respective individuals within my community. My self-efficacy as a learner was high and I felt confident at school and within the familiarity of my family and community.

At the age of eight, my family moved to the city and I vividly recall how I found myself in an unfamiliar place, with no sense of belonging. I would avoid going to school or run home at any opportunity. My self-efficacy for learning was suddenly lowered as academic expectations became more complex. Gradually, as time went by, I began to settle in, regularly attend school, make friends and achieve good academic results. However, it always felt as though there was something missing. I didn't quite feel that same sense of belonging that I had felt in my early childhood.

Subsequently, as a teacher, I have made it my mission to build connections with children and their families, so that children's self-efficacy for learning could develop. The microsystem of the classroom and interactions with the community within the mesosystem were important, not only because I had learnt this in my studies at university, but because I knew from my own experience how important this was in building one's identity and sense of self.

In conducting this study, I came to the realisation that my reflections were not dissimilar to that of my participants, with findings supporting the metaphor of teachers having their own 'virtual schoolbag' (Thomson 2002), which they unpack in their practice. To further extrapolate this, Chapter Five explores the experiences of the eight reception teachers by examining their life experiences and the relationship with the formation and continued development of their TSE and practice.

5.1 Introduction

In beginning to examine reception teacher self-efficacy, Chapter Five presents the analysis of phases one and four of the research process; the life-history and TSE interview. The analysis examines the relationship between the participants' personal and professional histories in identifying their TSE, the formation of their beliefs and influence of TSE on their practice. The chapter begins with a case by case analysis of the reception teachers' current self-reported TSE using the commonly applied quantitative Teachers' Sense of Efficacy Scale (short form) (TSES) (Tschannen-Moran & Woolfolk Hoy 2001). To further examine the robustness of the TSE score, qualitative research methodology was applied to gain richer and deeper insights into the reception teachers' perceptions of TSE including whether ecological time related factors within the chronosystem influenced the formation of their TSE as they interacted with different systems across their life-course. To assist in the analysis of the relationship between the participants' past and current contexts (Sisson 2016) in shaping their TSE, the domains of the TSES (Tschannen-Moran & Woolfolk Hoy 2001) and Zee and Koomen's (2016) domain of emotional support were applied. The chapter concludes by exploring the possibilities that a life-course perspective may bring in examining not only how TSE forms, but the continued influence the teachers' experiences may have on their TSE beliefs and practice.

5.2 The Reception Teachers' Self-Reported TSE

In examining the TSE beliefs of the reception teachers, the TSES was utilised to discuss with the participants their TSE in the three general domains of instructional strategies, classroom management and student engagement (see section 4.3.2.1). The three domains of the TSES aligned well with Wyatt's (2010) definition of TSE and enabled the analysis to extend across interpretive, pedagogical, discursive, relational and institutional practice, as defined by Comber (2006). Pedagogical work was included within the domains of instructional strategies and student engagement, whilst interpretive and institutional work was included within the classroom management domain. Discursive work, however, was limited within the TSES as was relational work. The domain of emotional support as a component of Zee and Koomen's (2016) Heuristic model was therefore added to the analysis to encapsulate the interpersonal and affective quality of teaching (Zee et al. 2016) reflected in Wyatt's (2010) definition of TSE: 'teachers' beliefs in their ability to support children's learning in specific affective and social ways' (p. 603) and Comber's (2006) definition of relational work. As

discussed in Chapters Two and Four, the TSES has been evidenced to have the soundest construct validity (Chang & Engelhard Jr 2016; Klassen et al. 2009) and has been widely adopted by the TSE field (Chang & Engelhard Jr 2016; George, Richardson & Watt 2018; Klassen et al. 2009; Woolfolk Hoy & Burke-Spero 2005). The researcher was aware of the limitations provided by the independent use of quantitative scales (see Chapter Two, section 2.3.3), however, the TSES was used to inform the qualitative design of the study and to explore participants' reasoning behind their self-assessment of their TSE, thus aiming to provide greater understanding of their TSE (Wheatley 2005; Wyatt 2012; 2014). The discussion following the administration of the TSES was significant in analysing the participants' TSE and the sources of their beliefs. The analysis of the qualitative data also provided the opportunity for the researcher to consider the participants' scoring of the TSES and whether their scoring was in alignment with their description of their TSE throughout the qualitative interviews. Together the TSES and qualitative analysis provided new insights and deeper understandings of the formation and development of the reception teachers' TSE and relationship to practice.

Outlined in Table 5.1 are individual participant scores in each domain and descriptors of their TSE using the TSES Likert scale scores: *low (1 & 2), low-moderate (3 & 4), moderate (5 & 6), moderate-high* (7 & 8) *high* (8 & 9) (see section 4.3.2.1 & Appendix H)

Table 5.1 The participants' raw scores of the TSES

	Instructional Strategies ***Q's: 5,9,10,12***	**Total**	**Descriptor**	**Classroom Management** ***Q's: 1,6,7,8***	**Total**	**Descriptor**	**Student Engagement** ***Q's: 2,3,4,11***	**Total**	**Descriptor**
Mary	8,9,8,9	34	High	9,9,9,9	36	High	9,9,9,9	36	High
Kate	9,9,9,9	36	High	9,9,9,9	36	High	9,9,9,9	36	High
Ellen	5,7,7,8	27	Moderate	7,8,7,7	29	Moderate-High	7,8,7,8	30	Moderate-High
Jean	8,9,8,7	32	Moderate - High	9,7,7,9	32	Moderate-High	8,9,8,5	30	Moderate-High
Donna	7,6,6,7	26	Moderate	8,7,9,7	31	Moderate-High	8,7,7,7	29	Moderate-High
Jo	7,7,8,6	28	Moderate-High	9,8,9,8	34	High	7,8,7,6	28	Moderate-High
Emma	7,8,7,7	29	Moderate - High	7,8,6,7	28	Moderate-High	7,7,7,6	27	Moderate
Anna	6,7,7,7	27	Moderate	7,6,7,7	27	Moderate	7,7,7,7	28	Moderate-High

Following the analysis of the TSES, the participants converged into three general TSE categories across the descriptor range of: *moderate; moderate-high*; and *high*. The descriptors of *low* and *low-moderate* were not reported by the participants in any domain. The participants' scoring of the TSES did not illustrate a significant difference between the three domains and so appeared to represent a general sense of TSE (Gibson & Dembo 1984) and could thus be described as having generally moderate to high TSE for instructional strategies, classroom management and student engagement.

Mary and Kate self-reported their TSE as *high* on all aspects of the TSES. Jean, Jo, Donna and Emma reported their general TSE as *moderate-high*, with some variation in specific domains, while Anna's responses scored in the *moderate* range. The most notable differences in scoring were Ellen and Jean who self-reported a score of 5 for instructional strategies and student engagement, respectively. Donna, Jo and Emma self-reported their TSE between 6 and 9, whilst all of Anna's responses were 6 and 7. The self-reports indicated that the participants' self-esteem and self-confidence as an indicator of their general TSE (Gibson & Dembo 1984; Wyatt 2016) were *moderate* to *high*.

Similar to Gonzalez et al.'s (2017) study regarding the influence of high-stakes testing on TSE, the quantitative data did not reveal significant differences or provide specific information regarding the rationale for why the reception teachers scored their TSE between 5 and 9 in each of the three domains. In isolation the TSES provided limited understandings of the individual TSE of reception teachers, whereas the reasons behind these beliefs suggested that the participants generally had moderate to high TSE.

The limitations of the scale in relation to the use of the self-reporting system were further highlighted by Mary when asked for her rationale as to why she self-reported a score of 8 for questions relating to instructional strategies:

> *"I thought I'd better not put them all as 9... Yeah, yeah can't be perfect." (Mary TSE Interview 2015, p. 3)*

Mary reported a score of 8 for questions: *To what extent can you craft good questions for your students?* T*o what extent can you provide an alternative explanation or example when students are confused?* (Tschannen-Moran & Woolfolk Hoy 2001). Mary stated that whilst

she considered herself to be *pretty good*, she also considered that there was *always room for improvement.* However, her concluding statement was that she felt that she couldn't self-report *them all as 9*, supporting Dunning, Heath and Suls (2004) and Chestnut and Burley's (2015) argument that participants may avoid extreme ends of the scale. Arguably scales have the potential for participants to over- or under-report their TSE as they rely on honesty and recall of self-knowledge to make assessments of their capabilities (Chestnut & Burley 2015; Dunning, Heath & Suls 2004).

The TSES provided some initial insight into the participants' self-report of their overall sense of TSE at the time of the study. However, like Gonzalez et al.'s (2017) study, the qualitative semi-structured interview, which included the think-aloud strategy for the participants to justify their scoring, provided specificity that the scale could not. Nonetheless, the scale was useful in providing information about the participants' self-esteem and self-confidence in relation to their teaching, indicative of general TSE (Wyatt 2016). For the purpose of this study, the scale was used as the foundation to gather qualitative data to provide greater insight into the TSE of the participants as they reflected on their choices in the three domains of the TSES and their scoring on the Likert scale using the think-aloud technique (Barkaoui 2011; Fox, Ericsson & Best 2011), described in Chapter Four, section 4.4.1.

Thus, the qualitative data from the participants' reflections of their self-report on the scale, in conjunction with the interview data from phases one and four of the study; the life-history and TSE semi-structured interviews, have been utilised throughout this chapter to illuminate the findings in relation to the participants' TSE, the formation of their TSE beliefs and relationship to practice. The following analysis examined what the participants reported they *can do* and conversely what they *can't do* in alignment with Bandura's (1997) conceptualisation of self-efficacy as an expectancy belief (see section 2.3.2). Specifically, the analysis focused on the reception teachers' beliefs about their capabilities to support children's learning in various task and context-specific ways (Wyatt 2010; 2015). The analysis suggested that the reception teachers brought with them their beliefs about their capabilities from their life-history which influenced the formation of their TSE and practice. Thus, the TSE beliefs of the participants' began to emerge through the analysis of their life-history interview, which will be explored further in the following sections.

5.3 TSE Belief Formation: Living in Personal and Professional Landscapes

As discussed in Chapter Four, Methodology, this study considered the life-history of the reception teacher to be important in understanding the experiences and social contexts of the participants in shaping their TSE (Connelly & Clandinin 1999). A life-history perspective acknowledges the formation of TSE over time, explored through analysis of the ecological chronosystem and interconnected systems of influence (Bronfenbrenner 2005). As discussed in Chapter Four, section 4.4.1, the life-history interview explored the chronosystem influences of participants' self-reports of critical moments and turning points to examine events that brought about a change or had important consequences in their lives (Mandelbaum 1973; Rutter 1996; Thomson et al. 2002). The critical moments and turning points enabled the analysis to examine the perceived meaning and significance of these events and moments to the participants (Connelly & Clandinin 1999) and the influence of these moments and events on the participants' TSE and practice.

The following section synthesises key statements to identify the TSE of the participants and illustrate the connectedness of the eight reception teachers' personal and professional histories in the formation of their TSE. Each section begins with a short vignette of the participant, followed by a table and brief analysis describing how the participant's personal and professional histories intersected, applying the TSES domains (Tschannen-Moran & Woolfolk Hoy 2001) as well as the domain of emotional support from Zee and Koomen's (2016) Heuristic Model of TSE. The analysis begins with Ellen's short vignette.

5.3.1 Ellen

Ellen, a 29-year-old, mid-career teacher, presented as open and friendly and willingly shared her life-history. Ellen's responses, however, were limited in detail and considerable encouragement was needed for her to provide further elaborations. Despite her seven years of teaching experience, limited understanding of her practice was captured as she responded '*I don't know'* a total of 19 times across the three semi-structured interviews. The researcher acknowledges that there may be multiple reasons as to why Ellen responded in such a way, for example nervousness and general uncomfortableness in answering questions about her practice. However, over the ten-month data collection process, Ellen's responses continued to lack detail and *I don't know* remained a consistent response. Therefore, this sustained

response was interpreted to seemingly evidence limited understanding of her practice or ability to describe her practice.

The microsystem of Ellen's family featured significantly throughout her life-history interview describing the chronosystem influence of their support and encouragement as important at different critical points and turning points in her life. Ellen exhibited a positive outlook and was hopeful that she would become a permanent member of the early years staff at the Water's Edge, after being on contract for the previous five years. The pedagogy within the microsystem of the Water's Edge was described as play-based and built on the principles of Reggio Emilia (Water's Edge Primary School 2015). Table 5.2 details key quotes from Ellen's interview data in the domains of TSES and emotional support (Zee & Koomen 2016) which is followed by a critical discussion of the interconnectedness of her personal and professional histories.

Table 5.2 Ellen's personal and professional history

Domain	Personal History	Domain	Professional History
Student engagement	*I think the whole study side of things; I'm not great – I'm not a studious kind of person really...*	Instructional strategies - questioning	*I think 'why have I asked that question, why didn't I ask it a different way?'*
Student engagement	*...mathematics I'm not quite as confident...I wasn't – I'm not- I'm not a great mathematician myself...*	Teacher sensitivity – needs of children	*I think finding the learning through their play I'm quite confident in. And then not reporting but writing the learning stories on that. Really comfortable in doing that and scaffolding their play...Yeah, in saying that, with finding their learning, one thing that I am not confident in, or that I'm still learning, is finding the maths side of things*
		Teacher sensitivity	*I think I see my relationships with the children coming through, like stemming from my family. Yeah, the beliefs that my family have and the way we interact with each other. It's really warm and inviting I think.*

Ellen's reflection on herself as a year 12 student who was initially unsuccessful in getting into university to study teaching, significantly influenced how she reported her capabilities as a learner, as she described herself as *not a studious kind of person*. This seemed to connect to

her professional learning in her practice as she described having *low* TSE for interpretive work (Comber 2006) regarding the use of questioning, observing and documenting children's learning in mathematics in the microsystem of her classroom. On the TSES she recorded *low-moderate (5)* TSE for questioning, which was her lowest score on the short form.

In describing her TSE in relation to mathematics, Ellen changed from present tense, to past tense and back to present tense; *I wasn't – I'm not,* which suggested that her TSE for mathematics may be connected to her personal history of mathematics experiences. Her *low* TSE for mathematics was evidenced through descriptions of task-specific beliefs relating to her interpretive and pedagogical work (Comber 2006) such as being unable to *find the maths* in children's learning which she attributed to *not being a great mathematician* herself. Ellen continued to report her TSE for mathematics in her practice and TSE interviews as *low* as it was an area of practice that she was *not confident in.*

However, Ellen described having high TSE for other areas of her interpretive practice (Comber 2006) such as noticing the *learning in play* and documenting this using *learning stories*. Ellen also described her TSE for the relational work (Comber 2006) in her interactions with children as *high*, which she did not report in her TSES. Thus, the emotional domain (Zee & Koomen 2016) was important in evidencing the affective and interpersonal aspect of reception teachers' work. Ellen reported this domain as important to her practice, stating her commitment to developing *warm* and *inviting* relationships with children. Ellen connected her TSE for this domain to her personal history and the closeness she had with her family, illustrating the connection between the mesosystem interactions with her professional microsystem. Overall, Ellen reported her TSE on the TSES as *moderately high* (7 and 8s). However, the qualitative analysis challenged this notion as Ellen repeatedly found it difficult to talk about her practice in any detail, describing more of what challenged her, which suggested she may have had a *lower* sense of TSE in some task-specific domains than she reported, particularly interpretive and pedagogical work (Comber 2006).

5.3.2 Kate

Kate was a 35-year-old early-career teacher with one-year prior experience in the primary school setting. Kate, however, had significant experience in childcare, as an educator and director for seven years. Throughout Kate's life-history report she recounted significant

turning points and critical moments, some of which she recalled fondly and others which were seemingly painful for her to recount. Her childhood on her family's farm was particularly joyful which contrasted with her adolescence and the critical moment of becoming pregnant at the age of 18. Determined to provide for herself and her son, she decided to study a Bachelor of Early Childhood Education at university. Kate was remarkably optimistic about her future and viewed teaching as her calling, which had enabled her to move on from her difficult past. She described her desire to be known and recognised for her knowledge and competency, as well as having the opportunity to be listened to, admired and respected by her colleagues and the profession. Table 5.3 details key quotes from Kate's interview data in the domains of the TSES and emotional support.

Table 5.3 Kate's personal and professional history

Domain	Personal History	Domain	Professional History
Student engagement – value learning	*...you can't walk around with this weight around your neck of 'oh things were tough, poor me'. It's – it's just not like that... I learnt so much about me...and what I could do without... I think that's where I get this attitude of everything is learning.*	Student engagement – value learning	*...people come in and they say to me, 'Oh you've really got to look hard for these learning stories.' And I think 'no, no not at all' everything is learning.*
Emotional support – teacher sensitivity (academic needs)	*...when my son was born, that was when I decided I need[ed] a manual. I need [ed] to know about child development...I like to have a big body of knowledge behind me. I like to have the evidence...*	Instructional Support – alternative strategies	*...the first thing I do is look at who the feedback's from and whether I value that feedback or not...So if it's somebody who I know does not have a great body of knowledge behind them, operates in a completely different way to me, has very little understanding of play, I might decide to kind of take a little bit...I think the people who give feedback it's not all bad. But you've really got to choose whose opinion you're going to take on board...*
Emotional support – teacher sensitivity (emotional needs)	*I can remember when I was coming back with my Dad, we'd been out mustering sheep...he said to me 'I'm going to go over and look for sheep over there, will you just take them back to the shearing shed for me?' And there was me in charge of this mob of sheep taking them back and I just felt so proud...getting treated like*	Emotional support – teacher sensitivity (emotional needs)	*It's a high point for every person especially when you're young because you are a really competent person and a lot of people don't really value that in children.*

	you're a capable responsible person...		
Emotional support – teacher sensitivity (emotional needs)	*I would say I came off the farm where we hadn't had a lot of contact with people... And I'd say that really, really impacted on me because I felt so different to the rest of the people around me.*	Emotional support – positive climate	*I believe you can't do anything – you cannot teach anybody, if you do not have a positive relationship with them, unless you want to teach them some really horrible things.*

Kate reported her TSE on the TSES in all three domains as *high*, and she frequently drew upon her perception of her capabilities from her personal history, particularly her experiences within the microsystem of her family's farm, in influencing her TSE. When asked what she felt had the greatest influence on her teaching, she stated:

> *"Definitely the childhood on the farm, that really terrible teacher that I did have, and do you know what, I think now the aspects of my life that are really influencing it are the professionals that I engage with." (Kate TSE Interview 2015, p. 21)*

Whilst Kate reflected on her past experiences in influencing her TSE; her *childhood on the farm* and her primary school experience with a *terrible* teacher, she also noted the influence of her current colleagues in her professional experience in developing her TSE. Kate therefore described the ecologies of both her personal and professional experiences in shaping her TSE.

Kate's childhood within the farm microsystem was also in alignment with the pedagogical philosophy of the Water's Edge schooling microsystem, particularly the site's emphasis on outdoor play (Water's Edge Primary School 2015).

> *"...it [childhood] was all about not focusing on material possessions, being outdoors a lot, being inspired by the natural world. We had a mud pit in our yard and very limited TV time. Spent all our time outside in nature. And I think that's always carried on with me..." (Kate Life-History Interview 2015, p. 14)*

The chronosystem influence of Kate's experiences within the microsystem of her family's farm, and her later professional experiences within the microsystem of Water's Edge, demonstrated an interrelationship with common underlying beliefs about her pedagogical

practice and her TSE for the institutional work (Comber 2006) supporting similar experiences for children in her class:

> "*If they [the children] said to me; 'No I don't want to. I want to go outside and play in the sand pit', I say, 'Yeah okay off you go'..." (Kate TSE Interview 2015, p. 10)*

Other significant personal experiences which influenced her perception of her capabilities detailed in Table 5.3, included her pregnancy in adolescence and becoming a single parent. Through these ecological chronosystem experiences, she developed a perception that *everything is learning*, however she also saw *evidence* as essential for learning, highlighting the interpretive work (Comber 2006) of the teacher in making decisions about their practice.

Kate spoke confidently about her practice in alignment with her self-report on the TSES; however, her TSE interview revealed that her TSE for relational work (Comber 2006) with her colleagues may not be as high as she had reported:

> *"...I seem to have no problems saying what I think, but when it comes to actually admitting I don't know everything and asking a question, that's where I-I think it was more me trying to work things out in my own mind first, because I do like to do that, I prefer to work through things myself, rather than be told..." (Kate TSE Interview 2015, p. 16)*

As an early career teacher in her second year of practice, it was expected that Kate may experience some doubts about her capabilities or what Tschannen-Moran and Hoy (2007), term a 'reality shock' (p. 946) associated with entering a new profession. However, the above quote suggests that Kate engaged in reflective practice as part of her interpretive work (Comber 2006), aligned to her belief that *everything is learning.* In the microsystem of her teaching context, Kate questioned the quality and validity of *evidence* and reflected deeply on her teaching rather than *being told* what to think or do, in perhaps seeking out agency within her practice. Kate's self-reported high TSE may be attributed to her prior educational experience in childcare and her transfer of interpretive and pedagogical practice (Comber 2006) and knowledge from one educational microsystem context to another. Kate's personal and professional experiences were, therefore, interconnected and influenced how she self-reported her TSE and practice, particularly relational, interpretive and pedagogical work (Comber 2006).

5.3.3 Mary

Mary, aged 59, was born in the US and moved to Australia when she was 14 with her three siblings and parents. The move was prompted by mesosystem factors such as the Detroit race riots and exosystem and macrosystem influences associated with the avoidance of her brother's conscription into the US army during the Vietnam war. Mary considered her family's decision to move to Australia from the US a critical moment and chronosystem influence as she had begun to experiment with drugs. From Mary's recount, the move forced her out of the drug scene and this also gave her the opportunity to go to university, an opportunity which Mary reported would not have been possible in the US. Mary was a highly experienced and late career stage teacher of 38 years. However, she described her role as the director of the Early Years at the Water's Edge as a challenge as she considered how she would translate her knowledge and skills from her 37 years of experience from the microsystem of the preschool setting, into the microsystem of the junior primary context. Table 5.4 identifies key quotes from Mary's personal and professional life.

Table 5.4 Mary's personal and professional history

Domain	Personal History	Domain	Professional History
Emotional support – positive climate	*No, I wasn't always confident...I can remember as a teenager, late teens/early adult being afraid of a lot of things and then one day deciding, 'you know what I'm not going to be afraid of anything anymore', and I wasn't.*	Instructional strategies – alternate strategies	*Well, lots of experience, lots of trying things out and testing things out and going 'ooh that's not so good, that doesn't work'...it's just developed and because I've had lots of different experience and been exposed to lots of different ways of doing things...So yeah it's really about having a go.*
Emotional support – teacher sensitivity (academic needs)	*I can remember a relief teacher that I didn't like...she said 'see how the person's colour[ed] the legs that way and, that way and, the body this way?', and for some reason she thought that was just wonderful and so that was how you're supposed to do it and I thought that was pretty weird...*	Student Engagement – motivate students	*I hate anything - everyone knows that we just never do stencils or anything like that...I thought worksheets were going to be great for about 2 minutes...then one day I went - 'they're not engaging with this at all'.*
Student engagement – believing you can do well in mathematics	*The maths that we were doing in the States was really quite simple and when I got here we were doing algebra and stuff like that. I had no clue. I did not have the basics so I dropped that as soon as I possibly could, got out of that. The history and the English*	Instructional Strategies - implement alternative strategies in teaching mathematics	*Look. the kids set up a pet shop in the last couple of weeks and they wanted to make money; we didn't just hand out the fake money. The children wanted to make it, right. So they went to the library and got a poster and then they made this money...*

	stuff was really my thing so that got me through. Not mathematics.		*I'm trying to get information from the children and not feed it into them. I want them to come up with what they know and trying to get that through all the different languages...I really want to know what they know – I want to start with them...*

Mary's self-reported TSE on the TSES was *high* in all domains. She confidently spoke about the interaction of her personal life-history and her TSE and pedagogical practice (Comber 2006). For example, Mary described her experience as a child working on worksheets as *weird*, and stated her preference as a teacher for a pedagogy of listening:

> *"...listening and understanding where kids are coming from – what they've already got...what they're interested in but what they – but mostly what they already know and what they're experts at and what might inspire them..." (Mary TSE Interview 2015, p. 4)*

Whilst Mary reported through the life-history interview having *low* self-efficacy for mathematics in her early adolescence, she reported *high* TSE in utilising alternative pedagogical strategies for teaching mathematics within the microsystem of her context through the TSES. The analysis of the qualitative data, evidenced in the table above, supported Mary's self-report on the TSES. In her professional life and microsystem of her classroom, she described her *high* task-specific TSE for promoting student engagement, including her capabilities for her pedagogical work (Comber 2006) in planning creative learning experiences.

As Mary discussed her professional history and her willingness to *have a go*, she was asked whether she had always been confident. Mary responded that she hadn't, and in her personal history, she had made the decision not to be *afraid*. Mary's willingness to *have a go* and *not be* afraid was reflected in her *high* TSE to push-back against institutional practices (Comber 2006) in her school microsystem that she felt were in misalignment with her beliefs in her professional history:

> *"...seeing the bad side, the real academic push-down that sort of – you've got to see things that really make you go 'oh, don't ever let that happen.' Yeah but also, I went to a few sites*

that were bucking the trend and feeling quite 'oh thank goodness'..." (Mary Life-History Interview 2015, p. 2)

In pushing-back against practices she believed were in misalignment with her beliefs, Mary highlighted the tension reception teachers face in navigating the downwards macrosystem policy influences such as the extension or early schoolification of curriculum, similarly highlighted by Barblett, Knaus and Barratt-Pugh's (2016) study of preschool teachers in Western Australia. In the microsystem of the Water's Edge, Mary discussed the alignment of her pedagogical and institutional practice (Comber 2006) with the child-centred philosophy of the context. This was critical to her approach to planning as part of her pedagogical and interpretive work (Comber 2006):

"...people say 'oh, yeah, I follow children's interests'. Well, do you follow all of them? Because if you follow all of them, you're just going to be scratching, skimming it across the top of everything? It's actually trying to bring it together and focus on something that can have multiple entry points for everybody." (Mary Life History Interview 2015, p. 7)

The interview data supported Mary's *high* self-assessment of her TSE reported on the TSES . The key quotes illustrate the bi-directional relationship between Mary's TSE and practice in relation to her pedagogical, interpretive and institutional work (Comber 2006), which she was able to discuss and critique in detail. Mary's TSE and position as director of the early years at the Water's Edge, also enabled her to exercise agency within the microsystem of her teaching context to determine the institutional practices (Comber 2006) within the context and push-back against macrosystem ecological factors such as the schoolification of the early years.

5.3.4 Jean

Jean was a 31-year-old, mid-career teacher, with a total of ten years teaching experience. Throughout Jean's initial teacher training and the early part of her career, she had questioned whether she had chosen the right career for herself. Reflecting on her own school experiences, Jean described her primary school years as challenging, as her family had moved frequently due to the exosystem influence of her father's work as a stock agent. Frequent moving was difficult for Jean's interactions within classroom microsystems as she repeatedly had to leave friends and make new ones. Microsystem interactions were

important to Jean and, whenever she could, she enjoyed spending time with her extended family on her grandparents' farm. During high school, Jean's family settled in a rural town and her schooling experience was reported as predominantly positive. Following high school, Jean completed a Bachelor of Primary Education and began her teaching career. Shortly into her career, exosystem factors influenced Jean and her partner's move to Queensland, which she considered a turning point as it was this move that renewed her interest in teaching. When she and her partner returned to South Australia, she successfully applied for a reception teaching position at the Shire School. Jean provided multiple examples of the connections between her mesosystem interactions and classroom microsystem practices, and the potential influence on the formation of her TSE, detailed in Table 5.5.

Table 5.5 Jean's personal and professional history

Domain	Personal History	Domain	Professional History
Emotional support – teacher sensitivity (emotional/ academic needs)	*I just didn't get help in year 5. I would ask for it and I just wouldn't get it... it made me want to be a teacher...*	Emotional support – teacher sensitivity (emotional/ academic needs)	*That was the one thing that made me want to be a teacher just because I just thought well if you're a teacher I think you're someone that you're actually wanting to teach people something and to be a teacher that just sits at a desk and to say, 'no you go and sort it out yourself', was just in my eyes horrendous so I'm just like 'no, I actually want to make sure that children can actually learn', and they are not stuck in that situation that I was in.*
Emotional support – teacher sensitivity (academic needs - mathematics)	*I used to be quite good at maths and then I was sick in year 4 for a little bit and I was off for about a term so I missed out on a term's work and when I came back it was fine but then in year 5 there was quite a big chunk of maths that I'd missed out on that was to do with division and decimals and fractions and things, so it is one thing that I don't like to this day...So, I'm not a fan if I have to do anything like it, I will just go 'someone else can deal with it' or I'll get a calculator out...*	Instructional strategies – provide an explanation or example	*...maths was not my forte and it still isn't to this day but that's okay, that's why I teach receptions...*

Emotional support – teacher sensitivity (emotional needs - Organisation	*I like not so much the bigger picture knowing the overall holiday sort of thing, but it's the day, like 'what are we doing today?' I need to have a plan for the day; I just can't not know otherwise it drives me insane...*	Emotional support – teacher sensitivity (emotional needs - Organisation	*I like organisation and structure and coordination and all those wonderful things that are yeah, definitely built into it [Walker Learning]...*
Emotional support – teacher sensitivity (emotional needs – decision-making	*Sometimes on holidays it depends where we're going and what we're doing, so a lot of the time I don't actually plan it; it's my husband, but I will give suggestions and those suggestions will generally get through because I'll be constantly going 'can we do this? Can we do that? We need to do this. We need to do that'...*	Instructional strategies – alternate strategies	*We went to a school a few years ago and they recorded it [the children's play] and we loved that idea...we found out that they don't actually record, they write down notes and they record it anecdotally...But our management decided that this is a nice visual way for parents to see what we're doing and also with people coming through on school tours...it was a good idea but now with the way that we actually do it it's actually more of a hindrance than a benefit we feel, but we have to do it*

Jean's self-reported TSE on the TSES was *moderate-high* except in one aspect of the *student engagement* domain, which asked: *how much can you assist families in helping their children to do well?* Jean reported the mesosystem interaction and relational work (Comber 2006) as *moderate* (5), which she explained:

> *"I put 5 because at the end of the day you do have an influence in the classroom and that's where our main goal is and we do try to influence a lot of what happens at home, but at the end of the day it comes down to the parent and also the parenting style and what they see as important...So it's just yeah, recognising that with some families you will have a lot of influence, others you may not." (Jean TSE Interview, 2015, p. 2)*

Jean made consistent reference to her personal history as influencing her TSE. This began when she was asked why she became a teacher, with which she responded that she wanted to *help* children and described the chronosystem influence of a critical moment when she did not feel helped in primary school. Her assertion that she was motivated to become a teacher to *help* children conflicted with her own self-assessment regarding her capabilities in her relational work (Comber 2006) to support families, evidenced in her quote above. Jean had engaged in an inquiry into her relational practice (Comber 2006) regarding working with

families, which was prompted by the institutional processes of an annual professional review, undertaken by the leadership at the Shire School. This professional inquiry, however, did not appear to greatly influence her self-report of her TSE. Whilst professional development that involves coaching has been evidenced to increase TSE (Von Suchodoletz et al. 2018), the influence of Jean's leadership in imposing professional inquiry may have had a converse influence on her TSE. However, without baseline data to compare Jean's TSE pre and post professional inquiry, it is difficult to ascertain whether her TSE beliefs had changed; however, her TSE for supporting families was self-reported as *moderate.*

Jean reported that her teacher did not *help* her in mathematics at primary school, which appeared to significantly influence her self-efficacy for mathematics as an adult. Jean described mathematics as *not her forte,* which had also influenced her TSE for mathematics as a reception teacher and the reasoning behind why she taught reception. Jean's reflections support Gerde et al.'s (2018) research regarding the TSE of preschool teachers for science, mathematics and literacy instruction. Gerde et al. (2018) found that 'negative feelings towards math were generated from previous educational experiences' (p. 84) and that these experiences resulted in preschool teachers struggling with both content and practices to teach mathematics. Jean's reflection in the TSE interview of her self-observation of practice highlighted her task-specific TSE beliefs in relation to mathematics, as she perceived her lesson as *a pretty basic lesson,* which may also suggest that she was finding the interpretation of content and pedagogy of mathematics challenging.

Whilst the Shire School emphasised a pedagogy of inquiry and play-based learning, this practice was highly controlled by the school leadership:

> *"Initially we had to fight for it [Walker Learning]. We really had to fight for it because it was going to change the look of the classroom and the feel of the classroom. We really had to fight for it. We had a lot of discussions even before we started to implement it, where we had to prove why it was valuable and why it was important. It was literally a round table discussion between two of the reception teachers, myself included and then the deputy principal and the principal literally fired questions at us and we had to be able to answer them straight of the top..." (Jean TSE Interview 2015, p. 16)*

Through the observation of Jean's practice during phases three and four of the research process (see Chapter Four, section 4.4.2), Jean engaged in more teacher-initiated pedagogical approaches and the children's play was highly structured:

> "*It's interesting to say 'structure with play' because when you think of play, you just think of free play they can go and do whatever, but with this it is very structured you've got your tuning in, you've got your different jobs and roles that you need to do, you're trying to meet learning intentions and it's a really good approach and for someone that likes structure and organisation – it works much better..." (Jean Life-History Interview 2015, p. 2)*

Whilst this perhaps highlights the complexities that reception teachers face in finding a balance between more child-centred pedagogical approaches such as inquiry and play-based learning and more teacher directed approaches (Cherrington 2018; Kilderry 2015; Leggett & Ford 2013; Rinaldi 2013; Siraj-Blatchford 2009), it may also support Ford et al.'s (2017) study of elementary teachers in the US. This study reported that 'as teachers experience more controlling rather than autonomy-supportive work environments, they too become controlling in their interactions with students' (Ford et al. 2017, p. 211).

In Jean's personal life she abdicated decision-making about holidays and activities to her husband, whilst in the school setting, her colleagues and *management decide.* Therefore, whilst the leadership at the Shire School appeared to restrict Jean's autonomy and agency in the microsystem of her classroom, her desire for others to make decisions on her behalf was evidenced in her personal life. This will be discussed further in Chapters Six and Seven in relation to the sources of TSE and agency. The qualitative data evidenced Jean to have slightly lower TSE beliefs, than she reported on the TSES, related to her pedagogical and interpretive practices (Comber 2006), which operated within the institutional practices of the Shire School. However, her lower scoring of relational work on the TSES was confirmed by the qualitative interview data.

5.3.5 Emma

Emma was a 32-year-old, mid-career teacher with 12 year's teaching experience. Emma reported having a joyful childhood, growing up in the country, in the microsystems of her family and friends. However, Emma described the critical moment when she was overcome by anxiety and depression as a teenager. She described exosystem influences prompting her

family to move to Adelaide, which she attributed to the development of her mental health issues. As an adult, Emma described depression and anxiety as an ongoing issue for her, which appeared to influence her TSE and practice. Emma's life-history interview focused almost exclusively on her personal life and unlike the other participants, she only discussed her professional history when prompted. The life-history interview provided an insightful exploration of the experiences that influenced Emma's self-efficacy and TSE, and Table 5.6 details key quotes from her interviews.

Table 5.6 Emma's personal and professional history

Domain	Personal History	Domain	Professional History
Emotional Support – teacher sensitivity (emotional needs)	*I had an incident or an ongoing incident – I would say it was a bullying incident. It wasn't a very good twelve months and I was about thirteen/fourteen – with a particular boy at school. It is still very, very raw even now...when you're thinking it's over.* *...it's just the missing of the comfort and feeling secure. I just felt oh, completely out of my depth...and not being a very confident person anyway, I'm not outgoing at all. I'm really quite quiet and I'm not the life of the party.*	Emotional Support – teacher sensitivity (emotional needs)	*...even if it's not a criticism– straight away I'm like that, in your stomach...even though it wasn't anything huge or he didn't mean it to be nasty or negative...I still take it personally...* *...in the parent teacher interviews you know feedback from your parents. The good stuff's great, quite often you don't get that, it's the negative stuff that comes back and the complaints or the issues that they've got...very sensitive to things and it then worries me.*
Emotional Support – teacher sensitivity (emotional needs – feedback)	*I'm also quite sensitive when it comes to what people say or do or probably overly so...I over analyse everything...even as a child I did that, so any look or comment you know, you take it all to heart...*	Emotional Support – teacher sensitivity (emotional needs – feedback)	*So even when it's not meant to be feedback, I'm sure I take it as feedback. And I will self-analyse that over and over in my head like a lot of times...if anything bad happens I'm like 'Oh my God. What have I done? How did I do that? What influence have I had over that?'...*

Emma's self-reported TSE on the TSES was *moderate* in *student engagement* and *moderate-high* for the domains of *instructional strategies* and *classroom management*. Throughout the three interviews Emma described the connection between her practice and her affective states, which she related to her personal history of developing depression and anxiety as a teenager, which *followed* her throughout her life. Emma described challenging mesosystem interactions that required her to engage in relational work (Comber 2006) with parents, in particular discussing behavioural incidents with parents:

> *"I find it challenging when I have a difficult child to – in fact I'll always shy away from, you know, having to have the difficult conversation. I do find it really tricky to be honest; or there's an incident and you just don't know how they're going to react. I'm not overly confident with that, having those really hard conversations..." (Emma TSE Interview 2015, p. 8)*

On the TSES Emma scored 6 for being able to *calm a student* and *assist families* as she reflected on current situations where she felt less *patient* and had difficulties communicating with families who had English as an additional language, which caused her stress and anxiety. Whist the relational work of the teacher is central to teachers' practice (Comber 2006), Emma's TSE for the emotional domain (Zee & Koomen 2016) was lower and she found this aspect of her work challenging. Given the importance of mesosystem interactions to the work of the reception teacher, Emma's *moderate* self-report on the TSES was supported by the qualitative data, which suggested that her TSE for this area of practice was lower compared to other areas of her practice.

Throughout the three interviews, Emma consistently described herself as *overly sensitive* and *not a confident person,* which contrasted with her TSES. She appeared particularly susceptible to mesosystem and discursive interactions. Emma was concerned about what other people might say to her, which was reflective of the persistent bullying she reported experiencing in her early adolescence. Emma's sensitivity and domain-specific low TSE for relational work (Comber 2006), was significant as she reported feeling a sense of guilt on her perceived inability to form relationships with the children in her class the year before:

> "*...we just didn't form that connection - no, there wasn't cohesiveness, it was a very disruptive and tricky... I think they wore me out and it just like every day you were pushing a full wheelbarrow up a hill...I got to the point where I was just like, 'we've failed'. And I carried a lot of guilt about that because I just couldn't do it...I felt guilty and when I look at them this year I think, I feel bad, we've done an injustice" (Emma TSE Interview 2015, pp. 6-7)*

This sense of guilt had the potential to influence the perception of the effectiveness of her practice and in turn influence her wellbeing (Hargreaves 1994). Low TSE for the emotional domain (Zee & Koomen 2016) also had the potential to interfere with Emma's ability to

perform, as the idea of failure or more negative outcome expectancies may have been too powerful to overcome (Bandura 1997). Tschannen-Moran, Woolfolk Hoy and Hoy (1998) also suggest that uncertainty hinders teachers' motivation to try new teaching approaches, as well as their effort and perseverance in the face of challenge. Emma's affective responses to situations for which she considered having lower TSE were reflected in her semi-structured interviews, however with the support of Anna, her teaching partner, she remained open to new ideas in her pedagogical practice (Comber 2006).

5.3.6 Anna

Anna was a 32-year-old, mid-career teacher with 11 years teaching experience. Anna was friendly and open, and willingly shared many details about her life-history. Chronosystem influences seemingly played a significant role in shaping Anna's early life-experiences including experiencing significant grief with the passing of her three uncles and shortly afterwards, her father. Further to these experiences, in more recent times Anna had become her mother's carer following a brain aneurism, which she considered a critical moment and turning point in her life. Despite having experienced such losses within her family microsystem, Anna's attitude towards life was notably positive and she expressed a firm belief that things in life happened for a reason, which is reflected in Table 5.7. In relation to her work, Anna remained positive that despite being on contract at the Parish School for the past ten years, her position would be made permanent.

Table 5.7 Anna's personal and professional history

Domain	Personal History	Domain	Professional History
Emotional Support – teacher sensitivity (emotional needs – coping with loss)	*a lot of my uncles, so there was like three in a row[passed away] – they all had cancer...I had my uncles and then my dad... I used to always think 'Why is this happening now to us? Why do we have to go to funerals when I'm 12 years old?' and that's just part of life I guess... I like to think about the good things.* *my mum got really sick a couple of years ago...so having to care for her and work and it really put a strain on a lot of things...it makes you question everything you do and seeing someone go through that just makes you put things in*	Emotional Support – teacher sensitivity (emotional needs - Coping with change)	*I think it just comes with maturity and experience and changing the way we have done things...you kind of get caught up in doing things a certain way but then you change it and it's scary and it's hard and it's always easier to go back to the way you used to do things because it's just easy, but then once you do change the way you do things you do get this new found confidence. It's like finding that you can do something...*

	perspective and things that are important... *...I had to grow-up – like I had to do things differently and I think for me it was like – I knew that I could be strong, and I could do things on my own and I could – I didn't have to rely on any one... just more confident* *...I feel like, positive, in things will be okay...and things work out, so I guess that makes me feel more confident...*		

Anna's self-reported TSE on the TSES was *moderate-high* as she reported scores of 7 in all areas, except for the interpretive, relational and institutional (Comber 2006) practices of: '*To what extent can you craft good questions?*' and '*How much can you do to get children to follow classroom rules*?' which she rated as *moderate* (6). These specific areas were the current focus of Anna's pedagogical practice and were reflected in her statements within the qualitative interviews:

> *"...I have gotten a lot better at it [questioning] but over the last three years it's something I have really worked on and tried to develop...it's something that has changed for us...." (Anna TSE Interview 2015, p. 2)*

> *"I think because you can set up your class in a way so that you have your rules set up but then it's also up to the child... so you can go so far but then I think it's also giving them a bit of responsibility especially in reception. So, it's finding that balance..." (Anna TSE Interview 2015, p.1)*

Anna's lower self-report of her TSE for her practice in specific interpretive and relational areas, such as utilising questioning techniques and managing children's behaviour, perhaps evidenced the challenge in adopting democratic and child-centred approaches (Cherrington 2018; Kilderry 2015; Leggett & Ford 2013; Rinaldi 2013; Siraj-Blatchford 2009). However, these practices were also the focus of her own professional inquiry, and her lower TSE in these domains may be reflective of her thinking more deeply about these areas of her practice. Whilst the Parish School described a collaborative approach to pedagogical practice, inspired by the principles of Reggio Emilia (Parish School 2015), the challenges

associated with these interpretive practices (Comber 2006) were reflected in Anna's statement regarding *finding a balance* in her teaching.

