



A Teacher's Journey: Shifting Theoretical Positions in Early Childhood Education

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Declaration

This thesis contains no material published elsewhere or extracted in whole or in part from a thesis by which I have qualified for or been awarded another degree or diploma.

No parts of this thesis have been submitted towards the award of any other degree or diploma in any other tertiary institution.

No other person's work has been used without due acknowledgement in the main text of the thesis.

All research procedures reported in the thesis received the approval of the relevant Ethics/Safety Committees (where required).

A handwritten signature in black ink, appearing to be 'E. A.', written on a light-colored background.

26 February 2018

Dedication

I would like to give my sincerest thanks and gratitude to my supervisor, Professor Susan Edwards, for her guidance, support, patience and unending belief in my work. It has been a long and interesting journey for us both.

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Abstract

This thesis is a self-study conducted from an insider perspective that chronicles the changes I made to my work practices as I moved from using a developmental to a cultural-historical theoretical approach in my teaching.

Early childhood teachers are faced with differing theoretical perspectives with which to work as described within the Early Years Learning Framework (DEEWR, 2009). There are still many teachers within the field who have been solely trained in Piaget's constructivist theory. Many of these teachers are not able to access newer information that easily explains how to alter their practices as most of the information is presented from an outsider's position. New teachers may have a basic knowledge of a variety of theorists but still have minimal knowledge of how to actually put the theory into action within their practices.

An investigation of current literature revealed reports from an outsider's perspective on how cultural-historical theory might benefit a child's learning through the use of specific aspects of the theory. There is an emphasis on the importance of play and imagination and the use of the Zone of Proximal Development. However, there are few reports on how the educator might use these theoretical concepts in practice. Consequently, there was minimal support available to me via readings to assist my changing theoretical base. This thesis, therefore, aims to fill the knowledge gap and provide an insider's viewpoint of what to include from Vygotsky's cultural-historical theory to mediate teaching practice.

This thesis presents three findings that the teacher can focus on to mediate practice. These are (1) Practices of interpretation and interaction; (2) Practices of tool adaptation; and (3) Practices of temporality. The practices of interpretation and interaction have put the focus onto the teacher to support the child's learning and knowledge development. This is also a

focus within the EYLF (DEEWR, 2009) as there is the expectation for the teacher to be involved with the child through intentional teaching and teacher-led play. Practices of interpretation require the teacher to consider the importance of the stages of imagination for the child's development – and positions that can be used to support the child's learning – such as giving the child practical help to achieve a task, or working in an “under” position to enable the child to practise newly learnt skills as well as enabling the social situation of development to begin. Practices of interaction require the teacher to be involved with the child, and this can be through sustained conversations with the child as well as using the positions to support the child's learning and development. Practices of interaction also involve the teacher considering the child's position within the Zone of Proximal Development and so work with the child to support the learning that is possible. Practices of tool adaptation require the teacher to reconsider what materials are supplied to support the child, to consider the multi-purpose of the tools, and consider the importance and use of technologies to support the child's learning. Practices of temporality is the surprising concept discovered by this research. It focuses on two lines; that of the teacher as well as the child. The teacher needs to take time to learn and understand the new theoretical framework and how to use it within her practices as well as providing time for the child to learn and develop. The child needs the time to progress through the stages of imagination and develop play to the point where it is mature play and becomes a leading activity for the child.

An important finding from this insider perspective is the influence of the dialectic that is important for Vygotsky's cultural-historical theory. Outsider research acknowledges the dialectic, but minimal work has been undertaken to describe how it works in practice. This thesis shows the dialectic at work through the three practices; in particular, how one practice can dominate over the other practices and how this dominance can shift depending on the circumstances. This knowledge can support the teacher to understand how to more effectively provide optimal learning opportunities for the children she is educating.

Chapter 1

Introduction

1.1 Introducing the Thesis

This thesis is the story of change. It is the story of my remediation from a Piagetian-trained background to that of using Vygotsky's cultural-historical theory to guide my practice with the children. It is presented as a dialect in that as I changed my practice with the children, this change then impacted on how the children played. This, in turn, then meant that their responses also impacted on how I worked with them. Consequently, there were two differing elements at work: my development and the children's development. However, these two differing elements were combined within a dialectical relationship. As a result, this thesis is presented from an insider perspective, since it is my story on the uptake of a new theoretical foundation in order to mediate practice within an early childhood education setting. In this chapter I have set the context for the study by providing a brief outline of why there has been a major shift in theoretical understanding regarding children's learning and development in the field of early childhood education.

The practising teacher today has now been exposed to many theories, with the expectation that some of these newer theories will be considered and implemented to mediate practice. This has raised issues for teachers previously educated in the use of older theoretical frameworks, such as the Piagetian-inspired developmental approach, because how to learn and use a new theoretical perspective to mediate practice is not well understood. This is especially so from the perspective of the teacher or what I call in this thesis the "insider perspective". The process of change when learning to use a new theoretical perspective to mediate practice is highlighted in this thesis and introduced in this chapter through my personal story. I detail my original training in Piagetian theory through to my introduction to Vygotsky's cultural-historical theory, and how I set about trying to use this new theory to

mediate practice. Consequently, this leads to an understanding of an insider perspective in answering the research question of: ‘What does the uptake of cultural-historical theory involve from an insider perspective, and how does this uptake mediate a teacher’s practice?’

This thesis contributes to the range of early childhood education literature and to the practice of early childhood education by presenting research from an insider perspective and detailing processes an insider will cover when considering change. It highlights three practices that have been found to be of major importance for the teacher to focus on when involved in the uptake of cultural-historical theory as well as the relationship between these practices, which has not previously been documented.

Throughout this thesis, I will refer to the feminine form “she” because I am writing it from my perspective and I prefer the consistency of working in this manner.

1.2 Context for the Study

During the past 10 to 15 years there has been a major theoretical shift within early childhood education nationally and internationally. This occurred because differing theories were being considered and introduced by researchers such as Fler (1996), MacNaughton (1995), Hedges (2000) and Blaise (2005) within the field of early childhood education in response to what were viewed as limitations to the existing and more dominant developmental perspective. The shift from the main developmental perspective to theories newly introduced to early childhood education has meant that practising teachers have had to come to terms with the changes these theories suggest for teaching. As a result of these newly introduced theories into early childhood education, the focus has turned to theories such as sociocultural or cultural-historical theory (including Vygotsky, 1896–1934; Rogoff, 1950; Bronfenbrenner, 1917–2005), postmodernism (Jameson, 1934; Foucault, 1926–1984; Derrida, 1930–2004), and post-structuralism (Deleuze, 1925–1995, Walkerdine, 1947–) to name major players in the

theoretical field, and indicated a move away from predominantly constructivist-informed, developmentally appropriate practices.

Teachers who were trained at tertiary institutions from the 1970s to the 1990s were mainly instructed in the Piagetian theory and philosophy of working with the young child within early years' education (Frost & Rolland, 1969; Katz, 1973; Peters & Klien, 1981).

Piaget was considered to be a constructivist as he theorised that children constructed their knowledge through their own personal interactions with the world within their setting.

However, from the late 1990s onwards, there was a shift away from the dominant theory of Piaget as teachers started to question the validity of many of his ideas. Fler (1996) debates whether the theory of play, as generated in the 1930s to the 1960s, was relevant for children in the 1990s.

This debate continues today, with children living in a highly technological world and, for many, in a multicultural world. Piaget's theory also did not take into account other cultures and communities that were not of European or Western origins. Differing theories started to infiltrate into the early childhood education sector (Fler & Robbins, 2004; Hedges, 2000; Langford, 2010; Walkerdine, 1993). Poststructuralism brought into consideration the thought that power could be shared among the social group and that through discussion, an individual could be in a position of power at different times. Language is a major issue within poststructuralism. Weedon (1997) expands on this understanding by commenting that "Language is not the expression of unique individuality; it constructs the individual's subjectivity in ways which are socially specific" (p. 21). She also comments that: "It is in language that differences acquire meaning for the individual" (p. 73). Theories under the umbrella of poststructuralism considered the impact of power in differing forms. An example of the change in thought could be seen with gender biases becoming important within this theory (MacNaughton, 1995; Blaise, 2005). Another key influence has been postmodernism,

which focuses on a variety of ways to view the world and that the educator should question the generality of developmental theory. A principal player in the early childhood education field is the Russian psychologist, Lev Vygotsky. He articulated his cultural-historical theory during the 1920s, when he worked on his understanding of a framework for general psychology and placed importance on the social situation for learning and development. His theoretical writings were withheld for 20 years in Russia (Cole & Scribner, 1978) during the Stalin years, and have only slowly filtered through to the Western world since 1962, with the publication of his work entitled *Thought and Language* (1962). Interest in his ideas in the field of early childhood education began to appear in the early 1990s, along with the questioning of the dominance of Piagetian developmental theory. Researchers, such as Fleer (1995a, 1995b 1996), Dockett (1995), MacNaughton (1995), Creasey, Jarvis and Berk (1998), John-Steiner and Mahn (1996), used his ideas to think differently about the role of culture in children's learning and the process of play. Now within the field of early childhood education, Vygotsky can be considered a very prominent player.

In Australia, teachers within the field of early years education have also had to grapple with all these new ideas and how they could be used to mediate practice instead of Piagetian-inspired developmental constructivism. This problem of using newly introduced theories in practice became more evident as the Australian Government (DEEWR, 2009) rolled out the "*Belonging, Being & Becoming: The Early Years Learning Framework for Australia*" in 2009. Within this document, it is stated that: "Different theories about early childhood inform approaches to children's learning and development...which may include developmental theories, socio-cultural [cultural-historical] theories, socio-behaviourist theories, critical theories and poststructuralist theories" (DEEWR, 2009, p. 11).

The document goes on to say the teacher needs to consider: "What theories, philosophies and understandings shape and assist my work? What aspects of my work are not helped by the

theories and guidance that I usually draw on to make sense of what I do?” (DEEWR, 2009, p. 13).

Consequently, there was the expectation in this new curriculum document that a wide range of theories will be considered by the practising teacher. This situation raised the concern of how teachers would acquire or mediate these new theories in practice. This difficulty was recognised by Anning, Cullen and Flear (2009) when they stated “changing theoretical lenses is very difficult for practitioners” (p. 190). Government agencies, such as the Department of Education, Employment and Workplace Relations (DEEWR), were associated with rolling out the framework, and organisations such as Early Childhood Australia (ECA) and universities contributed funds and/or research opportunities to teachers to participate in professional development sessions to understand how to use the new framework as well as learn about some of the additional theorists, who included Rogoff (1950–), Bronfenbrenner (1917–2005), Malaguzzi (1920–1994) and Gardner (1943–). Research has since been conducted to see whether and how teachers have taken on board the theories that have influenced early childhood education, particularly as used in the EYLF (S. Edwards, 2007a, 2007b; Ryan & Grieshaber, 2005; Siraj-Blatchford, 2009a; Wood, 2004). While useful for identifying the issues facing educators trying to use a new theory to mediate practice, all of these papers have been written from an “outsider” perspective by researchers investigating teachers’ practice. There has been very little research undertaken from an insider perspective – that is, from a practising teacher telling the story of how new theoretical perspectives are used to mediate practice. Consequently, this thesis will present an insider’s view, with particular focus on how I used cultural-historical theory to mediate practice.

1.3 Personal Orientation

As the author of this thesis and a practising teacher, my personal orientation as the researcher has to be considered. This is the story of my re-mediation from a Piagetian theoretical base to

a cultural-historical theoretical base. It is the story of my development as I changed my social situation of development. This development occurred within the dialectic that existed between me and the children with whom I worked; as well, my own development cannot be considered independent from that of the children. However, I will firstly present a brief historical timeline of early childhood education so that I can be situated within the field.

Early childhood education has historically used philosophies and theories about children's learning and development to inform practice. The history of this use can be categorised according to a number of philosophical perspectives about children's learning and development, and the more recent reconceptualist movement in early childhood education. I will begin with important philosophical perspectives in early childhood education.

1.3.1 Philosophical perspectives. The following individuals presented philosophical views on how early childhood education should be perceived and, consequently, made a significant impact on how teachers should present educational experiences for young children. Each of these philosophers contributed to, and is still recognised for, their important contribution to early childhood education.

1.3.1.1 Johann Heinrich Pestalozzi (1746–1827). Johann Pestalozzi's birthplace was Switzerland. Although he was born in Zurich, he enjoyed the rural life offered to him by his grandfather. After completing his schooling and studying philosophy and languages, he eventually returned to the rural lifestyle. It was here that he started to implement some of the ideas that he had been pondering while he considered how he could support the poor and help within the wider community. He attempted to establish several schools that focused on teaching children skills that would enable them to become self-sufficient as adults. The most famous of these schools was named Yverdun. Unfortunately, these schools failed. Pestalozzi then focused on writing up his theories on the education of children (Bowers & Gehring, 2004; Horlacher, 2011; Pound, 2011). Pestalozzi considered that children needed to be

influenced by the world around them, that their studies should be of interest to them, and that activities should be kept to a concrete nature until the children really understood the concept being taught before abstract ideas were presented. Children were encouraged to explore and find out for themselves, making their own hypotheses to answer their own questions. He felt “that children needed to learn through all the five senses” (Pound, 2011, p. 9). In his opinion, observation was the most important of all sensory experiences. Pestalozzi must, therefore, be acknowledged for his recommendations that observation was necessary to enable the teacher to plan in a practical and holistic manner for the child in order to support the child’s development and learning. He envisioned that children should be taught in groups according to their ability, and that the curriculum, and the materials that supported the curriculum, should be carefully sequenced to match the child or the children’s level of development. An important emphasis for Pestalozzi was that the child’s learning must start from the child’s previous experience and then slowly be developed so that the learning is expanded with a child-centred focus (Bowers & Gehring, 2004). These philosophical ideas present Pestalozzi as an early constructivist as he encouraged children to explore, construct and adapt their own interpretations and meanings of their environment. Teachers who followed this method of working with children needed to plan for group learning in a sequential manner. School was seen as an extension of the home environment and any discipline meted out was to relate to the child wanting to please the teacher rather than being afraid of the teacher or the learning situation. Pestalozzi also felt that rewards were not necessary to encourage the child to learn as he felt that children had an intrinsic desire to learn (Roopnarine & Johnson, 2005).