The connection between mesosystem interactions were reported as Anna described her capabilities in managing the loss of her father and uncles as well as her mother's illness. Anna described her self-efficacy for the emotional domain (Zee & Koomen 2016) and choosing to *think about the good things* and to *put things into perspective.* This was reflected in her professional life where she viewed changes to her practice as coming from *maturity* and *experience*, which in her personal life, she referred to as *growing-up.* Anna also reported that the changes she had made to her practice had enabled her to *find [her] confidence,* which in her personal life she reported as seeing *things work out* and that she *can do it.* Whilst she conceded that change was *scary and hard*, her experiences enabled her TSE to develop positively. Anna's TSE beliefs that emerged through the qualitative analysis in relation to her pedagogical, interpretive and relational practice, provided some support for her self-report on the TSES. However the qualitative analysis suggested that some aspects of her TSE for practice, such as questioning and relational and institutional practices, such as managing the learning environment, may have been higher then reported on the TSES.

5.3.7 Donna

Donna, a 41-year-old, mid to late career teacher of 18 years, had a life-history marked by notable turning points, which began with her positive childhood and primary school experience. High school, however, was challenging for Donna and it was at this time that she began to question her beliefs about her capabilities as a student. Donna questioned whether she was capable of going to university, but with few options, was persuaded by her partner at the time, now husband, to study teaching. Towards the end of her degree, Donna lost her brother to cancer, which was a significant turning point and chronosystem influence in her life. Shortly afterwards influenced by micro, meso and exosystem influences, she married, moved to a rural town and began her family. Donna returned to the city and moved to her childhood suburb and was permanently employed as a reception teacher at the local Foothills School. However, these ecological influences, including critical turning point chronosystem influences, seemed to play a continued role in Donna's TSE and practice as noted in Table 5.8 below.

Table 5.8 Donna's personal and professional history

Domain	Personal History	Domain	Professional History
Emotional Support – teacher sensitivity (emotional needs - coping with challenges: loss)	*...the death of my brother... it changed the way I look at things and it has affected me, still now, really deeply...it changed that little bubble that I used to live in...once that little bubble bursts then you know that bad things happen to nice people...I live differently I suppose, I'm a lot more cautious...I think I've lost being able to be really adventurous because I'm thinking that could happen again.* *...'It's not fair', that's what I keep saying to my kids. 'Life's not fair and the sooner you realise life's not fair the easier it will be, there is no fairness to it'....*	Emotional Support – teacher sensitivity (emotional needs - coping with challenges)	*...[moving to the country] made me get out of my comfort zone and actually have to meet people, and that's when I started teaching and I had, I was doing relief teaching to start with, so really having to be confident in myself or at least appear confident...*
Student engagement – alternative strategies	*I also remember a teacher we had in year 6 and she let us run a lot of things...I just felt that empowerment...she believed in us, that we could do it...* *Negative yeah, struggling with school I'd say, feeling dumb, not being able to do maths... I remember doing German because German was supposed to be the easier one, I had no idea what they were saying, and other people seeming to get it. So, for a long time I never thought that I'd go to uni because I always thought I was too dumb... I think there's a lot greater understanding as to how people learn differently, you know. I think my strength is common sense and unfortunately there's no common-sense degree.* *I struggled at spelling and I've got a lot better at that as I've got older...But yeah just didn't know how I best learn I think...really dumb and I suppose back then we didn't really talk about people having strengths, it was sort of like*	Student engagement – alternative strategies	*It comes back to empowering them I think and going right back to when I was a kid and having a teacher in my experience of putting it back onto us and I've always loved learning and I think sharing that love of learning and discovering yourself rather than having someone just tell you...that has affected a lot of my teaching as well, I really like to do authentic things that are really meaning [ful] for the kids...* *I say to every class I have, like 'there's this big secret that Mrs D has the really clever kids'... that's why I love reception too, is that I see it's my job to really boost their self-esteem and to really make them believe in themselves, and that they have control over their thinking and their decision making, even though they're 5...* *Oh, I'm really, really aware of saying lots of positive affirmations for the kids because I want them to really believe in*

	you're expected to just, to sort of be good at everything. *I was a lot better at drama and art and home-ec, and even back then sewing and things weren't seen as anything that was that desirable... that's all stuff that I found really easy... I think also when things come easily to you, you don't value it as much.*		*themselves and I want them to think that I believe in them.* *I think that also keeps people out of the profession, is that feeling of always not being good enough...and so you sort of have to have that level of self-confidence I suppose that, yeah you know what I am actually doing a good job, because you can't always wait for everyone to be telling you because it doesn't always come, sometimes you only hear about negative things.* *I think I'm faking it because I feel that I haven't had to work really hard at it to be who I am.*

Donna's TSE as reported on the TSES was *moderate* in the domain of *instructional strategies* and *moderate-high* in the *classroom management* and *student engagement* domains. Donna reported a score of 6 for the discursive practice (Comber 2006) of providing an *alternative explanation or example* and the pedagogical practice (Comber 2006) of *implementing alternative strategies*, which she explained:

> *"I didn't give that as high because that is always a challenge for me... I have to work a lot harder at that than, say, the one with 9...I can implement alternate strategies but it takes a lot more work for me to do that... because it's a change it's a different thing for me to do but it takes a lot more effort and energy to do it. So, I'm not as confident..." (Donna TSE Interview 2015, p. 3)*

Donna purposefully connected mesosystem influences in her personal and professional histories, particularly around the passing of her brother and her perception of her capabilities as a high school student. The passing of Donna's brother was a critical moment and turning point for her which she described as *unfair* and an experience which *burst her bubble* and prompted her to leave her *insular* life. However, as Donna reflected, she also recognised that this microsystem and chronosystem influence and experience forced her to get out of her *comfort zone*, which as reported in the quote above, is something that she found challenging in her professional life.

As a high school student, Donna purported her task-specific beliefs about her capabilities in German, mathematics and spelling as *low* and she consistently described herself as *dumb*. However, other task specific beliefs such as her self-efficacy for home economics, drama, art and *common sense* were *high.* Whilst Donna reported finding these subjects *easy,* she also felt they were not highly valued by macrosystem societal influences. In her professional life, Donna described feeling as though she was *faking* her perceived competency as a teacher and attributed this to not having to *work really hard*, seemingly equating value to the gradient of difficulty to a particular task.

Donna's TSE for the emotional domain (Zee & Koomen 2016) and in particular her relational work (Comber 2006) in creating a safe and supportive learning environment in the microsystem of her classroom was *high*. She spent considerable time *empowering* children and *boosting* their *self-esteem,* so that the children in her class would *believe in themselves.* This practice also aligned with the practice described by the Foothills School, which outlined the importance of collaborative and play-based learning and a commitment to children's wellbeing (The Foothills School 2015). The qualitative data provided nuanced understandings regarding the rationale for Donna's lower self-report of her TSE on the TSES in relation to her discursive and pedagogical practice. However, the qualitative data provided in-depth understandings of her TSE beliefs regarding her relational practice (Comber 2006). Donna's TSE beliefs for her discursive, pedagogical and relational practice emerged and were seemingly connected to her personal history.

5.3.8 Jo

Jo openly shared many details about her life-history, which she later revealed caused her some sleeplessness as she had not recalled many of her experiences for some time. Chronosystem influences were significant across her life-course. As Jo reflected on her life, she recounted her childhood and adolescence fondly. However, her first marriage at the age of 21, had a lasting effect on her beliefs about her capabilities, which are reflected in Table 5.9. Jo described her first husband as *abusive,* however, her return to teaching after maternity leave provided Jo with the confidence to leave him. Jo, who was aged 55 years at the time of the study, was a late career stage teacher with 25 years' experience; however, she had been on contract for her entire career and it was her desire to win a permanent position at the Foothills School.

Table 5.9 Jo's personal and professional history

Domain	Personal History	Domain	Professional History
Emotional support – teacher sensitivity (emotional needs)	*He was emotionally, psychologically, financially abusive, mentally...I had no ego by the time he was finished with me, just none. And it's still now, I'm still not as confident…* *I actually got back into teaching because he wanted me to earn money and he really wanted someone to earn money…I got back into doing teaching and that's when I discovered I am good at things, I can do these things and I stopped caring what he said...it still took another two years to actually leave.*	Emotional support – teacher sensitivity (emotional needs)	*…it doesn't matter whether you're teaching or what you're doing, if you're feeling okay about yourself you're going to be fine whereas if you're having a tough time somewhere or there's an area in your life where you're not confident that can colour, sometimes that can colour how you feel about your job…* *…if you come across a situation that's new to you whether that be a different school or whether it be a different year level or a different socio-economic environment, any of those things – what may have worked for you before might not necessarily work. And so, you do start to doubt, oh you know 'am I still really any good at this?'… I read it in the transcript – you know years ago when my first husband had made a thorough mess of my ego – that when I got back into teaching and people were saying 'Oh you're so good with that child or you've done amazing things with this', you think yeah, I'm good at this...sort of re-affirming something that you're good at.*

Jo's TSE on the TSES was reported as *moderate-high* for *instructional strategies* and *student engagement* and *high* for *classroom management*. She reported aspects of practice as *moderate*, reporting a score of 6 for the pedagogical practice (Comber 2006) of *implementing alternate strategies* and relational practice (Comber 2006) of *assisting families*. Jo attributed her TSE for implementing alternate strategies within her pedagogical practice as dependent on the *cohort* of children in her class:

> *"...you can do a lot of different strategies, but how well you implement it can depend very much on your individual cohort, so one year what works amazingly well, so won't the next year..." (Jo TSE Interview 2015, p. 2)*

Recent research by Schwab (2019) regarding student-specific self-efficacy in relation to teacher and student variables of 73 fourth grade and special needs teachers in Austria, found that whilst general TSE was somewhat predictive of student-specific TSE, TSE for specific students varied. Jo's reported TSE for implementing alternate strategies appeared to relate to specific cohorts and, potentially individual children within the cohort. However, how TSE relates to specific children has been identified as an area for continued TSE research (Schwab 2019; Zee et al. 2016).

Although Jo also reported a score of 6 for the relational work (Comber 2006) of *assisting families,* she described multiple ways in which she supported families and provided no real explanation as to why she marked this relational aspect of her practice lower:

> *"I can assist in a lot of ways, I can give them, like one on one advice; you can have parent teacher meetings, you can have whole group meetings like we decided, again as a team, that our information evening would be the first night..." (Jo TSE Interview 2015, p. 2)*

As per the quotes in Table 5.9, Jo's TSE appeared highly influenced by micro and mesosystem ecological influences including interactions with children and parents in her class and her relationship with her first husband which she described as having depleted her *ego.* Jo reported her relationship with her first husband as having a continued influence on her TSE as she described herself as *still not as confident*.

This was also reflected in her description of her professional life as she reported her feelings as *colouring* her TSE, suggesting her TSE for the emotional and relational domain was lower. However, mesosystem and discursive interactions with her principal, colleagues, children and parents/carers had the potential to influence or *reaffirm* her beliefs about her capabilities:

> *"... my peers [colleagues] and from the headmistress as it was back then – the principal of the school. So from leadership and from my colleagues and from parents because it was just a lot of positive...*" *(Jo Life-History Interview 2015, p. 2)*

The influence of Jo's return to teaching after maternity leave on her self-efficacy was unique in this study, as she was the only participant to report that her TSE had a positive influence on her general self-efficacy. All other participants reported the influence of their life-

experiences on their TSE development. Jo's description of the interrelatedness of her TSE and self-efficacy highlights the potential of considering Downey, Schaefer and Clandinin's (2014) personal and professional landscapes in the development of TSE. Jo's TSE beliefs as reported by the TSES were somewhat supported by the qualitative interview data. Whilst Jo reported her TSE beliefs for relational and pedagogical work (Comber 2006) as slightly lower on the TSES, Jo described many ways that she supported families and provided learning experiences for children, through the qualitative interview, which suggested that her TSE may be slightly higher for this type of work. However, Jo also reported through the interview data that her relationships *coloured* her emotional states and that discursive interactions were important to her TSE beliefs in relation to her practice.

5.4 Considering an Ecological Life-Course Perspective in the Formation of TSE Beliefs

Limited literature has reported the chronosystem influence of previous schooling experiences (Edwards & Loveridge 2011; Gerde et al. 2018) or how other life experiences may shape the formation of TSE. As previously discussed, consideration of how TSE forms has primarily explored the preservice teacher stage (Tschannen-Moran & Woolfolk Hoy 2001; Von Suchodoletz et al. 2018). However, some longitudinal research has examined the development of TSE of early career teachers (George, Richardson & Watt 2018), with mixed findings. Ecological influences within the teacher's own schooling experience, which Tschannen-Moran, Woolfolk Hoy and Hoy (1998) described as an apprenticeship into teaching, as well as influences and experiences beyond school have largely been neglected within the field (Schwab 2019; Zee et al. 2016).

Mesosystem interactions across family, friends (within own schooling experiences and outside schooling) and colleagues (previous and current, including leadership) were consistently reported by the participants of this study as contributing to the formation of their self-efficacy and in turn TSE. Other factors potentially influencing TSE reported through the life-history interview included: macrosystem policy and societal factors, external exosystem factors such as influences requiring relocation, changes to parents' work that indirectly influenced participant's microsystem, as well factors within participants' own schooling, family, and teaching microsystems. The methodology of this study, in extending the examination of TSE to chronosystem influences across the reception teachers' life-history,

evidenced a seemingly interdependent connection between their personal and professional histories in the formation of their TSE, which arguably continued to influence their practice.

Whilst all the teachers of this study reported their TSE on the quantitative TSES scale as being *moderate* to *high*, with no responses falling in the *low* to *low-moderate* range, it was anticipated that all participants would discuss their practice throughout the qualitative interviews with a high degree of confidence. However, supporting Gonzalez et al.'s (2017) study, the qualitative data revealed that this was not always the case. The data gathered over an extended ten-month period, across the study's four phases (see section 4.4) was therefore important in building a trusting relationship between the researcher and participants, thus enabling the analysis to examine the TSE of the participants more closely. Coding specifically for their perceived capabilities towards what they *can* or *can't do*, in relation to *instructional strategies, student engagement, classroom management* and *emotional support*, as well as Comber's (2006) five types of work – *pedagogical, interpretive, relational, discursive and institutional* revealed the participants' TSE as being connected to their personal histories and at times contradicting their self-report on the TSES. Table 5.10 provides a brief overview of the connections that emerged from interactions across the participants' ecologies from their personal and professional histories.

Table 5.10 Overview of the participants' personal and professional landscapes in the formation of their self-efficacy and TSE

	Personal History	Professional History	TSES Descriptor
Ellen	• Low self-efficacy as a learner • Low TSE for mathematics	• High TSE for establishing & maintaining relationships with families • High TSE in establishing & maintaining relationships with children • Low TSE for seeing children's learning in mathematics • Low TSE to ask questions to support children's learning	**Instructional Strategies:** Moderate **Classroom Management:** Moderate-High **Student Engagement:** Moderate-High **General TSE:** Moderate-High
Kate	• High self-efficacy on family farm • High self-efficacy to care for a child as a single parent • Low self-efficacy for belonging to a peer group as an adolescent	• High TSE for viewing children as competent • High TSE for establishing & maintaining relationships with children • Low TSE for relational work with colleagues • High TSE for interpretive work	**Instructional Strategies:** High **Classroom Management:** High **Student Engagement:** High **General TSE:** High
Mary	• High self-efficacy for risk-taking • Low self-efficacy for Mathematics • High self-efficacy for history and English	• High TSE to take risks with professional learning & pedagogy • High TSE to provide creative & engaging learning experiences • High TSE for institutional work	**Instructional Strategies:** High **Classroom Management:** High **Student Engagement:** High **General TSE:** High
Jean	• Low self-efficacy for mathematics	• Low TSE for mathematics	**Instructional Strategies:** Moderate-High

	• Low self-efficacy to make decisions in personal life • High self-efficacy to organise & structure personal activities	• High TSE for supporting children's learning • High TSE for providing a structured & organised learning environment • Moderate TSE for working with parents	**Classroom Management:** Moderate-High **Student Engagement:** Moderate-High **General TSE:** Moderate-High
Anna	• High self-efficacy to manage challenging personal situations	• High TSE for pedagogical strategies • High TSE for interpretive work • High TSE for relational work	**Instructional Strategies:** Moderate **Classroom Management:** Moderate **Student Engagement:** Moderate-High **General TSE:** Moderate
Emma	• Low self-efficacy for managing challenging personal situations	• Low TSE for managing difficult conversations • Low TSE for managing relationships with children & parents	**Instructional Strategies:** Moderate-High **Classroom Management:** Moderate-High **Student Engagement:** Moderate **General TSE:** Moderate-High
Donna	• Low self-efficacy for managing unfamiliar situations • Low self-efficacy for mathematics, spelling and German	• Low TSE for alternative practices • High TSE for supporting children to view themselves positively as learners	**Instructional Strategies:** Moderate **Classroom Management:** Moderate-High **Student Engagement:** Moderate-High **General TSE:** Moderate-High
Jo	• Low self-efficacy to manage negative relationships	• Low TSE to manage negative feedback • High TSE for relational & pedagogical work	**Instructional Strategies:** Moderate-High **Classroom Management:** High **Student Engagement:** Moderate-High **General TSE:** Moderate-High

The interview data evidenced the emergence of the participants' TSE beliefs in relation to Comber's (2006) five types of work. For example Ellen described her challenge in engaging in interpretive work in *finding the maths* in children's play and utilising *questioning* as part of her pedagogical work. Kate, however, described with confidence her TSE beliefs in relation to engaging in interpretive and pedagogical work, but eluded to her lower TSE for relational work with her colleagues. Similarly, Mary described her TSE beliefs in relation to her pedagogical and interpretive practice, however, she was the only participant that expressed her TSE beliefs in relation to institutional work. In contrast, it was suggested that Jean was working within the constraints of the institutional practices of her school, which influenced her TSE beliefs in relation to her pedagogical work. However, for Jean her TSE beliefs in relation to mathematics and in turn her pedagogical and interpretive practices for teaching mathematics was highly connected to her primary school experiences. This was similar to Donna whose high school experiences influenced her perception of herself as *dumb.* Donna described her TSE for relational work as high, which she related to her own schooling experiences and her commitment to ensure she developed children's *self-esteem*. Relational work was also significant throughout Emma's interview data, which she described as challenging and highly connected to her personal experience with anxiety and depression. In contrast, Emma's teaching partner, Anna, reported overcoming significant challenges throughout her life, which she connected to her high TSE for relational work in professional life. Anna's self-report on her TSES for pedagogical and interpretive work was slightly lower, however her descriptions for this type of work through the interview data suggested that her TSE may have been higher. Similarly, Jo's interview data suggested that her TSE beliefs in relation to her pedagogical and relational practice may have been higher. The qualitative analysis therefore, provided significant insights into the TSE beliefs of the reception teachers in relation to their practice.

The general TSE descriptors of *high* and *low* were used in Table 5.10 as the participants reported only the significant turning points and critical moments in the formation of their TSE, reporting the extreme *highs* and *lows* of their experiences. However, this study argues that chronosystem influences, reported through the participants' personal history and the critical moments and turning points, contributed to the formation of their beliefs about their capabilities and could be considered a form of mastery experience. Bandura (1997) asserts that mastery experience influences self-efficacy

through interpretations of successful/unsuccessful accomplishment of prior experiences. Thus, prior experiences that contribute to the formation of TSE occur throughout the chronosystem. Given the continued interest in how TSE may form and develop over time (Morris, Usher & Chen 2017; Wyatt 2016), the interactions across ecological systems are significant to consider within TSE research.

A life-course perspective has enabled further insights into how TSE may form over time through chronosystem ecological influences. That is, the varying ecological influences across the life-course of the teacher impact on the formation of TSE and subsequent practice, particularly mesosystem interactions across family, friends, educational colleagues, parents/carers, students, within microsystems of the teacher's home, local community, previous schooling contexts and experiences, as well as current school context of the reception classroom. Figure 5.1 has therefore added the chronosystem of the teacher to the framework, which signifies the importance of the tacit knowledge (Beijaard, Meijer & Verloop 2004) or prior experiences of the teacher in the formation of their TSE.

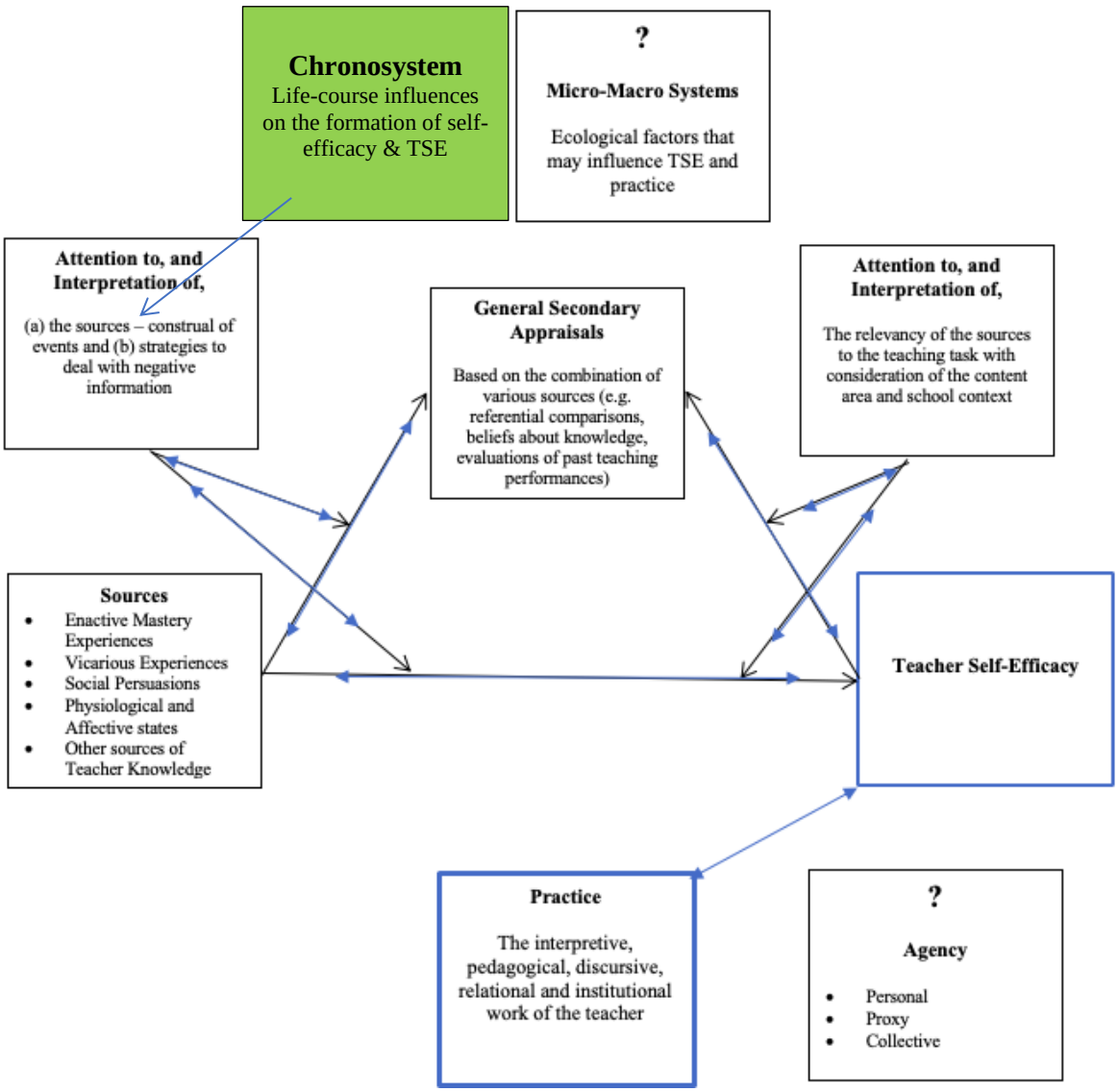


Figure 5.1 Adaptation of the Integration and Evaluation of Efficacy Information Model: The Influence of Personal History (Morris, Usher & Chen 2017)

The interpretivist design of this study sought to uncover the TSE of the participants which, through this paradigm, were believed to be socially and contextually constructed (Campanario & Yost 2017; eds Feist & Gorman 2013; Gergen 2001). Applying an ecological lens to examine the formation of the participants' TSE revealed the influence of different ecological factors across systems. This also included the importance of time related chronosystem factors across the reception teachers' life-history, which highlighted a complex interrelationship across their personal and professional experiences. The examination of the reception teachers' description of their truths (Guba & Lincoln 2005), or understandings of their TSE, uncovered experiences that may have shaped the formation of their TSE. Critical moments had important consequences for the participants' lives (Thomson et al. 2002) and turning points

significantly altered their self-beliefs (Mandelbaum 1973; Rutter 1996), which were foregrounded through the participants' prior experiences. Thus, the experiences of the teacher prior to them beginning their careers were important in shaping their perceptions of their past and current capabilities (Sisson 2016).

These experiences could be conceptualised as a form of mastery experience, which supports Bandura's (1997) assertion that mastery experience is the 'most influential source of efficacy information' (p. 80). Whilst the analysis presented within this chapter did not specifically code for the sources of TSE, evidence of the sources in shaping their self-efficacy and, later, their TSE were uncovered through applying an ecological systems and social cognition theory lens to explore influences over the participants' life-histories. For example, Ellen discussed the affective feeling of *warmth* within the microsystem interactions of her family, which she brought into her relationships with children. Kate discussed her resilience in managing her unplanned pregnancy and her positive affective response in not *walking around with a weight around her neck.* Whilst Mary described her vicarious experience of the teacher's pedagogical approach as related to her disdain for worksheets. Jean clearly recalled how she felt as a child in not being *helped* by her primary school teacher in mathematics, which influenced her decision to become a teacher herself. Emma too was influenced by affective sources, in recalling being bullied at primary school and how this was related to still *not being confident.* Similarly, Jo described her experience with her first husband, whom she felt *depleted her ego*, and the connection to her perception of the importance in needing others to verbally persuade and *re-affirm* her capabilities. Sources of TSE that emerged for Anna included being cognisant of the adjustments she had made to her mindset after vicariously experiencing the illness and physical suffering of her loved ones and the emotions associated with knowing one is dying. In the case of Donna, she described herself as *dumb* in high school, which seemingly influenced her use of *positive affirmations* as a form of verbal persuasion to support the children in her class to feel positive about themselves as learners. Thus, whilst the analysis of the qualitative data enabled the exploration of the potential formation of the participants' TSE through the examination of ecological influences across their life-course within the chronosystem, some sources of TSE also emerged. Chapter Six now turns to explicitly examine the TSE sources of mastery experience – verbal persuasion, vicarious experience and affective states – and their relationship to participants' teaching practice.

5.5 Conclusion

Chapter Five presented the case by case analysis of the reception teacher's personal and professional experiences in the formation of their TSE. Scores on the TSES (Tschannen-Moran & Woolfolk Hoy 2001) highlighted very little variance in how the reception teachers perceived their capabilities in the domains of student engagement, classroom management and instructional strategies. Whilst the participants' scoring of the TSES varied between *moderate* and *high*, the qualitative analysis illustrated the specific beliefs individuals held about their capabilities in relation to their practice-pedagogical, interpretive, relational, discursive and institutional work (Comber 2006), which could be traced back to connections with their personal histories. The voice of the participant was therefore significant in developing deeper and more specific understandings of their TSE and potential sources of their TSE.

Chapter Five evidenced that the TSE beliefs of the participants started to be shaped well before they began their teacher training. Their experiences in schooling, variations in opportunities to access education, family and community events and experiences all played a role in the initial formation of their TSE beliefs. The analysis demonstrated influences across the participants' ecological systems, which they reported playing an important role in contributing to the formation of their TSE beliefs and practice. The analysis suggested that the life experiences and personal history of the reception teacher may be considered forms of mastery experience, extending previous research which has primarily focused on the formation of TSE at the preservice teacher stage (Tschannen-Moran & Woolfolk Hoy 2001; Tschannen-Moran, Woolfolk Hoy & Hoy 1998; Von Suchodoletz et al. 2018).

However, the sources that influenced the formation of these beliefs were varied and thus required further exploration to gain further insight both into the TSE beliefs of the reception teachers and its relationship to practice. Chapter Six therefore, extends Chapter Five's preliminary understandings of the significance of the interplay between social cognition theory and ecological systems, including the mesosystem interactions of the personal and professional microsystem contexts of the participants in providing the sources of TSE.

Chapter 6: Exploring the Sources of Teacher Self-Efficacy

6.1 Introduction

Chapter Five provided initial insights into the development of the TSE beliefs of the reception teachers, reported in phase four of the research process, utilising the TSES (Tschannen-Woolfolk Hoy 2001), and phase one, analysis of the life-history interview. Whilst the quantitative data revealed the participants' TSE to range from *moderate* to *high* in the three domains of the TSES, the qualitative analysis enabled deeper exploration into the formation of TSE beliefs across their personal and professional life-histories, with ecological influences identified as shaping these beliefs and educational practice. This initial analysis proposed that these experiences may be a form of mastery experience, however other sources, including verbal persuasion, vicarious experience and affective states, were also evidenced in potentially shaping the participants' self-efficacy and in turn their TSE beliefs. Chapter Six therefore explores the sources more deeply by focusing on the analysis of data from phases two and four of the research process: the practice and the TSE interviews, which specifically aligned with the reception teachers' classroom and school microsystem contexts. The chapter begins by presenting an overview of the ways in which the methodology of this study explored the sources of TSE. Analysis of the significance and relationship between the sources is then explored through the presentation of source profiles which continued to shape the participants' TSE and practice. The chapter concludes by exploring the possibilities that an ecological perspective may bring in examining the influence of the sources on the formation of TSE beliefs and practice of the reception teacher.

6.2 Exploring the Sources of TSE

The beliefs that the participants held in relation to their capabilities began to emerge from the analysis of reception teachers' life-history interviews (see Table 5.10). The analysis suggested that these beliefs were strongly influenced by ecological influences emerging from their chronosystem life-experiences prior to them becoming a teacher. It was evident that whilst these experiences could be conceptualised as a form of mastery experience, the life-experiences themselves were also informed by further sources, which shaped the participants' self-efficacy and, later, their TSE. Exploring these sources in more depth was deemed important to fully understand the influence of TSE beliefs on the teaching practice for the reception teacher participants.

To facilitate this deep exploration, the practice and TSE interviews were designed to explicitly explore the four sources of TSE purported by Bandura (1997): mastery experience, verbal persuasion, vicarious experience and physiological arousal/affective states (referred to in what follows as 'affective states' or 'the affective source'). The TSE interview was more deductive in nature and concluded with questions to confirm ideas in relation to the participants' TSE and the sources of their beliefs that had emerged from the analysis of the participants' life-history data, and the subsequent practice interviews. The confirmatory questions aimed to support the trustworthiness of the researcher's interpretations of the participants' statements (Guba & Lincoln 2005; Lincoln & Guba 1985). For example, in Emma's TSE interview the following questions were asked:

1. *We have talked before about your sensitivity to what people say. Tell me about how this influences your confidence as a teacher.*
2. *In our previous conversations you mentioned that at times you feel anxious. Can you talk to me a little bit more about this in relation to your practice?*

These questions aimed to further explore the *significance* of the affective source on Emma's TSE and practice. The *significance* of the sources was determined by considering the statements the participants made about their TSE throughout all their semi-structured interviews, and the frequency of each source evidenced within the interpretation of the data (see section 4.5.2). The *relationship* of the sources was considered by examining the evidence in relation to the influence on the participants' TSE and practice. Again, the statements that the participants made throughout the first two semi-structured interviews were considered and further exploratory questions were added to the TSE interview. For example, Mary's interview protocol included the following questions:

1. *Talk to me about your confidence in your practice. Where do you think your confidence comes from?*
2. *Having come from a preschool context, tell me about how you have felt coming into the school context.*

These questions were specifically designed to elicit perception of source information as well as the *relationship* of the sources. Question one asked more generally about the

origin of Mary's TSE beliefs; however question two asked more specifically about the affective source.

Whilst previous research has consistently suggested that mastery experience is the most influential source of TSE (Bandura 1997; Morris, Usher & Chen 2017; Phan & Locke 2016; Tschannen-Moran & Woolfolk Hoy 2007; Weaver Shearn 2008; Woolfolk Hoy & Burke-Spero 2005), the qualitative analysis of the sources presented within section 6.3 of this chapter, indicated that this was not always the case for the reception teachers in this study. The four sources operated in a variety of ways, which had a seemingly differentiated influence on the TSE and practice of the reception teachers. Below is a brief summary of specific aspects of the data collection and analysis in relation to each of the sources.

6.2.1 Mastery experience

Mastery experiences, defined as 'experiences that enable self-knowledge and memory patterns to develop through interpretations of past performances which influence future decision-making' (Bandura 1997, p. 80), were considered in the analysis by examining both the *quantity* and *quality* of the participants' teaching experience (Morris, Usher & Chen 2017; Ruble, Usher & McGrew 2011; Woolfolk Hoy & Burke-Spero 2005). To ascertain the *quantity* of the teaching experience, factors examined included the number of years the participants had been teaching, their employment type (i.e. contract or permanent) and past teaching roles. Together these factors provided insight into how much teaching the participants had engaged in throughout their careers. The *quality* of the teaching experience was determined by the interpretation of the responses and descriptions provided by the participants in the practice and TSE interviews in relation to what they *can do* and conversely what they *can't do* in alignment with Bandura's (1997) conceptualisation of self-efficacy as an expectancy belief (see section 2.3.2). Specifically, the analysis focused on the reception teachers' beliefs of their capabilities to support children's learning in various task and context-specific ways (Wyatt 2010; 2015).

6.2.2 Vicarious experience

Vicarious experience was referred to by Bandura (1997) as learning through the observation of others. It is therefore a social source. Within TSE research vicarious

experience has primarily focused on teachers observing the practice of live models or other teachers (Morris, Usher & Chen 2017). Live models, such as the participant's teaching partner, were considered within the analysis, as all of the reception teachers, except Jean, worked collaboratively in open-planned classrooms.

The methodology of this study specifically included self-modelling through video play-back, as a form of vicarious experience, to elicit the participants' TSE beliefs in relation to their practice. Analysis also considered the participants' use of symbolic models (Bandura 1997; Morris, Usher & Chen 2017) such as the reception teachers' use of the internet and professional reading.

6.2.3 Verbal persuasion

Verbal persuasion is another social source of TSE, and within this thesis was examined as feedback provided by others that specifically informed the reception teachers' capabilities (Bandura 1997), rather than messages of support (Morris, Usher & Chen 2017). As noted above and consistent with current research, the microsystem of the participants' classroom was predominantly open-planned and the participants worked alongside at least one other colleague (Bacharach, Heck & Dahlberg 2010; Brinkman & Twiford 2012; Krammer et al. 2018). Therefore, greater social feedback was expected in the microsystem of the open-planned classroom, as opposed to Jean's classroom context, which was independent from her colleagues. Thus, to explore the role of verbal persuasion the practice interview explicitly asked participants whether they sought out feedback, from whom, and how they analysed and interpreted this feedback and what this meant for their TSE and practice.

6.2.4 Affective states

The affective source was explored to elicit information about positive and/or negative affective states in relation to the participants' practice (Heppner 1994; Kieffer & Henson 2000; Morris, Usher & Chen 2017; O'Neil & Stephenson 2012; Poulou 2007). Questioning in the practice interview specifically explored: who the participants felt accountable to within the microsystem of the school context, who they sought support from, who inspired them, and how feedback informed their practice. The reception teachers were also asked in the TSE interview to review their practice and discuss their emotional responses through the play-back of episodes taken from the two-hour video

observation of their teaching. Subsequent analysis revealed that across all their interviews the reception teachers invariably discussed how they felt about their practice, highlighting Bandura's (1997) assertion that social sources have affective consequences. For the participants of this study the affective source was evidenced to influence their TSE and practice in different ways.

6.2.5 Other sources

Analysis remained open to the possibility of other sources that may have emerged from the data, such as cognitive mastery and self-regulation (Morris, Usher & Chen 2017; Webb-Williams 2018). Some evidence suggested that cognitive mastery – a combination of pedagogical, content, and pedagogical content knowledge (Bautista 2011; Bautista & Boone 2017; Palmer 2006; 2011; Phan & Locke 2016) – could be a potential source of TSE. For example, when Kate was asked in the TSE interview where her confidence came from, she responded:

> *"I think it's comes from knowing a lot of things and being able to do those things that I believe are right..." (Kate TSE Interview 2015, p. 13)*

This statement suggested that her pedagogical knowledge was a precursor to her TSE, which enabled her to continue to develop her TSE. However, this example was not considered to be significant enough to confirm cognitive mastery as an additional source nor was it evidenced in the analysis of the other participant data. Similarly, self-regulation as a source of TSE was not evidenced significantly by the participants in the description of their practice, although Mary discussed self-regulation in relation to managing a child's behaviour:

> "*...I don't think I went over the top and I can't say that happens all the time, because sometimes things happen and then I think later 'oh, god I wish I hadn't got so cross'... but I feel like that was handled like it needed to be without making him feel bad about himself..." (Mary TSE Interview 2015, p. 8)*

Despite this example of the teacher managing her own affective state, there was limited evidence to substantiate self-regulation as a source. Therefore, it was not possible to confirm additional sources and, similarly to previous research in this field (Morris,

Usher & Chen 2017), the definitions Bandura (1997) provided for each source were found to be broad enough for information to be encapsulated into one or other of them.

6.3 The Significance of and Relationship between the Sources in the Development of Source Profiles

As discussed, analysis critically examined the *significance* of the sources on the reception teachers' TSE and the *relationship* among these sources, which led to the creation of a visual representation of each participant's unique source profile. A series of four circles was utilised to pictorially represent the four sources for each participant, with larger circles representing sources exerting greater influence on the participants' TSE and, conversely, smaller circles representing sources exerting less influence on their TSE. Arrows and overlapping circles were utilised to represent the *relationship* of the sources.

Following the analysis and construction of the source profiles, cross-case analysis revealed five main source profiles:

- *VeVi* (verbal persuasion and vicarious experience);
- *Ma* (mastery);
- *Af* (affective states);
- *AfVe* (affective states and verbal persuasion) and;
- *AfVi* (affective states and vicarious experience).

Although some participants shared the same profile, the influence of the sources on each participant's TSE and practice was different. The following sections provide an overview of the identification, *significance* and *relationship* of the source profiles and influence on the participants' practice.

6.3.1 VeVi source profile: Ellen, Anna and Jean

Three of the eight participants – Ellen, Jean and Anna – exhibited a verbal persuasion and vicarious experience profile, suggesting that these two sources were the most influential in the development of their TSE. For example, Ellen's source profile evidenced verbal persuasion and vicarious experience as the most *significant* sources of her TSE, and together these sources influenced the affective source. However, the mastery source was evidenced as exerting the least influence on Ellen's TSE. For Jean, whilst verbal persuasion and vicarious experience were influential in the development

of her TSE, these sources were evidenced to be more balanced in their relationship with the affective and mastery sources in influencing her TSE. For Anna the influence of vicarious experience and verbal persuasion were evidenced as being in close *relationship* in influencing her TSE, and similar to Jean, the affective and mastery sources were more balanced in their *relationship* in influencing her TSE. Therefore, whilst Ellen, Anna and Jean all had a *VeVi* profile the *significance* of the sources differed, which in turn influenced their practice in different ways as critically discussed below.

6.3.1.1 Ellen

On the TSES Likert scale, Ellen scored from *moderate* to *moderate-high*, self-reporting scores of 27 to 30 across the three sub-scales out of a possible 36 (see Chapter 5.2). This suggested that Ellen was a confident teacher; however, within the qualitative interviews, her TSE for certain areas of her practice, such as interpreting children's mathematical knowledge, appeared lower. As depicted by Figure 6.1, analysis suggested that vicarious experience and verbal persuasion were the most important sources of Ellen's TSE. These sources appeared to operate in *relationship* with the affective source, which together influenced her mastery experience.

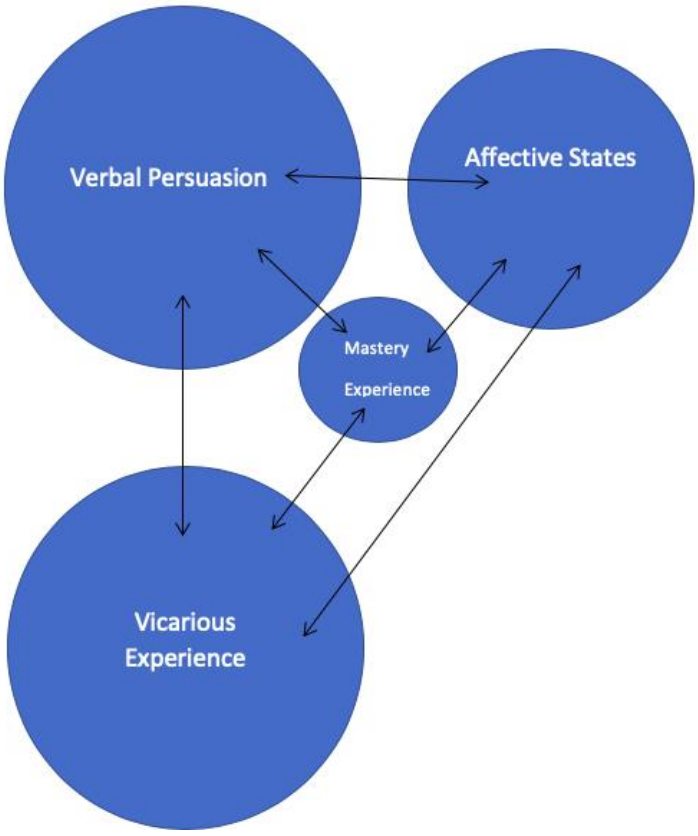


Figure 6.1 The relationship and significance of the sources informing Ellen's TSE

Despite Ellen being a mid-career teacher with seven years teaching experience, Ellen's years of experience were not associated with evidence that mastery experience was a significant source of her TSE. Ellen found it challenging to give examples of her mastery experience. As discussed in Chapter Five, Ellen consistently responded with '*I don't know'* as she reflected upon her practice. One of the few examples that Ellen provided in relation to her mastery experience was in relation to the pedagogical and interpretive practice (Comber 2006) of planning:

> *"I look at the children and I do it [plan] from their interests...in my room for example, we've had a hospital for their dramatic play, and I noticed that they – I notice what they like – we've got a pet shop now..." (Ellen Practice Interview 2015, p. 6)*

Ellen's report regarding how she engaged in the interpretive and pedagogical work (Comber 2006) of planning, suggested that she was unsure of the children's learning as she stated *I noticed that they*, discontinuing her explanation of what she had noticed. Whilst Ellen reported feeling *confident* finding the *learning in children's play*, she also reported finding it something that she's *not confident* in. When explicitly asked about her strengths as a teacher Ellen responded:

> "*Oh gosh, that's a good question. What do I bring to the team? Yeah, wow.* '*Oh my gosh'. 'What do I bring to the team?' 'What are my strengths?' I don't know..." (Ellen TSE Interview 2015, p. 2)*

Ellen again responded with *I don't know*, which suggested that she was unsure of her own experiences and knowledge. Analysis found few examples of descriptions of mastery experience as a source of her TSE.