Pestalozzi’s ideas were picked up by teachers from other European countries. The noted theorists Robert Owen and Friedrich Froebel spent some time at the Yverdun School, learning about the role of education for children and took from it the importance of life skills and the need for hands-on learning (Pound, 2011).

It can be seen that there are similarities originating from Pestalozzi's ideas that are evident in the more modern-day early childhood setting. Null (2004), discussing the relevance of a constructivist approach to education, makes the following comment:

the idea that teachers should encourage students to follow their own interest for most, if not all, of what they learn dates back at least 250 years and possibly even further. Whether or not contemporary constructivists acknowledge these three writers, (Rousseau, Pestalozzi, Hall) and many others like them, they draw upon these traditions when they emphasize activity-based instruction or when they advocate lessons that require students to create their own understanding or discover concepts of their own. (p. 186)

Pestalozzi is also acknowledged for his belief that education should drive improvement within social conditions (Bowers & Gehring, 2004). Pestalozzi is also credited with the influence of the benefits of physical education for children, involvement in self-directed activities, and the importance of the family for the child's education (Platz & Arellano, 2011).

Following Pestalozzi was Friedrich Froebel, who took on board some of the philosophical ideas of both Rousseau, a Swiss philosopher, and Pestalozzi.

1.3.1.2 Friedrich Froebel (1782–1852). Friedrich Froebel was a German who developed his interest in philosophy and further learning after having taken some courses at the University of Jena. It is understood that he was able to work for Pestalozzi in the early 1800s and, consequently, aspired to the beliefs held by Pestalozzi that connection to and with nature was considered to be a vital component of the young child's development.

He was employed as a teacher in Frankfurt and this experience "convinced him of the importance of the early stages of education" (Nutbrown, Clough, & Selbie, 2008, p. 32).

After the Napoleonic Wars, he completed further study then started his own school. During 1837 he returned to the original school he had opened with a colleague in 1817 and was able to put his educational theories into practice within that school. These theories included “his own spiritual vision of experience as unified and developed from children’s play” (Genishi, Ryan, Ochsner, & Yarnall, 2001, p. 1177). Froebel also used multi-age groupings within his schools.

Froebel has been given the title of “the designer of the kindergarten (children’s garden)” although he did not open his kindergarten before 1833 (Bergen, 2014, p. 11). This title connected back to Pestalozzi’s view of the importance of nature, but Froebel himself had a great love for nature and plants and felt that play in the outdoor garden should have a prominent place in the young child’s education. Teachers were also expected to support the child’s learning from the position of where the child was at and allow them time to engage in “self-expression through play” (Pound, 2011, p. 13) as well as be given opportunities and time to explore, create and follow through with their own interests. Children were given smaller, child-sized equipment to use within their environment, which also placed emphasis on the child-centred focus. Froebel also had a strong belief in the value of children being involved in music and singing, so much so that he produced a book of songs and rhymes for young children that he titled *Mother Songs*. Another point of interest was that Froebel was adamant that women should be the teachers of the young child as they were considered capable of extending his ideas that the kindergarten was an extension of the home and family. Froebel is also acknowledged for introducing the term “child-centred”, which related to the child being able to independently construct knowledge without the teacher, through interests and needs (Tzuo, Yang, & Wright, 2011). Early childhood education programs that came to be characterised as having primarily child-initiated activities or being child-centred included the developmental theories of Freud and became known as the Romantic stream of educational ideology (Spodek & Saracho, 2003).

Froebel also designed specific, structured toys that he called “gifts” (Saracho & Spodek, 1998). These gifts consisted of a set of small wooden blocks, a box of small woollen balls, a wooden cube, a cylinder and a sphere and a final box which contained a collection of cubes, half-cubes, cuboids, triangles and prisms. These items were presented to a child in a particular manner and order with the expectation that the child would use the gifts in a very specific and structured manner. He also encouraged children to participate in artistic activities, such as clay, sand, drawing and singing, to support their developing senses. The children were also expected to work at occupations such as sewing, and the cutting and folding of card and paper, to develop their fine motor skills.

Froebel’s influence extended to other countries apart from Germany, and colleges in England were set up to train teachers in the Froebelian method to work in the kindergartens. Europe and North America also showed great interest in using Froebel’s methods.

Some criticisms of Froebel’s work included his lack of interest in gross motor skills and his overly dominant stand on only having women as teachers for young children. An early German philosopher and teacher opposing Froebel’s methods was Herbert (1776–1841). He supported the idea of the mind being a blank slate and it was the educator’s task to provide an academic course for the children (Ediger, 1992). However, the English philosopher John Locke (1632–1704) introduced the understanding of blank slate or *tabula rasa* when the child is born with no knowledge (Henson, 2003). Ezell (1983–84) also credits Rosseau with the use of ‘blank slate’ when referring to a child. It is also a consideration that the German educator Baroness von Marenhotz-Bulow (1810–1893) deliberately set up centres for young children to learn skills that would enable them to work at an older age. She also did not support the mixing of children from the differing classes (Brehony, 2013). Sutton-Smith (1997) makes the comment that:

it was the educator Friedrich Froebel (1782–1852) who developed the view that play was the highest phase of a child’s development, the function of imagination being the peak of the child’s self-active inner representation. His unimpeached idealization of play is the one that has persisted the longest in Western society, through his influence on preschool education. Froebel dignified all kinds of play, even play with toys, to which he gave a spiritual significance. (p. 131)

Although Froebel may have presented this ideal of play, over time and due to translation issues, another main criticism arose. It was felt by scholars such as Stanley Hall that there was an incongruity between Froebel’s ideas of nature, freedom in play and how play was a fundamental need for a child’s development to his emphasis on the “gifts” and the pedantic presentation of them as well as the structured manipulation that was required. William Kilpatrick (1871–1965) was an early educator who considered that children needed to be guided in their learning rather than be confined to rote learning and pedantic instruction (Saracho, 2015). Aspin (1983) also questions Froebel’s stand on educating young children with the comment that “the notion that spontaneous learning can take place via direct experience and without the necessity of any teaching intermediary – is at best highly contentious, at worst incoherent” (p. 262). He continues by stating that the child has to come to learn about the world through interactions and communications with others, not just be provided with the materials to stimulate curiosity.

Stanley Hall (1846–1924) was recognised as an originator of the Child-Study Movement (1983) through his article “*The Contents of Children’s Minds*” (1883) that focused on the child’s “natural order of development” (Chung & Walsh, 2000, p. 221). His theorisation of development introduced the concept that the child’s interests are the basis for learning and the teacher must follow these interests. He also considered the need for the child to be involved in gross motor activities as an important element of the child’s growth (Spodek, 1982).

Ransbury (1982) gives a detailed account of how Froebel presented his gifts to the children

and poses the question of “why is Froebel not still used in the modern kindergarten?” (p. 105), even though there is evidence of the influence of the gifts in the blocks, clay, cards and paper. Teachers today do not present these items along with the occupation that was designated to the specific gift. According to Platz and Arellano (2011), the “occupations were developed from traditional activities of the home such as weaving and sewing” (p. 61).

To this day, many educational centres for young children place an importance on the theme of the garden within the naming of the centre, rooms or groups, and more attention is again being given to providing aesthetically pleasing yards for the children to be in. Research that has been conducted throughout many countries (Elliot & Chancellor, 2014; Knight, 2009, 2011; McKinney, 2012; Warden, 2010) on the influence of the Forest preschools or Bush kindergartens can also be linked back to the work of, amongst others, Froebel by “connecting children with nature through play-based approaches” (Elliot & Chancellor, 2012, p. 46). The introduction of bush kindergartens or forest schools into Western countries developed from Scandinavian countries, such as Denmark and Sweden, where the early years’ programs placed importance on the children having time outside so as they could follow their interests, be independent in their play, develop their self-esteem and self- confidence, and develop a greater respect for the outside environment and to learn to care for it (Maynard, 2007; McKinney, 2012). In these Scandinavian countries, the influence of Froebel’s ideas about children, play and early childhood remain strong.

It is interesting to note, however, that Charlotte Mason (1824–1923), although originally trained in Pestalozzi’s method for educating young children, challenged Froebel’s belief that scaled-down equipment should be used as she felt that “children should be part of the real world and not isolated or separate from adults and their daily work and routines” (Nutbrown et al., 2008, p. 146). Following on from Froebel was John Dewey, a prominent American philosopher.

1.3.1.3 John Dewey (1859–1952). John Dewey was the American philosopher who set up a laboratory school in 1896, after spending some time teaching philosophy, psychology and educational theory, where he was able to work on his theories of education for the child. Cohen (1998) writes that Dewey was frustrated that children were no longer able to relate their learning to experiences. “When learning grew isolated from work... learning was sent to school and so became artificial” (p. 430). Dewey was considered to be focusing on children developing in stages in as much as the younger children needed more concrete activities while older children should work with more abstract ideas.

Dewey also considered that the school environment should be a reflection of the home, community and culture of the child. He believed that the school environment was an important extension of the home, and school was a small society in which the children could learn and practise the skills, values and expectations of their community and society (Saracho & Spodek, 1995). Dewey took a number of influences from Froebel such as the importance of encouraging the children’s interests. However, Cohen (1998) believes that Dewey limited the interest to what was considered “a package of universal instincts and interests, not the particular and varied children found in many of the child- and activity-centred classrooms whose intellectual emptiness so distressed Dewey” (p. 436).

Children needed to be proactive in their learning and teachers needed to facilitate the extension of the children’s learning from their current position of development and knowledge. Dewey also believed that an important element of children’s learning was the ability to find problems and solve them. Materials then needed to be supplied to support the children in their work. Dewey also thought that children “would learn to function at higher levels of consciousness and action” (Saracho & Spodek, 1995, p. 133) through play that was built on from their experiences. This understanding was reflected in Dewey’s interest in enabling learning through projects that related to the children’s experiences, thereby creating

a holistic and integrated learning environment. Teachers were to be ready to make use of incidental learning opportunities whenever they appeared.

Dewey was also a major influence on future schools worldwide and, in particular, the progressive kindergarten movement. This was at a time (1890 to 1919) when educators such as Dewey (1859–1952) and Smith Hill (1868–1946) were starting to question the validity of Froebel’s methods. Teachers started to give children more time to experiment and to be involved in social learning situations, all the while encouraging and supporting the child to learn through their play. According to Pound (2011), “Dewey’s work influenced a government report (the Hadow Report on Nursery and Infant Schools) published in 1933 and, more than 30 years later in 1967, there were echoes of his influence in the UK’s Plowden Report” (p. 19). The Hadow report was a major investigation into the development of education in England, specifically focusing on infant and nursery schooling at the time. There were 105 recommendations made concerning infant education, including staffing and educator training (Gillard, 2006).

Dewey also had a major impact on American schooling, with his introduction of the concept of using children’s experiences to guide the curriculum, the consideration of social influences on children’s learning, and the acceptance of the idea that play could also facilitate learning. The impact he had on teachers is still evident today, with the encouragement for them to become reflective in their work rather than be stuck in a routine that could not be altered. Dewey encouraged the teacher to focus on some differing stages of reflection such as:

1. “Perplexity, confusion, doubt
2. A tentative interpretation
3. A careful survey
4. A consequent elaboration

5. Testing a hypothesis” (Pound, 2011, p. 19).

Another aspect of education today that can be attributed to Dewey is the idea of authentic practice when theoretical or abstract concepts can be understood as children having the possibility to solve real problems that are important to their activity or functioning (Cohen, 1998). This activity would then lead to real learning.

Some research has produced some negative opinions regarding Dewey’s educational theory. A main point made is that he neglects to recognise the importance of the adult within the social situation and their role in supporting the cultural learning for the child (Boyles, 2012). Scholars, such as Phillips (1998), refute this claim, arguing that Dewey “was suggesting that the teacher had a more important and far more difficult and subtle role to play” (p. 410). Some academics feel that there is no importance placed on the child gaining some specific learning within certain subjects such as mathematics and science. Children do need adult input to fully gain understanding of many concepts within these subjects (Boyles, 2012). Again, Phillips (1998) argues against this claim as he points to the idea of Dewey having a curriculum within the educational system which becomes a way for learning to be organised in such a way as to make it more relevant to the child, and which in some ways can be seen as dialectic.

The final philosopher I consider in this section is Maria Montessori.

1.3.1.4 Maria Montessori (1870–1952). Maria Montessori was born in Italy and after training to be a doctor, a profession still dominated by males at the time, eventually turned to being involved in the care and welfare of deprived children, or as the terminology for the time “idiot children” (Pound, 2011, p. 24).

This, in turn, led her to study education, in particular education for children with mental and emotional additional needs. She went on to further study in anthropology, experimental psychology, educational psychology and educational philosophy. Montessori can be considered a maturationalist since she believed that what came from “within the child is the

most important aspect of development...and all characteristics are predetermined”

(Wadsworth, 2004, p. 2).