Current callings from the TSE field in relation to mastery experience have been for teaching experiences to be examined more critically to assess the significance of both the *quality* and the *quantity* of the experience in the development of TSE (Morris, Usher & Chen 2017; Ruble, Usher & McGrew 2011; Woolfolk Hoy & Burke-Spero 2005), moving beyond the number of years of teaching as an indicator of mastery experience (Capa Aydin & Woolfolk Hoy 2005; DeChenne, Koziol, Needham & Enochs 2015; Morris, Usher & Chen 2017; Ruble, Usher & McGrew 2011). Analysis of Ellen's qualitative interview data supported this suggestion. When considering the relative

significance of the sources in Figure 6.1, Ellen's mastery experience appeared to have the least influence on her TSE.

What emerged from the analysis was how Ellen seemed highly influenced by interactions with her colleagues within the school microsystem and particularly the classroom. Vicarious experience led Ellen to make comparative judgements with her colleagues, in particular her co-teacher Kate. For example, when asked about how she implemented the collaborative planning that she and her colleagues undertook on a fortnightly basis, Ellen described her TSE as determining her practice:

> *"...if I'm not comfortable with something that maybe Kate's done, that I don't feel that I'm strong in, I might not follow through with that..." (Ellen TSE Interview 2015, p. 32)*

Through social comparison, Ellen viewed Kate as more capable than herself, admiring her production of ideas and her use of questioning as this quote illustrates:

> "*...Kate might be the person that I – yeah, I just think she's got some – her ideas are just out of this world, and I would never, ever have thought of anything like that..." (Ellen Practice Interview 2015, p. 18)*

Ellen's self-evaluations brought about through her comparisons with Kate appeared to undermine her TSE. Thus, although Ellen compared herself to Kate in an upwards direction, rather than producing feelings of aspiration and growth that can be associated with social comparisons of this nature (Bandura 1997; Rahimi et al. 2017), Ellen appeared to question her own capabilities, stating *I would never, ever have thought of anything like that* and *If I don't feel strong in that, I might not follow through*. Ellen not only heavily relied on others for social comparisons, she also appeared to readily accept feedback from her colleagues without question:

> "*I manage it [feedback] quite well. I take it on board and then the next time I – whatever it is, I'll definitely take that on board and then change what I'm doing." (Ellen Practice Interview 2015, p. 3)*

This pattern occurred throughout the interviews and it was evident that the social sources, particularly those provided by mesosystem interactions with her co-teacher Kate, were influential in Ellen's TSE and practice. Ellen not only chose to avoid

practices for which she had low TSE, but she was openly critical of and unable to clearly articulate her practice:

> "*I was very critical, wasn't I? I do that all the time. I don't know. It's just something that I do. It's weird – it's terrible, isn't it?" (Ellen Practice Interview 2015, p. 27)*

Thus, whilst the TSES suggested *moderate* level TSE, the analysis of the qualitative data contested Ellen's quantitative self-report. Ellen also appeared challenged by the complexities of the reception context, finding it difficult to balance between the macrosystem ecological influences such as early years educational philosophies of inquiry and play-based pedagogies within her context:

> "*...I've actually been able to implement the whole play pedagogy [within the early years at the Water's Edge]. In the school it's a bit more tricky. And I've found it really challenging. I think the resources is a huge thing. Being in the big school, it's really hard to do what we're doing in the early years. You don't have the resources; you don't have the space... I also think it starts with parents and the other staff members. If they're not invested in it, or if they can't see the benefits, that makes it really hard..." (Ellen Practice Interview 2015, p. 13)*

Ellen also reported her TSE for engaging in more teacher directed pedagogical practices as a challenge. When asked about her practice in relation to the observed book-making lesson, Ellen's explanation was unclear, which suggested that she was unsure of incorporating child-led inquiry into more explicit pedagogical teaching experiences:

> *'...I should have modelled a book ...'what I did in the holidays', make a book, so they can see what I want them – well, not what I want them to do, because they didn't have to do it. Just an idea...' (Ellen TSE Interview 2015, p. 14)*

As mastery experience did not appear to be a significant source for Ellen, evidence suggested that the social sources of vicarious experience and verbal persuasion, enabled by mesosystem interactions with her colleagues, provided important information for her TSE. Together these sources appeared to inform the affective source as Ellen appeared unsure her practice. Ellen appeared to doubt her TSE to carry out practices that she was *not confident* in and had difficulty interpreting learning within play and also engaging in more explicit pedagogies.

6.3.1.2 Anna

Like Ellen, Anna's main sources of TSE were verbal persuasion and vicarious experience, as depicted in Figure 6.2. Anna reported her TSE from *moderate* to *moderate-high* (self-report scores of 27 to 28) on the TSES, which analysis of the qualitative data somewhat supported. In examining the sources of Anna's TSE, the social sources of verbal persuasion and vicarious experience appeared to work in concert with mastery and affective sources. In other words, whilst Anna appeared to have significant mastery experience and the information gained from the affective source was positive, these sources were highly influenced by vicarious and verbal sources. Following Figure 6.2 is a critical analysis of the sources of Anna's TSE within the microsystem of her classroom context.

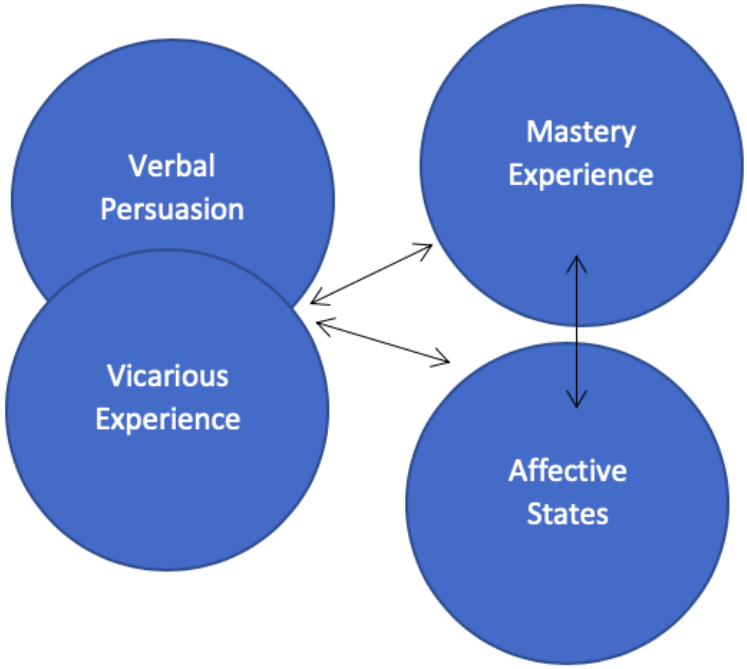


Figure 6.2 The relationship and significance of the sources informing Anna's TSE

In the microsystem of her classroom, Anna worked collaboratively with her colleague, Emma, in an open-planned environment. Anna reported her working relationship with Emma positively allowing her to engage in discursive work to inform her pedagogical practice (Comber 2006):

> *"...it's good having Emma as well because we work really well together and we bounce off each other. It's excellent having somebody who you can talk to and is on the same page. We both think the same and we know exactly where we want to go..." (Anna Practice Interview 2015, p.3).*

This quote highlights evidence of verbal persuasion in *having somebody to talk to*, as well as the vicarious source in terms of *bouncing off each other*. Whilst research into co-teaching is limited (Bacharach, Heck & Dahlberg 2010; Krammer et al. 2018), the microsystem of such a teaching context was positively reported by Anna. The microsystem of the classroom enabled Anna and Emma to observe one another's practice and readily engage in professional dialogue throughout the course of their work.

Reference to a mesosystem influence of interactions with a mentor who provided important vicarious and verbal information were reported by Anna to be important for her TSE and practice. Anna and Emma had engaged in a professional project to embed more macrosystem educational philosophies of child-led inquiry and play-based pedagogies. Working with a mentor, and having the opportunity to engage in discursive work (Comber 2006) through professional conversations and observe practice, was reported by Anna as significantly influencing her mastery experience:

> *"...having MENTOR here working with us the last two years, just opened my eyes as to how we can do things so differently. I would never go back – it used to be 'this was my maths lesson and then English'...but I don't know why we ever did it like that...it just makes more sense that everything is – we integrate things...." (Anna TSE Interview 2015, p. 2)*

Von Suchodoletz et al.'s (2018) study of 34 US preschool teachers, regarding the implementation of a macrosystem professional development program, suggested that coaching is an effective way to increase TSE, which was reflected in Anna's reports of the value of having a mentor to engage in interpretive and discursive work (Comber 2006). Furthermore, studies such as Guo et al.'s (2011) in relation to 48 US preschool teachers evidenced the importance of staff collaboration in developing TSE. Cansoy and Parlar (2017) also reported collective efficacy as an important microsystem factor that influences individual TSE. Thus, Anna's description of the importance of working with a colleague and mentor is consistent with previous research.

In examining the affective source, it could be considered that Anna's positive outlook on her life and career was surprising, given the reported chronosystem influences of the personal tragedy of her father and uncles passing, as well as her mother's illness. Anna

viewed these experiences as important to the development of her *confidence*, which had provided her with *strength* and a *positive mindset*:

> *"...it's a choice [being positive] and it's the way you think and if you change your thinking – your mind just plays such a big role...you can get stuck in thinking negatively and stuck on the bad things that have happened but I think you just need to change your mindset and look for the positive..." (Anna TSE Interview 2015, p. 10)*

Chronosystem influences were therefore important in shaping her TSE beliefs within the microsystem of her classroom through the affective source, and influenced how she viewed her work:

> *"...being positive...being here I guess for me helps with that...I know some people for them work is like full on stressful and whatever, but for me it's also like a happy place, especially in my class with my kids..." (Anna Life History Interview 2015, p. 2)*

Anna reported her practice positively and described her TSE as important in overcoming challenges such as *stress*. Whilst analysis suggests that the sources were equally significant or balanced in Anna's profile, the social sources, arguably enabled by the microsystem of her open-planned classroom, appeared interrelated. The microsystem influence of her colleague and mesosystem influence of a mentor were reported by Anna as important to her TSE and discursive, interpretive, relational and pedagogical practice (Comber 2006). Thus, Anna's profile supports callings from the field to examine more closely not only the existence of the sources, but the *relationship* between and strength of the sources at the individual teacher level (Morris, Usher & Chen 2017; Phan & Locke 2016). Another *VeVi* source profile is that of Jean, which contrasts again to Ellen and Anna's *VeVi* profile.

6.3.1.3 Jean

Jean was a mid-career teacher who reported her TSE on the TSES as *moderate-high* (self-report scores between 30 and 32). Whilst the qualitative data did not contradict Jean's self-report, it also did not support a moderate-high TSE profile. For Jean, the *VeVi* profile was reflective of the microsystem of her school context and the *significance* of the social sources, enabled by the school leadership within her context. Analysis suggested that the verbal persuasion and vicarious experience provided by her

principal and deputy principal acted as powerful sources of information for her TSE and practice. Figure 6.3 represents the *significance* of the social sources and the *relationship* between the sources.

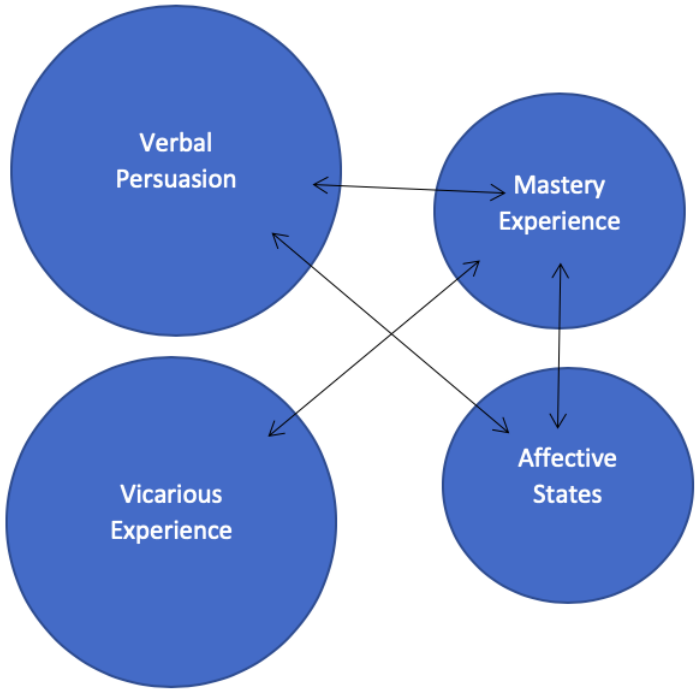


Figure 6.3 The relationship and significance of the sources informing Jean's TSE

Research regarding verbal persuasion has focused more on the supportive than the evaluative messages teachers receive (Al-Awidi & Alghazo 2012; Chong & Kong 2012; Morris, Usher & Chen 2017; Tschannen-Moran & Woolfolk Hoy 2007). The mesosystem influence of leadership discursive interactions at the Shire School routinely and exclusively provided Jean with evaluative feedback regarding her practice through weekly meetings and annual performance reviews. Whilst Jean's own self-reflections formed part of the process, she described the feedback from her principal as a *significant* source informing her TSE and practice:

> "*The principal came in and did observations for a couple of lessons... then we did some reflections on that... It was brilliant to get the feedback...it's nice to have somebody come in and kind of watch you and work out how you're doing and what you're doing right and what you're doing wrong and those sorts of things...*" *(Jean Practice Interview 2015, p. 1)*

Jean also referred to live models as providing important vicarious experience. Jean discussed engaging in professional development and observing the practice of other

teachers. This was important for Jean in influencing her TSE to try new ideas and implement new approaches in her pedagogy, such as play-based pedagogies. However, as Jean continued her description of her professional development, the influence of her leadership again came to the fore:

> *"...we found out that they don't actually record, they write down notes and they record it anecdotally, but it's not recorded in this formal way that we do...But our management decided that this is a nice visual way for parents to see what we're doing..." (Jean TSE Interview 2015, p. 13)*

The influence of the leadership extended to her relational work (Comber 2006) with parents, as microsystem influences interacted. Mesosystem influences thus played a role in shaping the practice within the microsystem school and classroom context, seemingly influencing the school leadership's practice and in turn Jean's. However, the social sources provided by the school leadership were reported by Jean to be *significant* to her TSE and pedagogical practice. She described feeling *empowered* by the changes to her pedagogy:

> *"It was a big change me actually going with Walker learning because I felt like I had to let go of a lot of things...it's actually empowering in a different way because I have let it go..." (Jean TSE Interview 2015, p. 17)*

However, Jean also found the institutional expectations of the leadership challenging and described having to consistently justify her pedagogical practice:

> "*We are still having to prove why it's worth it...we kind of feel like we're going five steps forward two steps back, five steps forward two steps back...it's an ongoing thing." (Jean Practice Interview 2015, p. 17)*

Yada et al.'s (2019) research, concerning the effect of feedback on Japanese and Finnish primary school teachers, revealed that who delivers the feedback may determine the effect on TSE. Yada et al. (2019) found feedback delivered by leaders had a more detrimental influence on TSE if teachers were not accustomed to this practice. For Jean the potential detrimental impact regarding the consistent and exclusive feedback was mitigated through the collective efficacy of her colleagues in navigating the institutional expectations of the leadership within the microsystem of the

classroom. Jean utilised the term *we* consistently throughout her practice and TSE interviews:

> "*...we made sure that we didn't have any non-contact time in the morning up until recess. We put that in specifically to management saying we, we need this block of time to be able to work with it [Walker approach] and our learning and investigation centres..." (Jean Practice Interview 2015, p. 13)*

Whilst Jean was the only participant to not to work in an open-planned classroom environment, the collaborative nature of her work was evident from her descriptions of her interpretive and pedagogical practice (Comber 2006). Jean's use of *we* indicated that her practice was not detached or independent from her colleagues, and that her TSE and practice were deeply influenced by her mesosystem interactions.

Whilst analysis identified the existence of the four sources of TSE, further analysis was able to suggest the *significance* of the social sources and *relationship* between the sources in the profiles of Ellen, Anna and Jean. Ellen evidenced the potential detrimental influence of the vicarious source as she observed her colleague Kate, whilst Jean evidenced the influence of verbal persuasion through the critical feedback provided by the leaders within the microsystem of the school context. Anna, however, illustrated a more balanced source profile with the positive influence of mesosystem interactions with her mentor and colleague. The *significance* and *relationship* of the sources is further illustrated in the following source profile for Kate and Mary in examining the mastery source of TSE.

6.3.2 Ma source profile: Kate and Mary

This profile evidenced the influence of the mastery source and supported previous TSE research regarding the significance of mastery experience on TSE. However, in the context of this study, only two participants significantly exhibited this profile – Kate and Mary – and their mastery experience again differed in its influence on their TSE and practice. However, both participants drew upon their mastery experience from prior-to-school contexts to inform their TSE as reception teachers, thus extending current research regarding the context-specific nature of TSE.

6.3.2.1 Kate

Kate was an early career teacher, and the least experienced of all the participants, with just 14 months teaching experience at the time of the first interview. Despite her early career status, her TSE on the self-report on the TSES was *high*, reporting a score of 36 on all three sub-scales, the highest amongst all eight participants. Kate's high score on the TSES was in contrast to previous research of early career teachers which had found TSE to initially decrease as new graduates managed the 'reality shock' as they began their careers (George, Richardson & Watt 2018; Tschannen-Moran & Woolfolk Hoy 2007; Watt & Richardson 2010; Woolfolk Hoy & Burke-Spero 2005). However, whilst Kate had limited prior experience as a reception teacher, she had considerable experience from the microsystem of the childcare context, which she attributed as having a significant influence on her TSE and pedagogical practice:

> "*...even before I started teaching, I knew the way that it should be, and I think that's come from childcare. If you have that really good knowledge of child development and a really good knowledge of children and their needs, then everything else kind of falls into place afterwards...*" *(Kate TSE Interview 2015, p. 13)*

In alignment with previous research into the sources of TSE, mastery experience, which included her childcare experience, was therefore a significant source (Morris, Usher & Chen 2017; Ruble, Usher & McGrew 2011; Woolfolk Hoy & Burke-Spero 2005) for Kate's TSE, as illustrated in Figure 6.4.

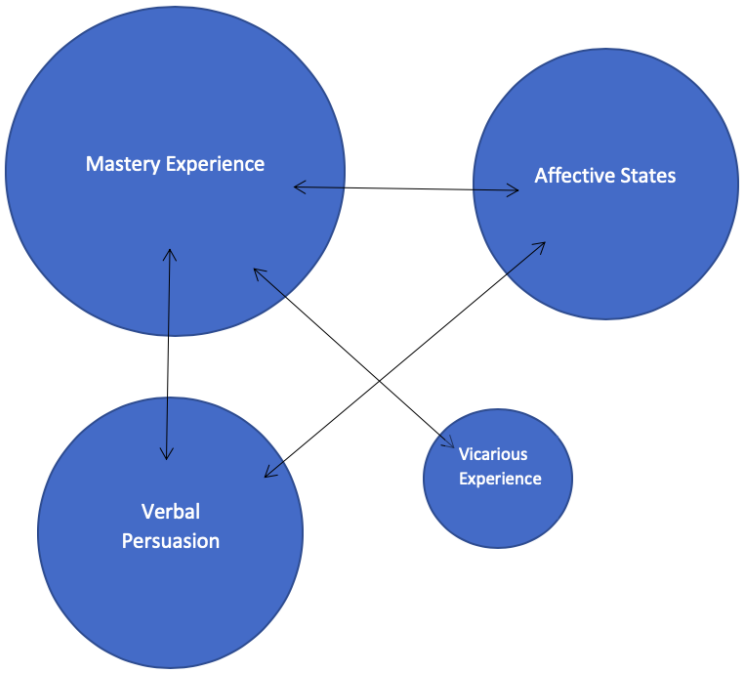


Figure 6.4 The relationship and significance of the sources informing Kate's TSE

Kate described her mastery experience as providing her with *knowledge*, which has previously been suggested as an additional source of TSE (Bautista 2011; Bautista & Boone 2017; Palmer 2006; 2011; Phan & Locke 2016). However, Morris, Usher and Chen (2017) contend that highly efficacious teachers draw upon their past performances to inform their knowledge, thereby continuously developing their practice and mastery experience. The use of feedback in informing Kate's knowledge, within the relatively new microsystem of her reception context, was important in understanding her TSE. Kate responded critically to the discursive work (Comber 2006) of utilising feedback to inform her practice:

> *"...the first thing I do is look at who the feedback's from and whether I value that feedback or not...Yeah because I think the people who give feedback it's not all bad. But you've – you've really got to choose whose opinion you're going to take on board." (Kate Practice Interview 2015, p. 3)*

Kate appeared to be a critical discerner of feedback and, in combination with her self-reported high TSE, was able to make important decisions regarding her pedagogical practice. However, Kate's previous knowledge may also be argued to be somewhat self-limiting as she reported her beliefs about teaching to have formed prior to beginning her career as a reception teacher. Kate provided multiple examples of discounting feedback and pedagogical practices that had the potential to continue to develop her practice:

> *"...we're having relief teachers come in who do that clapping thing...I turn around and say, are you serious?..." (Kate TSE Interview 2015, p. 2)*

> *"I know somebody suggested you wear a conferencing hat, and when you've got that hat on, you're not available because you're with this person, and then I thought, 'oh, well that just sounds ridiculous'..." (Kate TSE Interview 2015, p. 4)*

> *"...the wedge that's an OT [Occupational Therapist] recommendation for a child in particular. He very much didn't want to be singled out as being the different one in the room, so we shared that around...So some days he'll have it and some days he won't. We've actually stopped doing it now..." (Kate TSE Interview 2015, p. 5)*

> *"... I've studied Jolly-Phonics, I studied it into the ground, and was adamant that, yes, I can go out and I can teach that... it's artificial, kind of, on the surface tip of the iceberg learning..." (Kate TSE Interview 2015, p. 14)*

Wheatley (2005) proposed that self-doubt was an important consideration in supporting teachers to grow their self-efficacy, which was later supported by Wyatt (2016) in the development of the Growth in Language Teachers' Self-Efficacy Beliefs Model. Wheatley (2005) described self-doubt as feelings ranging from mild uncertainty to profound doubt regarding specific or general aspects of one's teaching, outcome expectancies, efficacy expectancies and personal TSE. Thus, by not engaging in discursive practice that may have provided alternative perspectives, Kate's TSE and practice may have potentially been limited.

The value of the feedback Kate received appeared dependent on who the feedback was from and through social comparison, whether she considered the person giving the feedback to be someone of expert status:

> *"...She said to me 'I wish I knew in my first year of teaching half of what you know.'...it was such a compliment coming from somebody who is – I look up to so much because she is really, really incredible..." (Kate Life-History Interview 2015, p. 13).*

For Kate, vicarious experience was provided predominantly through symbolic modelling (Bandura 1997). Kate described her preference for engaging in reading, enabling her to develop her TSE and guide her pedagogical and interpretive practice (Comber 2006):

> *"...I read a lot so I wouldn't say there's one specific person that I looked to with it [planning]. I feel really confident about it and because I'm going with the children's interests, I'm not really running ideas by other people." (Kate Practice Interview 2015, p. 13)*

Whilst Morris, Usher and Chen (2017) argue that symbolic modelling may be more prevalent due to increased access to media sources through the internet, for Kate, reading in private enabled her to develop her knowledge and in turn her TSE beliefs.

The *relationship* between the affective and mastery sources was evidently important in the ongoing development of Kate's TSE. This was highlighted as Kate discussed her decision to go to university to become a qualified teacher. She described a sense of *shame* as a single parent and her resolve to change how single mothers were viewed:

> *"...going to uni there were just – no single mothers then. At uni we'd do all these lessons and they'd talk about these single mothers and low income, they've been abused when they were little and all this stuff and I'd be sitting there just feeling shame, shame, shame. Then I kind of came out and told everybody 'I'm a single mother' and yeah, I just kind of took it on as right I'm going to change their view...." (Kate Life-History Interview 2015, p.4)*

The chronosystem influence of the affective source was apparent as an important source of Kate's TSE as she reflected on her life experiences in shaping her beliefs about teaching and her TSE. Verbal persuasion was also viewed as important, as Kate valued feedback from expert others and reflected on feedback and vicarious experiences to inform her TSE and pedagogical practice. Kate's colleague, Mary also had a *Ma* source profile, however the *significance* and *relationship* between the sources again differed.

6.3.2.2 Mary

Mary was the most experienced teacher of all the participants. Analysis of the qualitative data supported Mary's *high* self-report of her TSE on the TSES (self-reported score between 34 and 36). In alignment with previous research, Mary consistently described her mastery experience as *significant* to her TSE (Morris, Usher & Chen 2017; Ruble, Usher & McGrew 2011; Woolfolk Hoy & Burke-Spero 2005). The *relationship* between the sources is reflected in Figure 6.5 and depicts the interplay between mastery experience with the social sources of verbal persuasion, vicarious experience and the affective source.

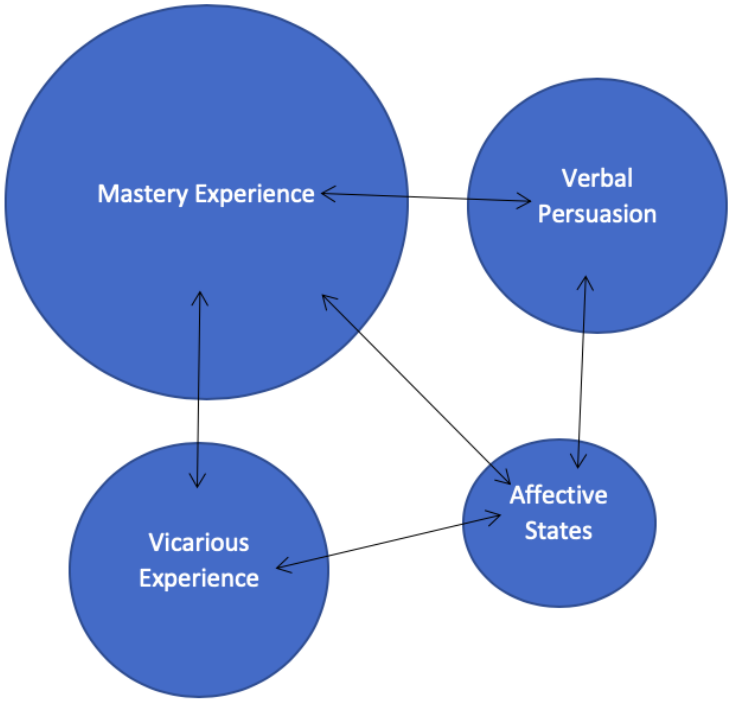


Figure 6.5 The relationship and significance of the sources informing Mary's TSE

Similar to Kate, Mary had limited experience teaching reception (14 months); however, she had considerable experience teaching in the microsystem of the preschool context. Mary reported her mastery experience for preschool as having a *significant* influence on her TSE and practice as a reception teacher. In response to being asked where her *confidence* for teaching reception had come from, Mary responded:

> *"Well lots of experience, lots of trying things out and testing things out and going 'ooh that's not so good, that doesn't work'...it's just developed because I've had lots of different experiences and have been exposed to lots of different ways of doing things..." (Mary TSE Interview 2015, p. 11)*

Whilst the research purports that once mastery experience has built up over time, other sources become less prevalent (Tschannen-Moran & Woolfolk Hoy 2007; Weaver Shearn 2008; Woolfolk Hoy & Burke-Spero 2005), however, vicarious experience and verbal persuasion continued to be important sources of Mary's TSE. Mary described the powerful mesosystem interactions and influence of her colleagues and friends as she engaged in discursive work to develop her practice:

> *"I have a whole lot of them (mentors), I do..., there's about five of us... tossing ideas around and saying, 'Do you think this will work?' We all do that." (Mary Practice Interview 2015, p. 14)*

Given Mary was relatively inexperienced with the reception context, vicarious experience and verbal persuasion supported Mary to try new ideas within her practice and continue to develop her TSE:

> *"I've seen lots of practice that I don't like or others that I think 'oh yeah that worked well I could try that'..." (Mary TSE Interview 2015, p. 11)*

The affective source was explored with Mary as she reflected on her experience at the Water's Edge and how she coped with the institutional challenges of this new context:

> *"...when I started here last year...that first year was awful. I mean I know I had started last year, but it's this year that I feel right. I feel much more comfortable knowing the place and what's around here and what's – what the processes are and all that, so I just feel a lot better..." (Mary Practice Interview 2015, p.3)*

The mastery source was again significant for Mary as she reflected on her past experience to inform her present. The sources appeared to operate in unison; however overall Mary's mastery experience remained the most *significant* source. Mary's high TSE was related to her experience in the microsystem of the preschool and she transferred her TSE and pedagogical practice from this context to the microsystem of her reception classroom. Mary utilised the social sources to positively influence her TSE and practice. Mary reported that in her second year of teaching reception she felt *much more comfortable* as she *knew* the institutional *processes* of the microsystem of her teaching context. This also suggested that the affective source was influenced by her mastery experience. The *significance* of the *Af* profile is further examined in the source profile of Emma.

6.3.3 Af source profile: Emma

Only one participant evidenced an affective source profile. Previous research into this source has predominately focused on negative affective states (Heppner 1994; Kieffer & Henson 2000; Morris, Usher & Chen 2017; O'Neil & Stephenson 2012; Poulou 2007) and influence on TSE. Emma's *Af* profile confirmed the detrimental influence of

negative affective states on her TSE and practice; however analysis and follow-up questions in the TSE interview also revealed the potential of the social sources to mitigate the negative influence of the affective source on Emma's TSE.

6.3.3.1 Emma

Emma reported her TSE on the TSES from *moderate* to *moderate-high* (self-report scores of 27 and 29), however, the affective source at times shaped her sense of TSE. Analysis suggested the affective source as the most *significant* source of Emma's TSE, as illustrated in Figure 6.6 below. However, the *relationship* of social sources was important in helping Emma to navigate her interpretation of affective information.

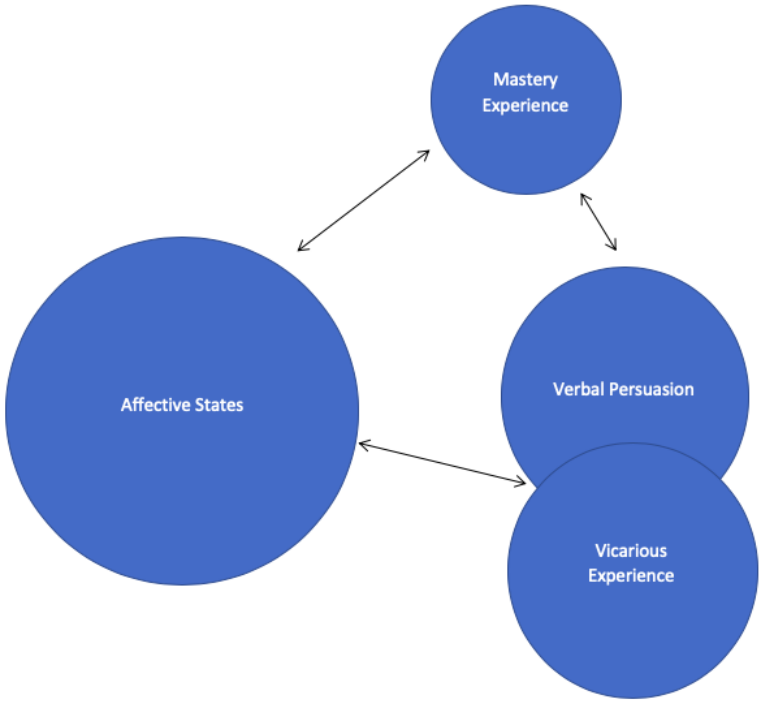


Figure 6.6 The relationship and significance of the sources informing Emma's TSE

As reported in Chapter Five, Emma described the significant chronosystem influence of the onset of wellbeing issues in her adolescence. She reported anxiety and depression as *following* her (Emma Life History Interview 2015, p. 6) throughout her life. Bandura (1997) contends that anxiety is the outcome of low TSE in a particular domain and for Emma this was evidenced in her relational work (Comber 2006) of managing difficult conversations in her practice:

> "*... [I'm] very sensitive to things and it then worries me...in the parent teacher interviews you know feedback from your parents. The good stuff's great, quite often you don't get that, it's the negative stuff that comes back and the complaints or the*

issues that they've got...straight away I'm like that [gestured hands twisting], in your stomach...." (Emma Practice Interview 2015, p. 5)

The microsystem of the open-planned classroom, however, enabled the social sources of vicarious experience and verbal persuasion to off-set some of the influence of the affective source. Her close working relationship with Anna enabled her to engage in discursive work (Comber 2006) and was important in supporting her to cope with her anxiety for managing situations for which she described having lower TSE, such as relational work (Comber 2006):

"*... having parent teacher interviews, you know I was actually really anxious about doing them this year, purely because we were doing them separately for the first time...You know when one doesn't know what to say the other one jumps in and it just seems to flow when we both did them together..." (Emma Practice Interview 2015, p. 8)*

The social sources that Anna provided were also important in enabling Emma to engage in discursive work (Comber 2006) to continue to develop her mastery experience and TSE and interpretive and pedagogical practice (Comber 2006):

"We started off with just Anna and I and then MENTOR, who was here for a couple of years came in and started working with us too. It went from we were taking our ideas and going to MENTOR with everything to...where Anna and I would be talking and we would answer our own questions eventually, just through conversation and discussion..." (Emma TSE Interview 2015, p. 11)

Emma's personal history and her susceptibility to the affective source was important in understanding the *significance* and *relationship* of the sources. Whilst the affective source was the most *significant*, the *relationship* between it and the two social sources was important, since negative influence of the affective source was diminished by both verbal persuasion and vicarious experience. Whilst previous research has suggested that higher levels of TSE are associated with better adaptive and coping strategies (Morris & Usher 2011; Schwarzer & Hallum 2008; Shen 2009; Sutton 2004; Sutton, Mudrey-Camino & Knight 2009), Emma's ability to cope with challenging circumstances was arguably more nuanced. Her source profile revealed the key role of the social sources in managing aspects of her practice for which she had lower TSE, such as relational work (Comber 2006), and higher levels of anxiety.

Whilst the affective source was the most prevalent for Emma, this source also played a significant role in the source profiles of Donna and Jo, which will be examined in the following sections.

6.3.4: AfVe source profile: Donna

The *AfVe* source profile highlighted the *significance* of and *relationship* between the affective and verbal persuasion sources. Donna was the only participant that exhibited this profile. Chronosystem influences evidenced in Chapter Five, such as the passing of her brother and low self-efficacy for learning as a high-school student, were important in understanding the role of the sources in Donna's TSE and in turn her practice.

6.3.4.1 Donna

Donna, a mid-career teacher, reported her TSE as *moderate* to *moderate-high* on the TSES, with self-reported scores between 26 and 31. Analysis of Donna's interview data suggested that her TSE was not as high as she had reported, as she discussed feeling significant doubt about her practice. As with Emma, the affective source was significant to her TSE, which appeared to operate in unison with the source of verbal persuasion. These sources influenced and were influenced by the vicarious source and mastery experience as illustrated in Figure 6.7.

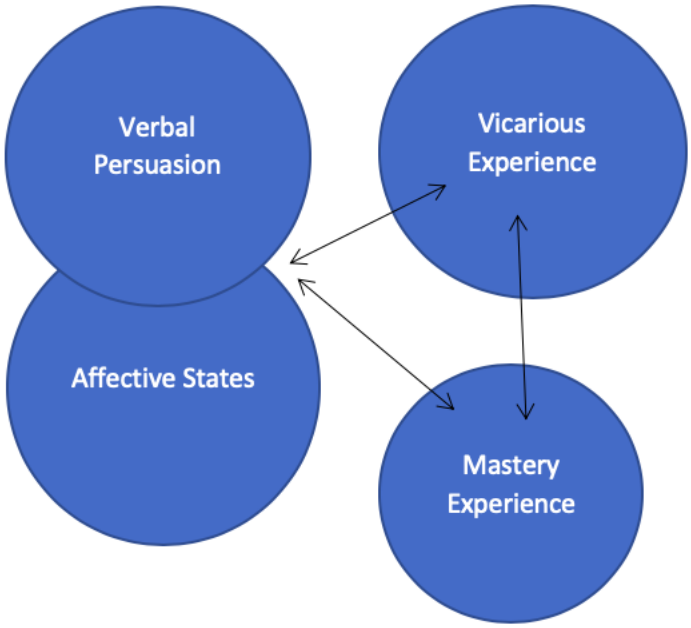


Figure 6.7 The relationship and significance of the sources informing Donna's TSE

As indicated in Chapter Five, Donna found her high school years challenging, viewing herself as *dumb.* This chronosystem influence was identified as a critical moment in Donna's life that influenced the long-term perception she had of herself as a learner (Connelly & Clandinin 1999; Gilligan 2009). Following the practice interview, Donna commented on the influence of her high school experience on her TSE:

> *"I know my own experience at school has affected my teaching…" (Donna Reflection on Practice Interview, 2015, p. 1)*

The effect of Donna's schooling experience, which shaped her perception of herself as *dumb,* connected with her TSE. Donna consistently described herself as a *fake* and she feared that her colleagues would discover that she was faking her capabilities as a teacher:

> *"...it's easy to look at someone else and think oh maybe they're better than me. 'Look at what they're doing, I wouldn't have thought of that', or 'Look how they're handling that child'. It can be self-doubting...maybe I'm just faking it and someone's going to pull me up on it one day..." (Donna TSE Interview 2015, p. 2)*

The quote above also evidences Donna engaging in social comparison to assess her capabilities, which she described as causing her to *self-doubt.* However, Donna reported her *self-confidence* (or TSE) as important in overcoming doubts about her capabilities:

> *"...you sort of have to have that level of self-confidence I suppose that, yeah 'you know what, I am actually doing a good job', because you can't always wait for everyone to be telling you...sometimes you only hear about negative things..." (Donna Life-History Interview 2015, p. 13)*

Donna appeared to engage in positive self-talk to provide verbal persuasion, stating that others may only provide *negative* feedback. Verbal persuasion, in unison with the affective source, was important in influencing Donna's TSE. However, Donna found feedback that was evaluative (Bandura 1997; Morris, Usher & Chen 2017), rather than supportive, difficult to manage:

> "*Feedback's a hard thing to actually go and seek out I find, for me, like to say 'I need help with' or 'I want help with this', I'm sort of like, try and sort it out myself... you're putting yourself up for someone to go 'actually no you've missed something', and if I already feel like I'm faking teaching as it is, then someone's going to notice that I'm missing something major...*" *(Donna Practice Interview 2015, p. 19)*

Whilst evaluative feedback may be viewed as more useful in influencing TSE (Bandura 1997; Morris, Usher & Chen 2017), for Donna this type of feedback had the potential to undermine her TSE. Both Wheatley (2005) and Wyatt (2016) purport self-doubt as important for TSE; however, for Donna, self-doubt in engaging in discursive work through reflecting on feedback, saw her question her capabilities negatively, viewing herself as a *fake* that may be found out.

Like Kate, Donna engaged in symbolic modelling to self-skill in private, as other forms of vicarious experience, such as observation of live models, led to her doubting her own capabilities (see Donna TSE Interview 2015, p. 2 above):

> "*...I've done my own sort of research and I watched things... I really did lots of reading and researching and watching of things on the net to really make sure that I felt comfortable, that I could explain why I'm doing this...*" *(Donna Practice Interview 2015, p. 12)*

By engaging in symbolic modelling through reading and researching in private, Donna was enabled to develop her mastery experience. As Donna described feeling like a *fake*, engaging in symbolic modelling also enabled Donna to potentially protect her identity as a capable and confident teacher. Therefore, the affective source was significant for Donna's TSE.

Given that Donna worked alongside her colleague Jo in an open planned classroom, Donna's source profile played a significant role in Jo's source profile.

6.3.5: AfVi source profile: Jo

The *AfVi* source profile highlighted the *significance* of and *relationship* between the affective and vicarious experience sources. This source profile was closely related to the *AfVe* profile of Donna as coding for the verbal persuasion and vicarious experience sources crossed over, demonstrating the interconnectedness of these social sources. Jo

reported the significant influence that vicarious experience had on her TSE, which brought about an affective response. Whilst the researcher felt that the close working relationship between Jo and Donna would involve dialogue between the two colleagues, analysis could only attend to what Jo described, which was largely vicarious experience. Chronosystem influences, as reported in Chapter Five, were also important in understanding the role of the sources in Jo's TSE and practice.

6.3.5.1 Jo

Jo was considered a late career stage teacher; however, she had limited teaching experience in the first ten years of her career. Jo had also been predominantly employed on contract or as a temporary relief teacher. Therefore, the quality of her teaching experience varied and she expressed a desire to be made permanent at the Foothills School. Jo reported her TSE as *moderate-high* to *high* on the TSES, with self-reported scores between 28 and 34. Jo's *AfVi* source profile, depicted in Figure 6.8, was similar to that of Donna and was shaped by chronosystem influences from her life-history.

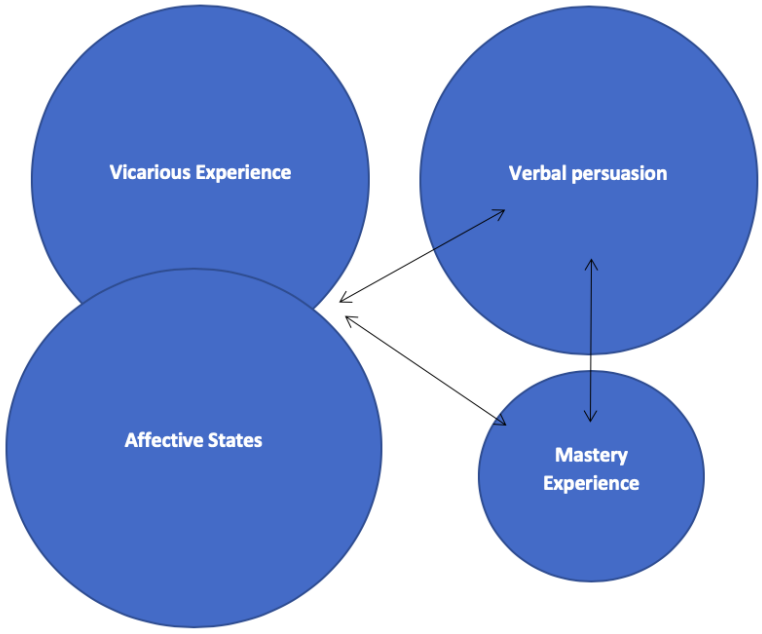


Figure 6.8 The relationship and significance of the sources informing Jo's TSE

The chronosystem influence of Jo's return to teaching towards the end of her relationship with her first husband was critical to the development of her TSE and in turn, self-efficacy:

> *"...you know years ago when my first husband had made a thorough mess of my ego – that's when I got back into teaching and people were saying 'Oh, you're so good with that child' or 'you've done amazing things with this', you think yeah, I'm good at this...sort of re-affirming something that you're good at..." (Jo TSE Interview 2015, p. 22)*

Whilst the nature of the verbal persuasion, in the form of feedback provided by the mesosystem interaction with her principal at the time, appeared more supportive and confirmatory rather than evaluative (Morris, Usher & Chen 2017), this type of verbal persuasion was critical to Jo's TSE. Jo reported that the supportive feedback she received led to her eventually developing her self-efficacy, which enabled her to leave her husband.

In Jo's current context, vicarious experience was an important source of Jo's TSE. The microsystem of her classroom was open-plan and Jo and Donna co-taught for a majority of their day. Jo reported a low TSE for pedagogical work (Comber 2006) involving creativity, which she felt was valued within her context. Through social comparison, Jo viewed Donna as more capable then herself:

> *"Donna is a very innovative, not impulsive, that's the wrong word because that's not what I mean; she can really think on her feet. She'll see something and think 'oh, we can do that', whereas I don't see that...I'm not a think outside the square kind of person. I'm really good at doing as I'm told, but I don't necessarily think that way whereas she thinks that way. So what has often happened in the past is that she'll get these great ideas and I'll record it, I'll put it into the document..." (Jo Practice Interview 2015, p. 19)*

Whilst Jo had high TSE for the interpretive and pedagogical work (Comber 2006) of planning, she reported low TSE for creativity which influenced her overall sense of TSE and the decisions that she made about her pedagogical practice:

> *"...I'm confident in the way that I deal with families and I'm confident in the fact that I know what I have to deliver and what I have to teach from ACARA...I'm confident with the way we are doing the play here at the moment but sometimes I wish I was more creative...." (Jo TSE Interview 2015, p. 18)*

Jo stated that the affective source was *significant* in shaping her TSE and suggested that her working relationship with her colleagues, which would involve vicarious experience and verbal persuasion, was also important:

> *"If you were not feeling good about your job then I doubt whether you can really deliver it well...it's just a couple of times where people that you're supposed to be working with strongly as a team have not been good team workers, that can really make a difference to how you feel about your job." (Jo TSE Interview 2015, p. 19)*

As discussed earlier, the influence of co-teaching (Bacharach, Heck & Dahlberg 2010; Krammer et al. 2018) has not been well purported within the literature and nor, therefore, the constancy of the sources of verbal persuasion and vicarious experience within the microsystem of an open-plan teaching environment (Morris, Usher & Chen 2017; Phan & Locke 2016). For Jo, the ready access to a live model (Bandura 1997) and verbal persuasion seemed to support her TSE within the microsystem of her reception classroom:

> *"Last year was the first year Donna and I taught together as reception teachers and I freely admit I had a couple of meltdowns over it... Because I'd already been in the school there was this huge assumption: 'oh well, Jo knows what she's doing, she knows everything'...I had no idea,... so for me there was a lot of learning and sometimes it would just be 'oh, dear God, I don't know what I'm doing', sort of thing. But this year because I've done it now it's fine..." (Jo Practice Interview 2015, p. 10)*

Jo reported feeling some self-doubt about her pedagogical practice (Comber 2006), however working with Donna, brought about *a lot of learning*, which positively influenced her TSE. Despite Jo being a late career teacher, who had considerable experience to draw upon, her mastery experience did not appear to be the most significant source of her TSE. This suggested that the quality of the teaching experience was an important factor in interpretations of mastery experiences (Morris, Usher & Chen 2017; Ruble, Usher & McGrew 2011; Woolfolk Hoy & Burke-Spero 2005). The mastery experience Jo accumulated throughout her contract and temporary relief teaching did not appear, unlike Kate and Mary, did not appear to transfer from one microsystem to another. The quantity or number of years of teaching therefore did not provide Jo with mastery experience, instead she described feeling ill-prepared and questioned her capabilities within the microsystem of her current context.

Whilst the source profiles of Donna and Jo appeared to be similar, the social sources influenced their interpretive and pedagogical practice (Comber 2006) and TSE in different ways. Both participants needed more confirmatory or reaffirming messages of support, rather than evaluative feedback (Bandura 1997; Morris, Usher & Chen 2017). For Donna reading and self-skilling in private, as a form of symbolic modelling, was shown to further support her TSE, through the affective source. The vicarious experience provided by Donna in the microsystem of the classroom was an important source of Jo's TSE. Whilst both participants had considerable mastery experience to inform their TSE in their current practice, this source did not appear to be the most significant source of their TSE, inconsistent with previous research.

6.4 The Ecology of the Sources in the Formation of TSE

Whilst the participants exhibited differing source profiles as evidenced in section 6.3, examination of the five profiles provides evidence for the important role of the social sources of verbal persuasion and vicarious experience for all participants, regardless of whether they were a main source or not. Table 6.1 provides a synthesis of the information from section 6.3 concerning the influence of the social sources on the practice of each participant.

Table 6.1 The influence of the social sources on the participants' TSE and practice

Source Profile	Participant	Influence of the social sources on practice
Verbal Persuasion & Vicarious Experience	Ellen	• Accommodated or ignored feedback that was considered challenging • Used social comparison to make judgements of own capabilities which undermined her TSE • Used play-based pedagogies expected within the context
	Anna	• Verbal persuasion and vicarious experience provided by Emma and mentors was important in supporting Anna's TSE and practice
	Jean	• Main source of feedback was from leadership, which required Jean to justify her pedagogical choices to engage in play-based pedagogies which supported her TSE and practice • Engaged in professional development to observe live models to make decisions about pedagogical documentation
Mastery Experience	Kate	• Sought out feedback from experts and aspired to be an expert • Critical of feedback • Decision-making based on children's interests • Self-reported high TSE

	Mary	• Sought out colleagues to engage in dialogue and try new ideas within practice • Observed the practice of others to seek out new ideas to try in own practice • Self-reported high TSE
Affective States	Emma	• Verbal persuasion provided by Anna was important for Emma's TSE in offsetting the influence of negative affective states • Vicarious experience provided by Anna supported Emma to develop dialogic practices to reflect on her practice
Affective States & Verbal Persuasion	Donna	• In practice Donna felt like a *fake* and verbal persuasion via feedback was challenging for her as she was fearful that it may confirm how she was already feeling • Chronosystem influence of feeling *dumb* was significant in her TSE
Affective States & Vicarious Experience	Jo	• Chronosystem influence of her first marriage was influential in her not feeling as *confident* • Jo relied on vicarious experience from her colleague, Donna, to inform her TSE • Jo reported low TSE for creativity and high TSE for pedagogical documentation

All the participants of this study rated their TSE on the TSES as *moderate* to *high* and thus it was expected that they would report aspects of their practice in alignment with previous studies. This included: a willingness to experiment with new teaching methods, use a variety of teaching methods, persist when faced with challenges, rely less on curriculum to guide practice, and develop opportunities for child-led inquiry and problem solving (Cantrell & Callaway 2008; Czerniak & Schriver 1994; de Laat & Watters 1995; Glackin 2016; Morris-Rothschild & Brassard 2006; Ross 1992; Swars 2005; Wolters & Daugherty 2007). However, the methodology of this study enabled the development of more nuanced understandings of the individual differences between each of the cases (Glackin & Hohenstein 2018; Klassen et al. 2011; Labone 2004; Wheatley 2005; Wyatt 2015).

Analysis of the sources provided important information regarding the *significance* and *relationship* of the sources for individual teachers and the influence of the social sources on TSE and practice. Given the importance of the social sources within the microsystem of the participants' school context and mesosystem interactions, the conceptual framework (Figure 6.9 below), has been further modified to depict the significance and relationship of the social sources and the affective and mastery sources. However, the participants made limited reference to the influence of factors

across the exo and macrosystems, which may have been influenced by the questioning, and thus, a question mark depicts the requirement for further examination of the ecological factors that influence the TSE and practice of the reception teacher.

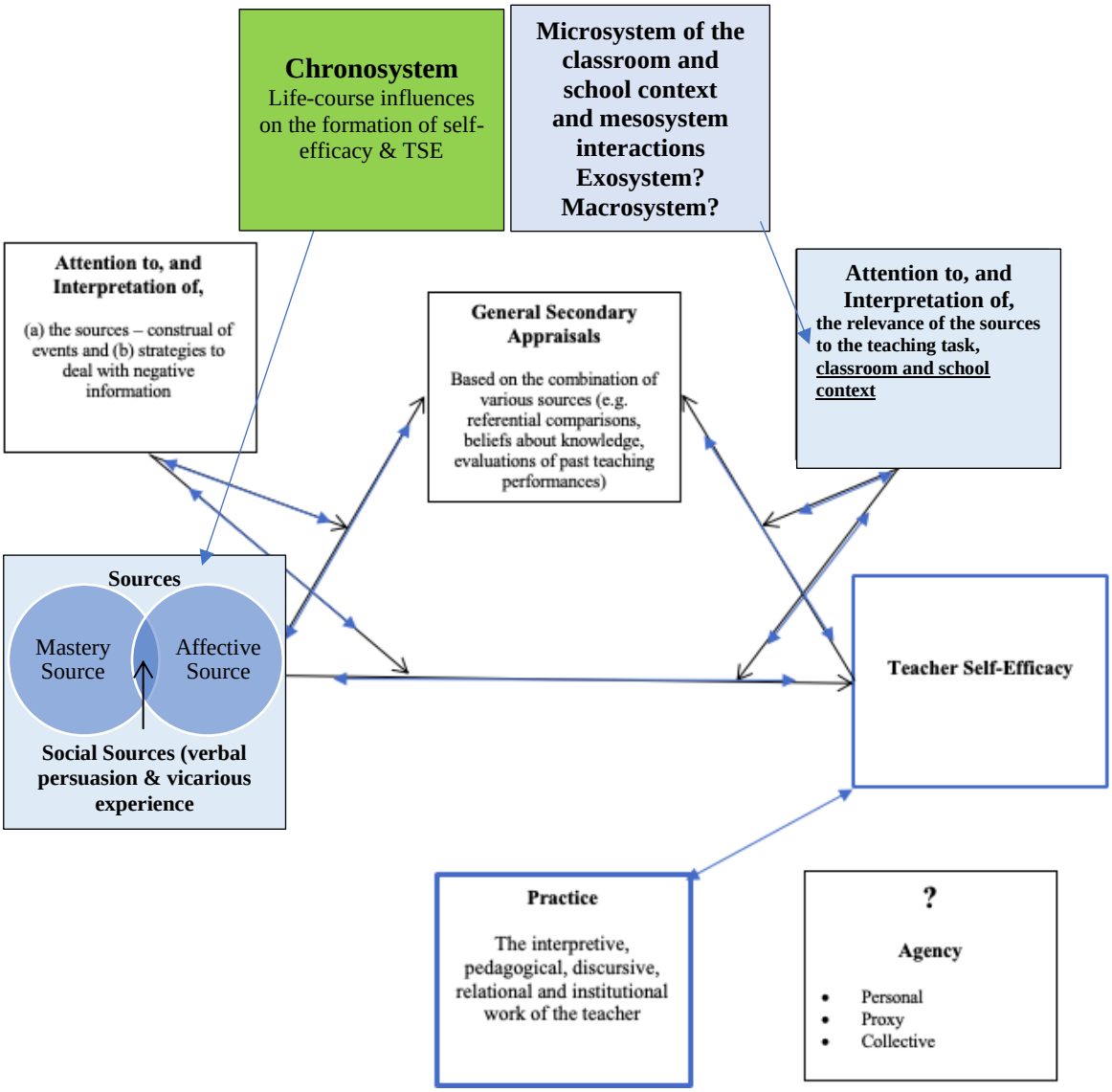


Figure 6.9 Adaptation of the Integration and Evaluation of Efficacy Information Model: The Influence of Personal History (Morris, Usher & Chen 2017)

The Integration and Evaluation of Efficacy Information model (Morris, Usher & Chen 2017) suggests that information from the sources is attended to and interpreted along with additional information such as the construal of events, strategies to deal with negative information and relevance to the teaching task with consideration to the content area and school context. Together this information becomes a secondary appraisal which influences the continued development of TSE. The analysis presented in Chapter Six supports Morris, Usher and Chen's (2017) assertion and provides further

elaboration regarding the influence and relationship of the sources, in particular the social sources. The microsystem of the classroom and school context and mesosystem interactions were added to the conceptual framework as the collaborative teaching environment provided the enabling conditions of the social sources. All participants, apart from Jean, worked in an open-planned classroom, which enabled the sources of verbal persuasion and vicarious experience to become significant to the TSE and practice of the reception teachers. Whilst Jean worked in a classroom, independent of any other colleagues, leadership provided regular verbal persuasion through weekly meetings and annual performance reviews. Whilst previous research has consistently reported mastery experience as a significant source of TSE (Bandura 1997; Morris, Usher & Chen 2017; Phan & Locke 2016; Tschannen-Moran & Woolfolk Hoy 2007; Weaver Shearn 2008; Woolfolk Hoy & Burke Spero 2005), this study identified only two of the eight participants for which this was the case. However, these two participants transferred their mastery experience from the microsystem of the childcare or preschool context to the reception context.

The analysis of the sources also revealed further information about the reception teachers' practice, defined by Comber (2006) as pedagogical, interpretive, relational, institutional and discursive work. In regard to pedagogical work, the participants discussed play, child-led inquiry, integrated learning and directed teaching, along with co-teaching. Interpretive work included decision-making regarding curriculum, planning, interpreting children's learning in play and *trying things out* in practice. Discursive practice involving feedback, was noted frequently by the participants, however questioning in relation to feedback was included as part of the practice interview to examine the verbal persuasion source. The participants made reference to engaging in mesosystem interactions regarding professional dialogue with colleagues, mentors and leadership to *bounce off ideas.* Feedback was perceived as supportive and reaffirming, but also negative and *hard*. Mesosystem relationships with colleagues, mentors, leaders, parents/carers and children were central to the participants' relational work. These relationships were perceived as supportive, however also having the potential to be *negative.* Institutional work was discussed the least by the participants, with Mary the only participant noting challenges in navigating the *processes* within the school context.

6.5 Conclusion

Deep analysis of the microsystem of the reception teachers' school context presented in this chapter extended the analysis from Chapter Five which examined ecological influences across a chronosystem life-history perspective and the subsequent influences in the formation of the participants' TSE beliefs. In applying a social cognitive theory lens, the analysis of the four sources of TSE – mastery experience, verbal persuasion, vicarious experience and affective states – revealed five source profiles. These profiles highlighted the significance of and relationship between the sources for individual participants. Contrary to previous research which had purported mastery experience as the most significant source of TSE (Bandura 1997; Morris, Usher & Chen 2017; Phan & Locke 2016; Tschannen-Moran & Woolfolk Hoy 2007; Weaver Shearn 2008; Woolfolk Hoy & Burke-Spero 2005), the source profiles revealed the significance of the social sources of verbal persuasion and vicarious experience for the participants' TSE and practice.

Analysis also revealed the reception teachers' shared engagement in different types of pedagogical, interpretive, relational, discursive and institutional work (Comber 2006), which involved micro and mesosystem interactions and relationships. The analysis of the sources indicated that the microsystem of the collaborative classroom enabled the influence of the social sources and mesosystem interactions. However, whilst micro and mesosystem interactions and relationships featured highly in the examination of the sources of TSE, examination of ecological factors across the systems was considered essential in providing further critique of the relationship between the TSE and practice of the reception teacher. Therefore, Chapter Seven extends the cross-case analysis by examining factors across the ecological systems that the reception teachers attended to and interpreted. This analysis further highlights the interplay between social cognitive theory and ecological theory in deepening understandings of the relationship between the TSE of the reception teacher and their practice.

Chapter 7: The Relationship between Teacher Self-Efficacy and Practice

7.1 Introduction

In response to the first two research questions, Chapters Five and Six examined the TSE beliefs of the reception teachers and the sources of their beliefs. Chapter Five examined phases one and four of the research process: the life-history interview and the TSES section of the TSE interview. Whilst the TSES provided some initial insight into the participants' self-report of their overall sense of TSE, analysis of the qualitative interview data highlighted ecological influences on the ongoing formation of their TSE beliefs. The influential role of the chronosystem was made visible by taking a life-history perspective, whereby the reception teachers identified personal lived experiences, critical moments and turning points that played a significant role in shaping their TSE beliefs, which they carried with them into their practice. Collectively, these life experiences were raised as a possible form of mastery experience, illuminating the interrelationship between the personal and professional landscapes of the reception teacher. However, deeper qualitative analysis identified that the individual experiences of the teacher were influenced by all four sources of self-efficacy – verbal persuasion, vicarious experience, mastery experience and affective states – which reportedly shaped their self-efficacy and in turn their TSE.

To further investigate reception TSE beliefs and the sources of these beliefs, Chapter Six critically examined phases two and four, the practice and TSE interviews, focusing on the four sources of TSE. Analysis illustrated the significance of and relationship between the sources through the development of five source profiles; verbal persuasion and vicarious experience (*VeVi*)*;* mastery experience (*Ma*); affective states *(Af);* affective states and verbal persuasion *(AfVe);* and affective states and vicarious experience *(AfVi)*. Whilst the participants exhibited differing source profiles, cross-case analysis evidenced the important role of the social sources of verbal persuasion and vicarious experience for all participants. Micro and mesosystem interactions and relationships within the collaborative teaching environment were commonly suggested as providing the social sources, which seemingly influenced the formation of TSE and teaching practice. However, the participants made limited reference to the exo and macro systems and thus examination of ecological factors across the systems was

considered essential in providing further critique of the relationship between the TSE and practice of the reception teacher.

Emerging throughout Chapters Five and Six were references regarding how TSE beliefs and ecological influences shaped the participants' practice as a reception teacher. Practice, as pedagogical, interpretive, relational and institutional work (Comber 2006), was considered in Chapter Five by examining the connection between the formation of TSE within the personal and professional landscapes of the reception teacher. The exploration of the reception teachers' practice was further examined in Chapter Six, alongside the exploration of the sources of TSE. Chapter Seven extends this analysis to address the final research question by critically examining the connection between reception TSE and practice, utilising social cognitive theory and an ecological lens, which situates the work of the reception teacher as part of a social system, influenced by multiple socio-cultural factors. The self-reflective process through which the reception teachers attended to and interpreted source and ecological influences raised the potential for teacher knowledge to be viewed as an additional source of TSE. Supportive and challenging ecological factors emerged and were critically examined, along with consistent reference to the critical role of school leaders in mediating challenging factors and enabling the agency of the reception teacher.

The chapter begins by examining the rationale and process of analysis in determining the relationship between TSE and practice. This is followed by the cross-case analysis of ecological factors and the influence of these factors on TSE and practice. The chapter concludes by critiquing the significance of ecological influences, agency and leaders in exploring the development of TSE and relationship to practice, by re-visiting the conceptual framework underpinning this thesis.

7.2 Analysing the Relationship between TSE and Practice

In examining the relationship between the participants' TSE beliefs and their practice, analysis considered how the reception teachers attended to, interpreted and evaluated ecological information, a key component of the Integration and Evaluation of Efficacy Information model (Morris, Usher & Chen 2017) underpinning this thesis. Bandura (1997) purported that source information provided by mastery experience, verbal persuasion, vicarious experience and affective states informs self-efficacy beliefs.

However, contemporary research has extended this focus to additional sources of TSE, such as other forms of teacher knowledge (Bautista 2011; Bautista & Boone 2017; Palmer 2006; 2011; Phan & Locke 2016). Morris, Usher and Chen (2017) argued that teachers combine information from a variety of sources, such as their 'past successes, knowledge and comparison with others' (p. 820) to inform their TSE. Thus, Chapter Seven explores teacher knowledge as a source of TSE (Morris, Usher & Chen 2017) that emerged from the analysis of information the reception teachers attended to, interpreted and evaluated across the different ecological systems in their school contexts.

The methodology of this study considered the process of self-reflection, in alignment with Social Cognitive Theory (Bandura 1997), as the process through which the reception teachers considered information important in understanding the relationship between their TSE and practice. Social Cognitive Theory views self-reflection as a metacognitive process that enables people to make sense of their experiences, engage in self-evaluation and alter their thinking (Bandura 2001). Through the self-reflective process teachers are considered to make evaluations of their capabilities, actions, motivations and values (Bandura 1997). These evaluations are purported to regulate the cognitive, affective, selective and motivational processes, enabling individuals to intentionally exercise control over their behaviour, thoughts, feelings and motivations (Bandura 1997).

As discussed in Chapter Four, Methodology, this study captured the participants' self-reflections through a diversity of methods which included:

- participant member checking of interview notes, transcripts and narrative account after each semi-structured interview;
- the use of self-reflective prompts following each phase of the research process; and
- the think-aloud method (Barkaoui 2011; Fox, Ericsson & Best 2011) during the video play-back and completion of the TSES in the TSE interview.

This approach elicited participants' interpretation of source information; their thoughts and feelings, as well as other ecological factors as sources of teacher knowledge, that they identified as influencing their TSE and practice. Following the completion of phase four of the research process, an in-depth and systematic case by case analysis was conducted as detailed in Chapter Four, Methodology, section 4.5.2. Stage three of the

analysis specifically coded for factors that were external to the participants and that they identified as influencing their TSE. These were clustered into superordinate themes and sub-categories of those themes using the systems from the Bioecological Systems Model (Bronfenbrenner 1979; 2005). Cross-case analysis identified commonalities and differences amongst the participant group concerning the identification and influence of factors on their TSE and practice.

Analysis revealed that factors were situated across the ecological system and interacted directly and indirectly with the participants' TSE and practice within the microsystem of the classroom. Factors within the macrosystem included curriculum, resources, academic push-down, the requirement to provide evidence of learning, and uncertain employment conditions. The role of the leadership within the school was viewed as critical by the participants in mediating the macrosystem influences. Further to these influences, also identified were mesosystem relationships and interactions with colleagues and parents that filtered into the microsystem of the reception teacher classroom context, including class size and class dynamics. These interconnected influences were identified by the participants as significant to their TSE beliefs and practice. In addition to life-history chronosystem influences, further time-related factors were reported, including timetable flexibility and time to reflect on practice.

Morris, Usher and Chen (2017) argued that as teachers attend to, interpret and evaluate source information, they decide on strategies to manage negative information as well as discern the relevance to the task and context. The ecological factors were analysed to consider the supportive and challenging information the reception teachers attended to in shaping their TSE beliefs and practice. The following section presents the analysis of the relationship between the reception teachers' self-efficacy and practice from the participants' perspective.

7.3 Ecological Factors that Influence the Relationship between TSE and Practice

The analysis from Chapters Five and Six explored the TSE beliefs of the reception teachers and the potential sources of their beliefs, including chronosystem influences. Table 7.1 provides a summary of this analysis, expanding on Tables 5.1 and 6.1 presented in Chapters Five and Six.

Table 7.1 Summary of the participants' TSE beliefs and sources

	Personal History	Professional History	TSES Score	Source Profile
Ellen	• Low self-efficacy as a learner • Low self-efficacy for mathematics	• High TSE for establishing & maintaining relationships with families • High TSE in establishing & maintaining relationships with children • Low TSE for seeing children's learning in mathematics • Low TSE to ask questions to support children's learning • High TSE for planning • High TSE for noticing the learning in children's play • Low TSE for balancing play-based pedagogies and macrosystem influences • Low TSE for teacher directed approaches	**Instructional Strategies:** Moderate **Classroom Management:** Moderate-High **Student Engagement:** Moderate-High **General TSE:** Moderate-High	Verbal Persuasion & Vicarious Experience (*VeVi)*
Kate	• High self-efficacy on family farm • High self-efficacy to care for a child as a single parent • Low self-efficacy for belonging to a peer group as an adolescent	• High TSE for viewing children as competent • High TSE for establishing & maintaining relationships with children • Low TSE for relational work with colleagues • High TSE for interpretive work	**Instructional Strategies:** High **Classroom Management:** High **Student Engagement:** High **General TSE:** High	Mastery Experience *(Ma)*

		• High TSE for pedagogical knowledge • High TSE for reflective practice		
Mary	• High self-efficacy for risk-taking • Low self-efficacy for Mathematics • High self-efficacy for history and English	• High TSE to take risks with professional learning & pedagogy • High TSE to provide creative & engaging learning experiences • High TSE for institutional work • High TSE for pedagogical knowledge	**Instructional Strategies:** High **Classroom Management:** High **Student Engagement:** High **General TSE:** High	Mastery Experience *(Ma)*
Jean	• Low self-efficacy for mathematics • Low self-efficacy to make decisions in personal life • High self-efficacy to organise & structure personal activities	• Low TSE for mathematics • High TSE for supporting children's learning • High TSE for providing a structured & organised learning environment • Moderate TSE for working with parents • Low TSE for engaging in professional dialogue with leadership	**Instructional Strategies:** Moderate-High **Classroom Management:** Moderate-High **Student Engagement:** Moderate-High **General TSE:** Moderate-High	Verbal Persuasion & Vicarious Experience *(VeVi)*
Anna	• High self-efficacy to manage challenging personal situations	• High TSE for pedagogical strategies • High TSE for interpretive work • High TSE for relational work • High TSE for working collaboratively with colleagues • High TSE for planning and implementing integrated learning experiences	**Instructional Strategies:** Moderate **Classroom Management:** Moderate **Student Engagement:** Moderate-High **General TSE:** Moderate	Verbal Persuasion & Vicarious Experience *(VeVi)*

		• High TSE for developing a positive mindset about learning and teaching		
Emma	• Low self-efficacy for managing challenging personal situations	• Low TSE for managing difficult conversations • Low TSE for managing relationships with children & parents • High TSE for working collaboratively with colleagues	**Instructional Strategies:** Moderate-High **Classroom Management:** Moderate-High **Student Engagement:** Moderate **General TSE:** Moderate-High	Affective States *(Af)*
Donna	• Low self-efficacy for managing unfamiliar situations • Low self-efficacy for mathematics, spelling and German	• Low TSE for alternative practices • High TSE for supporting children to view themselves positively as learners • Low TSE for receiving feedback • High TSE for content knowledge	**Instructional Strategies:** Moderate **Classroom Management:** Moderate-High **Student Engagement:** Moderate-High **General TSE:** Moderate-High	Affective States & Verbal Persuasion *(AfVe)*
Jo	• Low self-efficacy to manage negative relationships	• Low TSE to manage negative feedback • Low TSE for creativity • High TSE for relational & pedagogical work • High TSE for pedagogical documentation • High TSE for building relationships with families • High content and pedagogical content knowledge	**Instructional Strategies:** Moderate-High **Classroom Management:** High **Student Engagement:** Moderate-High **General TSE:** Moderate-High	Affective States & Vicarious Experience *(AfVi)*

Chapters Five and Six provided some insight into the relationship between the participants' TSE and practice. In relation to Comber's (2006) conceptualisation of practice, the participants reported their TSE beliefs in relation to their interpretive and institutional work through the domain of classroom management on the TSES as *moderate* to *high.* The relationship between the participants' TSE and interpretive practice (Comber 2006) emerged through the analysis of the qualitative data to involve interpretation of children's learning in play, willingness to try new teaching strategies and use of curriculum and theory in their planning documentation. The participants tended to reference their institutional practice within the microsystem of the classroom, which included the organisation of the classroom environment, development of routines and structures and provision of resources. Pedagogical work (Comber 2006) was encapsulated through the instructional strategies and student engagement domains of the TSES. Again these domains were reported as *moderate* to *high* with very little variance in quantitative responses. As described in Chapter Six, the participants reported the relationship between their TSE beliefs and pedagogical practice in relation to play-based pedagogies, child-led inquiry, explicit teaching and co-teaching. Relational work on the TSES was included through the domain of student engagement and qualitative analysis incorporated the emotional support domain from Zee and Koomen's (2016) Heuristic model. The qualitative analysis was thus, significant in revealing the participants' TSE beliefs in working with colleagues, mentors, leaders, parents/carers and children. The TSES was limited in reporting the relationship between the TSE beliefs of the reception teachers and their discursive practice. From the qualitative analysis, discursive practice involved engaging in dialogue with colleagues, mentors, leaders and parents/carers. Specifically, questioning involved the use of feedback, with the participants reporting needing both supportive and evaluative feedback to inform their TSE and practice.

The following section extends this analysis to examine the direct and indirect influence of ecological factors, beyond those within the microsystem and mesosystem interactions of the reception classroom. Social Cognitive Theory (Bandura 1997) and Ecological theory (Bronfenbrenner 1979; 2005) assert that human functioning operates within a social system and a 'broad network of sociocultural influences' (Bandura 2001, p. 14). The participants' practice was therefore viewed through this lens, as the teaching context is part of a larger system that exerts influence in different ways. Table 7.2 provides an overview of the cross-case analysis of the ecological factors the

participants reported as influencing their TSE and practice. These are organised into ecological systems and evidence is provided to illustrate whether the information gained from the factors supported and/or challenged the participants' TSE and practice.

Table 7.2 Overview of ecological factors that influenced the participants' TSE and practice

Factor	Supportive	Challenging
Mesosystem: **Colleagues**	Colleagues within the participants' school context were perceived as significant in providing support in making pedagogical decisions through the social sources: *"Emma and I often just sit and chat and talk about what - the kids and how they learn best and where they're at. I guess the heart of it is the kids and that's why we have made all these changes over the last few years because we've seen such a change and I just love it..." (Anna TSE Interview 2015, p. 9)*	Relationships with colleagues were also viewed as challenging to TSE and practice: *"...people that you're supposed to be working with strongly as a team have not been good team workers that can really make a difference to how you feel about your job…" (Jo TSE Interview 2015, p. 19)*
Mesosystem: **Parents/Carers**	Working with and having good relationships with parents was supportive for the participants to enact practice they felt was important: *"I love taking the photo of the child with what they're doing, I think that's so important and to be able to email that through to parents and show them this is what your child did today I think is just huge and it does open up a lot more doors with that teacher/parent relationship because they can see this is what they've actually done in the classroom..." (Jean TSE Interview 2015, p. 13)*	Working with parents to understand their pedagogical practice was also viewed as challenging as the participants described having to justify their pedagogical decision-making to parents: *"I think it starts with like the parents and the other staff members, I think. If they're not invested in it [play], or if they can't see the benefits in that, it makes it really hard, so you have to really explain what you're doing because it's expected that you know" (Ellen TSE Interview 2015, p. 36)*
Chronosystem: **Timetable**	Flexibility within the daily timetable to work with colleagues and follow children's interests was also a significant factor as the reception teachers made decisions about what to attend to within their teaching practice:	Not having flexibility within the timetable impacted the participants' pedagogical decisions within their classrooms:

	"*...with the Walker Learning Approach, you're supposed to do play in the morning before recess. It just did not work with the group of children that I had...when we swapped it so it was at the end of the day, it made them a lot more settled and everything, so just changing the time of the day was amazing with what I actually got out of the kids for the rest of the day..." (Jean Life History Interview 2015, p. 2)*	*"...I know that is different here because it's a totally different – but I think that there could be some more flexibility in the timetable, yeah and – but I'm not the only one saying that..." (Mary TSE Interview 2015, p. 16)*
Chronosystem: **Time**	Having time within the day was important in enabling the participants to enact their intended practice: *"...We made sure that we didn't have any non-contact time in the morning up until recess, we put that in specifically to management saying we need this block of time to be able to work with it [Walker Learning Approach]..." (Jean Practice Interview 2015, p. 13)*	The participants also felt they had limited time within their day to allow children to explore and follow their interests: *"I'm conscious that I don't want to lose time and we have so much going on and so much to do...I think sometimes you rush through and I hate - I hate rushing – I would rather do things really well instead of doing lots of little things and rush through them...some days we are working on things for a while and for me I would rather do that and then stop and change and do a different lesson...I just hate that feeling of being rushed and not doing things properly and giving kids time. It's finding a balance I guess…" (Anna TSE Interview 2015, p. 7)* Time to reflect on and make decisions about their practice was important to the participants, but was challenging within their contexts:

		"It's just time that gets in the way. You know we struggle for time, to sit down and nut things out a lot. Never enough time..." (Emma Practice Interview 2015, p. 20)
Macrosystem: **Curriculum**	Curriculum was as an enabling factor for the participants' pedagogical decision-making as it acted as guide to the content to be addressed: "*...we follow the curriculum. That's what I found really good about coming back after the ten year gap was that while I was out of teaching SACSA came in and because I just came back and thought 'oh dear god, I don't know anything', I'd forgotten so much about this that and the other and SACSA was there which made planning for me so much easier because you had a guide..." (Jo Practice Interview 2015, p. 10)*	The participants felt accountable for the curriculum, which at times limited their practice: "*...I have a legal obligation to do the Australian Curriculum so that's my starting point and I've got great ideas that can go along with that and I always try to make it fun and interesting and how can I always put play into there or make it playful." (Donna Practice Interview 2015, p. 21)*
Macrosystem **Resources**	Having access to resources to enact the pedagogy of their choosing was important: *"I think the school's very open in that this is what we value, and we've been given extra money on top of our class budget so that we've been able to buy things like a kitchen and the shops that have been, and those sort of things that help. So, yeah, I think it is valued.." (Donna Practice Interview 2015, p. 17)*	Not having access to resources conversely impacted on the agency of the participants to enact their practice: "*...I think the resources is a huge thing. So being in, in the big school, it's really hard to do what we're doing in the X. Yeah, you don't have the resources, you don't have the room. Yeah, the space..." (Ellen TSE Interview 2015, p. 36)*
Macrosystem/ Microsystem: **Class size**	Class size was seen as an indicator of the value leadership placed on the pedagogy within the context, as well as the participants' ability to make decisions about their practice:	Large class sizes posed difficulties in how the participants enacted their practice:

	"*...he [Principal] sort of started to see- yeah how important the early years are, and he really invested in it. That's why we have so many staff here. Because that's – that's really the key he's – he's given us extra time to be able to do things..." (Kate Practice Interview 2015, p. 12)*	*"... Just starting with a bigger group – that's probably one thing rather than the last few years we've had – we might start with a smaller group but then have another intake. Now you just start with all of them all at once so it's a bigger group..." (Anna Practice Interview 2015, p. 6)*
Microsystem: **Class dynamics**		The dynamics of the class were perceived as a challenging factor within the participants' pedagogy: *"We had a lot of behaviour issues last year and I found it really difficult to connect with those kids. For the first time in a long time I think they wore me out and it just like every day you were pushing a full wheelbarrow up a hill... there wasn't cohesiveness, it was very disruptive and tricky – but this year completely different, not having those children in there that are so disruptive... I found it really difficult and really challenging...at the end of the year I got to the point where I was just like we've failed and I carried a lot of guilt about that because I just couldn't do it..." (Emma Practice Interview 2015, p. 6)*
Macrosystem **Academic push-down**		The perception of academic push-down in reception was also an important factor influencing the agency of the participants in enacting their practice: *"...I saw there was that whole thing of reception children are meant to be at [reading] level 9 to 11 by the time they finish reception and I'm thinking 'why?...I just think it's dangerous*

		because it's going to make people think they've got to push-down and push-down..." (Mary Practice Interview 2015, p. 7)
Macrosystem: **Providing evidence of learning**		Having to provide records and evidence of children's learning was viewed as time-consuming which took attention away from other aspects of practice that they viewed as more important: *"...keeping lots of records and things, that's something that's a challenge for me... I feel confident in knowing my kids really well, so I don't need that checklist to be able to tell me..." (Donna TSE Interview 2015, p. 3)*
Macrosystem: **Uncertain employment conditions**		Half of the participants were on contract and they all hoped that they would be made permanent. Uncertain employment conditions were viewed as a challenge to the participants' TSE and their agency in practice: *"I actually thought 'well maybe they could do that...the midyear teacher could use EYLF' and 'no'...the deputy, she may've said but I didn't hear what her reasoning was...But if I was permanent I probably would. I don't make waves..." (Jo Practice Interview 2015, p. 14)*

7.3.1 Supportive and/or challenging ecological factors

By considering the influence of ecological factors, analysis provided further evidence regarding other sources of teacher knowledge referred to in Morris, Usher and Chen's (2017) Integration and Evaluation of Efficacy Information model. Ecological factors across multiple systems provided information that was both supportive and/or challenging to the participants' TSE and practice. This study also supported Morris, Usher and Chen's (2017) assertion that teachers attend to and interpret information relevant to the teaching task and school context, as well as deciding on strategies to manage negative information.

Factors in the macrosystem evidenced in Table 7.2 included curriculum, resources, the perception of academic push-down, having to provide evidence of learning, and uncertain employment conditions. Mesosystem influences were considered to be the reception teachers' relationships and interactions with colleagues and parents/carers. Class size and class dynamics were viewed as microsystem factors; however, class size may also be considered as influential within the macrosystem as governments and educational jurisdictions provide guidelines and policies for school systems and processes including student enrolment. Flexibility within the timetable and time to reflect were interpreted as chronosystem factors.

In summary, factors that the participants perceived as both supportive and challenging were:

- colleagues;
- parents;
- curriculum;
- flexibility within the timetable;
- time to reflect;
- resources; and
- class size.

Factors that were viewed exclusively as challenges were:

- perception of academic push-down;
- requirement to provide evidence of learning;
- uncertain employment conditions; and
- class dynamics.

Macrosystem factors were predominant in the reception teachers' descriptions. Even when factors, such as curriculum, were reported as having a potentially supportive influence, these same factors were conversely viewed as challenging. Given that Chapter Six revealed the significant role of the social sources in supporting TSE and practice, analysis focused again on the microsystem of the reception context and interactions within the mesosystem. This revealed the significant role of leaders – principals, deputy principals, coordinators and directors – in supporting the reception teachers in mediating macrosystem influences.

7.3.1.1 The influence of leaders

The reception teachers in this study identified ways for leaders to minimise the influence of the broader macrosystem influences on their practice. Whilst there is limited research regarding the influence of leaders on TSE (Fackler & Malmberg 2016), Diamond's (2007) qualitative case study of eight elementary teachers in the US, involved in a distributive leadership project, found that 83 percent of principals and 23 percent of deputy principals influenced the teaching instruction that occurred within the microsystem of the classroom. Leaders were found to influence teaching instruction by restricting teachers' agency to make decisions about their practice through mandating content and pedagogy, as well as the sequencing and pace of delivery. Gonzalez et al.'s (2017) quantitative study, provided support for Diamond's (2007) earlier study, investigating the influence of high stakes testing on the TSE of 145 elementary, middle and high school teachers in the US. Gonzalez et al. (2017) found that leaders who 'valued teacher input, sought out their feedback and validated their efforts, increased TSE and conversely, leaders that were more demanding, questioned teachers' effort and showed little faith in their ability or singled out failures, lowered TSE' (Gonzalez et al. 2017, pp. 525-526). Furthermore, Gonzalez et al.'s (2017) study highlighted the affective influence of school leaders stating that 'if the principal treats the teacher as a valued member of the team, then the teacher will have a great sense of self-worth' (p. 525).

In examining the role of leaders, specifically principals, deputy principals, coordinators and directors, the practice interview asked participants: *'who do you feel accountable to and why?'*. The mesosystem interaction and relationship with leaders, and the influence on the TSE and practice of the reception teachers, emerged consistently throughout all interviews, with participants reporting their desire for leaders to support, inspire and trust them. They also reported wanting leaders to define expectations in alignment with common values and

provide feedback and ideas to develop their TSE and practice. The analysis in this study has provided further evidence to support previous studies which have consistently found that leaders who set clear goals, develop a sense of collective responsibility and accountability for academic achievement, model instruction and provide constructive feedback, positively influence TSE (Calik, Sezgin, Kavgaci & Kilinc 2012; Fackler & Malmberg 2016; Ninković & Knežević Florić 2018).

Mary, who was also the director of the early years' context at the Water's Edge, described her self-efficacy for leadership and specifically her beliefs regarding her ability to inspire and enable the agency of her staff to achieve goals within their practice:

> *"I seem to be able to inspire and to get people to feel comfortable that they'll say things that are on their mind and so and I just seem to be able to challenge respectfully... noticing what people do that's really good and really building on that and talking about that..." (Mary Practice Interview 2015, p. 3)*

Mary's leadership provided her staff with both vicarious experience and verbal persuasion in developing their TSE. Specifically, Mary modelled pedagogical and interpretive practices (Comber 2006) and provided evaluative feedback through the discursive work (Comber 2006) of entering dialogue with staff to *challenge* their interpretations and decision-making in relation to children's learning. As discussed in Chapter Six, the social sources, which have been purported to be most influential for early career teachers (Bandura 1997; Milner & Woolfolk Hoy 2003; Morris & Usher 2011; Morris, Usher & Chen 2017), were also evidenced to be significant in the source profiles of all the participants, regardless of their career stage. Therefore, Mary's leadership approach was considered important to ongoing TSE development.

It was also important to the reception teachers, in alignment with previous research, that their leaders viewed them as capable (Diamond 2007; Gonzalez et al. 2017) and in doing so, provided them with agency to make decisions about their practice:

> *"...the junior school principal obviously has faith in what we do because he doesn't interfere and I don't think it's a lack of care, I just think that he trusts us to know what we're doing..." (Jo Practice Interview 2015, p. 11)*

Leaders were also key in defining the expectations for practice within the context, but also fostering individuality, creativity and agency to meet the expectations in varied ways. For example, Donna described how her coordinator trusted her to undertake the pedagogical and interpretive work (Comber 2006) of planning, in turn affirming her TSE for this practice:

> *"...the teachers before me actually had this lesson by lesson amazing document... I'm thinking 'oh, my god I've come to a school where this is the expectation'- and I'm not going to be able to run like that, I just can't, I just, it just won't happen...Anyway thankfully, X who's our junior primary coordinator came and said, 'no, you don't have to do it like that'. 'I actually encourage you not to …' (Donna Practice Interview 2015, p. 8)*

Sharing the same vision or values as the leader was important to the TSE and institutional work (Comber 2006) of the reception teachers:

> *'...he's [principal] very much about wellbeing and a holistic approach to education...he sees how important the early years are and he's really invested in it...that's really the key. He's given us extra time to be able to do things...' (Kate Practice Interview 2015, p. 12)*

Kate described how her principal *invested* in the practice of the early years' staff within the microsystem of the teaching context. The provision of additional resources and *extra time* to engage in other aspects of their practice, such as discursive work (Comber 2006) with colleagues and relational work (Comber 2006) with parents/carers, provided evidence of a more values or vision-based approach to leadership. This type of leadership has been strongly associated with the development of collective efficacy (Demir 2008; Ninković & Knežević Florić 2018; Ross & Gray 2006; Walumbwa, Wang, Lawler & Shi 2004), which was evidenced within the descriptions of all participants as they engaged in collaborative practices within the microsystem of their reception classrooms.

In relation to leaders and feedback, the participants evidenced both verbal and written feedback as important to their TSE and practice:

> "*...we do a lot of learning stories - so emailing them to Mary or Kate or X, getting them to check them over and getting any feedback from that. I think also, just verbally, always asking questions..." (Ellen Practice Interview 2015, p. 2)*

Ellen's quote above, identified the interpretive work (Comber 2006) of the reception teachers in developing learning stories. However, her quote also further evidenced the important role of the social sources of verbal persuasion and vicarious experience. Verbal persuasion in the form of evaluative verbal feedback (Bandura 1997) and vicarious experience, through the provision of written feedback, were viewed as critical to the TSE of the reception teachers in engaging in their practice.