Montessori started to set up homes, the Casa dei Bambini, for disadvantaged children in 1907. A directive to the staff caring for the children was to give the children simple toys and allow them to play with them while at the same time observing the children without any interaction or intervention. She used her observations to form the basis of her educational method. She had a number of main objectives within her philosophy, which included multi-age grouping of children, daily schedules, class sizes, basic lessons and character education (Nutbrown et al., 2008). Montessori included the teaching of practical skills to the children. The teachers were expected to work with the children in the use of materials in very specific ways to enable the children to reach the required outcome. It was also expected that the teacher following Montessori principles would operate “on the following three principles: 1) a carefully prepared environment; 2) an attitude of humility; and 3) respect for children’s individuality” (Montessori, 1936, as cited in Roopnarine & Johnson, 2005, p. 17).

An important part of the Montessori program were the assessment checklists that teachers would mark off as the child successfully completed or achieved the required result. This reliance on checklists to show that the child had mastered a stage or skill is still frequently seen within current educational practices, particularly with early intervention programs (Carr, 2014). The Carolina Curriculum for Infants and Toddlers with Special Needs (Johnson-Martin, Jens, Attermeier, & Hacker 1991), the Wechsler Preschool and the Primary Scale of Intelligence 111 (Wechsler, 1967, 2014) are both examples of such checklists.

Montessori also discouraged free play with the equipment she provided within the program. She would initially observe the children using the equipment she had designed and then decide on what concepts, skills or learning she thought most appropriate to the piece of equipment. Montessori abstracted the essential elements of her method from the natural play

activities of children, reconstructing and systematising them. When developing her methods, she brought materials that she was designing into the classroom and watched the children play freely with them. She then abstracted what she considered to be the essential elements of the play and systematised their use in her method. Children's free play with the Montessori materials was discouraged after she had decided how materials could best be used.

1.3.2 Philosophical perspectives in early childhood education today. Research viewed by Null (2004) considers the philosophical leaders in early childhood education, and he comments that there appears to be support for a constructivist view of education still permeating the early childhood education sector, especially when thinking of children following their own interests, the connection of children's learning with their current knowledge, and the benefits of activity-based learning. He also puts forth the comment, however, that it is questionable as to whether teachers have an in-depth understanding of what it truly means to utilise constructivist practices with the children (Null, 2004).

Blasi and Enge (1998) provide a comprehensive article detailing how constructivism can be seen to permeate the National Association for the Education of the Young Child's (NAEYC) stance on Developmentally Appropriate Practice (DAP). According to Bredekamp and Copple (1997), NAEYC published the position statements on DAP "in response to specific, identified needs within a historical context" (p. v). A trend was emerging that there was a need to provide children with "more formal, academic instruction...placing undue emphasis on rote learning and whole-group instruction of narrowly defined academic skill at the expense of more active learning approaches based on a broader interpretation of children's educational needs and abilities" (Bredekamp & Copple, 1997, p. v). The constructivist stance is therefore a way to provide a more appropriate educational program for young children.

Blasi and Enge (1998) further consider the many principles, such as "learning is viewed as a construction of meaning as students experiment and problem solve. Children are active

learners...to construct their own understanding of the world around them” (p. 296), that endorse a constructivist approach to working with children. However, they also challenge some aspects of DAP when it involves direct teaching. They feel that educators may not be paying attention “to the systematic provision of opportunities for reflective abstraction and cognitive reorganization. We suggest that developmentally appropriate practice for young children should emphasize more fully the role of the teacher in facilitating the learner’s cognitive reorganization” (p. 297).

Hall (1846–1924) was an early leader of educational theory. Hall, according to Null (2004), “drew upon the work of Rousseau, Friedrich Froebel, and Charles Darwin to develop an approach to education that emphasized child development, scientific investigation, and the correlation of curriculum with the developmental stages of children” (p. 185).

This child-centred view is still evident today in early childhood curriculum frameworks, both nationally and internationally. For example, the Reggio Emilia approach focuses on the child’s rights and sees the child as competent, active, and critical, and able to create her own meaning of the world through her interaction and play (Samuelsson, Sheridan, & Williams, 2006). The Experimental Education (EXE) curriculum originated from a professional development program including 12 educators and two consultants in Belgium, although it has now spread to other countries (Laevers, 2013). Within this curriculum, the child is a co-creator of her learning and the involvement performed by the child is considered to be an indicator to the learning that is happening (Laevers, 2013). A further example of a child-centred curriculum comes from Sweden where “the active child is visible in the goals formulated as learning and development. The activities should stimulate play, creativity and joyful learning, and use children’s interest in learning and mastering new experiences, knowledge and skills” (Samuelsson et al., 2006, p. 205).

In the 1950s, early childhood teachers were given very practical instruction about how to approach the practice of education because their role considered “to protect young children, that is, to allow them to be happy, healthy, safe, and busy...provide a harmonized childhood for them” (Spodek & Saracho, 2003, p. 5).

Bowman (1993) states in her chapter in Review of Research in Education that “the most significant influence on child development research from the 1950s to the 1970s was the work of Piaget (1962). His theories projected an image of children as active learners, constructing their own knowledge through interactions with their environment” (p. 102).

With this historical overview in place, I will now place myself on the time line of early childhood education.

1.3.3 My position on the early childhood education time line. My original knowledge gained for teaching kindergarten children came from the State College of Victoria: Institute of Early Childhood Development.

This college was originally established in 1916 under the auspices of the Free Kindergarten Union by a group of women who saw the need to establish quality early childhood services and was named the Victorian Kindergarten Training College.

In 1965, autonomy was given to the College Council and it was then renamed the Melbourne Kindergarten Teachers College. Another name change occurred in 1973 when it became known as the State College of Victoria: Institute of Early Childhood Development. Therefore, this had been the only institution in Victoria available to prepare an individual for the role of a kindergarten teacher. As a child, I dreamed of becoming a kindergarten teacher and was fortunate to be able to attend this college from 1974 to 1976 to undertake my training for such a position.

For this thesis, although the term educator is presently used in line with the current practices within early childhood education: “Educators: early childhood practitioners who work directly with children in early childhood settings” (DEEWR, 2009, p. 45), I personally refer to myself as a teacher as I was trained to be one. Consequently, I will use the term “teacher” to apply to early childhood educators. There is no definition of a teacher within this framework, although within the Victorian Early Years Learning and Development Framework (DEECD, 2011) “*Teachers* are degree-qualified and work as educators in early childhood settings and schools, including special schools” (p. 38).