However, feedback that was supportive in nature was considered particularly important to the participants' TSE and practice:

> *" [principal] has been really supportive... he's been very supportive of it all and he's great – he's very supportive. He loves what we do..." (Anna Practice Interview 2015, p. 3)*

The role of supportive forms of verbal persuasion was evidenced within the source profiles of Donna and Jo, who viewed these as important in *affirming* their TSE and practice. Whilst TSE research into the role of verbal persuasion has argued for the focus to be on the specific feedback teachers receive about their capabilities rather than generalised messages of support (Bandura 1997; Chong & Kong 2012; Morris, Usher & Chen 2017; Pajares 1996), this study evidenced the need for both evaluative and supportive messages in the development of TSE.

Whilst TSE has been positively associated with leaders who set high expectations for teachers in monitoring academic achievement (Calik, Sezgin, Kavgaci & Kilinc 2012; Fackler & Malmberg 2016; Ninković & Knežević Florić 2018), the reception teachers in this study reported that leaders, through institutional practices (Comber 2006), also monitored their pedagogical work (Comber 2006) through attendance at collaborative planning meetings:

> *"...our deputy principal she comes to most of our team planning meetings and she's the one, I guess, that runs through just to see if things are going okay...just to make sure we're on the right path really... following along with everybody else in the school with what they're doing,, so we're consistent ..." (Jean Practice Interview 2015, p. 18)*

However, whilst attendance at planning meetings and providing feedback on planning documentation may have provided further opportunity to enhance TSE through the social

sources, the participants of this study also evidenced a monitoring and regulation of their agency in meeting the macrosystem education requirements, within the microsystem of their classroom. As discussed in Chapter Five in relation to Jean, leaders who facilitate more controlled work environments influence the way in which teachers engage in their relational work (Comber 2006) with children, whereby teachers become more controlling in their interactions (Ford et al. 2017). Thus, whilst the participants stated a desire for their leaders to define expectations and provide feedback, the need for leaders to find a balance in their own institutional work (Comber 2006) was also highlighted, as this in turn may influence children's learning, through the practice of the teacher.

Similarly, the reception teachers evidenced the tension they faced in navigating the downwards macrosystem policy influences and institutional work (Comber 2006) such as the extension or early schoolification of curriculum (Barblett, Knaus & Barratt-Pugh 2016) and the challenge of adopting more democratic and child-centred approaches (Cherrington 2018; Kilderry 2015; Leggett & Ford 2013; Rinaldi 2013; Siraj-Blatchford 2009).

> *"...So X [principal] is wanting benchmarks...you know 'they have to be on this level, this many sight words'. And that goes against everything that we're trying to do in reception..." (Emma Practice Interview 2015, p. 18)*

Emma's quote highlighted the tensions evidenced within the literature regarding 'the pressure teachers feel from policymakers and administrators to focus on literacy development' (Gerde et al. 2018, p. 83). Leaders within the reception teachers' contexts were, at times, perceived to be supportive of macrosystem policies, particularly within the domain of the English curriculum. Thus, leaders were viewed as critical to enabling the reception teachers to engage in their pedagogical work (Comber 2006), which for the participants in this study, involved play-based pedagogies, and balancing this with measures of academic achievement, such as benchmarks.

The requirement by leadership for the reception teachers to provide pedagogical documentation was also viewed as intrusive by some of the participants and a way for leaders to monitor their work:

> *"We do a lot of planning; it's all put on the common server – I hate all that. It's all put on the common server, so they know that we are doing our work..." (Jo Practice Interview 2015, p. 11)*

Whilst planning is a key component of the pedagogical work of the teacher, requiring knowledge of curriculum, theory and teaching approaches (Comber 2006), some of the reception teachers in this study considered the provision of their planning records as a means through which leaders made interpretations of their teaching capabilities. However, this study did not consider the perspectives of the leaders and thus only the interpretations of the reception teachers are available. However, this perception does provide support for Gonzalez et al.'s (2017) finding regarding the potential of leaders to lower TSE if teachers feel that their efforts are questioned or if leaders appear to have 'little faith in their ability' (p. 526). The reception teachers were able to discuss and describe their pedagogical documentation, which was consistent with their *moderate* to *high* self-report on the TSES, for this domain of their practice. Thus, analysis suggested it was not the reception teachers' engagement with this type of pedagogical work (Comber 2006) that they found challenging, but their agency to make decisions about their practice.

Leaders within the microsystem of the reception teachers' context were, therefore, seen to play a significant role in enabling or monitoring and regulating the participants' agency in their practice. For example, Mary, who was the director of the early years, enabled the agency of her staff by providing the social sources to *inspire* them and engaged in discursive work (Comber 2006) to include her colleagues in decision-making. Jo noted the importance of her leadership in *trusting* her and not *interfering,* providing her with agency to make pedagogical decisions (Comber 2006) within the microsystem of her classroom. Donna highlighted her coordinator in *encouraging* her to have agency in engaging creatively in the pedagogical work of planning (Comber 2006). Kate identified the *investment* of her principal in the early years, which had *given her time to do things.* The social sources were again raised as important to the TSE of Ellen who described having agency to seek out *feedback* and *ask questions* in engaging in the complex interpretive work (Comber 2006) of writing learning stories. However, leaders also regulated the agency of the reception teachers by *coming to meetings* and *making sure* the reception teachers were adhering to institutional practices (Comber 2006). The setting of *benchmarks* was also viewed as restricting the reception teachers' agency to engage in pedagogical practices, such as play, within the

microsystem of their classroom. The requirement to provide pedagogical documentation was viewed as a way for leaders to check the reception teachers were *doing their* work. Thus, the mesosystem interaction and relational work (Comber 2006) of the leaders ultimately determined what was permitted within the microsystem of the reception teaching context and what was not.

In extending the analysis of the relationship between TSE and practice, the examination of mesosystem interactions by leaders and colleagues was important in that it provided evidence not only of the social sources of TSE, as detailed in Chapter Six, but also the reception teachers' agency within their practice in the microsystem of the classroom. Therefore, analysis turned to examining the role of agency in the reception teachers' practice. Underpinning Social Cognitive Theory (Bandura 1997) and Ecological theory (Bronfenbrenner 1979; 2005) is the assumption that people are agentic and able to intentionally control future courses of actions and shape their social contexts (Bandura 1997; 2001). For the reception teachers in this study, the commonly reported significance of mesosystem interactions particularly with school leaders emerged as influencing their TSE and their degree of agency, which was important in shaping their daily teaching practice. Understandings of social constructions of agency (Priestley, Biesta & Robinson 2015) were considered in this study through the ecological factors the participants reported as influencing their practice (see Chapter Four, section 4.5.2, figure 4.6). Factors that supported or regulated the agency of the participants enabled the identification of contextual conditions that potentially influenced the TSE and practice of the reception teachers in the microsystem of their teaching context (Rubie-Davies, Flint & McDonald 2011; Woolfolk Hoy, Hoy & Davis 2009).

7.3.2 The relationship between TSE and practice through an agentic lens

Whilst various ecological factors were raised by the reception teachers as important considerations within their practice, the mesosystem influence of leaders played a significant role in the teachers' perception of their agency within their practice. Social Cognitive Theory (Bandura 1997) and Ecological Theory (Bronfenbrenner 1979; 2005) posit that the individual and the social system are not dualisms (Bandura 1997; 2001). Instead the person is considered an 'active agent in his or her own development' (Bronfenbrenner 2005, p. xviii). Thus, 'social structures are created by human activity, and sociocultural practices, in turn,

impose constraints and provide enabling resources and opportunity structures for personal development and functioning' (Bandura 1997, p. 15).

MacLellan (2016) has suggested that TSE is a central mechanism of agency which Bandura (1997) argues regulates the cognitive, affective, selective and motivational processes. These processes are represented by the self-reflective component of the attention and interpretive segment, as well as the secondary appraisals segment on the Integration of Efficacy Information model (Morris, Usher & Chen 2017). Within the Integration of Efficacy Information model, TSE is considered an outcome of self-reflection on information gained from the sources. Thus, drawing from the findings of this study, it is argued that agency enabled teachers to exercise a degree of autonomy and control over their practice which was potentially influenced by their TSE. Analysis of the reception teachers' self-reflections captured throughout this study suggested that, following the secondary appraisal of information, consideration must be given to the agency of the teacher.

The cross-case analysis in this study considered the initial insights provided by the TSES and information gained through the qualitative analysis of the semi-structured interviews, observation of practice through video elicitation and participant reflections. Whilst the TSES suggested the participants had *moderate* to *high* TSE, with some incremental differences in the three domains of the TSES − student engagement, instructional strategies and classroom management (Tschannen-Moran & Woolfolk Hoy 2001) − the qualitative analysis suggested that the TSE of the participants was not always in alignment with their self-reported scores on the quantitative scale. Furthermore, the source profiles suggested that the significance of and relationship between the sources had a differentiated influence on the TSE and practice of the reception teachers. In extending the analysis to examine more closely the relationship between TSE and practice, the interrelated constructs of agency and TSE were made visible.

In examining the role of agency in exploring the relationship between TSE and practice, analysis initially coded for Bandura's (1997; 2008) categories of agency: personal, proxy and collective. Analysis revealed that the reception teachers utilised all three forms of agency in different ways and for varying purposes, which was related to their TSE. In alignment with Goller and Harteis' (2017) literature review on human agency within the workplace, aspects of practice for which the reception teachers had a lower sense of TSE, such as mesosystem interactions with parents or implementing specific teaching practices, saw them utilising their

personal agency to *avoid* or *conform*. Higher levels of TSE saw the reception teachers utilising their personal agency to plan courses of action to bring about desired outcomes (Bandura 1997; Goller & Harteis 2017), described here as *pushing-back* against potentially constraining factors.

Analysis also revealed that the conditions provided by the microsystem of the collaborative teaching context of the participants enabled not only the social sources of TSE, as discussed in Chapter Six, but also collective and proxy agency within their practice. The participants all used the collective noun *'we'* when describing their practice, which suggests that the reception teachers viewed themselves as part of a collective group:

> *"...each term **we** will pick our main learning areas so this term **we** decided it would be geography... So, **we** pick a learning area as our focus and then everything else will then stem off there..." (Anna Practice Interview 2015, p. 3)*

Relationships within the mesosystem of the collective group were important in considering how the participants' agency influenced their practice, supporting recent research that has begun to demonstrate the positive influence of collective efficacy on student achievement (Goddard, Goddard, Kim & Miller 2015; Sun, Loeb & Grissom 2017; Versland & Erickson 2017). Through collective agency, the participants in this study were able to align their practice with their beliefs and knowledge and were motivated to continue to develop their practice and overcome challenges (Bandura 1997; 2001). The use of *we* also suggests a form of proxy agency, whereby the participants' colleagues indirectly exerted influence on the reception teacher's practice. The participants used *we* even when their colleagues were not co-teaching with them or even present, suggesting that their colleagues' influence extended into their independent practice within the microsystem of their classroom. The use of *we* also suggests the significance of the social sources, with verbal persuasion and vicarious experience provided by colleagues potentially having a sustained influence on the TSE and practice of the participants.

As previously discussed, the TSES indicated the *moderate* to *high* TSE of the participants across the three domains of student engagement, instructional strategies and classroom management. However, the qualitative analysis did not always support the participants' self-reported scores on the scale. For example, Ellen reported having *moderate-high* TSE for

student engagement, however she described throughout the qualitative interviews, having low TSE for engaging in interpretive work (Comber 2006) regarding children's mathematical understandings in their play, which she connected to her own personal history of *not being a great mathematician*. Conversely, Jo scored a *moderate* 6 for TSE in assisting families, however through the qualitative interview, she identified multiple ways in which she engaged in relational work (Comber 2006), which suggested that her TSE for this specific area of practice may have been higher. Therefore, drawing together the data from the TSES and the qualitative analysis suggested a relationship between specific domains of TSE and agency, with higher TSE associated with the participants *pushing back* against ecological factors that had the potential to restrict their practice, and lower TSE associated with *conforming* or *avoiding* ecological influences. However, agency and the sources of TSE enabled the reception teachers in this study to be resilient to potential ecological factors that challenged their practice (Bandura 1997; 2001). The following sections present the evidence in relation to the role of agency in the relationship between TSE and practice.

7.3.2.1 Pushing-back

As discussed in Chapter Three, section 3.3.2, previous research has suggested that macrosystem factors influence the agency of teachers, including restricting curriculum and imposing high stakes testing mandates (Gerde et al. 2018; Gonzalez et al. 2017). However, the analysis in this study also found that the reception teachers *pushed-back* against such macrosystem influences. Pushing back was evidenced amongst those participants who have been identified as more efficacious and/or whose TSE was significantly influenced by the social sources.

As evidenced within Chapters Five and Six, Mary's mastery experience, from her prior experience in the preschool context and her personalised knowledge and beliefs (Borg 2003) within her practice, provided her with a high sense of TSE. As the leader of the early years at the Water's Edge, Mary was in a position of power to engage in institutional work (Comber 2006) and shape the ideologies and decision-making within the Water's Edge school (Berger 2005; Grunig 1992; Grunig & Grunig 1989). Mary exercised her personal agency to bring about collective agency to actively *push-back* against the perception she had of the academic push-down (Cherrington 2018; Press & Hayes 2000) or the 'schoolification' (Gonzalez et al. 2017) of the early years. Through both forms of agency and her high TSE, Mary influenced

changes within the school context in alignment with her prior experience, knowledge and beliefs. Despite this, Mary experienced challenges in implementing macrosystem educational philosophies including play-based and inquiry focused pedagogies within the school context:

> *"...it's taken a while to feel - to get the culture of school and I know that I back against it and in a lot of areas and then agonise it... I feel like we're looked on a bit differently and that we're some sort of a threat almost. And I want to break down those – that sort of barrier. I'm more and more determined… but schools are very interesting, and they have a lot of sacred cows..." (Mary Practice Interview 2015, p. 15)*

Like Mary, Anna exercised personal agency in advocating within her context for a play-based approach to her practice:

> *"...play is so important...it was something that I guess Emma and I really had pushed for..." (Anna TSE Interview 2015, p. 7)*

Whilst Anna reported her TSE to be slightly lower than that of Mary, the social sources played an important role in enabling Anna to utilise collective agency to *push for* practice that she believed was important:

> *"...Knowledge, confidence as well with their [colleagues] support and just having that dialogue between teachers...I think it's just so important so being able to talk to someone and share your ideas and listen to theirs as well as well as [mentor], who has been a big support…" (Anna TSE Interview 2015, p. 8)*

Anna's mentor and her colleague, Emma, provided the most significant sources of her TSE: vicarious experience and verbal persuasion. However, her mentor and colleague also provided her with collective agency to engage in interpretive work (Comber 2006) to consider and adjust her pedagogies. When factors, such as a perception of academic push-down, challenged Anna and Emma's agency, collectively they navigated these factors:

> *"...whilst other things are working really well in terms of our pedagogy...one area that I find-it's a struggle - 'they're not on this reading level', well I then take that, 'that's my fault', 'that's our fault' and I take it personally. Anna says I shouldn't... it is an external*

pressure...from parents and from leadership...Anna and I rely on each other a lot. (Emma Practice Interview 2015, pp. 18-19)

Whilst Emma scored her TSE on the TSES as *moderate* to *high*, the qualitative analysis suggested that her TSE was lower for different aspects of her practice such as relational work (Comber 2006) with parents. However, collective agency and the social sources supported Emma to *push-back* against mesosystem pressures from interactions with parents and leaders.

For the participants of this study, the social sources and agency were important in them *pushing-back* against factors that were undesirable in their practice, such as the pushing-down of academic expectations. As argued in Chapter Six, the collaborative microsystem of the participants' classroom seemingly enabled the social sources of TSE. In extending this to agency, the collaborative nature of the participants' environments may also have been a contributing factor in how they exercised their agency within their practice.

7.3.2.2 Conforming

Due to participants' perception of their agency, ecological factors that challenged their TSE and their practice were not always able to be negated in the microsystem of their classroom. At such times, the participants *conformed* to the expectations within their context. Conforming within their contexts was found to be a way for the participants to manage stressors such as uncertain employment conditions, and in turn their wellbeing (Bandura 1997; 2001; Pyhälto, Pietarinen & Soini 2015).

For Jo, the macrosystem influence of her uncertain employment conditions was a significant source of her TSE and agency within the microsystem of her teaching context. Jo's source profile was shown in Chapter Six to be *AfVi*, as analysis revealed the affective and vicarious experience sources to be significant to her TSE. The uncertainty of her employment influenced her affective states:

"Professionally I would love permanency; I would love to know what I'm doing for the next five/ten years because the uncertainty is really worrying...you just want to belong to somewhere and I feel as if I do here. Knowing where I belong, that would be a lovely thing and I would love to belong here. It's very hard to sort of entrench yourself somewhere when you know that you're not permanent..." (Jo Life-History Interview 2015, pp. 10-11)

Jo's affective response in longing for a permanent position that would provide her with employment security was reinforced by the vicarious experience source as she had observed a colleague leave, enacting their personal agency to *not conform* to the challenges of the microsystem:

> "*...the lady next to me was very old school.....I got on very well with her and she was really kind to me but she resigned at the end of that year...I think she certainly would've preferred not to have resigned but she'd sort of put herself in that spot, 'well if you're going this way I'm not staying'. 'Okay, well we're going this way'...the situation changes, or you change... I've always tried to move with whatever is going, whatever school I go into..." (Jo Practice Interview 2015, p. 5)*

Jo, through the vicarious source, exercised her personal agency to *conform* rather than *push-back* against factors infringing on her practice in the microsystem:

> *"...if I was permanent I probably would. I don't make waves...." (Jo Practice Interview 2015, p. 14)*

Jo described making decisions to not question the use of curriculum documents in her pedagogical work (Comber 2006), such as the Early Years Learning Framework (DEEWR 2009)*: '...mainly because they (leadership) don't want us to...' (Jo Practice Interview 2015, p. 14)* or engage in outdoor play experiences with the children: '*...I actually had a door going, leaving outside to this little area and I was never allowed to use it' (Jo Practice Interview 2015, p. 15)*. The macrosystem influence of Jo's uncertain employment conditions was a significant factor in her agency to *conform* to the institutional practices (Comber 2006) within the school context. Jo's *AfVi* source profile and her uncertain employment conditions together influenced her TSE and agency within the microsystem of her teaching context.

Like Jo, Jean reported moderate to high TSE and her source profile (*VeVi)* evidenced the vicarious source as significant to her TSE. As discussed in Chapter Six, the leadership within Jean's site was influential in providing the social sources, particularly feedback in relation to the interpretive practice (Comber 2006) of her planning documentation as well as her pedagogical practice (Comber 2006) in engaging in curriculum and instructional strategies. Leaders required Jean to justify her practice and provided her with regular evaluative

feedback through weekly meetings and an annual formal performance process. Whilst evaluative feedback is thought to provide a valuable source of verbal persuasion (Bandura 1997; Morris, Usher & Chen 2017), findings from Yada et al.'s (2019) cross-cultural study of Japanese and Finnish primary school teachers found that feedback provided exclusively by leaders may also have a negative influence on TSE.

However, for Jean, leaders within the microsystem of the school context were highly influential in determining all aspects of practice:

> *"...our management decided that this is a nice visual way for parents to see what we're doing...on school tours it was another nice way for people to see this is what we do, which at the time, it was a good idea, but now with the way that we actually do it, it's actually more of a hindrance than a benefit, but we have to do it..."(Jean TSE Interview 2015, p. 13)*

Jean's quote above exemplifies how leaders influenced her institutional work (Comber 2006) and her agency to determine the practices within the microsystem of the classroom. In describing the mesosystem influence of leaders, her almost exclusive use of *we* suggests that collective agency was important in negotiating ecological factors within her context. This interpretation was supported by Jean's description of the use of collective agency in negotiating with the leadership within her context:

> *"...we really had to fight for it [play]. We had a lot of discussions even before we started to implement it [play] where we had to prove why it was valuable and why it was important...it was literally a round table discussion...we were literally fired questions at and we had to be able to answer them straight off the top..." (Jean TSE Interview 2015, p. 16)*

In instances where Jean felt under pressure from her leadership to conform, the collective efficacy of her colleagues was important in navigating the pressures. Collective efficacy and agency enabled Jean's TSE to develop, as the TSE of the collegial group worked to produce desired results (Bandura 1993; Goddard & Goddard 2001; Goddard, Hoy & Woolfolk Hoy 2004), *pushing back* against challenging factors. However, given the significant role of the leadership at the Shire School in determining Jean and her colleague's practice, sustaining pedagogical change in the absence of consideration to TSE and agency (Pyhälto, Pietarinen & Soini 2015) may be challenging in the long-term in some instances.

7.3.2.3 Avoiding

In exercising personal agency, some participants also chose to avoid factors that presented a challenge to their TSE and practice. The assumption that the participants had generally *moderate* to *high* TSE across all domains as suggested by the TSES did not explain why the participants chose to intentionally avoid aspects of their practice. The qualitative analysis revealed that the participants tended to avoid tasks for which they perceived they had low TSE, such as the pedagogical work of planning or implementation of alternative pedagogical approaches (Comber 2006).

Ellen's TSE for aspects of domain-specific practice, such as questioning as part of her pedagogical practice (Comber 2006), was self-reported as moderate on the TSES, but was evidenced as low within the qualitative interview data:

> *"...What did I see? My questioning again, I think needed work. Just because I realise now, I haven't actually told them that full-stops and question marks are called punctuation...I had no idea what I was talking about." (Ellen TSE Interview 2015, p. 12)*

Ellen used social comparison to make judgements about her capabilities and tended to avoid aspects of practice she considered too challenging for her to implement within her practice:

> "*...I think if I'm not comfortable with something that maybe Kate's done, that I don't feel that I'm strong in I might not follow through with that..." (Ellen TSE Interview 2015, p. 32)*

Emerging from the analysis was Ellen's sense of agency regarding her practice, highlighted by using the phrase *you have to* in her description of utilising an inquiry approach to practice:

> "*...coming into the Water's Edge you have to do a lot more of the inquiry and then questioning..." (Ellen TSE Interview 2015, p. 30)*

The mesosystem influence of Ellen's colleagues extended to the microsystem of her classroom where through a form of proxy agency, her colleagues had an indirect influence on her personal agency (Bandura 1997; 2008). Within the Water's Edge timetable, Ellen had two opportunities, a literacy and a numeracy time, to independently implement her practice with the microsystem of her classroom Ellen tended to use the term *we* to describe her

practice, suggesting the significant influence of the collective group on her practice, even when they were not present:

> "*... receptions, they have to stay and do bookmaking. Whereas kindergarten children have a choice. We expect more I think from the receptions. Yeah. I think it's not really an age thing, but I think the level that they're at they are – and moving into Year 1 the year after – They are absolutely expected...They have to do that then as well...it's preparing them...*" *(Ellen TSE Interview 2015, p. 16)*

Analysis also indicated times when Donna avoided aspects of pedagogical and interpretive practice (Comber 2006), for example planning documentation, for which she had a low sense of TSE:

> *"...Documentation [planning]. Yes, it's something that doesn't come naturally. I don't enjoy it...I don't feel that I need to do it. Yeah, I'm just not super organised. I don't know...it's a bit of a waste of time because I know my kids- so it's sort of 'why do I need to write it down when I actually know them?'...I should do it for record keeping for my job, but yeah it's really something, I really have to make myself do. It's not part of my normal practice..." (Donna TSE Interview 2015, p. 3)*

However, the social sources provided by the microsystem of the collaborative teaching environment enabled Donna to complete the planning requirements of her work:

> *"...I like working with Jo...because planning is not my passion...we do our planning together..." (Donna Practice Interview 2015, p. 18)*

For Kate, the microsystem of the collaborative teaching context of the Water's Edge was not evidenced as significant in enabling the social sources of her TSE. Kate's mastery experience from her previous work in childcare and her own life experiences, was revealed as a significant source of her TSE. Kate also tended to seek out *experts* as mentors and the verbal persuasion provided by the *expert others* was important to her TSE. Kate's practice interview initially evidenced avoidance of people who had the potential to challenge her thinking, instead engaging in a form of mastery experience, preferring to read in private:

> *"...I read a lot so I wouldn't say there's one specific person that I looked to with it. I feel really confident about it...I'm not really running ideas by other people..." (Kate Practice Interview 2015, p. 13)*

However, Kate's later response in her TSE interview suggested that she was avoiding asking questions and engaging in dialogue or discursive work (Comber 2006) that may challenge her TSE and thinking about her practice:

> *"I'm spending more time asking questions...I was kind of going through a phase where I was feeling a little bit like I didn't want to ask any questions, and now I'm asking questions and the conversations are getting deeper and deeper.. I seem to have no problems saying what I think, but when it comes to actually admitting I don't know everything and asking a question that's where I- I think it was more me trying to work things out in my own mind first...." (Kate TSE Interview 2015, p. 16)*

Kate's quote above also provides evidence for the malleability of TSE over time. Over the ten-month period, Kate's TSE for seeking out feedback through questioning changed. At the beginning of data collection, she reported feeling *reluctant* to ask questions, however, over the course of the year, Kate's TSE for this aspect of her practice appeared to increase. Thus, her agency in choosing to avoid aspects of practice, may also have provided protection for her TSE enabling it to develop over time, supporting Bandura's (2001) assertion that agency enables 'people to play a part in their self-development, adaptation, and self-renewal' (p. 2).

7.4 The significance of Ecological Factors, Agency and Leaders in TSE and Teaching Practice: Re-Visiting the Conceptual Framework

Morris, Usher and Chen's (2017) Integration and Evaluation of Efficacy Information model provided the foundation of the conceptual framework for this study. Morris, Usher and Chen's model was informed by Social Cognitive Theory (Bandura 1997) and the Triadic Reciprocal Causation model (Bandura 1997). However, Ecological Theory provided a lens through which to explore the E segment or teaching context of the Triadic Reciprocal Causation model (Bandura 1997). The Bioecological Systems model (Bronfenbrenner 1979; 2005) enabled the exploration of the multiple systems that directly and indirectly affect the TSE and practice of the teacher. Together these theories and models have provided an important framework to address the research questions of this study.

Chapter Five explored the chronosystem influence of the life-histories of the reception teachers, which was added to the Integration and Evaluation of Efficacy Information model (Morris, Usher & Chen 2017):

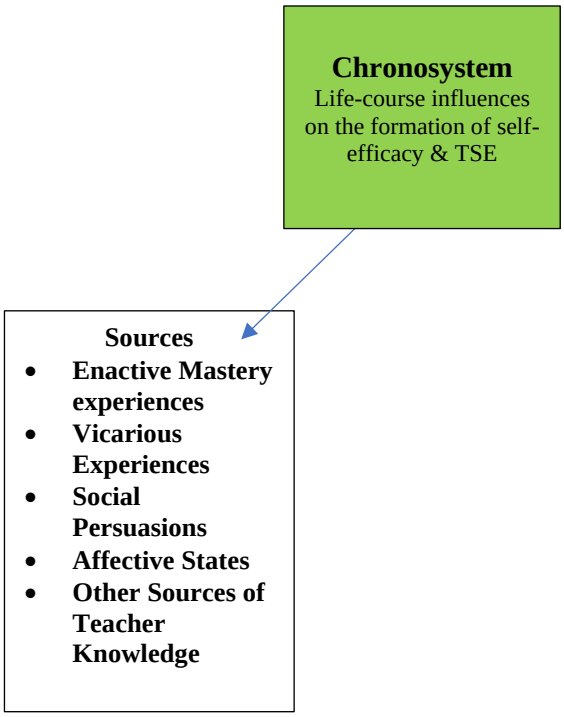


Figure 7.1 Adaptation of the Integration and Evaluation of Efficacy Information Model: Chronosystem influences (Morris, Usher & Chen 2017)

Analysis revealed the personal experiences, critical moments and turning points in the participants' lives were significant in shaping their TSE beliefs. Whilst previous research has examined the TSE beliefs of preservice teachers as well as in-service teachers, the retrospective exploration of the reception teachers' life provided significant information about how their TSE beliefs may have formed. Thus, applying an ecological lens evidenced the chronosystem life-experiences of the reception teacher, prior to them beginning their career, as potentially a form of mastery experience. This is significant to TSE research as not all the beliefs the reception teachers had about their capabilities were positive. For example, Jean's experience in the domain of mathematics, as a primary school student, resulted in her having low self-efficacy for this curriculum area. Jean brought this with her into her career as a reception teacher and she maintained a low TSE for mathematics, which suggests, in alignment with Bandura's (1997) conceptualisation of self-efficacy, that TSE beliefs are resistant to change

Ecological influences, including chronosystem influences, regarding the malleability of TSE are therefore an important consideration, especially given continual changes within macrosystem early childhood educational policies and frameworks such as the Australian government's current focus on the literacy and numeracy standards of pre-service teachers (AITSL 2009). However, whilst collectively the reception teachers' life-experiences were considered a form of mastery experience, each of these experiences were shaped by different sources. For example, Donna consistently described herself as *dumb* in high school, which influenced her use of *positive affirmations* as a form of verbal persuasion to support the children in her class to feel positive about themselves as learners. Thus, the analysis of the qualitative data enabled the exploration of the potential formation of the participants' TSE beliefs through the examination of ecological influences across their life-course within the chronosystem, revealing the emergence of the sources of TSE.

Chapter Six extended the exploration of the sources of TSE, with analysis revealing the presence of all four sources of TSE – mastery experience, vicarious experience, verbal persuasion and affective states – with limited evidence to illustrate alternative sources such as cognitive mastery (Bautista 2011; Bautista & Boone 2017; Palmer 2006; 2011; Phan & Locke 2016). However, the analysis highlighted the significance of and relationship between the sources to develop source profiles for the participants, revealing the important role of the social sources and mesosystem interactions in the reception teachers' TSE and practice. The social sources and the microsystem and mesosystem interactions of the classroom and school context were thus highlighted within the Integration and Evaluation of Efficacy Information model (Morris, Usher & Chen 2017):

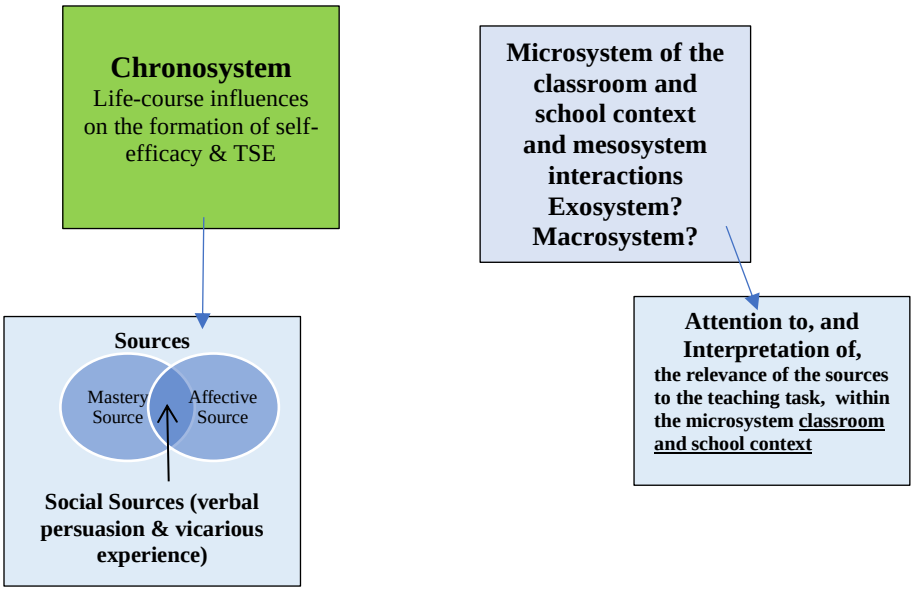


Figure 7.2 Adaptation of the Integration and Evaluation of Efficacy Information Model: Social Sources and Ecological Systems (Morris, Usher & Chen 2017)

The more indirect exosystem factors were not as prominent in the teacher responses, whch in part may be due to the lines of questioning, however, may also be an area for further exploration within TSE research. However, the collaborative microsystem of the reception teachers' context was proposed as an enabling environment for social sources and mesosystem influences. Thus, in considering how to potentially change TSE beliefs which have developed throughout the life-course, this study has evidenced the significant role of the ecology of the teaching environment. The teaching context therefore needs to be carefully considered to provide the enabling conditions for reception teachers to positively develop their TSE beliefs.

Chapter Seven extended the analysis of the sources to examine other sources of teacher knowledge provided by factors within the various ecologies of the reception teacher. Analysis revealed supportive and challenging factors across all systems, however challenging factors both directly and indirectly impacted on the TSE and practice of the reception teacher within the microsystem of the classroom and school context. Insights regarding the practice of the reception teachers utilising Comber's (2006) five types of work – pedagogical, interpretive, relational, discursive and institutional, were evidenced within the qualitative analysis of the participants' interview data. The relationship between the TSE and practice of the reception teachers was considered through the self-reported quantitative scores from the TSES and qualitative analysis of the interview data. Whilst the TSES provided some

information about the TSE of the reception teachers, the qualitative analysis enabled thick and rich interpretations (Merriam et al. 2001) of the relationship between the participants' TSE beliefs and practice. In exploring this relationship, the role of leaders was found to be an important mesosystem influence in the reception teachers' practice as leaders mediated ecological factors and regulated the agency of the reception teachers. The participants were evidenced to exercise personal, collective and proxy agency to push-back, conform and avoid factors that influenced their TSE and practice. Agency was therefore an important consideration, together with TSE and ecological factors, in understanding why the participants pushed-back, conformed or avoided aspects of their practice. Whilst the participants all reported *moderate* to *high* TSE on the TSES, the qualitative analysis revealed that the participants' perception of their agency was critical in how they navigated factors within their practice. Ecological factors and agency have therefore been added to the Integration and Evaluation of Efficacy Information model (Morris, Usher & Chen 2017):

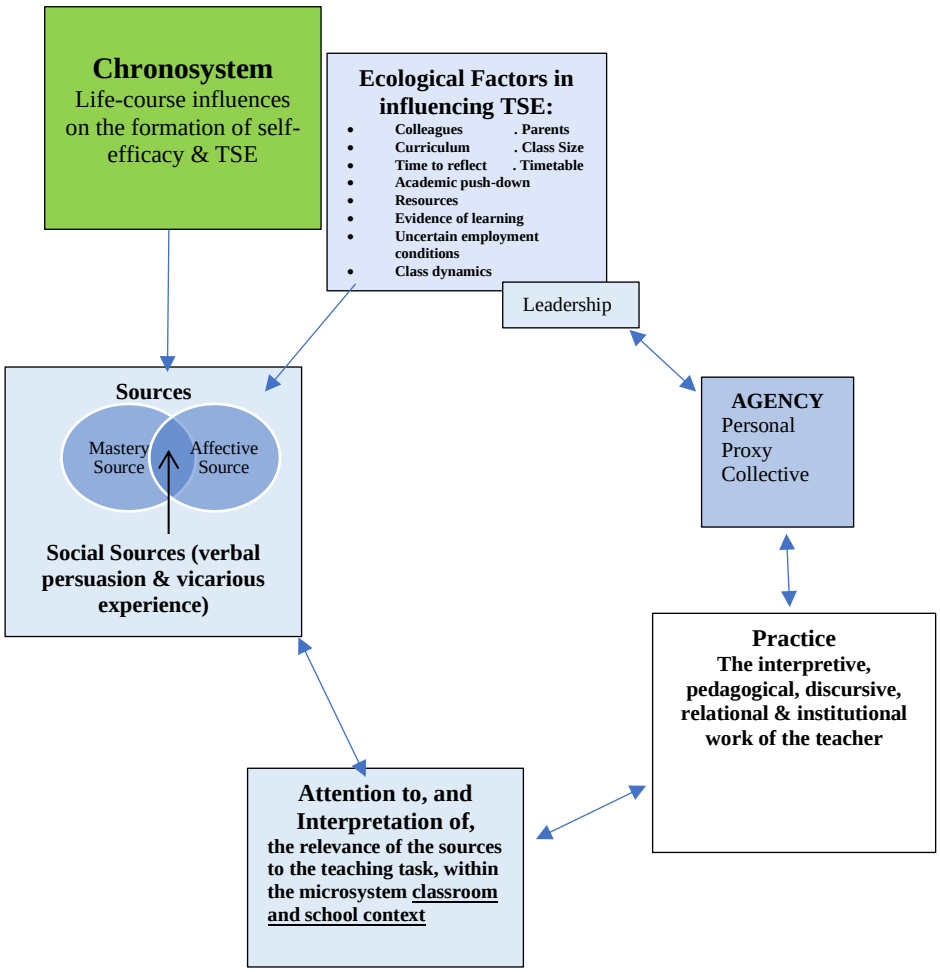


Figure 7.3 Adaptation of the Integration and Evaluation of Efficacy Information Model: Ecological Factors and Agency (Morris, Usher & Chen 2017)

As discussed in Chapter Three, previous models, such as Tschannen-Moran, Woolfolk Hoy and Hoy's (1998) Multidimensional Model of Teacher Efficacy, Wyatt's (2016) Growth in Language Teachers' Self-Efficacy Beliefs and Morris, Usher and Chen's (2017) Integration and Evaluation of Efficacy Information model, have not explicitly depicted agency within the process of TSE development. Agency remained implicit within these models, perhaps due to the premise of Social Cognitive Theory (Bandura 1997) being an agentic theory of the self. The Integration and Evaluation of Efficacy Information model (Morris, Usher & Chen 2017) proposed TSE as an outcome of secondary appraisals of information gained from the sources; however the analysis in this study suggests that following the secondary appraisal of information, consideration must also be given to the degree of agency of the teacher to be able to enact quality teaching practice within the classroom. The inclusion of agency on the Integration and Evaluation of Efficacy Information model (Morris, Usher & Chen 2017) highlights the complex and integrated relationship of TSE, secondary appraisals, agency, and practice, furthering understandings of the ecological factors that may support and empower teachers in continuing to develop their TSE. Thus, the Integration and Evaluation of Efficacy Information model (Morris, Usher & Chen 2017) was adapted to include the role of leadership, agency and ecological factors, as shown in Figure 7.4.

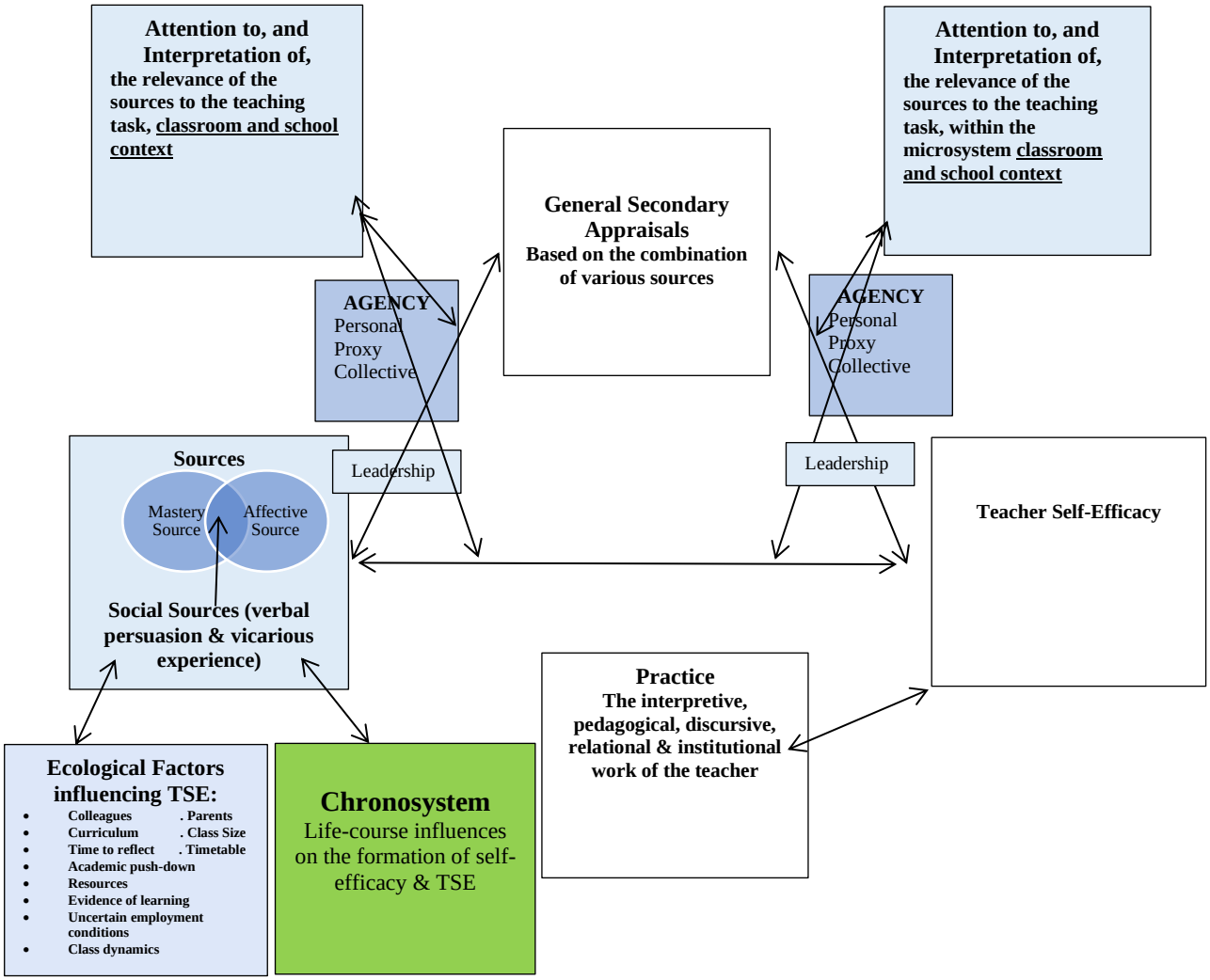


Figure 7.4 Adaptation of the Integration and Evaluation of Efficacy Information Model (Morris, Usher & Chen 2017)

Analysis of factors across the ecological systems suggests that these factors act as other forms of teacher knowledge and thus as sources of TSE. Further analysis also suggests the significant role educational leaders play in mediating ecological factors and enabling the development of a positive and collaborative teaching environment. Such enabling conditions have the potential to positively influence the TSE beliefs of teachers who enter the profession with somewhat fixed views on their TSE beliefs, which have been shaped by their life-experiences prior to them beginning their career. Providing an enabling environment for the positive development of TSE is essential given the purported influence of TSE on teachers' practice and children's learning and wellbeing (Anderson, Greene & Loewen 1988; Bandura 1997; Guo et al. 2010; Guo et al. 2011; Justice et al. 2008; Midley, Feldlaufer & Eccles 1989;

Ross 1992; Tschannen-Moran & Woolfolk Hoy 2001; Tschannen-Moran, Woolfolk Hoy & Hoy 1998).

7.5 Conclusion

Chapter Seven provided a cross-case analysis to address the final research question: the relationship between TSE and practice. Utilising an ecological lens, the analysis provided a further synthesis of the relationship provided by Chapters Five and Six of the pedagogical, interpretive, relational, discursive and institutional work (Comber 2006) of the reception teacher. The analysis revealed factors across ecological systems as challenging for the reception teachers, although leaders within the school context played a significant role in mediating these factors, functioning as an important mesosystem influence. However, through these mesosystem interactions and relationships with leaders, the reception teachers also made interpretations of their agency to enact practices within the microsystem of their classroom. Agency and TSE were evidenced to be interrelated and influenced whether the reception teachers pushed-back, conformed or avoided aspects of practice. Thus, ecological factors were viewed as potentially another source of teacher knowledge. The role of agency and source information, which included ecological information, was evidenced to be important to the TSE and practice of the reception teachers and was added to Morris, Usher and Chen's (2017) Integration and Evaluation of Efficacy Information model.

Chapter Eight: Discussion and Conclusion – *An Enabling Ecology for Teacher Self-Efficac*y, provides a critical discussion of the findings of this study. Specifically, the discussion will respond to the research aim: to explore the TSE of eight reception teachers in South Australia and the relationship between their TSE and practice and will address the research questions. Significant implications of this study, as well as opportunities for further contributing to the TSE research field, will be explored in relation to the key findings raised throughout Chapters Five, Six and Seven.

Chapter 8: Discussion and Conclusion: An Enabling Ecology for Teacher Self-Efficacy

In bringing this study to a close, I thought it appropriate to end as I had begun, with a reflection on my research journey. I deliberately positioned myself as a partial insider (Merriam et al. 2001; Chavez 2008) within the research as I brought to the interpretations of this study my own experiences as a reception teacher and school leader. Within the opening of Chapter Five, I referred to the experiences of the teacher as a virtual backpack (Thomson 2002) which was unpacked within their practice. As a partial insider, I was able to develop trusting relationships with the reception teachers whereby they afforded me the privilege of looking inside their backpacks, to make sense of the ecological influences that had shaped their TSE and practice.

The structure of the research process was backward in design, looking to the participants' past to understand their present. Each stage enabled me to create a deeper understanding and more holistic picture of the participants' TSE and practice. As a non-participant observer (Cohen, Manion & Morrison 2007) within the microsystem of the classroom, I recognised the familiar and complex practice of the reception teacher which Comber (2006) defined as interpretive, pedagogical, discursive, relational and institutional work. Throughout the four-phase research process, over a ten-month period, I critically examined the reception teachers' TSE and practice. The importance of TSE in balancing the demands of the reception teachers' work became increasingly evident. The beliefs that the teachers held, in relation to their 'abilities to support learning in various task and context-specific cognitive, metacognitive, affective and social ways' (Wyatt 2010, p. 603), were at the core of their work and supported them to navigate the various complexities.

The voices of the eight reception teachers enabled me to develop significant insights about their TSE and how it related to their practice in supporting young children to successfully transition to school: academically and personally. The relationships and interactions across the ecology of the reception teacher were key to understanding the unique knowledge and skills each teacher brought to their practice. This was fundamental to understanding their TSE and the influence of their TSE on their practice. The following chapter provides a synthesis of the findings of this study, contribution to the field of TSE research, and implications and opportunities for the transferability (Guba & Lincoln 2005; Lincoln & Guba 1985) of the findings to other contexts.

8.1 Introduction

This study aimed to explore the TSE beliefs of eight reception teachers in South Australia and the relationship between their TSE beliefs and practice. Previous TSE research demonstrated consistent correlations between TSE, teaching practice and student achievement (Anderson, Greene & Loewen 1988; Guo et al. 2010; Guo et al. 2011; Justice et al. 2008; Midley, Feldlaufer & Eccles 1989; Ross 1992). TSE has been shown to influence the implementation of a variety of teaching strategies (Cantrell & Callaway 2008; Garvis & Pendergast 2011; Morris-Rothschild & Brassard 2006; Wolters & Daugherty 2007), including developmentally appropriate practices (Cobanoglu, Capa-Aydin & Yildirim 2019; Gerde et al. 2018; McMullen 1999), instituting high levels of planning (Chestnut & Burley 2015; Jerald 2007; Muijs & Reynolds 2002;) and developing sound subject knowledge (Bautista & Boone 2017; Cantrell, Young & Moore 2003; Garvis & Pendergast 2011; Garvis & Tekin 2016; Muijs & Reynolds 2002). However, TSE research has been commonly generalised to global scores of TSE within the predominant application of quantitative research designs (Morris, Usher & Chen 2017; Wheatley 2005). Limited TSE studies have utilised a qualitative approach to examine TSE (Bong 2006; Chang & Engelhard Jr 2016; Chen & Usher 2013; Klassen et al. 2011; Morris, Usher & Chen 2017; Wheatley 2005; Wyatt 2012), with very few focusing on the TSE of early childhood teachers in the first year of primary school (Bullock, Coplan & Bosacki 2015; Guo et al. 2011; Kim & Kim 2010; Klassen et al. 2011) in the Australian context (eds Garvis & Pendergast 2016). In applying a qualitative interpretive multiple case study research design, this study captured the voice of eight reception teachers over a ten-month period. The research design aimed to support the TSE research field in gaining deeper understandings of the TSE beliefs of reception teachers, the sources of their TSE beliefs and relationship to practice.

The methodology and subsequent analysis of this study was underpinned by Social Cognitive Theory (Bandura 1997) and Ecological Theory (Bronfenbrenner 1979; 2005), through the conceptual framework of the adapted Integration and Evaluation of Efficacy Information model (Morris, Usher & Chen 2017). Chapters Five, Six and Seven addressed the research questions (see section 8.2), through the analysis of the TSE beliefs of the reception teachers, the sources of their beliefs and relationship to practice.

Chapter Five revealed the influence of ecological time-related factors, including chronosystem life experiences and critical moments, on the formation of the participants' TSE beliefs as they interacted with different systems across their life-course. These experiences collectively were considered a form of mastery experience which the reception teachers carried with them into their careers. Through deep analysis, these personal and professional experiences were shown to be significant in shaping TSE, with emerging evidence that these beliefs were informed by all four sources of self-efficacy: vicarious experience, verbal persuasion, affective states and mastery experience (Bandura 1997). Chapter Six therefore, extended this analysis to examine more critically the four sources of TSE.

The development of individual source profiles emerged from the analysis in Chapter Six, which revealed not only the presence of all four sources, but also the significance and relationship between the sources. The source profiles, contrary to previous research reporting mastery experiences as the predominant source of TSE beliefs (Bandura 1997; Morris, Usher & Chen 2017; Phan & Locke 2016; Tschannen-Moran & Woolfolk Hoy 2007; Weaver Shearn 2008; Woolfolk Hoy & Burke-Spero 2005), suggested the significant role of the social sources of verbal persuasion and vicarious experience in the TSE development of the reception teachers and in their practice. Examination of the sources suggested that both the microsystem of the reception teaching context and mesosystem interactions were important in providing the enabling conditions for the social sources to exert influence on the participants' TSE and practice. This was particularly important amidst the reception teachers' reports of increased focus on quality teaching, accountability, performativity and standardised macrosystem early childhood educational policy requirements, consistent with the critical examination of the literature in Chapter Three. Whilst Chapters Five and Six provided some initial insights into the practice of the reception teachers through the examination of chronosystem influences and the sources of TSE, Chapter Seven deepened understandings of the complex interplay of TSE beliefs and practice through the explicit examination of the ecology of the reception teacher.

Analysis of factors across the micro, meso, exo, macro and chrono systems were evidenced, in Chapter Seven, to influence the participants' TSE beliefs and practice, and these factors were suggested as potential sources of teacher knowledge and, in turn, TSE. Whilst the TSES showed the reception teachers to have *moderate* to *high* TSE, the qualitative analysis

identified that their TSE beliefs were not always in alignment with this quantitative scale. Thus, practice was further examined utilising Comber's (2006) notions of interpretive, pedagogical, discursive, relational and institutional work, extending the domains of the TSES, and providing in-depth understandings of the relationship between the participants' domain-specific TSE and practice. Emerging from the analysis was evidence supporting MacLellan's (2016) view of TSE as a central mechanism of agency, reflected in the reception teachers' descriptions of agency in pushing-back, conforming or avoiding practices for which they perceived they had lower TSE, in specific domains. Thus, TSE and agency were evidenced as significant interrelated constructs which influenced the way in which many participants navigated ecological factors in undertaking their practice as a reception teacher. However, leaders were viewed by the reception teachers as having the potential to mitigate challenging ecological factors and thus to enable or challenge their TSE development and practice within the classroom microsystem.

In bringing this study to a close, Chapter Eight provides a critical discussion and synthesis of the key interpretations of this study and implications for future TSE research and opportunities for the educational field, particularly early childhood policy and practice. The chapter begins by re-visiting the research questions, presenting the interpretations of the key findings from Chapters Five to Seven. A critical discussion follows, presenting the implications of the study and recommendations for the TSE research field in relation to reception teachers' practice. This section concludes with the presentation and rationale for the emergence of the *Ecological Framework for Teacher Self-Efficacy Development* which arose from the analysis of this study. Next, reflections on the methodology are presented to highlight the affordances of advancing qualitative methodology within the predominantly quantitative TSE research field. In particular, the four-phase interpretive multiple case study enabled the voice of the reception teacher to be interpreted, thus extending critical understandings of the relationship between the TSE beliefs and practice of the reception teachers. The chapter concludes by presenting a summary of the meaning, significance and relevance of the findings of this study, as well as proposed opportunities for future TSE research and implications for teaching practice. In considering TSE as a pre and co-requisite to reception teachers' quality teaching practice, the current research posits the opportunity to further benefit the learning and wellbeing of children, who are at the heart of the work and responsibilities of the reception teacher.

8.2 Addressing the Research Questions

The qualitative interpretive multiple case study design enabled thick and rich interpretations of the TSE and practice of the reception teachers (Merriam et al. 2001). Diverse forms of data collection methods were utilised and included a series of three semi-structured interviews (life-history, practice and TSE); observation of classroom practice; video elicitation using play-back and think-aloud strategies; participant reflection and completion of the TSES (short form). The sophisticated methodology of the study was informed by Social Cognitive Theory (Bandura 1997) and Ecological Theory (Bronfenbrenner 1979; 2005). At the core of these theories were the Triadic Reciprocal Causation model (Bandura 1997) and the Bioecological Systems model (Bronfenbrenner 1979; 2005). Together these theories and models informed the examination of the reception teachers' TSE and practice, through the formation of the conceptual framework, which drew upon Morris, Usher and Chen's (2017) Integration and Evaluation of Efficacy Information model.

As outlined in Chapter One, the Triadic Reciprocal Causation model (Bandura 1997) consisted of three interrelated segments; personal (P), behaviour (B) and environment (E). The P segment enabled the examination of the TSE of the reception teachers, the B segment, their practice and the E segment their teaching context. Ecological Theory and the Bioecological Systems model (Bronfenbrenner 1979; 2005) extended Morris, Usher and Chen's (2017) framework, providing a lens to explore the E segment of the Triadic Reciprocal Causation model (Bandura 1997), across various ecological systems. This addition was important to the Integration and Evaluation of Efficacy Information model (Morris, Usher & Chen 2017), in exploring the possibility of other sources of teacher knowledge in shaping the TSE and practice of the reception teachers.

The research questions of this study aimed to explore the TSE beliefs and practice of eight South Australian reception teachers by examining three key questions:

a) What are the TSE beliefs of reception teachers?
b) What sources influence the TSE beliefs of reception teachers?
c) What is the relationship between the TSE beliefs of reception teachers and their practice?

Chapters Five, Six and Seven presented the data analysis in relation to these questions. Chapter Five, *Teacher Self-Efficacy: Examining Reception Teachers' Past to Understand their Present*, addressed research questions (a) and (b), analysing phase one and four of the research process: the life-history and practice interviews. This chapter presented each participant individually to understand the ecological influences, particularly chronosystem factors, through adopting a life-history lens, to explore how the reception teachers' TSE beliefs formed and shaped their practice. Chapter Six, *Exploring the Sources of Teacher Self-Efficacy*, extended the analysis by focusing on phases two and four of the research process and understandings of research questions (a) and (b). This chapter examined similarities and differences amongst the participants by creating source profiles drawing on the information about what influenced their TSE within their practice. Chapter Seven, *The Relationship between Teacher Self-Efficacy and Practice*, provided a cross-case analysis of the participants, examining the information gained throughout the four research phases. This chapter provided credibility (Guba & Lincoln 2005; Howell Major & Savin-Baden 2010) to the analysis, revealing commonalities and differences amongst factors that influenced the participants' TSE and practice. The following sections provide a summary of the interpretations from the analysis presented throughout the findings chapters in responding to the research questions.

8.2.1 What were the TSE beliefs of the reception teachers?

In identifying the TSE beliefs of the reception teachers, quantitative data gathered through the TSES and qualitative data from three semi-structured interviews, including video elicitation using play-back and think aloud strategies, were critically examined. Whilst the TSES provided initial insights into participants' TSE, the qualitative analysis provided greater specificity and insight. That is, the qualitative analysis revealed the reception teachers' reasoning behind their scoring of the TSES as well as specific 'beliefs in their abilities to support children's learning in various task and context-specific ways' (Wyatt 2010, p. 603). Fundamental to Wyatt's (2010) definition was the emphasis on the participants' perceptions of their abilities. Therefore, utilising Wyatt's (2010) definition of TSE to underpin this study signifies the importance of examining the TSE construct as an expectancy belief, rather than a measure of actual capability.

Thus, analysis considered the participants' descriptions of their capabilities, specifically what they could or couldn't do, in alignment with Bandura's (1997) conceptualisation of self-efficacy as an expectancy belief. Interpretations of the qualitative data enabled the researcher to consider the similarities and variance between the reception teachers' scoring of the TSES and their description of their TSE throughout phases one to four of the research process. The findings demonstrate that participants' TSES scoring and descriptions of their TSE did not always align, with analysis revealing that at times the participants' under or over inflated their scoring of the TSES. Therefore, whilst the TSES did not reveal any great variation in the reception teachers' TSE (reported as *moderate* to *high*), similar to Gonzalez et al.'s (2017) earlier study on the influence of high stakes testing on TSE, the qualitative semi-structured interviews of this study generated a greater depth of understanding about the participants' specific TSE beliefs. In particular, further insights were gained into the formation and development of the specific TSE beliefs of the reception teachers, thus strengthening callings from the TSE research field to diversify traditional quantitative research methodologies with the inclusion of qualitative methodologies (Glackin & Hohenstein 2018; Wheatley 2005; Wyatt 2010).

Indications of the TSE beliefs of the participants emerged from the analysis of all three semi-structured interviews, enabling deeper understandings of their TSE to develop throughout the research process. Within the life-history interview the participants revealed deeply held beliefs about their capabilities, which were shaped by ecological influences including chronosystem factors arising from their own life experiences. The practice interview that followed enabled further information about the specificity of the participants' TSE beliefs to emerge and iterative analysis throughout the research process facilitated the addition of follow-up questions to be added to the final TSE interview to add credibility (Guba & Lincoln 2005; Lincoln & Guba 1985) to the researcher's interpretations of the data.

The TSE beliefs of the reception teachers were analysed in relation to the three general domains of the TSES – instructional strategies, classroom management and student engagement – and the emotional domain from Zee and Koomen's (2016) Heuristic model. To add greater specificity, further analysis considered the participants' TSE beliefs in relation to Comber's (2006) conceptualisation of practice through five types of work: interpretive, pedagogical, discursive, relational and institutional work. In the context of this study, Comber's (2006) definition of practice was applied as it incorporated all four of the domains.

In particular, relational work was important to the affective and interpersonal quality of teaching within Zee and Koomen's (2016) emotional domain, while pedagogical work included domains of instructional strategies and student engagement from the TSES. The domain of classroom management was encapsulated by the interpretive and institutional work of the reception teachers as they made decisions about their practice in maximising children's learning. Discursive work considered 'the use of language in the moment to moment interactions within the classroom' (Comber 2006, p. 62). This type of work was limited within the TSES. The methodology of this study, in looking outside of traditional methodologies of TSE research, provided opportunity to enrich the knowledge that currently exists within the TSE research field and to provide greater specificity to what is known about the TSE beliefs of reception teachers.

8.2.1.1 TSE beliefs: interpretive work

The participants' TSE beliefs in relation to their interpretive work concerned the analytical and diagnostic work undertaken in making decisions about children's learning (Comber 2006). This study, through both the practice and the TSE interviews, considered how the participants observed and evaluated children's learning and engaged in planning to document further teaching and learning experiences. Through the qualitative interview data the majority of the participants reported their TSE for interpretive work as *high*. This was similarly reflected by high scoring (between 7 and 9) on the TSES for questions relating to interpretive work in the domain of instructional strategies and specifically teachers' questioning, assessment strategies and adjusting teaching to suit learner needs.

However, two participants, Ellen and Donna, who scored *moderate* to *high* on the TSES for the domain of instructional strategies, indicated through the semi-structured interviews that their TSE in relation to this aspect of practice was slightly lower. For example, Ellen noted that *finding the learning* in children's play was challenging. This was significant as Ellen's context implemented a predominantly child-directed play-based approach to teaching and learning, with only two teacher-guided sessions throughout the day for literacy and numeracy. Therefore, it was problematic that Ellen found the interpretive work of analysing and evaluating children's learning in play to be challenging, as this type of work is fundamental to reception teachers' practice (Arthur et al. 2018; Page & Tayler 2016).

Similarly, Donna described planning as a practice that *doesn't come naturally* and she relied on Jo, her teaching partner, to undertake much of the documentation required by her context, utilising collective efficacy to address this issue. Thus, although she scored 6 on the TSES for interpretive types of work, the qualitative analysis reflected a lower sense of TSE in this area. Despite the lower TSE indicated in their interviews, both participants recognised the importance of interpretive work to their practice and found ways to manage their TSE and practice, by utilising the social sources and collective efficacy of colleagues, which will be discussed again in section 8.3.2.

8.2.1.2 TSE beliefs: pedagogical work

TSE for pedagogical work was considered as beliefs regarding knowledge of curriculum, theoretical underpinnings and teaching strategies (Alexander 2004; 2008; Comber 2006; Moyles ed. 2010). The participants confidently described their TSE for pedagogical work throughout the semi-structured interviews. However, the TSES data suggested, in contradiction to the qualitative data, that the participants had a slightly lower TSE for pedagogical work than other aspects of practice. Instructional strategies on the TSES recorded scores in the *moderate* range (5 and 6) for a total of four questions, across four of the participants. Ellen and Anna scored in the *moderate* range, 5 and 6 respectively, for crafting good questions, whilst Donna scored 6 for both utilising a variety of assessment strategies and providing alternative explanations. Jo also scored a 6 for providing alternative explanations. The classroom management domain had only two scores in the *moderate* range, with the remainder in the *high* range. Anna and Emma both scored a 6 in relation to supporting children to follow the classroom rules and calming a child who was disruptive and noisy, respectively. Student engagement had three participants score in the *moderate* range for assisting families. Jean scored a 5 for this question and Jo and Emma a 6.

The qualitative analysis evidenced differences in the participants' reporting of their TSE for pedagogical practice, which was connected to ecological influences from the reception teachers' life-history experiences. For example, four of the participants – Jean, Donna, Ellen and Mary – discussed their childhood experiences with mathematics and made connection to their pedagogical work in teaching mathematics as reception teachers. Jean recalled having low self-efficacy for mathematics in primary school, which was associated with her perception of not being helped by her year five teacher. Whilst Jean's desire to *help* children,

motivated her to become a teacher so that children were not *stuck in the same situation that she was in,* her low self-efficacy for mathematics also influenced how she viewed her pedagogical practice for mathematics. As Jean watched the video play-back of her observed mathematics lesson, she described her pedagogical practice as *pretty basic* and she justified her low self-efficacy for mathematics as her choice to teach reception, perhaps limiting her career for teaching other year levels. Whilst Mary recalled feeling that her primary school mathematics experiences in the US, had not prepared her for high school mathematics in Australia and she *dropped* mathematics as soon as she could, this low self-efficacy did not seem to have the same effect on her TSE for teaching mathematics as it did for Jean. Mary described having high TSE for providing engaging mathematical learning experiences through play, finding alternative strategies to teach mathematics. As a late-career-stage teacher, Mary had developed mastery experiences to develop her TSE for this domain of pedagogical practice. Donna also recalled having low self-efficacy for mathematics in high school, which made her feel *dumb,* and she reported her globally low self-efficacy as a high school student as *affecting her teaching.* Whilst Donna's scoring on the TSES for instructional strategies was *moderate,* she scored the lowest score out of all the participants in this domain (26 out of a possible 36). Throughout the qualitative interview data Donna consistently described herself as a *fake* and feared someone would find out that she *couldn't actually teach,* which related to her own schooling experiences. Finally, Ellen also had a general sense of not being a *good mathematician,* which was shaped by her life-experiences and which she carried forward into her career. Ellen found it challenging to *find the maths* in children's play and to document children's learning and plan subsequent learning experiences. The influence of these life-experiences and chronosystem influences will be discussed again in relation to the malleability of TSE beliefs in section 8.3.1.

8.2.1.3 TSE beliefs: discursive work

Discursive work specifically examined the participants' TSE beliefs in relation to their use of language in their interactions within the microsystem of the teaching context. This type of work was not explicit within the TSES and only questions five and ten required respondents to consider their use of language in their interactions with children, specifically in relation to the questions they asked and the explanations they provided. Ellen scored a 5 for questioning and Anna scored 6, all other participants scored between 7 and 9. Donna scored a 6 for providing explanations and all other responses were between 7 and 9. Whilst the TSES

scoring provided limited insight into the reception teachers' discursive work, the scoring of the TSES suggests the participants had a *moderate* to *high* TSE for this type of work. Within the context of early childhood education, discursive practice is considered core to teachers' work in their interactions with children, colleagues, leaders and parents/carers, through mesosystem interactions (Cherrington 2018; Kilderry 2015; Leggett & Ford 2013; Rinaldi 2013; Scottish Executive Education Department 2001; Siraj-Blatchford 2009).

Therefore, discursive work in the qualitative interview data was examined from the perspective of managing feedback, a form of verbal persuasion (Bandura 1997). Feedback was perceived by the reception teachers as both reaffirming and positive, as well as challenging. For example, Jo described her principal telling her *you're so good with that child* and *you've done amazing things* stating that this feedback *reaffirmed something that you're [she was] good at*. Kate was more discerning in how she considered feedback, stating *you've really got to choose whose opinion you're going to take on board.* Whilst Bandura (1997) conceptualised the source of verbal persuasion as evaluative messages that provides the individual with information about their capabilities, the participants described needing both supportive and evaluative messages. Mesosystem relationships enabled the reception teachers to work collaboratively with others and seek out feedback informally to *bounce off ideas*; however more evaluative type feedback was difficult to manage and had the potential to lower the participants' TSE. Donna for example stated *sometimes you only hear the negative*. Thus, the participants' TSE for discursive work in relation to feedback was not able to be compared against the TSES data as the TSES and the qualitative analysis examined different forms of discursive work. This may therefore be an area for further TSE research. In examining the qualitative data in relation to discursive work that specifically involved feedback, analysis suggested that feedback needs to consider both supportive and evaluative messages and ways to enable reception teachers to receive both.

8.2.1.4 TSE beliefs: relational work

Relational work was a significant part of the reception teachers' practice as they engaged in mesosystem interactions with children, parents/carers and their communities. On the TSES, this involved elements of all domains, given that relational work is considered central to the work of the teacher (Page & Tayler 2016). However, questioning within the domain of student engagement on the TSES encapsulated many of the mesosystem relationships and

interactions required of relational work. Moderate scoring of 5 and 6 was reported by three participants in response to working with families. All other responses ranged between 7 and 9, suggesting again that most of the participants had *high* TSE for this aspect of relational practice. For Jean, who reported a 5 for working with families on the TSES, the qualitative analysis revealed that developing strategies for working with parents had been the focus of her professional learning, which emerged out of the annual professional review process at her site. Such a focus had the potential to positively influence her TSE through the provision of professional development and coaching (Von Suchodoletz et al. 2018). However, given that the focus emerged out of a process driven by the leaders within her site, this may have had a detrimental influence on her TSE, as reported by Yada et al.'s (2019) study in relation to the role of leaders in providing feedback.

In the case of Emma, she reported a 6 on the TSES, which was higher than the qualitative analysis of the interview data suggested. Emma described being highly influenced by the affective source and consistently feeling *really anxious* in engaging in conversations with parents and working with children who had English as an additional language. She described being *sensitive* to parents/carers, children, leaders and colleagues which *worried* her. Within the practice interview the affective response in engaging in relational work with parents was noted physiologically through her gesturing a twisting of her stomach. Therefore, whilst relational work is viewed as central to the work of the reception teacher in supporting the transition of young children and their families/carers to school, not all teachers in this study had high TSE for this aspect of practice. It is therefore argued that the social sources of vicarious experience and verbal persuasion, and the collective efficacy that these sources enable, are important in supporting reception teachers to engage confidently in relational work. For example, Emma described feeling less anxious and more confident when she undertook parent/teacher interviews alongside her colleague Anna. Thus, consideration of the organisation of the microsystem of the reception classroom is important in facilitating the relational work of the teacher.

8.2.1.5 TSE beliefs: institutional work

TSE beliefs regarding the reception teachers' engagement in institutional work related to the 'routines, resources, physical facilities and organisational practices' (Comber 2006, p. 63) within the microsystem of the reception teaching context. The TSES addressed this aspect of

the reception teachers' work through questions relating to classroom management systems. Anna was the only participant to score a 6 for this aspect of practice, all other scores were between 7 and 9. Again, this suggests the participants had a *moderate* to *high* TSE for this domain of practice. Anna's score of 6 reflected her pedagogical beliefs in viewing children as *competent* and her role in *giving children responsibility* in managing their behaviour.

The qualitative analysis considered the institutional work of the teacher to involve organisation of the learning environment, establishing routines and providing resources for learning, which were viewed as influenced by factors across the ecological system. Mary described in detail her TSE for resisting the *academic push-down* that she perceived as filtering into the microsystem of the classroom. Mary described the perceived *academic push-down* as *dangerous* and her resolve to *back against* it. Whilst the participants reported having high TSE for creating engaging learning experiences through pedagogical practices such as play, inquiry and integrated learning, their TSE was shaped by other ecological factors such as the open-planned microsystem of the classroom, co-teaching arrangements and chronosystem influences such as the timetable. Thus, ecological factors were important considerations in shaping the TSE beliefs of the reception teachers.

8.2.1.6 The value of qualitative analysis in adding depth and meaning to understanding the TSE beliefs of reception teachers

As demonstrated throughout this section, the qualitative analysis was significant in providing nuanced understandings of the TSE beliefs of the reception teachers in this study, adding greater depth to the quantitative TSES data. The TSES provided a snapshot of the participants TSE at a particular moment in time. However, the participants' beliefs about their abilities to support children's learning in task and context specific ways (Wyatt 2010) were complex, and it was analysis of the qualitative data that revealed their beliefs in relation to their practice, utilising Comber's (2006) notions of teachers' work. The TSES suggested that the participants' TSE was *moderate* to *high* across the three domains of instructional strategies, classroom management and student engagement. However, analysis of the qualitative data did not always support the participants' scoring of the TSES and revealed specific beliefs that the reception teachers held regarding their capabilities in relation to their interpretive, pedagogical, discursive, relational and institutional work.

The qualitative analysis revealed that in relation to interpretive work, Donna and Ellen had lower TSE for this aspect of their work. Nuanced understandings of pedagogical work, particularly in relation to the teaching of mathematics, noted lower TSE beliefs for participants Jean, Donna, Ellen and Mary. The TSES provided limited information regarding discursive work and thus qualitative analysis considered the types of feedback that the participants reported receiving and its influence on their TSE. Qualitative analysis indicated that the participants received both supportive and evaluative feedback. Whilst evaluative feedback was quite challenging for the participants to manage, both supportive and evaluative types of feedback were needed to inform their TSE and practice. Relational work was scored as relatively high on the TSE, but again qualitative analysis revealed TSE for this aspect of practice to be lower in participants Emma and Jean. For Emma this was highly linked to her life-history and difficulties with anxiety and depression, with the affective source particularly important to her TSE. Jean's TSE for this area of practice was unclear as she had engaged in professional development in working with parents, however she scored her TSE for this area of practice lower than other aspects of her practice. It was suggested that this may have been because the impetus for her professional development came from leadership. However, as there was no baseline scoring of her TSE before and after her professional development, it was difficult to really ascertain the reason for her scoring. The TSES considered institutional work through consideration of classroom management and therefore scoring for this type of work was taken as suggestive of the participants' TSE as institutional work beyond the microsystem of the classroom was not included within the scale. The qualitative analysis was therefore important in considering ecological factors that filtered into the work of the reception teachers' microsystem, which was described by Mary as *academic push-down.*

Whilst the analysis of the participants' TSE beliefs in relation to their practice found similarities and differences, a further focus of this study was examining where and how these beliefs formed and continued to develop. Thus qualitative analysis specifically considered the sources of participants' TSE in addressing the second research question.

8.2.2 What sources influenced the TSE beliefs of reception teachers?

In addressing research question (b), analysis turned to specifically examine the sources of information the reception teachers attended to, interpreted and appraised (Morris, Usher & Chen 2017) in informing their TSE beliefs. This study considered the attention,

interpretation and appraisal of information to be a self-reflective process that enabled the reception teachers to make sense of their experiences and engage in self-evaluation (Bandura 2001). The self-reflective process was therefore important in understanding the significance of the sources for individual reception teachers, as well as the relationship between the sources.

8.2.2.1 TSE belief formation across the life-course

Analysis specifically coded for Bandura's (1997) four sources of TSE – mastery experience, vicarious experience, verbal persuasion, and affective states. However, analysis also remained open to the possibility of other sources of TSE. Therefore, analysis considered information gained through the chronosystem influence of the reception teachers' life-experiences prior to them beginning their career, as a form of mastery experience. This finding was important given TSE research has typically investigated the formation of TSE at the preservice and early career teacher stage (Tschannen-Moran & Woolfolk Hoy 2001; Tschannen-Moran, Woolfolk Hoy & Hoy 1998; Von Suchodoletz et al. 2018) and limited research has examined TSE beliefs forming across the life-course (George, Richardson & Watt 2018; Watt & Richardson 2010; Zee & Koomen 2016). In further applying an ecological lens to this study, factors across the various systems were evidenced to be influential in shaping the TSE beliefs of the reception teachers. These factors, it has been argued, provide 'other' sources of teacher knowledge (Morris, Usher & Chen 2017), noted within the Integration and Evaluation of Efficacy Information model (Morris, Usher & Chen 2017). Thus, utilising both Social Cognitive Theory (Bandura 1997) and Ecological Theory (Bronfenbrenner 1979; 2005) deepened understandings of the TSE beliefs of the reception teachers and the sources of their beliefs.

8.2.2.2 Source profiles

The life-experiences of the reception teacher were considered collectively as providing a form of mastery experience which the reception teachers carried forward into their careers. Evidence also suggested that these life-experiences were shaped by all four sources of self-efficacy. Analysis therefore critically examined the four sources and whether they influenced the eight reception teachers' self-efficacy in their practice within the microsystem of the classroom and school context. Whilst analysis illustrated the presence, significance and influence of the four sources of TSE, it also led to the identification of five source profiles

(*VeVi, Ma, Af, AfVe* and *AfVi*). The source profiles enabled a critical analysis of the significance and relationship between the sources and the unique differentiated influence of the sources on each reception teacher's practice. Whilst some participants shared the same source profile, the influence of the sources on each participant's TSE and practice was unique to each participant. Why this was so, was explored through the ecological time related factors within the chronosystem of the participants' lives, as well as interactions across ecological systems linked to the formation of their TSE beliefs. Whilst collectively, these experiences were considered mastery experiences, they were shaped by all sources, with the source profiles highlighting the significance of the social sources in shaping both TSE beliefs and practice.

8.2.2.3 The influence of the social sources on TSE

Whilst mastery experience has been well purported as the most influential source of TSE (Bandura 1997; Klassen & Usher 2010; Morris, Usher & Chen 2017; Tschannen-Moran & Woolfolk Hoy 2001; Weaver Shearn 2008; Woolfolk Hoy & Burke-Spero 2005), all participants in this study evidenced the social sources as highly significant. The social sources of verbal persuasion and vicarious experience, provided by colleagues and leaders within the school context, were thus found to play a significant role in the TSE of the reception teachers and in their practice. Verbal persuasion in the form of feedback was viewed as both positive and challenging and the participants reported supportive and evaluative feedback as important to their TSE and practice. For example, the leadership in Jean's context required that she justify her practice, and collectively with her colleagues she was able to *fight* for the pedagogical practice of play. Arguably the requirement for Jean to engage in dialogue with her colleagues and leadership, to explain and defend her practice, may have also supported the growth of her TSE for this aspect of practice.

Feedback was also reported to be *hard* for the participants. Donna reported perceiving feedback as seeking out and asking for *help* which might then have been perceived by her colleagues and leadership as her *missing something* and being discovered as a *fake.* However, feedback provided by a mentor was perceived positively in being important to the participants' practice. Anna, for example reported the potential of a mentor in *opening her eyes* to other ways of working, whilst Kate reported mentors as important in noticing and *complimenting* her on her pedagogical work.

In addition to leaders, colleagues provided important sources of vicarious experience through the process of social comparison. Colleagues in the open-planned teaching environment of the microsystem of the reception classroom provided a constant model for practice. Whilst for the most part, the participants reported their working relationships as positive, there was also evidence that working in collaborative teaching environments was not always positive. Ellen, for example, compared herself to Kate, which caused her to doubt her TSE for several aspects of her practice. Ellen reported admiration for Kate, describing her ideas as *out of this world.* Viewing Kate in this way seemed to undermine her own TSE, with her choosing to *not follow through* on areas of practice that she was *not comfortable with.* Similarly, Jo observed Donna to be *innovative* with *great ideas,* while she viewed herself as *not a think outside the square type person,* reporting a low sense of TSE for creativity. The vicarious experience of observing the practice of colleagues or live models within the open-planned microsystem of the teaching context was therefore an important consideration in the TSE and practice of the participants.

In examining the microsystem of the reception classroom and school context, the collaborative teaching context was seen to enable the social sources to play a significant role in the participants' TSE. Within the context of this study, all but one participant worked within an open-planned classroom, supporting the claim regarding the increased prevalence of open-planned classrooms and the requirement for teachers to work together (Bacharach, Heck & Dahlberg 2010; Brinkman & Twiford 2012; Krammer et al. 2018). However, there is limited research regarding co-teaching (Bacharach, Heck & Dahlberg 2010; Krammer et al. 2018) therefore, further research is required regarding the role of the social sources in TSE development within an open-planned, collaborative teaching environment. Thus, in addressing the final research question, analysis turned to examine the ecology of the reception teacher.

8.2.3 What was the relationship between the TSE of reception teachers and their practice?

Research question (c) aimed to synthesise understandings from question (a), the TSE of the reception teachers, and question (b), the sources of their beliefs, to explore the relationship between TSE and practice. Question (c) was informed by two key definitions: Wyatt's (2010) definition of TSE and Comber's (2006) definition of practice. TSE referred to

teachers' 'beliefs in their abilities to support learning in various task and context-specific cognitive, metacognitive, affective and social ways' (Wyatt 2010, p. 603) and practice incorporated five types of work: interpretive, pedagogical, discursive, relational and institutional (Comber 2006). Synthesising these distinctive fields afforded close examination of the relationship between TSE and practice. The rationale was to highlight the complex work of the reception teacher and the potential of TSE in influencing practice. Cross-case analysis revealed similarities and differences amongst the participants in how they attended to, interpreted and appraised (Morris, Usher & Chen 2017) information that indirectly and directly influenced their TSE and practice. In examining the relationship between TSE and practice two key themes emerged from the analysis. The first was the reception teachers' engagement in the different aspects of their practice and the second was the role of leaders in regard to the reception teachers' agency.

8.2.3.1 Engagement in practice

Analysis revealed that the reception teachers engaged in interpretive, pedagogical, discursive, relational and institutional work as defined by Comber (2006), which was to a degree related to the TSES and the emotional domain of Zee and Koomen's (2016) Heuristic model. Practice was discussed in detail in section 8.2.1; however, to summarise, the participants' TSE beliefs for pedagogical practice included their beliefs in relation to play, child-led inquiry, integrated learning and directed teaching, along with co-teaching. Decision-making at the heart of interpretive practice concerned knowledge of interpreting children's learning in play and *trying things out* in practice, whilst making analytical and diagnostic choices about curriculum and theories of learning and documenting these in planning. Discursive work, whilst not well represented within the TSES, involved professional dialogue with colleagues, mentors and leadership. These mesosystem interactions required the reception teachers to manage feedback and afforded them the opportunity to *bounce off ideas.* Mesosystem relationships with colleagues, mentors, leaders, parents/carers and children were also central to the participants' relational work. Again, these relationships and interactions were not always easy to manage, and the participants' TSE was critical to them navigating this aspect of their practice. Reference to institutional work, similar to discursive work, was limited within the TSES and focused primarily within the microsystem of the classroom. Analysis of this study considered the participants' practice within a broader ecology and thus their institutional work was viewed through this lens. The institutional work therefore

considered ecological factors that influenced the routines, resources, facilities and organisational aspects of the learning environment, including chronosystem influences, such as the timetable and having time to reflect on practice. Factors across the ecological system were seen to influence the practice of the reception teachers, which will be discussed further throughout this section.

This study, however, did not seek to interpret the participants' practice as such, i.e. to make judgements about congruences or incongruences between their reporting of their practice and their actual practice. For example, all reception teachers described utilising play as pedagogy within their practice; however, it was observed by the researcher, that play was interpreted and enacted in different ways by the participants. The concern of this study was not in the researcher's interpretation or judgment regarding how the participants enacted their practice, but whether there was a relationship between the participants' self-reporting of their TSE and practice. For example, Jo reported that she felt she was not a *think outside the square type person,* describing her low TSE for *creativity.* However, observations of Jo's practice noted her ability to work through problems with children, manage multiple tasks and provide creative and engaging learning experiences for the children, such as a *tinkering table* for the children investigate the mechanical workings of various machines. Therefore, the researcher's interpretations of features of Jo's practice were not the focus, but Jo's own perception of them and the role her TSE played in how she reported her practice.

Both Social Cognitive Theory (Bandura 1997) and Ecological Theory (Bronfenbrenner 1979; 2005) view the individual as agentic. The environment is viewed as both influencing and being influenced by the individual, as individuals act with intention to bring about desired results (Bandura 1997). This study supported previous research, with higher TSE associated with the reception teachers pushing back (Goller & Harteis 2017) against some ecological factors such as policy, that they felt intruded on their practice within the microsystem of their classroom. For example, Mary highlighted the Department for Education's benchmarks for reception reading levels (DECD 2015). She questioned this practice stating, *I just think it's dangerous because it's going to make people think they've got to push-down and push-down.* Similarly, Emma reported reading benchmarks as *going against everything we're trying to do*. Policy relating to the constraints of timetables were also reported by the reception teachers as problematic. Anna reported feeling the need to *rush* and having to *find a balance* in *giving kids time* and having to *stop and change lessons.* Curriculum was also raised by

Donna as a potential constraining factor, with teachers having a *legal obligation to do the Australian Curriculum* and the challenge of designing learning experiences that were *fun and interesting.*

The EYLF document (DEEWR 2009) was utilised by only one of the four contexts of this study and none of them utilised the TfEL (DECS 2010) document. This finding has significant implications in regard to the pedagogical work of the reception teacher and where and how their pedagogical knowledge develops. Both the EYLF and TfEL documents are pedagogical documents and have the potential to greatly inform the reception teachers' pedagogical practice. Given the reception teachers of this study did not attend to these documents, consideration to the sources of their TSE and practice, as having the potential to positively bringing about changes to both, are all the more important.

A tendency to conform or avoid aspects of practice for which the participants reported having a lower sense of TSE was evidenced within participants' practice. However, in alignment with previous TSE research, the reception teachers engaged in collective agency to bring about changes within their contexts, which had the potential to increase their personal TSE (Goddard & Goddard 2001; Goddard, Hoy & Woolfolk Hoy 2000; 2004; Tschannen-Moran & Barr 2004). For example, Donna evidenced the requirement to engage in the interpretive and pedagogical work of documenting children's learning and subsequent planning as *challenging* and actively avoided this aspect of her practice, relying on Jo to undertake this responsibility. Jo, however, was highly influenced by the macrosystem influence of her uncertain employment conditions and actively chose to conform in regard to challenging aspects of her practice. For example, Jo described not wanting to *make waves* in her mesosystem relationships, particularly with leadership, as she found the *uncertainty* of her employment *really worrying.*

8.2.3.2 Role of leaders

Cross-case analysis suggested that the leaders within the reception teachers' school were important in supporting the TSE and practice of the participants within their classroom and school microsystems. Leaders, such as principals, deputy principals, directors and coordinators, were shown to inspire, define expectations, trust, provide feedback and support the reception teachers in their practice and in turn their TSE. For example, Mary, a leader

within the microsystem of the Water's Edge, viewed *challenging respectfully* and *building on* the expertise of her staff as critical to her role. Mary's staff and colleagues, Kate and Ellen reported an alignment in values with leaders as important and being approachable in seeking out feedback. Donna and Jo described their leaders as *trusting* them *to do their jobs* and allowing them agency to meet the pedagogical expectations within their context. These leadership practices provided further support for the significance of the social sources – verbal persuasion and vicarious experience – in providing important information for the TSE of the reception teachers. Thus, mesosystem relationships and interactions with leaders were viewed as important for ongoing TSE development.

However, leaders were also reported as regulating the agency of the reception teachers by implementing macrosystem policy requirements such as accountability practices, setting academic benchmarks and requirements for documentation. The use of benchmarks for reading, as discussed earlier, was reported by Emma and Mary as challenging and restricting their agency in engaging in pedagogical work that aligned with more play-based practices. The requirement to place planning documentation on shared drives de-privatised (Vescio, Ross & Adams 2008) the reception teachers' practice and was viewed as a form of surveillance by leaders. The attendance at regular planning meetings, reported by Jean, was also seen as way for leaders to regulate and ensure teachers conformed and *followed along with everybody else.*

In considering the formation and development of TSE, it was the role of educational leaders and the enabling sources of TSE, including the ecology of the reception teacher, that emerged as key ideas in addressing the research questions of this study. The following section provides a critical discussion and synthesis of these ideas and their contribution to the education field.