A three-year course was provided at the Institute of Early Childhood Development, where students graduated with a Diploma in Teaching when they finished. This course focused on children from infancy to the grade 3 level at school. The first year of study concentrated primarily on the development of infants, focusing on their development from a Piagetian perspective. Theoretical studies at the time included child development and education, psychology, science and English. Practical components for the year related to individual studies on a baby’s growth and development as well as placement within a kindergarten, and art and music subjects. An interesting feature of the first-year students’ practical placement was that they were always sent in pairs to a kindergarten, and as I now look back with my cultural-historical understanding, these placements reinforced the social component of learning. The second year at college was oriented towards equipping students with the necessary skills to teach within the primary school system and practical placements were, accordingly, completed at primary schools. Such placements were in classes between the preparatory or foundation grade and grade three, where the children’s ages ranged from five to eight. Again, the focus was on the developmental theories of Piaget for the school-aged child.

The final year of study was dedicated to understanding Piaget’s theories of development for the kindergarten-aged child, and, therefore, half of the year was spent within the kindergarten

environment where the pre-service teacher was able to practise the theories and skills she had learnt during her time at the Institute of Early Childhood Development. Within the institute, Piaget was noted as the current theorist on child development and each year level was given extensive blocks of time to learn about his theories and how they related to the child's overall development and learning through psychology and education studies. The institute also placed a high priority on giving students time to practise their early teaching skills. With this original training, students were also provided with instruction on the values and expectations that governed how to function within the kindergarten environment.

In the final year, the pre-service teacher was placed with an experienced teacher for an expansive block of time during her placement. There was a block of six weeks spent at the institute and the remaining six weeks were spent on placement. The school term consisted of 12 or 13 weeks as there were only three terms for the school year in the 1970s, not four as is now the case. When on placement, the pre-service teacher was expected to take more control of the groups, undertake more administrative tasks, and definitely assume more responsibility when it came to planning for the whole group and for individual children. It was customary to plan for six children individually on a rotating fortnightly basis.

Observations of children were divided into the categories of gross and fine motor skills, cognitive skills, language, emotional development and social development. Pre-service teachers were expected to look for what the child could not do or where they needed extra support to be able to accomplish a skill successfully, and would then plan for that need within the overall program. The focus of planning on the deficits rather than the achievements was the norm when using a Piagetian framework.

I was absent from the field for 14 years after having my own children, so my introduction to differing theoretical stances came when I started working full time again as a teacher, and I eagerly volunteered to have a pre-service teacher complete her placement at my centre. The

pre-service teacher had been able to complete her earlier Diploma in Early Childhood Services with me, so there was mutual satisfaction when she was officially placed with me to complete her Graduate Diploma in Early Childhood Education. It is with the pre-service teacher's (now graduated) permission that I use her name "Paru" and include her in my personal orientation to the research as part of this thesis. Paru had originally completed her bachelor studies in India. Her time with me became a very rewarding and enriching relationship as she would bring her studies to me for clarification if she was struggling with comprehension since English was her second language – her work, however, was always of an exemplary or high distinction standard. Since Paru was at university studying for her graduate early childhood education diploma in the early 2000s, she was being initiated into a wide variety of theories that were newly informing early childhood education, most of which I had no knowledge of, having been out of the field raising my children. Consequently, my unfamiliarity with the new ideas Paru was learning at university and practising in my centre meant that she had to explain her teaching methods to the mentoring teacher – me!

At the same time, my employing body had engaged a lecturer from Monash University to work with staff in compiling a philosophy document, which had a main focus of using cultural-historical theory to inform practice (S. Edwards, 2007a, 2007b) and I became involved during the second year of this work. I particularly focused on gaining knowledge of using the element of the Zone of Proximal Development (ZPD) (Vygotsky, 1978) for guiding observations and planning.

A flow-on from being involved with this work meant that I became exposed to readings by then current scholars, such as Ailwood (2003), Cullen (1999), MacNaughton (2009), Grieshaber (2008) and Dockett and Flear (2002), regarding the importance of the interactions of the teacher with the children, a changing focus on why and how children learn through play, and the impact of the social and cultural life of children on their learning.

I also had many a long discussion with the lecturer after the other staff had left the meetings about the theoretical ideas I was encountering and how I thought these did or did not relate to my practice. Through my continued contact with pre-service teachers on placement in my centre, as well as academic staff from the university, I was able to access further readings on cultural-historical theory as well as being able to attend local conferences. However, as I started to question how to incorporate this “new” cultural-historical theory into my practice, I looked for papers by practising teachers on how they implemented a new theory. I thought I could learn more about how to use the new ideas to mediate my practice by learning from the experiences of other practising teachers, instead of relying only on what researchers were saying about teachers’ use of new theoretical ideas. When attending seminars or conferences, therefore, I would try and seek out those being presented by practising teachers whenever possible. Unfortunately, my search found very little guidance from an insider perspective.

This thesis is therefore my commitment to find out what it is like for a practising early childhood teacher to take up a new theory and to use this in mediating her practice. Mediation involves the understanding of the relationship that tools or signs, including a new theoretical perspective, have on the teacher’s practice with the children, and the changing ways the teacher uses these tools and signs with the children (Vygotsky, 1978). Therefore, in this thesis I am contributing a unique insider perspective on the uptake and use of a new theory for mediating practice to the early childhood education literature.

Having detailed the context for this study and my personal orientation to the research within this thesis, I will now explore the research question guiding the conduct of the study.

1.4 Research Question

I became committed to furthering my understanding of cultural-historical theory with particular focus on Vygotsky. The readings I was accessing through the university and from

pre-service teachers attending placement with me were complex. Krull (2007) elucidated my feelings well when she writes:

I did not understand him [Vygotsky] all that well; and what I did understand seemed not to teach me anything that was different from Piaget's ideas. I now see this dismissal as a good example of how, as learners, we try to assimilate new knowledge to the schemes we have already developed, a very Piagetian idea. (p. 98)

I struggled to make sense of the many concepts, such as the importance of the child's social and cultural environments [Daniels, H. (2008). *Vygotsky and Research*; Davydov, V. (1995). *The Influence of L. S. Vygotsky on Education Theory, Research, and Practice*], how to understand the ZPD in relation to the child [Daniels, H. (2008). *Vygotsky and Research*; Vygotsky, L. (1978). *Mind in Society*], what my involvement was with regard to the child's ZPD [Kravtsova, E. E. (2009). *The Cultural-Historical Foundations of the Zone of Proximal Development*], and the redefining of the importance of play and the relevance of play for a child's learning and development [Vygotsky, L. (1976). *Play and Its Role in the Mental Development of the Child*; Kravtsov, G.G. (2006) *A Cultural-Historical Approach to Imagination and Will*; Kravtsov, G.G. and Kravtsova, E. E. (2010). *Play in L. S. Vygotsky's Nonclassical Psychology*] that were interwoven throughout the readings. Yet, these readings gave me no real guidance about which concepts to focus on to mediate my practice.