8.3 TSE and Enabling Ecological Factors

The analysis in response to the research questions was informed foremost by the definition of self-efficacy and, by extension, the definition of TSE. Bandura (1997) defined self-efficacy as the 'beliefs in one's capabilities to organise and execute courses of action required to produce given attainments' (p. 3). For the purpose of this thesis, Wyatt's (2010) definition of TSE was utilised, given the alignment with the tenet of self-efficacy as an expectancy belief

(Bandura 1997) and the specificity required in examining reception teachers' practice. Wyatt (2010) defined TSE as teachers' 'beliefs in their abilities to support learning in various task and context-specific cognitive, metacognitive, affective and social ways' (p. 603). Inherent to both Bandura's and Wyatt's definitions was the notion of 'beliefs', rather than measures of actual capability (Bandura 1989; 1997; 2001). TSE was thus conceptualised as a changeable or flexible construct. Furthermore, the domain specificity of self-efficacy and TSE suggested the potential for variance in TSE beliefs for different areas of practice and therefore the fluidity of beliefs within the TSE construct.

Capturing the malleability and specificity of TSE beliefs of reception teachers was complex and highlighted the limitations of exclusively utilising a quantitative scale in identifying the notion of teacher beliefs. The methodology of this study was therefore diverse in attempting to understand the TSE beliefs of the reception teacher, the sources of their beliefs and the relationship to practice. Analysis revealed the participants held self-efficacy beliefs about different aspects of their practice or pedagogical, interpretive, relational, discursive and institutional work. Whilst these beliefs were specific to the teachers of this study, the most notable aspect was the contribution of chronosystem influences reported through the participants' personal history and the critical moments and turning points in the formation of their beliefs. This aspect of the study was significant as Bandura (1997) has argued that self-efficacy, once established, is difficult to change. Evidence from this study provided some support for Bandura's (1997) argument, as the participants' beliefs were shaped by their life experiences and were deeply held and carried forward into their careers. However, evidence also suggested that the reception teachers' beliefs, although remaining shaped by their personal life-experiences, did change throughout their professional history. Thus, the notion of beliefs as a fluid concept in relation to personal capabilities was clear in the findings of this study and constitutes a potential area for further TSE research.

The formation of TSE beliefs over the life-course has received limited attention within the TSE field (George, Richardson & Watt 2018; Watt & Richardson 2010; Zee & Koomen 2016). However, considering the development of TSE through this lens has raised significant implications for the field regarding the potential changeability or malleability of TSE. The malleability of self-efficacy and TSE has long been the subject of debate amongst researchers, related to how self-efficacy and TSE has been conceptualised and measured (Bandura 1997; Peura, Aro, Viholainen, Räikkönen, Usher, Sorvo & Aro 2019). However,

more studies are needed to explore the malleability of TSE over time (George, Richardson & Watt 2018; Klassen et al. 2011) including capturing the developmental patterns of TSE (George, Richardson & Watt 2018; Von Suchodoletz et al. 2018).

The positioning of the researcher as a partial insider (Chavez 2008; Merriam et al. 2001), within the context of this study, provided a triangulated perspective regarding the importance of considering TSE as a changeable construct. As a former reception teacher, school leader and now university lecturer, the malleability of TSE is of significant importance in addressing evidence of low self-efficacy among preservice teachers as they enter their initial teacher education (ITE). It has been contested (Merton 1948) that if young people enter their ITE with established low self-efficacy beliefs for curriculum areas such as mathematics, similar to reports from Ellen, Jean, Donna and Mary, then these beliefs need to be changed, so that they do not become a self-fulling prophecy. In other words, their beliefs and expectancies for pedagogical and content knowledge, shaped by their life-experiences, are not carried forward into their careers, weakening their belief 'in their abilities to support learning in various task and context-specific cognitive, metacognitive, affective and social ways' (Wyatt 2010, p. 603). Once into their careers, leaders play a significant role, through mesosystem interactions and relationships, in continuing to support reception teachers to develop, or sustain higher levels of TSE. Reception teachers, through the construct of agency, also have a role to play in creating enabling conditions to develop their own TSE beliefs. Given that previous TSE research has evidenced teachers with high TSE to have a positive influence on children's learning outcomes (Anderson, Greene & Loewen 1988; Guo et al. 2010; Guo et al. 2011; Justice et al. 2008; Midley, Feldlaufer & Eccles 1989; Ross 1992), whether TSE is a changeable or malleable construct is therefore, an area for continued research in achieving positive learning outcomes for all children.

Understanding how to positively change TSE continues to be a key focus of TSE research (George, Richardson & Watt 2018; Morris, Usher & Chen 2017; Wyatt 2015). The capacity to change TSE – its malleability – is arguably a concern for policy makers, ITE providers, school leaders and teachers themselves. In the current Australian educational policy-scape, the Alice Springs (Mparntwe) Education Declaration (Education Services Australia 2019) outlined the educational goal for 'young Australians to become confident and creative individuals' (p. 4), implying that self-efficacy is important to learning and contributing to society. Indeed, studies have evidenced a significant association between TSE and children's

self-efficacy and achievement (Ainley & Carstens 2018; Klassen et al. 2009; Klassen & Tze 2014). In relation to young children transitioning to primary school, the Alice Springs (Mparntwe) Declaration again makes implicit reference to the relationship between self-efficacy and learning, stating, 'having a positive and successful start to school gives children the confidence and motivation they need for continued learning success' (Education Services Australia 2019, p. 13). The role of reception teachers in facilitating children's transition to school is significant in providing continuity (Bingham & Whitebread 2012; Rinaldi 2013), supporting children's learning (Arthur et al. 2018; eds Shonkoff & Phillips 2000; Shonkoff, Boyce & McEwen 2009) and supporting children's wellbeing (Barnett & Frede 2010; Conti & Heckman 2013; Jones, Greenberg & Crowley 2015). Thus, the need to consider the construct of self-efficacy is critical if the goals of the Alice Springs (Mparntwe) Declaration are to be realised.

The following provides a synthesis of the notion of TSE as a changeable construct and the enabling ecological factors that this study suggests as important to the continued development of the TSE of reception teachers, and in turn their practice. The key ideas that emerged from the analysis in this study relate to: the ecological influences in the formation of TSE beliefs, issues regarding the design of the microsystem of the reception classroom, and the importance of leaders in the continued development of TSE. Each of these ideas are critiqued in relation to TSE research and the field of education, and the section concludes by proposing an *Ecological Framework for Teacher Self-Efficacy Development* that situates the formation and continued development of TSE within an enabling ecological system.

8.3.1 The significance of ecological influences in the formation of TSE

This study considers the ecology of the reception teacher to be broader than the current educational landscape in which they are working. It includes ecological time related factors within the chronosystem of teachers' lives, as well as interactions across ecological systems in the formation of their TSE, extending the E segment of the Triadic Reciprocal Causation model (Bandura 1997). The participants in this study looked backwards, forwards, inward and outward (Connelly & Clandinin 1999) to present a temporal understanding of their lived experience, which provided a filter through which their professional knowledge was constructed (Hammersley 2005).

The elicitation of the participants' life-histories as part of the methodology of this study was, therefore, important in understanding the reception teachers' stories within the context of their personal and professional lives or situated place (Connelly & Clandinin 1999). In exploring the ecology of the reception teacher in the formation of their TSE beliefs, three key concepts emerged. The first concept related explicitly to the formation of TSE from self-efficacy. Self-efficacy was evidenced to develop first, which shaped the subsequent TSE beliefs of the reception teacher. Thus, the second concept supported the positioning of the individual as part of an interrelated ecological system, illustrated by the Bioecological Systems model (Bronfenbrenner 1979; 2005). This positioning highlights the importance of developing positive self-efficacy beliefs of children, as these beliefs have the potential to be carried forward into individual lives and careers. The third related concept highlighted the seemingly spiralling nature of TSE development, and strengthened the purported relationship between TSE and self-efficacy and in turn with the learning outcomes and wellbeing of children. These key concepts are illustrated in Figure 8.1.

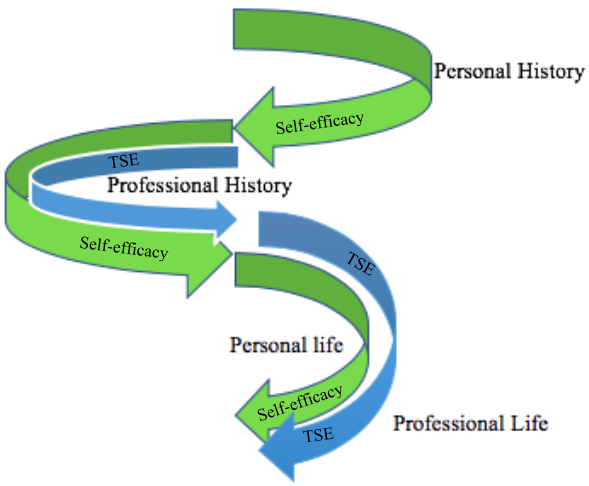


Figure 8.1 Formation and Development of TSE

In exploring the idea that self-efficacy develops first and is influential in shaping the TSE beliefs of teachers, this study drew upon the life-histories of the participants. These personal histories were found to be influential in examining their TSE: how their beliefs were formed and continued to develop over their professional life-course. Analysis revealed that the reception teachers held deeply rooted perspectives about their TSE and these perspectives were formed within their personal histories. Previous research regarding lived experiences has found that professional and personal landscapes operate in unison (Downey, Schaefer &

Clandinin 2014), providing support for Bandura's (1997) assertion that people operate within an interdependent societal system, illustrated by the Bioecological Systems model (Bronfenbrenner 1979; 2005). In extending this idea to the findings of this study, the retrospective examination of the personal landscape of the participants revealed the ecological influences in the formation of their TSE.

The potential relationship between TSE and the personal and professional landscapes of the teacher is relatively unexplored within TSE research (George, Richardson & Watt 2018; Watt & Richardson 2010; Zee & Koomen 2016). However, these landscapes were viewed in this study as developing alongside and in relationship with one another (Beijaard, Meijer & Verloop 2004; Day 1999; Downey, Schaefer & Clandinin 2014). The temporal relationship or chronosystem influence of the personal history is represented in green on Figure 8.1, and transitions into the personal life of the teacher. Conversely the professional history, in blue, transitions into the professional life of the teacher. Emerging from the findings, exploring how the personal and professional life of the teacher operate in unison and plays an ongoing role in influencing TSE is important in contributing to and expanding TSE research.

Given the importance of the personal history in influencing the development of the reception teachers' self-efficacy and in turn their TSE, the second concept highlights the need to develop the positive self-efficacy beliefs of children so that they carry these beliefs forward into their own lives and careers. This study suggests that an ecological lens in exploring the personal and professional experiences of the teacher provides significant insight into how TSE forms, through conceptualising mastery experience given that *all* types of experiences seemingly shaped the TSE of the reception teachers.

Taking a life-course perspective in analysing how TSE may form provides significant implications for TSE research methodology, particularly addressing the calling for more qualitative and longitudinal research (Morris, Usher & Chen 2017; Wyatt 2015). Whilst Tschannen-Moran and Woolfolk Hoy (2007) called for consideration of the apprenticeship of teachers' own school experience in the formation of their TSE, the retrospective dimension of the past beyond and outside teachers' own schooling experience is also important in considering how TSE is formed. The critical moments and turning points for the participants of this study were not always situated within the schooling context, for example, Kate described her unexpected pregnancy as a teenager as providing her with the opportunity to

view all experiences as learning. Similarly, Anna reported the passing of her father and uncles as important to the development of her ability to see the positives in challenging situations.

If teachers are aware of the potential of their past experiences in shaping their TSE and practice, then they also have the opportunity to view these experiences as playing a positive role in their TSE and practice. This notion exemplifies TSE as a metacognitive process, at the core of Wyatt's (2010) definition. By engaging in metacognitive processes or 'cognition about cognition' (Flavell 1985, p. 104) for example, the opportunity emerges to influence self-regulation of thought (Bandura 1986). For example Donna viewed herself as a high school student as *dumb:*, however, through the metacognitive process of self-reflection, she developed her TSE for relationships to self-regulate her relational practices to ensure the children in her class did not view themselves in the same way. Therefore, reflection on source information, including knowledge developed over the life-course, has the potential to bring about transformative change (MacLellan 2016).

The relationship between self-efficacy and TSE is related to the third key concept that emerged from the analysis of this study in relation to the formation of TSE. This key concept supports the premise of TSE formation as a spiralling process, beginning in childhood through the development of self-efficacy beliefs, which are carried forward into teachers' careers to influence TSE beliefs. Tschannen-Moran, Woolfolk Hoy & Hoy's (1998) Multidimensional Model of Teacher Efficacy (see section 2.4.6) proposed that TSE is developed through a cyclical process; however, unlike previous models, this study suggests that the process of TSE formation extends beyond the individual and involves interactions across multiple interconnected ecological systems over time.

The Alice Springs (Mparntwe) Declaration recognised the importance of viewing education as part of a system, stating 'educators need to be supported appropriately as they play their part but cannot do this alone' (Education Services Australia 2019, p. 2). Enabling interactions across ecological systems is therefore important in developing the TSE so that teachers may achieve the goals of the Alice Springs (Mparntwe) Declaration. Given that this study suggests the process of TSE formation begins in childhood, policies that impact on learning are therefore important to consider. Developing the enabling conditions for TSE by addressing the ecology of the teacher will be examined further in the following sections.

8.3.2 Designing the microsystem of the reception classroom to continue to develop the TSE of reception teachers

In examining the information that the reception teachers in this study attended to, interpreted and appraised (Morris, Usher & Chen 2017), the social sources of vicarious experience and verbal persuasion were seen to play a significant role in continuing to develop the TSE for all participants, in different ways. In addition to viewing the sources as an individualised phenomenon, illustrated through the development of the participants' source profiles, the analysis also found that the open-planned microsystem of the reception classroom provided the enabling conditions to influence the TSE of the reception teachers through the social sources. Thus, this section highlights the need to consider the mesosystem relationships and interactions that the open-planned nature of the reception teaching contexts enables and interacts with, and whether this type of teaching environment is conducive to developing the TSE beliefs of reception teachers. Figure 8.2 illustrates the significance and influence of the social sources within the microsystem of the reception teaching context.

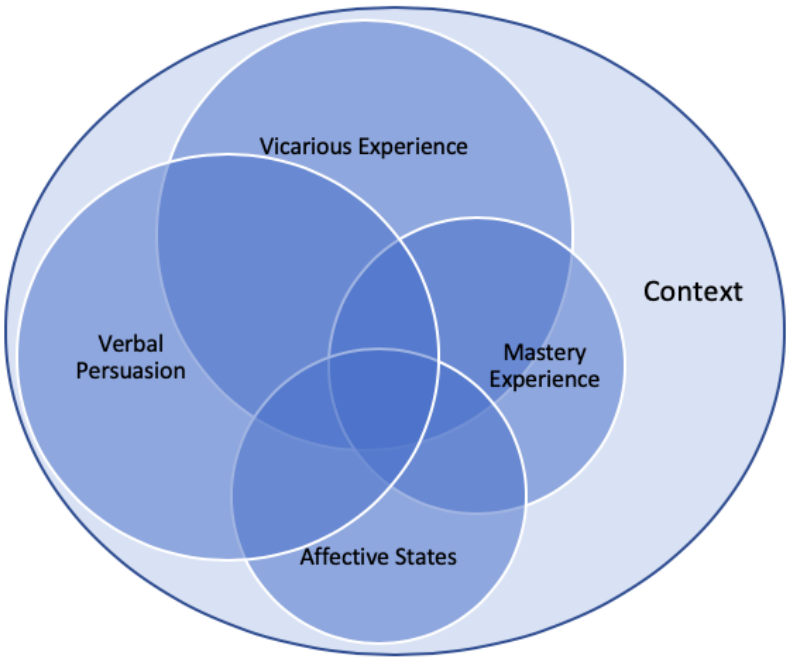


Figure 8.2 Development of TSE Through Contextually Situated Sources

Whilst previous research has purported mastery experience to be the most significant source of TSE (Bandura 1997; Morris, Usher & Chen 2017; Phan & Locke 2016; Tschannen-Moran & Woolfolk Hoy 2007; Weaver Shearn 2008; Woolfolk Hoy & Burke-Spero 2005), the influence of the social sources within the microsystem of the reception classroom, evidenced by this study, has important implications for practice. Whilst the social sources have been

purported to be most influential in the development of the TSE of early career teachers (Tschannen-Moran & Woolfolk Hoy 2007), the participants of this study evidenced the influence of these sources in the profiles of both early and late career teachers. Why these sources continued to influence the TSE of the reception teachers at different career stages was directly related to the collaborative teaching environment of the reception classroom.

Whilst the open-plan teaching context de-privatised (Vescio, Ross & Adams 2008) the reception teachers' practice and brought about an increase in mesosystem interactions with colleagues who shared the same teaching space, the implications of these interactions on the continued growth of the TSE of reception teachers is an important consideration. Working in close proximity to colleagues provides ongoing vicarious experience through live modelling (Bandura 1997) and also the opportunity for regular feedback. Whilst live models facilitate the opportunity to view the practice of colleagues (Bandura 1997), which may have a positive influence on pedagogical knowledge (Capa Aydin & Woolfolk Hoy 2005; Kieffer & Henson 2000; Mohamadi & Asadzadeh 2012; Morris & Usher 2013), modelling of this kind may also have a detrimental influence on TSE. If reception teachers view their performance as inferior to that of a colleague, through social comparison, this may bring about unfavourable changes to TSE beliefs (Bandura 1997; Rahimi et al. 2017). For Ellen, her comparison with Kate appeared to undermine her TSE and she found it difficult to articulate her practice and determine the skills and expertise that she herself brought to the collaborative teaching team. Thus, colleagues who share the same teaching context provide the opportunity to enhance the growth of TSE through the modelling they provide, however these same colleagues may also pose a risk to the growth of TSE through the influence of social comparison.

Mesosystem interactions in this study included interactions with colleagues in co-teaching environments, as well other collaborations, such as those evidenced by Jean in planning meetings. These mesosystem interactions were critical in also providing feedback. Whilst evaluative feedback is thought to be necessary for TSE development (Bandura 1997), this study found that the reception teachers needed both supportive and evaluative feedback. TSE research regarding the evaluative messages teachers receive about their practice have been limited in their specificity as well as in regard to influence on TSE (Bandura 1997; Morris, Usher & Chen 2017; Pajares 1996). Implicit messages of support that provide teachers with information about their capabilities have also been reported as limited within the TSE field (Bandura 1997; Chong & Kong 2012; Morris, Usher & Chen 2017; Pajares, 1996). The co-

teaching environment of the reception classroom provides enabling conditions for both evaluative and supportive messages. However, these messages again have the potential to both support further TSE development and also undermine it. Anna, for example, was vital in providing messages of support to Emma when she felt anxious about engaging in relational work with parents. However, for Jo, Donna was influential in providing implicit messages about her TSE for creativity, for which she described herself as having a lower sense of TSE.

Thus, the ecological lens of this study provided significant utility in further understanding the factors that influenced the work of the reception teachers within the microsystem of the teaching context. Whilst models such as Zee and Koomen's (2016) Heuristic Model of Teacher Self-Efficacy have suggested factors within the microsystem that directly influence TSE, this study reveals that the reception teachers considered factors across the ecological system that filtered into their microsystem teaching context (Bronfenbrenner 2005; Perry & Dockett 2018; Rosa & Tudge 2013). The teachers in this study made decisions about their practice in alignment with the notion of TSE as an expectancy belief, deciding whether they believed they had the capability to enact what was asked of them and indeed whether they even wanted to.

TSE as an expectancy belief is important given that the Alice Springs (Mparntwe) Declaration has committed to 'strengthen accountability and transparency with strong meaningful measures' (Education Services Australia 2019, p. 18) in an effort to provide quality teaching to improve learner outcomes. Accountability measures were viewed by the participants of this study as regulating their work. Thus, it is argued that if teachers are to deliver on the goals of the Alice Springs (Mparntwe) Declaration, it may have been important for the TSE of the teachers to be more explicit within the policy. The voice of the teacher is important in influencing the formation of policies within the macrosystem that indirectly affect practice within the classroom microsystem. Not considering the TSE of reception teachers in the formation of policy may destine the policy for failure, negating any possibility for it to positively influence learning (Sarason 1990; Tschannen-Moran & Woolfolk Hoy 2001).

8.3.3 The importance of leaders in the continued development of TSE

Mesosystem relationships with leaders in the school context were important in supporting the reception teachers to navigate ecological system factors that impacted on their TSE beliefs and practice. Two key concepts arose from the findings of this study in relation to leaders and their role in continuing to develop the TSE of reception teachers. The first was the leader's capacity to offset factors within the various ecological systems which were considered as providing an additional source of information that contributed to their teacher knowledge (Morris, Usher & Chen 2017). The second concept was the role of leaders in supporting the reception teachers' agency to engage in their practice through supporting mesosystem relationships, thereby influencing the social sources and in turn the TSE of the reception teachers. Figure 8.3 illustrates the connection between the role of leaders in supporting the practice of the reception teachers by providing the enabling mesosystem teaching context.

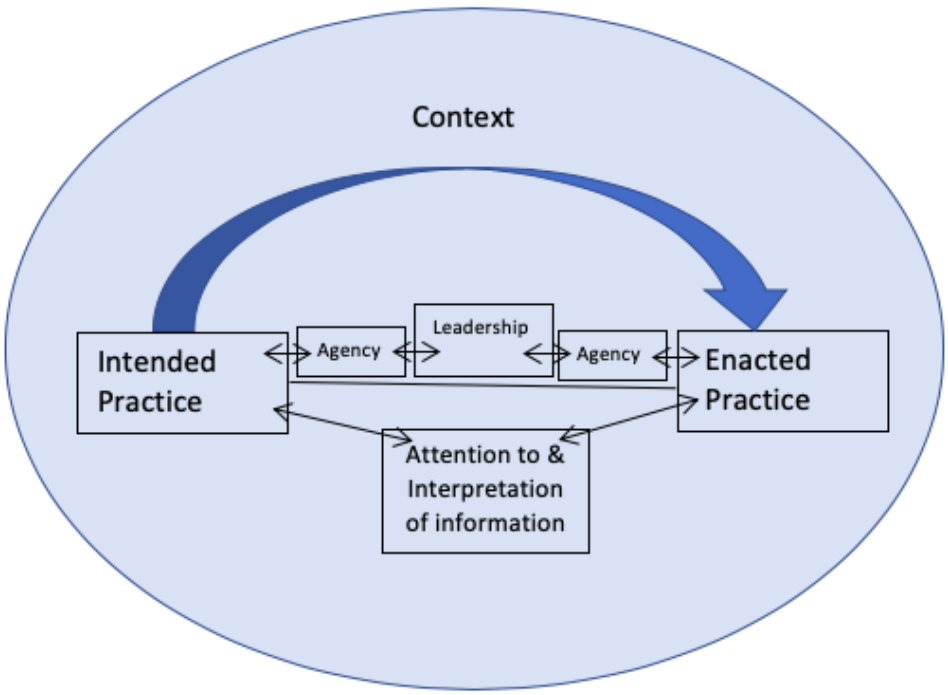


Figure 8.3 The Role of Leaders in Enabling Teacher Agency

Whilst a review of the literature in Chapter Three revealed the potential of ecological considerations within reception teachers' practice, this study found that the teachers' perception of their TSE and agency saw them avoid, conform or push-back against constraining factors. However, the leaders within the context were viewed as mediating the extent to which these factors inhibited the teachers' practice. The implications for practice are significant as leaders have the potential to mediate factors that may impinge on the work

of teachers. Indeed Lunn Brownlee, Sumsion, Irvine, Berthelsen, Farrell, Walsh, Ryan and Mulhearn (2015) in their qualitative study of six early childhood leaders, found that 'leaders judge the value of certain types of knowledge and learning opportunities in relation to the needs of the organisation, the individuals within the organisation and the broader context including the community and policy context' (p. 412). These factors were noted within the Teaching and Learning International Survey (TALIS) (Ainley & Carstens 2018), which surveys teachers and leaders in primary and secondary schools across the OECD. TALIS identified ecological factors important to school leadership across multiple systems, including 'improving teaching and learning conditions, curriculum design, restructuring the organisation, developing relationships inside and outside the school community' (Ainley & Carstens 2018, p. 35).

Leaders such as principals, deputy principals, coordinators and directors were viewed by the participants of this study as playing a mediating role in offsetting the influence of ecological factors that had the potential to impact their TSE and in turn their practice. This notion was supported by the Alice Springs (Mparntwe) Declaration, which stated that education leaders play a critical role in 'instilling a culture of high expectations, collaboration and professional growth' (Education Services Australia 2019, p. 11). As argued in section 8.3.2, the collaborative nature of the microsystem of the reception teaching context is critical in continuing to develop and grow TSE to the benefit of the learning and wellbeing of young children transitioning into the school environment. The importance of mesosystem relationships was also noted by the Alice Springs (Mparntwe) Declaration which stated that 'learning is a partnership with parents, carers and others in the community' (Education Services Australia 2019, p. 3). However, the participating reception teachers, with the exception of Emma, provided limited evidence of the influence of parents/carers on their TSE. The influence of mesosystem interactions with parents/carers may be an area for future research, particularly given that the principle of working in partnership with families underpins the EYLF (DEEWR 2009) document in supporting young children's transition to primary school.

However, by way of their positioning within the education system, leaders have the authority to make decisions about the colleagues with whom teachers work, how colleagues work together, the evaluative feedback that is provided about teachers' capabilities and the quality of the mastery experiences of the teacher. Leaders, therefore, have a significant role to play

in proactively designing the contextual conditions that may influence the continued development of TSE and in turn support the practice of reception teachers. Indeed, TALIS identified school leadership as 'key to large-scale education reform and improved educational outcomes' (Ainley & Carstens 2018, p. 34), which is supported in the Australian context through the Standards (AITSL 2015) for principals. These Standards (AITSL 2015) require school leaders to 'work with and through others to build a professional learning community that is focused on continuous improvement of teaching and learning'.

Studies concerning 'the influence of principal and school factors on TSE are limited' (Fackler & Malmberg 2016, p. 186). Nevertheless, instructional leadership that 'empowers teachers by setting clear goals, promoting collective responsibility and accountability for student achievement and providing constructive feedback on teaching and learning' (Fackler & Malmberg 2016, p. 187), has been positively associated with TSE (Calik et al. 2012; Fackler & Malmberg 2016; Ninković & Knežević Florić 2018). In alignment with previous research, participants in this study identified positive characteristics of school leadership, defining expectations and provision of feedback, in contributing to their TSE development. The Standards (AITSL 2015) also require leaders to 'set high expectations for the whole school through careful collaborative planning, monitoring and reviewing the effectiveness of learning'. However, the participants in this study identified the requirement by leaders, for pedagogical documentation, such as planning and records of learning, as intrusive and a way for leaders to regulate their work and in turn their agency in making interpretive decisions about their practice.

An instructional leadership approach is argued to develop TSE by 'providing feedback to teachers on instruction and modelling effective instruction' (Ainley & Carstens 2018, p. 34), supporting the influence of the social sources on TSE development. A transformational leadership approach, viewed as more 'vision-based' (Fackler & Malmberg 2016, p. 187) has been more strongly associated with the development of collective efficacy (Demir 2008; Ninković & Knežević Florić 2018; Ross & Gray 2006; Walumbwa, Wang, Lawler & Shi 2004). Importantly, higher levels of personal TSE are believed to support collective efficacy and a more collaborative school culture (Ainley & Carstens 2018; Bangs & Frost 2012). Thus, leaders need to develop an enabling ecology for teachers to continue to develop their TSE. Collective efficacy has also been associated with perceptions of agency (Fackler & Malmber 2016), which school leaders can support through encouraging teachers to 'work

collaboratively on school improvement and pedagogy and to have a clear voice in the development of school vision and goals' (Harris & Muijs 2004, p. 59).

Thus, the second key concept emerging from this study was the role of leaders in supporting reception teachers' agency, bridging the reception teachers' intended and enacted practice (Lloyd 2019; Whitfield 1975). Leaders were viewed as mediating the influence of ecological system factors and facilitating or challenging the agency of the reception teachers within the microsystem of their classroom. The Alice Springs (Mparntwe) Declaration asserts that leaders 'play a critical role in supporting and fostering quality teaching and learning and are responsible for creating and sustaining high quality learning environments and conditions under with quality teaching and learning takes place' (Education Services Australia 2019, p. 11). Leaders therefore have a responsibility to engage in practice alongside reception teachers, to influence the organisation of the teaching environment and make staffing decisions about colleagues that, through mesosystem interactions, provide the opportunity for the social sources of TSE to make a positive difference to its development.

In exploring the TSE of reception teachers, the factors that influenced the practice of leaders within the school context was outside the scope; however this did emerge as an area for further research. The Standards (AITSL 2015) for principals also suggest that, through their professional practice, principals play a key role in influencing the learning and teaching in schools and in turn the 'success, confidence and creativity of learners', linking the practice of leaders to the self-efficacy of learners, through teaching and learning processes. The TALIS (Ainley & Carstens 2018) noted that 'many education systems are asking principals to exercise leadership within and beyond the school' (p. 37), thus positioning schools and teachers as part of an interrelated ecological system. Therefore, the factors that may influence the agency of educational leaders, how leaders reflect on these factors as well as the sources of their TSE, may support understandings of the practice of educational leaders and in turn develop further insights into the continued development of the self-efficacy of teachers within the same context.

8.3.4 Conceptualising the Ecological Framework for Teacher Self-Efficacy Development

The Alice Springs (Mparntwe) Declaration is a key educational policy document that has defined the vision for all sectors of education for the subsequent decade. As discussed in Chapter One, the Alice Springs (Mparntwe) Declaration positively extended the Melbourne Declaration (MCEETYA 2008) to explicitly include early childhood education, as well as emphasising the important role that reception teachers play in supporting the transition of young children to the early years of primary school. The positioning of schools within a broader and interrelated ecological system was also noted by the Alice Springs (Mparntwe) Declaration in stating the requirement for 'all Australian governments [to] commit to working with the education community and in partnership with young Australians, their families and the broader community to achieve the educational goals for young Australians' (Education Services Australia 2019, p. 9). The positioning of schools within an ecological system was significant in supporting the findings of this study in viewing the formation and development of TSE through such an ecological lens.

The Integration and Evaluation of Efficacy Information model (Morris, Usher & Chen 2017) was selected as the conceptual framework for this thesis as it was theoretically underpinned by Social Cognitive Theory and in turn the Triadic Reciprocal Causation model (Bandura 1997). However, given that the teaching context is part of a larger educational system, an ecological lens was utilised to investigate the multiple systems that influence the teaching context or environmental segment of the Triadic Reciprocal Causation model (Bandura 1997). Whilst it is acknowledged that the Integration and Evaluation of Efficacy Information model (Morris, Usher & Chen 2017) considered the school context, an ecological lens provided greater specificity in examining the reception teaching context across all ecological systems – from the macro to microsystem. The chronosystem of Bronfenbrenner's (2005) Bioecological Systems model was also considered within this study, which enabled further exploration of the influence that the construal of events over time, noted within the Integration and Evaluation of Efficacy Information model (Morris, Usher & Chen 2017) had on the formation and continued development of the TSE of the reception teachers. Throughout the findings chapters, Morris, Usher and Chen's (2017) model was adapted to illustrate key concepts that emerged from the analysis. In synthesising the key concepts, an *Ecological Framework for Teacher Self-Efficacy Development* (see Figure 8.4), was created to clearly depict TSE as developing within an interrelated ecological system.

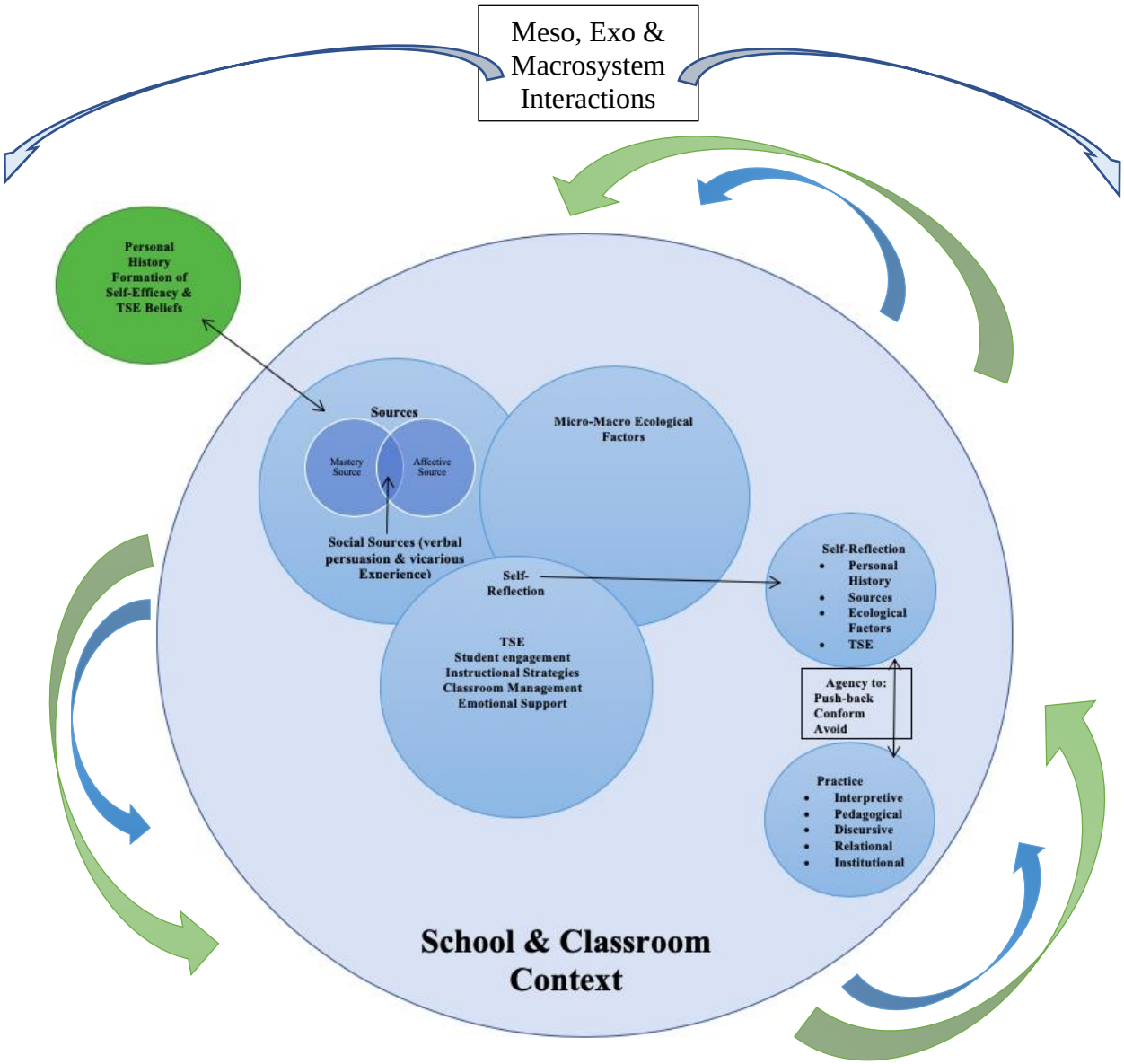


Figure 8.4 Ecological Framework for Teacher Self-Efficacy Development

The first key concept involves the significance of the life-histories of the reception teachers in understanding the formation of their TSE beliefs. The green arrows on the *Ecological Framework for Teacher Self-Efficacy Development* represent the personal landscape of the reception teacher, which was evidenced in the findings of this study to operate in unison with their professional landscape, represented by the blue arrows. The personal history of the reception teachers in this study was evidenced to be significant to the formation of their TSE, through the development of their self-efficacy, which was influenced by sources from multiple ecological systems. Viewing TSE as developing throughout the life-course illustrates the complexity of the ecology of the reception teacher and highlights one of the

main critiques of the Bioecological Systems model (Bronfenbrenner 1979; 2005) regarding the depiction of distinct ecological boundaries within the model (Vogler, Crivello & Woodhead 2008). This study evidenced interactions between and across systems, as well as the influence of time and timing (Perry & Dockett 2018) on the formation of TSE. Thus, this study supports the less-than-'elegant' (Vogler, Crivello & Woodhead 2008, p. 25) distinction of the ecological systems in the examination of the formation of TSE through an ecological lens. The process of TSE formation is convoluted and influenced by multiple factors across time and ecologies.

The literature search located limited studies which had considered childhood experiences within the development of TSE. However, Edwards and Loveridge's (2010) study of early childhood teachers in New Zealand, and Gerde et al.'s (2018) US study of preschool teachers in relation to literacy, science and mathematics instruction, did suggest that teachers' own schooling experiences influenced the teaching strategies they use, the amount of time they dedicate to curriculum areas and the resources they provide. The intersection of the personal and professional landscapes of the reception teacher is, therefore, significant in understanding how their TSE forms and continues to develop within the professional landscape. It was evidenced that events within the personal lives of the reception teachers had a continued influence on their TSE and practice in the classroom. In other words, the reception teachers had already formed beliefs about their capabilities from their personal experiences, which they brought with them into their careers, shaping their TSE and practice in positive and sometimes less than positive ways.

However, in considering the key concept regarding the notion of TSE as a dynamic and fluid construct, the four sources and information gained from factors across the systems are viewed within the *Ecological Framework for Teacher Self-Efficacy Development* as interrelated elements in the continued development of TSE. Ecological influences filter through to the microsystem of the school and classroom context. Information gained from these factors offers additional information to inform and shape the reception teacher's self-efficacy. The reception teaching context provides the conditions for the social sources of TSE – vicarious experience and verbal persuasion – to play a more significant role in the continued development of TSE than has been previously reported within the TSE literature (Phan & Locke 2016). Co-teaching and open-planned classrooms provide a constant source of vicarious experience and verbal persuasion as reception teachers work in collaboration.

In alignment with social cognitive theory (Bandura 1997), self-reflection was a key process through which the reception teachers in this study evaluated and integrated information in evaluating their capabilities to inform their TSE and in turn their practice. The potential of reflection to transform practice, as teachers learn through and from experience (MacLellan 2016), can be traced back to the works of Dewey (1931), and continues to be considered critical to effective teaching and on-going teacher development (Cherrington 2018; Mena Marcos & Tillema 2006; Wyatt 2016). Dewey (1931) defined self-reflection as 'the active, persistent and careful consideration of any belief or supposed form of knowledge' (p. 9). Similarly, Zeichner & Liston (1996) suggested that self-reflection is a 'critical examination of experiences, knowledge and values' (p. 48). Social Cognitive Theory (Bandura 1997) considers self-reflection to be at the core of agency and asserts that agency is a metacognitive ability to evaluate one's motivation, values and meaning which enables decision-making (Bandura 2001). Similarly, MacLellan (2016) asserted that self-reflection is a 'thinking process on a continuum of epistemological sophistication from describing and responding through to explaining, interrogating and transforming practice' (p. 2). In transforming practice, MacLellan (2016) suggested that self-reflection is a 'bending back' (p. 3) of thought, and a prerequisite to reflexive practice. Self-reflection alone does not 'account to changes to learning behaviour' (Feucht, Lunn Brownlee & Schraw 2017, p. 247). Lunn Brownlee, Ferguson and Ryan (2017) propose that self-reflection is the 'internal dialogue of the individual used to evaluate multiple perspectives of the individual and broader social context' (p. 247) and reflexivity is the 'deliberate action that follows reflective thought' (p. 247). Self-reflective practice, therefore, has the potential to bring about transformative change whereby a challenge to a teacher's existing beliefs may cause her/him to reflect on and make adjustment to practice (Lunn Brownlee, Ferguson & Ryan 2017).

The *Ecological Framework for Teacher Self-Efficacy Development* places self-reflection at the core of the interaction between the sources, ecological factors and TSE, supporting this process as a key component of teachers' practice (Arthur et al. 2018; Boud 2009; Cherrington 2018; DEEWR 2009; Fleer 2010; Mena Marcos & Tillema 2006). It is through the self-reflective process that teachers decide whether to try new ideas, conform or avoid the interpretive, pedagogical, discursive, relational and institutional work of the teacher (Comber 2006). The inclusion of agency as a key component within the *Ecological Framework for Teacher Self-Efficacy Development* supports Bandura's (2008) assertion that agency interacts with self-efficacy as people develop beliefs about their capabilities to exert control over

events that influence their lives and an essential element of reflexivity (Lunn Brownlee, Ferguson & Ryan 2017). The explicit inclusion of agency extends current models to explain how TSE continues to develop, by considering the ecological factors that may enable or challenge teachers' agency in their practice. The inclusion of agency, however, also highlights one of the criticisms of Ecological Theory in relation to power relations within ecological contexts (Perry & Dockett 2018; Petriwskyj 2014; Rogoff 2003). Leaders, for example, were considered as having power to exert influence over ecological factors and in turn the reception teachers' practice. In examining the relationship between TSE and practice, agency was found to be a key construct to consider and was highly influenced by ecological factors which directly and indirectly influenced practice at the school and classroom level. The participants in this study who described a high sense of TSE and agency, tried new ideas and pushed-back against constraining factors within their practice. Participants who reported a lower sense of TSE and agency tended to conform or avoid challenging factors or aspects of their practice. The ways in which the reception teachers navigated factors within their context highlighted a further critique of the Bioecological Systems model (Bronfenbrenner 2005) which was that not all contexts prioritised the individual or teacher within the context (Perry & Dockett 2018; Petriwskyj 2014; Rogoff 2003). However, this also adds strength to the argument for making agency explicit within the *Ecological Framework for Teacher Self-Efficacy Development,* as the interrelated constructs of TSE and agency are important in navigating factors within a system that is focussed on strengthening accountability measures (Education Services Australia 2019).

The potential influence of the macrosystem policy context on TSE and practice has received limited attention within the field of TSE research (eds Garvis & Pendergast 2016; Morris, Usher & Chen 2017). However, studies such as Putwain and von der Embse's (2019), on the influence of macrosystem changes to curriculum and assessment on primary school teachers, evidenced a reduction in TSE and higher rates of stress levels amongst teachers. The participants of this study noted the increased macrosystem pressure of literacy benchmarks and the tension this caused in implementing play-based practices typical of early childhood education. This tension highlighted the unique and complex positioning of reception teachers at the transition point between the two sectors of early childhood. Practice is therefore positioned within the *Ecological Framework for Teacher Self-Efficacy Development* as the outcome of the self-reflective process. Within the framework in making decisions about practice, consideration is given to personal histories, sources of TSE, ecological factors, TSE

beliefs and agency. A bi-directional arrow has been used to illustrate practice as contributing to TSE development through the self-reflective process. Therefore, the *Ecological Framework for Teacher Self-Efficacy Development* aims to depict the enabling conditions that may continue to develop the TSE of reception teachers and engage positively in all aspects of their practice.

8.4 Empowering Teacher Voice through Qualitative TSE Research Design: Methodology Critique and Research Opportunities

The aim of this research study was to explore the TSE beliefs and its relationship to practice of eight reception teachers in South Australia. A diverse and detailed research approach was utilised in capturing and analysing the voice of reception teachers in examining their TSE beliefs, the sources of their beliefs and their influence on practice. This approach supported the interpretivist paradigm of the study in exploring the contextualised understandings of the reception teachers' truths or interpretations of their reality (Wheatley 2005). The diversity of the methods and methodological design of the study facilitated the triangulation of data, increasing the trustworthiness of the findings (Glackin & Hohenstein 2018; Howell Major & Savin-Baden 2010), and allowing reliable contribution to the TSE research field through the conceptualisation of the *Ecological Framework for Teacher Self-Efficacy Development*. Two key features of the methodology were raised as significant to TSE research. The first was the merit in utilising qualitative methods to elicit the voice of the reception teacher in providing detailed information about their TSE beliefs and providing richer insights into the quantitative scores of the TSES. The second was the use of video elicitation in supporting the reception teachers to reflect on their practice, which in turn enabled detailed examination of the relationship between their TSE and practice. The following sections provide a critique of the methodology of this study in relation to significance of these points to the TSE research field and practice of the reception teacher.

8.4.1 Facilitating teacher voice through qualitative methodologies

In contributing significantly to the TSE research field, the methodology of this study navigated away from historical quantitative measures, introducing a qualitative interpretivist multiple case study research design. The researcher was also committed to ensuring the participants' voice remained prominent throughout the thesis to allow the reception teachers to tell their stories and provide further credibility to the findings (Guba & Lincoln 2005;

Howell Major & Savin-Baden 2010). Every effort was made to establish the trustworthiness of the study (Guba & Lincoln 2005; Lincoln & Guba 1985) by utilising diverse methods of data collection to elicit the voice of the reception teacher. Data collection took place over a ten-month period, utilising a four-phase research process and including three semi-structured interviews, observation of classroom practice, video elicitation using play-back and think-aloud strategies, participant reflections and completion of the TSES (short form).
These methodologies were significant in developing deep and rich understandings of teachers' lived experiences, evidencing the life experiences of the reception teacher as playing a significant role in the formation of their TSE. These experiences were considered through the interpretivist paradigm to be constructions of the reception teachers' truths and shaped by the social context (Campanario & Yost 2017; eds Feist & Gorman 2013; Gergen 2001). Methodologies that elicit information about the lives of teachers in both their professional and personal landscapes have the potential to contribute significantly to the TSE research field regarding the the capacity of TSE to change over time (George, Richardson & Watt 2018; Klassen et al. 2011) and the developmental patterns of TSE (George, Richardson & Watt 2018; Von Suchodoletz et al. 2018).

Whilst quantitative methodologies have contributed significantly to what is currently known within the TSE research field, the use of scales as a predominant research method was shown in this study to be limited in their usefulness in developing understandings of the reception teachers' self-efficacy beliefs. The TSES utilised within this study provided only initial insights regarding the TSE of the reception teachers at a particular moment in time and only limited insights into specific areas of practice that were subsequently revealed through the qualitative analysis of the semi-structured interviews, utilising Comber's (2006) notion of practice. Furthermore, the analysis of the qualitative data at times revealed a misalignment with the participants' scoring of their TSES, which provides further support for the qualitative methodology.

However, a limitation of this study was the application of global terms to describe the participants' TSE. It was difficult to move away from labelling TSE on a graduated scale from high to low, even when the qualitative analysis revealed specific beliefs in specific areas. For example, Jean detailed having low TSE for mathematics, in the particular area of fractions, which stemmed from her primary school experience; she also considered her overall sense of TSE for mathematics as low. Therefore, when describing TSE, an area for

future research may involve not only the specificity of teachers' beliefs, but how TSE can be better described within the research to avoid global terms such as high, low or moderate. In avoiding such terms, it is suggested that the TSE field may move away from viewing TSE as a fixed construct to a malleable construct, with the potential to grow and develop through the provision of enabling ecological factors, as evidenced by this study.

8.4.2 Self-modelling as a methodology in understanding TSE beliefs

In examining the relationship between the TSE of reception teachers and their practice, the qualitative methods enabled more domain and context-specific understandings of the participants' TSE, in alignment with Wyatt's (2010) definition of TSE and Bandura's (1997) conceptualisation of the self-efficacy construct. The think-aloud strategy (Barkaoui 2011; Fox, Ericsson & Best 2011) captured the participants' self-reflections, deepening the analysis and understandings of the participants' TSE beliefs. The think-aloud strategy was utilised with both the TSES and the video play-back of the participants' practice.

The video-play back of practice was significant to the findings of this study as it facilitated self-modelling (Bandura 1997). The participants were able to critically reflect on their practice and further support the researcher to make interpretations of their TSE. All the participants were positive about the opportunity to observe their own practice. For Emma, who was most influenced by affective information in shaping her TSE, commented following the video-play back, *actually for me to sit here and watch that, and find some good things - that surprised me, to be honest.* The use of video was critical in eliciting the voice of the teacher in describing their TSE in relation to their practice (Hadfield & Haw 2012) in as close to real time as possible. This type of methodology therefore has its advantages over the use of quantitative scales in capturing the specificity of the TSE construct (Bandura 1997; Kagan 1992; Pajares 1996; Wheatley 2005). In particular, video elicitation avoids issues with the use of Likert scales (Bandura 2006; Chestnut & Burley 2015), as well as misinterpretation of questions within the scale (Chestnut & Burley 2015) whereby respondents consider their TSE more generally (Klassen et al. 2011; Zee et al. 2016).

The video play-back methodology also provided more in-the-moment information about the participants' TSE than was elicited through the life-history and practice interviews. Whilst the life-history interview was deliberatively retrospective in nature to capture the formation

of TSE beliefs, the practice interview was also reflective as the reception teachers discussed what they could do in relation to their practice. Therefore, the observation and the recording of practice provided the opportunity for the reception teachers to revisit their practice and provide more accurate evaluations of their capabilities whilst they were teaching (Morris, Usher & Chen 2017). For leaders in the school context, this form of vicarious experience may be a powerful tool to support reception teachers to safely reflect on their own practice.

8.4.3 Opportunities and considerations for future research

The methodology of this study was unique and enabled thick and rich descriptions of the relationship between the participants' TSE and practice to develop (Merriam et al. 2001). The positioning of the researcher as a partial insider (Merriam et al. 2001; Chavez 2008) was important in formulating the findings of this study, as the researcher had an inherent understanding of the role of the reception teacher, which supported the development of more contextualised interpretations of the data. Whilst the TSE research field has called for a diversification of research methodologies (Morris, Usher & Chen 2017; Wheatley 2005; Wyatt 2014), these methodologies have tended to utilise observations, written reflections, interview, participant documentation, questionnaires and talk-aloud protocols (Brand & Wilkins 2007; Cantrell & Callaway 2008; Glackin & Hohenstein 2018; Morris, Usher & Chen 2017; Onafowora 2005; Ross & Bruce 2007). However, no studies, to the researcher's knowledge, have made explicit the utility of partial insider positioning. This positioning was important in understanding the educational landscape within South Australia, thus enabling deeper understandings of the participants' work and context.

Whilst being a partial insider facilitated establishing trust in unpacking the virtual backpack of the reception teachers, it was also important that the interpretations of the findings were not biased by this positioning. Think-aloud protocols were used extensively in the TSE interview to understand the participants' reasoning behind their self-report on the TSES scale and the participants' interpretations of their capabilities in relation to their practice. Whilst this protocol was instrumental in the analysis, consideration must be given to the welfare of the participant and the potential for the participant to provide answers that they considered more favourable. The timing of such methods must therefore be considered carefully, along with the researcher-participant relationship to ensure the participants' privacy and protection from harm (Merriam 2009). Whilst phase one of the research process involved the life-

history interview, which may have posed a threat to validity given the researcher-participant relationship had not yet been established and participants may not have wanted to disclose personal information, the interview was used reflexively throughout each of the research phases. Thus, personal information was re-visited and elaborated on by the participant as they grew more comfortable and familiar with the researcher. Chapter Four, Methodology, significantly addressed processes to establish trustworthiness. This was in part addressed through: the four phases of the research process over the ten-month period; extensive member checking by the participants of the researcher's notes, transcripts of the interviews and narratives; and peer auditing with supervisors. However, it must be acknowledged that the partial insider positioning of the researcher may have influenced aspects of the methodology, such as the selection of the video clips, however every effort was made to ensure that clip selection was theoretically driven, to reduce potential bias.

A clear conceptual framework that aligned with the seminal application of Social Cognitive Theory (Bandura 1997) and extended to include Ecological Theory (Bronfenbrenner 1979; 2005) was utilised to guide the methodology, analysis and presentation of the findings. Outlining the use of a conceptual framework addressed callings from the field for qualitative methodologies to provide clarity regarding the analytic frameworks shaping interpretation of the findings (Glackin & Hohenstein 2018; Klassen & Durksen 2014; Wyatt 2013). This study has therefore, provided further insights into the potential of a conceptual framework in adding to the depth of findings that emerge from the data. The framework intentionally integrated psychological and sociological theoretical fields, to further inform understandings of the TSE and practice of reception teachers and address callings from the TSE research field to diversify the lenses used to study the TSE construct (Klassen et al. 2011; Morris, Usher & Chen 2017; Wheatley 2005). An ecological lens facilitated close examination of the sources that influenced the TSE and practice of the reception teacher, inherent within policy documents such as the Alice Springs (Mparntwe) Declaration. However, it was noted in Chapter Seven, that the participants made limited reference to the influence of exosystem factors, which may be an area for future TSE research. However, lines of questioning and a focus on practice within this study, elicited responses from the participants that highlighted factors within their micro and mesosystems, thus whilst the exosystem was not influential for the participants of this study, it is not to assume that exosystem factors may not be influential for other teachers. As evidenced throughout the findings of this study, the depth of understanding regarding the TSE beliefs and practice of the reception teachers emerged from

the blending of psychological theory with an ecological lens. However, this study also adds a note of caution in ensuring that the conceptual framework remains flexible so that research remains informed by the conceptual framework, but not driven by it (Coyle 2010; Merriam 2009; Miles & Huberman 1994; Smith & Eatough 2007). Thus, the applicability of the conceptual lens of this study must be considered on its merits of trustworthiness (Guba & Lincoln 2005; Lincoln & Guba 1985).

The methodology of this study outlined clear processes for dependability, confirmability and credibility (Guba & Lincoln 2005; Lincoln & Guba 1985). The transferability (Guba & Lincoln 2005; Lincoln & Guba 1985) of the findings is dependent on readers' knowledge of their contexts and of teachers within those contexts (Petty, Thomson & Stew 2012). It must be acknowledged however, that selection bias may have played a role in participant recruitment, with only those participants with high TSE volunteering for the study and thus how to overcome any potential bias this may cause, may be a consideration for future studies. Nonetheless, whilst the number of participants of this study was small, the reception teachers' lived experiences were rich and diverse. A diversity of methods was able to be utilised over a ten-month period, to develop deep and powerful understandings of each participant's TSE, sources of TSE and its relationship to practice. However, given the interpretivist paradigm, further research could explore whether teachers in other year levels, and in prior-to-school contexts, share the same perspectives, or whether these finding are unique to reception teachers or the participants in this particular study. Future studies may include more gender and cultural diversity as this study consisted of mono-cultural female reception teachers.

8.5 Conclusion

In concluding this thesis, the words of the Alice Springs (Mparntwe) Declaration are poignant: 'educators need to be supported appropriately as they play their part but cannot do this alone' (Education Services Australia 2019, p. 2). At the time of writing these concluding remarks, the chronosystem influence of Covid-19 was in the midst of wreaking havoc on the world. Teachers in Australia were considered essential workers and charged with significant responsibility in supporting the learning and wellbeing of children and navigating a new world of predominantly online learning, whilst caring for their own personal, family and close friends' health and safety. The importance of TSE to the practice of all teachers in managing the complexities of their work became significantly heightened by this historical moment.

This unprecedented moment in time also provided the opportunity to further consider the flexibility and malleability of teachers' 'beliefs in their abilities to support learning in various task and context-specific cognitive, metacognitive, affective and social ways' (Wyatt 2010, p. 603). As teachers embarked on transitioning to the online learning environment, they undoubtedly held diverse expectations of their capabilities in this relatively new ecological system, in particular their TSE associated with their interpretive, pedagogical, relational, discursive and institutional work (Comber 2006). They were being required to transfer their domain-specific TSE for face-to-face classroom teaching to the virtual microsystem of the online classroom. Thus, the findings of this study are pertinent to future TSE studies associated with this pandemic, in considering the malleability and flexibility of reception teachers' TSE beliefs and how this influences their practice given the interconnected Covid-19 influences across both personal and professional lived experiences.

This study evidenced the importance of considering enabling ecological factors to the formation and continued development of reception teachers' self-efficacy. It was argued that considering the enabling conditions of TSE formation and development would in turn have a positive influence on teachers' practice and by extension, children's learning and wellbeing outcomes. Firstly, the findings of this study highlighted the importance of considering the intersection of personal and professional histories in the formation of TSE. If policy makers are to bring about positive change to the learning of young children, a spiral approach to TSE development within a broad ecological system needs to be considered. Enhancing the learning and wellbeing of children has the potential to be fed forward into their lives and careers. Preservice teachers may then come into their initial teacher education with more positive TSE beliefs about their capabilities, which can then be taken with them into their careers, influencing the wellbeing and learning of children.

Secondly, in considering the ongoing development of TSE, the microsystem of the reception classroom needs to be carefully engineered to ensure the social sources that it provides have a positive influence on the continued development of the TSE of reception teachers. Mesosystem interactions with colleagues must be a key consideration in collaborative teaching spaces as colleagues provide opportunity for live modelling and feedback. Leaders however are also critical mesosystem influences as they have the capacity to design supportive teaching environments. In doing so, leaders can facilitate the agency of reception

teachers to enact their practice and control ecological factors that may filter through to the microsystem of the reception teaching context.

The findings of this study are significant for policy makers, leaders and teachers in considering how to positively influence the development of TSE beliefs. Understanding the affordances that life-experiences bring to the richness of the reception teacher is important, even if these experiences are less than positive. *Everything is learning* as Kate aptly described, illustrating the potential to grow TSE. However, establishing enabling conditions for growth to occur remains a key issue. Reception teachers, who facilitate the transition of young children to primary school, play an important role in supporting the long-term health, wellbeing, learning and economic outcomes of children and their families (Arthur et al. 2018; Barnett & Frede 2010; Carter 2018; Conti & Heckman 2013; Jones, Greenberg & Crowley 2015; Shonkoff, Boyce & McEwen 2009; eds Shonkoff & Phillips 2000). However, teachers cannot do it alone.

This study has evidenced that teaching occurs within a broad ecological system that interacts in different ways and in turn influences reception teachers' self-efficacy and practice. Given the positive relationship between TSE and student outcomes (Bandura 1997; Klassen et al. 2011; Morris, Usher & Chen 2017; Tschannen-Moran, Woolfolk Hoy & Hoy 1998; Tschannen-Moran & Woolfolk Hoy 2001), TSE is an important construct to consider, especially given the current global circumstances. The educational landscape has changed for the foreseeable future, and thus, supporting the TSE of our teachers in adapting and thriving in this period of change is critical. It is with optimism that I conclude this thesis with the words of Anna: *change is scary and hard, but once you do change, you get this new found confidence.*

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Appendices

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Appendix A Information Sheet for Principals



University of
South Australia

Research title: *'Teacher Self-Efficacy and Practice: A Case Study of South Australian Reception Teachers'*

Researcher: Susie Raymond
Telephone: 8302 4564
Email: Susie.raymond@unisa.edu.au

Supervisors: Dr Jane Webb-Williams
Telephone: 8302 4510
Email: Jane.webb-williams@unisa.edu.au

Dr Jamie Sisson
Telephone: 8302 4688
Email: Jamie.sisson@unisa.edu.au

Dear {insert principal's name}

I would like to invite reception teachers in your school to participate in a qualitative research project, which will inquire into the self-efficacy of reception teachers, and their practice.

My research involves three interviews, each approximately 30 minutes in duration, which will be audio recorded and transcribed. The first interview allows me to gather background information about the participant. The second interview involves the participant discussing with me aspects of their practice. The last interview is connected to their self-efficacy. I will be videoing short segments of classroom practice, which will be discussed with the participant in a follow-up interview. Participants will also be invited to take part in a blog, which will record their reflections of practice.

I have been working in a school setting for 16 years and understand the dilemmas teachers face in balancing pedagogical approaches. My research is focused on understanding teachers in their own contexts and telling their story from their perspective. As such I will be working closely with participants to ensure I am reporting my interpretations authentically. Participation in my research project is voluntary and the school and/or participant are free to withdrawal from the project at any stage without prejudice.

The Human Ethics Committee at the University of South Australia has approved the research project. As such my procedures in ensuring the confidentiality of the school and participants adheres to the guidelines of the University. The school, participant and children will not be identifiable in any way. My field notes and transcripts will be coded, and pseudonyms will be used to protect the identity of the participant and the School. Data will only be shared with my supervisors as part of the project. All data collected will be confidential and stored securely in a locked filing cabinet and on a password protected computer at UniSA (Magill) and destroyed after a period of seven years, in line with UniSA's protocols.

If you have any ethical concerns regarding my research project or questions regarding the rights of the participants, please contact Ms Vicki Allen, Executive Officer, Human Ethics Committee, on 8302 3118 or by emailing Vicki.allen@unisa.edu.au.

If you agree for your school and teachers to participate in this study, please read and sign the consent form attached. Please do not hesitate to contact me if you require any further information.

Yours sincerely

Susie Raymond
PhD Candidate
University of South Australia

Appendix B School Consent Form



University of South Australia

Research title: *'Teacher Self-Efficacy and Practice: A Case Study of South Australian Reception Teachers'*

Researcher: Susie Raymond
Telephone: 8302 4564
Email: Susie.raymond@unisa.edu.au

- I have read the information sheet, and the nature and purpose of the research project has been explained to me.
- I understand the purpose of the research project and the school's involvement in it.
- I understand that the school may withdraw from the research project at any stage.
- I understand that while information gained during the study may be published, the school will not be identified and will remain confidential.
- I understand that interviews with teachers who choose to participate will be audio taped, and that these audio tapes will be transcribed.
- I understand that video recordings of teachers' practice will be made.
- I understand that the recordings and transcripts will be stored on a password protected personal computer at UniSA and will be accessible only to the researcher and will be destroyed after a period of seven years.

This project has been approved by the University of South Australia's Human Research Ethics Committee.

I understand and agree to teachers within the school taking part in the research project.

Name of school: _____

Name of principal: _____

Signed: _____ Date: _____

Office use only

I have provided information about the research to the school's principal and consider that he/she understands what is involved.

Name of researcher: Susie Raymond

Researcher's signature: _____ Date: _____

Appendix C Information Sheet for Teachers

University of South Australia

Research title: *'Teacher Self-Efficacy and Practice: A Case Study of South Australian Reception Teachers'*

Researcher: Susie Raymond
Telephone: 8302 4564
Email: Susie.raymond@unisa.edu.au

Supervisors: Dr Jane Webb-Williams
Telephone: 8302 4510
Email: Jane.webb-williams@unisa.edu.au

Dr Jamie Sisson
Telephone: 8302 4688
Email: Jamie.sisson@unisa.edu.au

Dear reception teacher

I would like to invite you to participate in a qualitative research project, which is inquiring into the self-efficacy of reception teachers and their practice. You have been invited to participate as you are currently working in the reception context.

My research involves three interviews, each approximately 30 minutes in duration, which will be audio recorded and transcribed and will require the sharing of personal and sensitive information about yourself. The first interview allows me to gather background information about you. The second interview involves the discussion of your practice with me. The last interview is connected to your self-efficacy. I will be videoing short segments of your classroom practice, which will be discussed with you in a follow-up interview. I also invite you to take part in a blog, which will record your reflections of practice. Audio data will be deleted/destroyed at the end of the data collection phase. Video of practice will be taken to inform the self-efficacy interview and will be deleted at the end of the data collection phase.

I have been working in a school setting for 16 years and understand the dilemmas teachers face in balancing pedagogical approaches. My research is focused on understanding teachers in their own contexts and telling their story from their perspective. As such I will be working closely with you to ensure I am reporting my interpretations authentically. Participation in my research project is voluntary and you are free to withdrawal from the project at any stage without prejudice.

The Human Ethics Committee at the University of South Australia has approved this research project. As such my procedures in ensuring the confidentiality of the school and yourself adheres to the guidelines of the University. You, the school and children will not be identifiable in any way and no information which could lead to identification of any individual, will be released unless required by law. My field notes and transcripts will be coded, and pseudonyms will be used to protect your identity and the school. Data will only be shared with my supervisors as part of the project. All data collected will be confidential and stored securely in a locked filing cabinet and on a password protected computer at UniSA (Magill) and destroyed after a period of seven years, in line with UniSA's protocols.

A summary of my findings will be provided to you at the completion of my project.

If you have any ethical concerns regarding my research project or questions regarding your rights as a participant please contact, Ms Vicki Allen, Executive Officer, Human Ethics Committee, on 8302 3118 or by emailing Vicki.allen@unisa.edu.au.

If you agree to participate in this study, please read and sign the consent form attached. Please do not hesitate to contact me if you require any further information.

Yours sincerely

Susie Raymond
PhD Candidate
University of South Australia

Appendix D Teacher Consent Form - Participation

University of South Australia

Research title: *'Teacher Self-Efficacy and Practice: A Case Study of South Australian Reception Teachers'*

Researcher: Susie Raymond
Telephone: 8302 4564
Email: Susie.raymond@unisa.edu.au

- I have read the information sheet, and the nature and purpose of the research project has been explained to me.
- 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.
- I understand that while information gained during the study may be published, I will not be identified, and my identity will remain confidential.

This project has been approved by the University of South Australia's Human Research Ethics Committee.

Teacher Consent: Teacher Self-Efficacy and Practice project

I consent/ do not consent* to being interviewed for the research project about teacher self-efficacy and practice.

Signed: _____

Name_____

Date_____

***delete as appropriate**

Office use only

I have provided information about the research to the participant and consider that he/she understands what is involved.

Name of researcher: Susie Raymond

Researcher's signature: _____ Date:_____

Appendix E Teacher Consent Form - Video Taping & Audio Taping



Research title: *'Teacher Self-Efficacy and Practice: A Case Study of South Australian Reception Teachers'*

Researcher: Susie Raymond
Telephone: 8302 4564
Email: Susie.raymond@unisa.edu.au

- I understand that interviews will be audio taped, and that these audio tapes will be transcribed.
- I understand that video recordings of my practice will be made.
- I understand that the recordings and transcripts will be stored on a password protected personal computer at UniSA and will be accessible only to the researcher and will be destroyed after a period of seven years.

This project has been approved by the University of South Australia's Human Research Ethics Committee.

Teacher Consent: Teacher Self-efficacy and Practice project

I acknowledge that the researcher wishes to make audio recordings of interviews. I understand that the recordings will be securely held on University of South Australia grounds for a period of 7 years with access granted only to those involved with the project in order to maintain confidentiality of participants.

I consent/ do not consent* to my practice being videoed and audiotaped for the research project about teacher self-efficacy and practice.

Signed: _____

Name_____

Date_____

***delete as appropriate**

Office use only

I have provided information about the research to the participant and consider that he/she understands what is involved.

Name of Researcher: Susie Raymond

Researcher's signature: _____ Date:_____

Appendix F Information Sheet for Parents

University of South Australia

Research title: *'Teacher Self-Efficacy and Practice: A Case Study of South Australian Reception Teachers'*

Researcher: Susie Raymond
Telephone: 8302 4582
Email: Susie.raymond@unisa.edu.au

Supervisors: Dr Jane Webb-Williams
Telephone: 8302 4510
Email: Jane.webb-williams@unisa.edu.au

Dr Jamie Sisson
Telephone: 8302 4688
Email: Jamie.sisson@unisa.edu.au

Dear Parent/Guardian

I am currently undertaking research in your child's classroom as part of my post-graduate studies.

My research project is inquiring into the practices of reception teachers and your child's teacher has agreed to be part of the project. I will be videoing short segments of practice and will remain as unobtrusive as possible whilst videoing your child's teacher. Images of your child may be captured; however, every effort will be made to exclude your child from the video data as the focus of the research is on your child's teacher.

I have been working in a school setting for 16 years and understand the dilemmas teachers face in balancing pedagogical approaches. My research is focused on understanding teachers in their own contexts and telling their story from their perspective.

The Human Ethics Committee at the University of South Australia has approved this research project. As such my procedures in ensuring the confidentiality of the school and participants adheres to the guidelines of the University. The teacher, school and your child will not be identifiable in any way. My field notes and transcripts will be coded, and pseudonyms will be used to protect the teacher's identity and the school. Data will only be shared with my supervisors as part of the project. All data collected will be confidential and stored securely in a locked filing cabinet and on a password protected computer at UniSA (Magill) and destroyed after a period of seven years, in line with UniSA's protocols.

If you have any ethical concerns or questions regarding my research project, please contact Ms Vicki Allen, Executive Officer, Human Ethics Committee, on 8302 3118 or by emailing Vicki.allen@unisa.edu.au.

Please do not hesitate to contact me if you require any further information.

Yours sincerely

Susie Raymond
PhD Candidate
University of South Australia

Appendix G Ethics Approval: UniSA

Dear Applicant

Re: Ethics protocol "Teacher Self-efficacy and Practice in the Reception Classroom: A Case Study of Six South Australian Teachers" (Application ID: 0000033771)

Thank you for submitting your ethics protocol for consideration. Your protocol has been considered by the E2 Committee Review Group.

I am pleased to advise that your protocol has been granted ethics approval and meets the requirements of the National Statement on Ethical Conduct in Human Research.

Please note that the E2 Committee Review Group's decision will be reported to the next meeting of the Human Research Ethics Committee for endorsement.

Please regard this email as formal notification of approval.

Ethics approval is always made on the basis of a number of conditions detailed at http://www.unisa.edu.au/res/forms/docs/humanresearchethics_conditions.doc; it is important that you are familiar with, and abide by, these conditions. It is also essential that you conduct all research according to UniSA guidelines, which can be found at http://www.unisa.edu.au/res/ethics/default.asp

Please note, if your project is a clinical trial you are required to register it in a publicly accessible trials registry prior to enrolment of the first participant (e.g. Australian New Zealand Clinical Trials Registry http://www.anzctr.org.au/) as a condition of ethics approval.

Best wishes for your research.

Executive Officer
UniSA's Human Research Ethics Committee
CRICOS provider number 00121B

Appendix H Project Approval: DECD



Government of South Australia
Department for Education and Child Development

Strategy and Performance
31 Flinders Street
Adelaide SA 5000
GPO Box 1152
Adelaide SA 5001
DX 541

Tel: 8226 3825
Fax: 8226 1605

15 January 2015

DECD CS/14/511-38
RESEARCHER: Mrs Susie Raymond
RESEARCH BODY: University of South Australia (Magill)

Dear Principal/Director/Site Manager

The research project titled *"Teacher Self-efficacy and Play in the Reception Classroom: A Case Study of Six South Australian Teachers"* has been reviewed centrally and granted approval for access to Department for Education and Child Development (DECD) sites. However, the researcher will still need your agreement to proceed with this research at your site.

Once approval has been given at the local level, it is important to ensure that the researchers fulfil their responsibilities in obtaining informed consent as agreed, that individuals' confidentiality is preserved and that safety precautions are in place.

Researchers are encouraged to provide feedback to sites used in their research, and you may wish to make this one of the conditions for accessing your site. To ensure maximum benefit to DECD, researchers are also asked to supply the department with a copy of their final report which will be circulated to interested staff and educators for future reference.

Please contact Kali Stefanopoulos, Project Officer – Research and Evaluation on (08) 8226 3825 or email: kali.stefanopoulos@sa.gov.au for further clarification if required, or to obtain a copy of the final report.

Yours sincerely

[redacted]

Mr Daniel Balacco
MANAGER, RESEARCH AND EVALUATION

Appendix I Permission to Approach Schools: CESA

catholic education south australia

Adelaide Catholic Education Centre
116 George Street, Thebarton SA 5031
PO Box 179, Torrensville Plaza SA 5031
T +61 8 8301 6600 **F** +61 8 8301 6611
E director@cesa.catholic.edu.au
W www.cesa.catholic.edu.au

Ms Susie Raymond
School of Education
Division of Education, Arts and Social Sciences
University of South Australia
G1-27 Magill Campus
GPO Box 2471
ADELAIDE SA 5001

Dear Ms Raymond

Re Research Study - Teacher Self-Efficacy and Play in the Reception Classroom: A Case Study of Six South Australian Teachers

Thank you for your email of 30 October 2014 in which you seek permission to approach Catholic primary schools in South Australia to ask teachers to participate in a qualitative research study into the self-efficacy of Reception teachers and the decisions they make in implementing a play-based curriculum. I understand that your research involves three 30 minute interviews, which will be audio recorded and transcribed.

In the normal course, permission of the Principal of each school in which you wish to conduct research is required. Research in Catholic schools is granted on the basis that individual students, schools and the Catholic sector itself is not specifically identified in published research data and conclusions.

Approval is also contingent upon the following conditions, i.e. that:

- a copy of the questionnaires have been provided to the Principal
- the permission of teachers has been obtained
- the research complies with the ethics proposal of the University of South Australia
- the research complies with any provisions under the Privacy Act that may require adherence by you as researcher in gathering and reporting data
- no comparison between schooling sectors is made
- sector requirements relating to child protection and police checks are met by researchers:
  - where researchers obtain information in relation to a student which suggests or indicates abuse, this information must be immediately conveyed to the Director of Catholic Education SA
  - all researchers and assistants, who in the course of the research interact in any way with students, are required to provide evidence of an acceptable police clearance direct to the school.

As you indicate that the research will not involve direct contact with students, a police check will not be necessary in this instance. Should this change, you are required to immediately notify this Office and obtain a National Police Certificate prior to any involvement with students. A clearance letter from the Archdiocesan Police Check Unit must be made available to the Principal.

Please accept my very best wishes for the research process.

Yours sincerely

[redacted]

HELEN O'BRIEN
DEPUTY DIRECTOR

25 November 2014

Appendix J Life-History Interview Protocol

Today I would like to begin by gathering some background information about you. We will then move on to discussing "your story", including parts of the past and the future as you imagine it. For each of the key events we discuss, I ask that you describe in detail what happened, **when** and **where** it happened, **who** was involved, and **what** you were thinking and feeling in the event. I will also ask you **why** you think this particular event is important in your life.

Age	
Years of teaching experience	
Years at current school	
Position at current school	
Qualifications	

1. High point. Please describe a moment in your life that stands out as an especially positive experience. This may be a particularly happy or joyous time in your life.

2. Low point. The second scene is the opposite of the first. Thinking back over your entire life, please identify a moment that stands out as a low point. This may have been a challenge that you have faced or a failure or regret that you have experienced.

3. Turning point. In looking back over your life, can you identify certain key moments that stand out as turning points - episodes that marked an important change in you or your life story?

4. Positive childhood memory. Can you think of an early memory – from childhood or your teen-aged years - that stands out as especially *positive* in some way?

5. Negative childhood memory. Can you think of an early memory – from childhood or your teen-aged years, that stands out as especially *negative* in some way?

6. The next chapter. Please describe what you see to be the next chapter in your life. Describe your plans, dreams, or hopes for the future.

Appendix K Practice Interview Protocol

I would like to talk today about your practice. I will link some of our conversation back to the information you told me in the first interview to help me understand how your life-history relates to the work that you do.

1. How do you determine the focus of your planning?

2. How do you use curriculum and policy documents such as the Australian Curriculum, Early Years Learning Framework and Teaching for Effective Learning?

3. Who do you feel accountable to for your planning?

4. Do you have a particular person that you look to for support or inspiration when you are planning?

5. Do you seek out feedback about your practice? Who do you seek feedback from? What do you do with this feedback?

Appendix L TSE Interview Protocol

There are three parts to our interview today – the first is a TSE scale, the second is about your practice and the third is to follow-up on any questions from the first two interviews.

Part 1: TSE Scale

To begin I would like you to fill out this short TSE scale. Some of the questions may not relate directly to your setting or educational beliefs, however, please consider the key word in the question for example in question two the key work is 'motivate'. However, if you feel that you cannot answer a question, please put a mark next to it and we can discuss it at the end.

- Participant undertakes Teachers' Sense of Efficacy Scale (short form)
- Discuss any questions missed
  - What have you taken the question to mean?
  - If you changed the question to something else what would it be?

Part 2: Video of Practice

I am now going to show you some short clips of your practice rather than have you watch back the full two hours of video. When you have finished watching the clips, I have a few short questions to ask you about what you have seen. Some I have sectioned into 'episodes' of related topics and will stop at the end of these episodes to ask you some questions whilst it is fresh in your mind. If you would like me to play the clip again, please let me know.

Q1 Tell me what you saw
Q2 Describe what you were doing here – what were you thinking and feeling?
Q3 Are there any clips that you consider you saw your best practice?
Q4 Were there any clips that you would like to have changed your practice?
Q5 Pick one of the clips that you feel best shows your educational philosophy

Part 3: Confirmatory Questions

The purpose of our last section is to follow-up on any questions from the previous two interviews.

Q1 Source of TSE
Q2 Source of TSE
Q 3 Incongruence
Q 4 Incongruence
Q 5 Follow-up

Appendix M Reflective Questions

Proceeding the life-history interview

1. Looking back over your life history and ahead into the future, do you think there is a central theme, message, or idea?
2. What were your thoughts and feelings during the interview? How do you think this interview has affected you? Do you have any other comments?

Proceeding the practice interview

1. How does your thinking and feelings affect your planning?
2. What influences your planning the most?
3. What were your thoughts and feelings during the interview? How do you think this interview has affected you? Do you have any other comments?

Proceeding TSE interview

1. Whilst viewing your own teaching, what did you learn about your own actions/thinking/feelings?
2. Did viewing the footage of your practice cause you to reflect in a different way on your practice?
3. What do you think about now in relation to your practice?

Proceeding observation of practice

1. What were your thoughts and feelings whilst I was observing your practice?
2. Do you have any other comments?

Appendix N Time Sample of Observation of Practice

Observation 21/7/15 Kate

Outdoor play area

9.00 Kate siting with 2 children at the woodworking table. Parent leaves child with Kate

9.05 child sits on Kate's lap. Parent approaches to ask about bringing cupcakes for a birthday. Kate tells the parent that they don't do cupcakes and they just sing happy birthday.
Invites a child to sit next to her, so Grandparent can leave. Pulls the child in to her and puts her arm around him.
A child approaches and says that his mummy has gone. Kate invites him to stand with her. The child turns folds his arms and returns inside. Kate remains with the other 2 children and follows with her eyes the child who returned inside. (This child is in Kate's group and she does not interact with him in the morning)

9.10 A child shows Kate her creation and wants to test it in the water. Kate goes inside to get the tap for the water. Kate returns to the woodworking table and sits down. The child returns to her lap. Kate is approached by another child. A parent enters the yard. Kate talks to her about making popcorn. Kate returns to her conversation with the child. Kate makes a suggestion to the child for his woodworking. A parent enters and approaches Kate. Kate greets the parent and talks to her. The child hops off Kate's lap.

9.15 two children enter the yard. Kate greets them with a smile and 'hello'. The children continue inside. Kate continues her conversation with the parent. The parent prepares to leave. The child sits on Kate's lap with another child.
5 children have come to the woodwork table.
A child taps Kate on the shoulder. Kate turns and smiles and talks quietly to him.
A group of boys run outside shouting. One boy kicks another child's creation. Kate calls out "….that's a bit intimidating when you do that in …..face'. The child looks at Kate and moves off. Kate directs her attention back to the woodwork table.

9.20 Kate gets up to open the gate for children and returns to the woodwork table. Kate is approached by a child and Kate asks another staff member to watch the woodwork table.
A parent approaches Kate and Kate greets the parent and child with a smile. She helps the parent find the lunch orders and then returns her attention to the child. Kate goes inside with the child. Kate talks to another staff member and is approached by a parent. Both staff members talk to the parent and the parent leaves. Both staff members move into the office. Kate returns and is followed by 3 children. Kate moves outside and is approached by the parent. Kate speaks briefly to the parent and is followed by 3 children.

9.25 Kate moves into the atelier and moves out to talk to another staff member about a child he is talking to. "Did you hear that ….is worried because he is being picked up by 2 different people". Kate smiles and moves inside with the 3 children that are following.
Kate moves into the kitchen area and writes in a book. 2 children wait with Kate in the kitchen.

9.30 Kate comes out of the kitchen and asks the children if they want to get the group time sign. One child moves off to get the sign. The other remains with Kate. Kate moves into the yard to the sandpit. She kneels down and talks to the group of children in the sandpit. The child returns with the group time sign and the children start moving to their class groups. A child approaches Kate wanting to change groups. Kate takes the child over to another staff member for the child to ask permission to change groups. The staff member laughs and says that's fine

9.35 Kate returns to the classroom and the children sit on the floor in front of Kate. Kate talks to the children about the microphone and not turning off the power. Kate asks the children if they want a spot to sit on.
Kate talks to the children about the child changing groups.
Kate has one more spot to give out, 'oh it's hard to choose'. Kate hands out the last spot. (2 other adults in the room, 16 children)

9.40 Kate has a book to read and the children notice that it starts with 'm'. A discussion about the letter 'm' begins. The children call out names and words that start with 'm'.
Kate begins to read the book. The children call out and laugh at the book. Kate asks questions and smiles at the children's responses.
The children call out and Kate says, 'hang on….noticed something'. Kate smiles, laughs and changes her expression as she is reading.
One child who is not listening to the story is invited by one of the adults to come and build with him in another area of the classroom.
The book finishes and the children call out.

9.45 'hands on heads, hands on shoulders' - Kate gained children's attention. 'I want to think out loud for a moment…' 'maybe that's something you might like to try in your book making'.
Kate talks to the children about their book making.
'Stay on your bottoms, otherwise we've got everyone crawling on everyone'.
Kate starts handing out the writing folders.
Kate asks a child '….. do you want to do book making today?'
Child says, 'I don't want to do a book', Kate says 'that's alright, you can do something else'.
Kate asks a child if she wants to work with another adult. The child says 'no'. The adult says 'well I'm going to coral then. I'll stay if you want to do a book, but if you don't, I'll go to coral'. The adult leaves.

9.50 Child says, 'Kate I don't want to do a book'. 'I want you to have a try. I know you have been working with an OT with your handwriting, so this is a really good opportunity for you to practise'.
Another child begins working with one of the adults on his book.
Kate sits on the floor. A child sits on her lap.
8 children are doing book making.
The child that did not want to do a book with the adult was playing in the tent, but then moves to get his writing folder. Kate does not seem to notice.

9.55 Kate lies on the floor and writes in a book for the child that was sitting on her lap. Kate talks out loud about what she is doing.
Kate asks 3 children how their books are going. The children reply, 'we haven't even started'.
Kate suggests that they get started. The children start wrestling.
'are you really stretching those learning muscles today?' 'yes', 'no, I don't think you are. Are you stuck for ideas on your book?', 'yes'. Kate asks what the children have done so far and asks questions about their book and makes suggestions.

10.00 The child that was not interested has gone off task. Kate does not seem to notice. The adult in the room who was working with a child, approaches Kate to ask where his folder is. He leaves the room with the child to get it.
Kate moves back to the book she was doing with the child. She talks to another child about seeing him outside of school.
'If you've finished that, do you want to go outside now or find something else to do?'
Kate talks to a child about 'stretching out' a word. Another child tries to help, 'no let's let… do it'.
There is a child away from Kate that has been working quietly by himself, sourcing resources around the room and writing. Kate has not seemed to notice this child.

10.05 Kate talks to a group of children about how they are talking to each other. Kate asks a group of 4 children 'what is going on with this book. You usually work really well'. The children respond with what has been happening. Kate talks to the children about how they can get the book done. The children start to negotiate their roles and Kate supports the children by helping to clarify what the roles are.
Kate remains lying on the floor. 2 children approach to tell Kate that they have finished their puzzle. Kate asks if they want to do another puzzle.
Another child approaches and asks what she can do. Kate says that she could do a holiday book.
A parent enters and discusses her child's transition and asks Kate to write down what she has observed about her child for an outside professional.

10.10 A child approaches Kate and shares his book with her. The child tells Kate about each page. Kate smiles and nods as the child is sharing. The child finishes and Kate asks, 'do you want to go outside or find something else to do?'
Another child asks about another word and Kate suggests that she stretches it out again.
A child who did not want to work with the adult, then went on task, then off, begins to shout. Kate looks up and says '…and … are you ok'. The children reply 'yes'. Kate returns her attention to the child stretching her word.

10.15 The child who has been with Kate all morning, remains close to her. He is not doing book making but is sitting quietly watching.
A child approaches Kate and asks if she wants to look at her book 'yes please'. The child kneels beside Kate and begins to flick through her book. Kate nods and smiles as the child progresses through her book.
There is a child in the back-corner counting (one to one matching the numerals) to 100. Kate has not noticed.
Kate has not moved from her position since the beginning of the session. She has remained on the carpet – sitting, kneeling and lying, but has not moved to another part of the room.
The child who was counting approaches Kate to tell her what he has been doing. Kate turns, smiles and points 'did you use the board over there?' The child says yes and moves outside.

10.20 A child approaches and tells Kate that he is not in the writing group anymore. Kate asks the other 2 children to join her. Kate states that '…. Says that you have ejected him from the group'. The child says, 'it's not ok to kick a guy out of the group'. Kate says, 'I agree' and asks the children to get a rubber so that the child can add his drawing in.

10.25 Kate turns her attention to the girl writing in front of her. One of the children who was counting shows Kate his rote counting to 20. Kate smiles and says 'wow'. Kate directs her attention to the child on the floor.
The bell goes and a child asks, 'is that the recess bell?'. Kate says 'yes'. The child says, 'I'm going out for recess'. Kate asks the child to pack up if he is not returning to it.
Another child enters and the child asks, 'do you want to go out for recess'. Kate says, 'I think you guys need a break from book making'. 'Next time we do book making we will need to have a meeting'.
The children leave.
Kate returns her attention to the child that has been with her all morning.
Kate calls out to the child who went off task 'are you best friends with…. again?' The child responds 'yes'. Kate smiles and the child goes outside.

10.30 Kate starts packing up the book making folders. The children are moving freely between rooms and from inside/outside spaces.

END

Appendix O Teachers' Sense of Efficacy Scale (short form)

	Teacher Beliefs	How much can you do?								
	Directions: This questionnaire is designed to help us gain a better understanding of the kinds of things that create difficulties for teachers in their school activities. Please indicate your opinion about each of the statements below. Your answers are confidential.	Nothing		Very Little		Some Influence		Quite A Bit		A Great Deal
1.	How much can you do to control disruptive behavior in the classroom?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
2.	How much can you do to motivate students who show low interest in school work?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
3.	How much can you do to get students to believe they can do well in school work?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
4.	How much can you do to help your students value learning?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
5.	To what extent can you craft good questions for your students?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
6.	How much can you do to get children to follow classroom rules?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
7.	How much can you do to calm a student who is disruptive or noisy?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
8.	How well can you establish a classroom management system with each group of students?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
9.	How much can you use a variety of assessment strategies?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
10.	To what extent can you provide an alternative explanation or example when students are confused?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
11.	How much can you assist families in helping their children do well in school?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
12.	How well can you implement alternative strategies in your classroom?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)