Since there is now the expectation in the ELYF for the early childhood teacher to consider cultural-historical theory as one available choice for the mediation of practice, (DEEWR, 2009, p. 11) this challenges the many practising teachers who were trained primarily in Piagetian theory, such as my generation of teachers, who are still actively working in the field. My research question for this study is thus based on an insider perspective:

What does the uptake of cultural-historical theory involve from an insider perspective, and how does this uptake mediate a teacher's practice?

1.5 Significance of the Thesis

The main significance of this thesis is that it can be considered “insider” research as it has been conducted by me in my own practice within the kindergarten environment I work in as governed by social and historical practices. The study was also carried out within a dialectical framework, as I found I would consider what the children were doing and then relate my work to their needs. As discussed later in this thesis, this shift to a dialectical framework represented a significant movement in thinking and practice from how I was initially trained to work with children by identifying and planning for their developmental gaps. This “insider” focus aligns with the definition of research offered by Kemmis and McTaggart (2000) as a “participatory, collaborative” (p. 579) approach, whereby the insider individual considers practice in a subjective manner as well as looking at the social practices located within the broader experiences of the insider. However, Kemmis and McTaggart (2000) also add the important aspect that recognises the social and historical influence on practice as well as the dialectical relationship between the insider and the social and historical setting. The importance of this dialectic will be highlighted throughout this thesis; however, to offer a very simplified understanding, it can be considered as a co-evolution or interdependency between me, the thesis findings, and the children with whom I work.

Although there has been research conducted by outsiders on the practice of teachers within the kindergarten environment, and the changing use of theory and reforms within the early childhood education field (S. Edwards, 2007a, 2007b, 2013; Fleet & Patterson, 2001; Wood, 2013; Wood & Bennett, 2000), there is essentially very little authentic insider research being conducted as to how the teacher can change the theoretical base for her practice. Genishi et al. (2001) confirm this situation by stating there is a “dearth of research in ECE on teaching itself” (p. 1178). Ryan and Grieshaber (2005) follow up this statement on the lack of knowledge of teacher practice with the following:

...gaps in knowledge remain. Plugging them all seems a somewhat pointless endeavour, given the rate of change in the knowledge society. What we do need is more examples of those who are on the edge, that is, playing around with innovative ideas in their practice and developing unique approaches to the diverse educational circumstances that confront early childhood educators. (p. 7)

This is where I have emphasised the significance of this thesis as a new contribution to knowledge, as it is an insider viewpoint on using a new theoretical perspective to mediate practice. By the end of the thesis, I will have shown, in relation to the early childhood education literature about teachers' use of theory, that there are three main concepts – (1) Practices of interpretation and interaction; (2) Practices of tool adaptation; and (3) Practices of temporality – that demonstrate how a teacher is able to use cultural-historical theory to mediate practice and thereby support optimal development and learning for children. I suggest that teachers wanting to learn more about cultural-historical theory, as I once did, could focus most productively on these three main concepts instead of getting lost and confused struggling with complicated readings without support or attending professional learning seminars that are largely dislocated from a strong theoretical understanding of cultural-history theory. The three main concepts I have identified as important for mediating practice when using cultural-historical theory are (1) Practices of interpretation and interaction; (2) Practices of tool adaptation; and (3) Practices of temporality.

I will now elaborate on the structure of my thesis.

1.6 Structure of the Thesis

In Chapter 1 I have set the scene for why this thesis is relevant to the field of early childhood education and how it makes an important contribution to knowledge. I set the historical scene in place so that I was then able to place myself in a time frame of change within the early

childhood educational sector as I described my start within the field as a constructivist (Piagetian-influenced) trained teacher.

I have presented a brief history of the main philosophical and theoretical players within the field of early childhood education and have described the main implications for the education of young children that were presented by these philosophical and theoretical players. I then demonstrated how their methods may be translated to, and how they influence, the more current practices of today's teachers.

In this chapter I have also briefly alluded to the theoretical and policy changes within the field that brought me to the decision to enter into this research and have explained the significance of the thesis coming from an insider perspective rather than from an outsider's viewpoint on the influence of theory in mediating practice. I have also presented the research question that underpins this study, which is: "What does the uptake of cultural-historical theory involve from an insider perspective, and how does this uptake mediate an educator's practice?"

In Chapter 2, I delve into the major influence of Piaget within early childhood education then move through the reconceptualist movement as these scholars sought to bring about new understandings into early childhood education. I finish this section with an introduction to cultural-historical theory, with particular focus on Vygotsky. I explain the three core components of his theory that I engaged with in order to establish an insider perspective on using cultural-historical theory to mediate practice. These were (1) the social situation of development; (2) mediation with tools and signs; and (3) the genetic/developmental method. I give an outline of the dialectic that is fundamental to understanding Vygotsky's theory, and show the interdependency of these concepts. I also situate the main theoretical themes taken up by the early childhood education field that are typically considered by the practising teacher: the concept of the ZPD, the importance of play for learning and development,

imagination and mature play, and how these themes are also located within the dialectical situation.

Chapter 3 presents my theoretical framework. I start the chapter by briefly describing cultural-historical theory. The epistemological, ontological and axiological positioning of cultural-historical theory is explained. I consider and outline the theory relating to teacher knowledge development and learning, theories of practice, and explain research from an outsider's and insider's position.

In Chapter 4, I position my thesis as a qualitative study. The thesis is guided by a self-study of teacher education practices methodology that takes into account the social situation of development and interdependency between my actions and those of the children within my kindergarten. I detail my ethical procedures, as well as the methods used for generating the data, and the collection and analysis of data, in order to answer my research question.

In Chapter 5, I present my findings. I make a case for the importance of the (1) Practices of interpretation and interaction; (2) Practices of tool adaptation; and (3) Practices of temporality. These are the three concepts that the insider – that is, the practising teacher – needs to focus on to mediate practice when taking up cultural-historical theory. I support my evidence with extracts from data collected through observations, critical thinking, and discussions held with my critical friend, Paru. I will present findings for each concept separately, but will refer to the dialectical position reflected in each, thereby demonstrating the interdependency of all three concepts.

In Chapter 6, I demonstrate how the three themes of practices of interpretation and interaction, practices of tool adaptation and practices of temporality can be seen as the manifestation of the core components of the social situation of development, mediation, and the developmental method when considered from an insider perspective.

This chapter also highlights an original factor discovered for the purpose of this thesis because of it being conducted as an insider study. It is the interdependency of the three concepts and the positioning of the teacher in using these concepts. Therefore, I have constructed a new model that shows how cultural-historical theory can be seen as relevant, and used to mediate the teacher's practice when considered in a dialectical relationship with the children.

A dialectical relationship between the teacher and the children involves listening and responding to the children and working with them to support their learning and development. As they respond to what I as the educator provide as support, they are able to extend their learning, and I am then able to continue to support them in the differing ways that have been discussed in earlier chapters. This model will support practising teachers interested in using cultural-historical theory, in the way suggested by the EYLF because it translates complex ideas from within the theory into an accessible way of thinking about how to focus on and use the theory to mediate their practice.

In Chapter 7, I will conclude the thesis by giving a brief review of cultural-historical theory and why this study is important to the field of early childhood education. I will explain how this thesis is contributing to the early childhood education literature by presenting an insider perspective on the uptake of cultural-historical theory as a one of a range of theories promoted by the *Belonging, Being & Becoming: The Early Years Learning Framework for Australia* (DEEWR, 2009) with which to mediate practice. No one has previously established the three themes of "Practices of Interpretation and Interaction", "Practices of Tool Adaptation" and "Practices of Temporality" as relevant to the uptake of cultural-historical theory for mediating practice in early childhood education – particularly and specifically from an insider perspective. Outsider research to date has not been able to grasp the interdependency between these three concepts, possibly because outsiders' research of teachers' practice has not experienced the dialectic of teacher–child development when using the theory to mediate

practice. The contribution of this thesis to current practice is therefore highly important to practising teachers. This is because the concepts I have identified and presented as a model enable teachers to focus directly on what is relevant and immediate to their practice when using cultural-historical theory. I connect the outcomes of this thesis to the Australian Government's *Early Years Learning Framework for Australia* (DEEWR, 2009) and explain how the knowledge of the three concepts and the model supports teachers using the EYLF to mediate their practice from a cultural-historical perspective.

Chapter 2

Literature Review

2.1 Introduction

In Chapter 1, I stated that early childhood teachers use philosophies and theories to mediate their practice. The aim of this chapter is to situate the position of Piaget as being a major player on developmental perspectives in the field of early childhood education. In their book, *Learning Theories for Teachers*, Bigge and Shermis (2004) situate Piaget as a developmental psychologist more than a learning theorist, who was “devoted to a study of the innate developmental stages of children... His studies are biologically oriented” (p. 18).

I follow with the cultural-historical theory of Vygotsky. In each of these I also concentrate on research considering how teachers have thought about, or expressed their beliefs regarding these differing theories, and how their understanding of the theories mediates their practice. The background literature then explains how and why an insider viewpoint is necessary to guide thinking on how a new theoretical perspective is used by a teacher to mediate practice.

With this statement in mind, I will now start the discussion on the impact of Piaget in the field of early childhood education as this was the socio-historical context within which I was situated when I started and is thus the context for my self-study.

2.2 Methodology for Sourcing Literature

The literature reported in this review was sourced via differing methods. I initially conducted a database search using Eric and then Pro-quest. I searched for key words such as cultural-historical theory, socio-cultural theory, early childhood, early childhood education, preschool or kindergarten. With these searches, I only considered English articles within peer-reviewed journals. I considered the year 1990 as my starting point since there appeared to be an influx

of work available from this date rather than earlier dates. I also used the library advanced search to locate books.

I later searched the databases of Eric and Pro-quest, using the terms of self-study, teacher development and early childhood education and found a total of 619 articles. I changed the terms to self-study, teacher development and cultural-historical theory. There was a total of 27 articles referencing schools, pre-service educators and university educators, with no reference to early childhood education. I tried teacher development and cultural-historical theory, which gave a total of 224. I added early childhood education and 19 references were produced. These were mainly books. I then added the word self-study and received a zero response. I repeated this several more times, with every response to self-study, early childhood education and cultural-historical theory also returning a zero response. I conducted a research in academia.com to locate any self-studies in early childhood education and, again, there was no response.

I started to make lists of relevant authors and academics that were being referenced frequently in my searches. I searched for articles by academics through academia.com. I also used Google scholar to locate works by authors. I frequently used ancestry searching where I would locate references from an article that was particularly relevant to my study. I would read the abstract to give me an idea of the relevance of the paper, and then do a quick read of headings if the paper seemed relevant. I did find self-studies using cultural-historical theory located within a school environment, but I did not review them as they were aimed at specific school topics such as science in the classroom or teaching children to read.

There have been many self-studies set in tertiary institutions based on teacher educators looking at changing their practices with pre-service teachers. Some of these focused on pre-service teachers within the early childhood field such as those conducted by Hogan and Daniell (2015).

Research of the literature indicated that the preferred method of reporting data was through qualitative studies. The majority of literature sources and those cited as appropriate to the study were, therefore, qualitative in nature. Occasional studies had been conducted over a time frame greater than 12 months, which was the case with the work done by Hogan and Daniell (2015) mentioned above. S. Edwards (2007a) conducted and reported on a study with a group of teachers over a period of 12 months. A longitudinal study using mixed methods was conducted and reported by Hoekstra and Korthagen (2011), but, again, it focused on a primary school teacher. Therefore, my research into empirical literature continued to show gaps in the field of early childhood education and that the literature that is available is usually based on an outsider's study. When considering the literature available, I found that Nuttall and S. Edwards (2009) sum up this lack of literature on early childhood teacher development or self-study by commenting that "there need to be more 'voices from the field' foregrounded in discourses of continuing professional learning" (p. 136).

The main themes that occurred within the empirical literature covered the topics of outsider research within early childhood education, teachers' difficulties in re-mediating the newer theories available to guide practice, the need for support to change theories, and the importance of giving the practising teacher time to learn. Another issue that presented itself was the difficulties faced by practising teachers in accessing the newer theoretical information.

2.3 Defining Constructivism

Constructivism can be seen to have a number of components within the overall definition. Importantly, constructivism focuses on the learner being very active in their overall learning. von Glasersfeld (1981) comments that "Indeed, one need not enter very far into constructivist thought to realize that it inevitably leads to the contention that man – and man alone – is responsible for his thinking, his knowledge and, therefore, also for what he does" (p. 2).

Phillips (1995) considers three main roles for the learner within constructivism. They are (1) the active learner; (2) the social learner; and (3) the creative learner. Teachers also need to have an understanding of the current “stage” the learner is at in order provide the appropriate learning environment.

2.3.1 Social constructivism. Social constructivism emphasises that learning is socially constructed. This occurs through interaction with others, usually by co-construction in dialogue. Atwater (1996) also emphasises the importance of social interaction to support the construction of knowledge. The context within which the learning occurs is also relevant to social constructivists. The way the learning is then communicated can be considered a reflection of the culture influencing the learning. LaBoskey (2004) comments that “We [teachers] are building relationships with our students – relationships that are aimed at individual and social transformation” (p. 830). Consequently, teaching and education may, for many, sit within the platform of social constructivism.

Vygotsky is considered to be the founding father of social constructivism due to his focus on the social situation of the individual’s development. Some teachers focus on using Vygotsky’s themes of the ZPD and language as the main drivers within social constructivism while others consider the importance of culture and diversity (Powell & Kalina, 2009).

Gregory Bateson (1904–1980) can be recognised for his contribution to social constructivism as he believed the importance of the mind or mental processes as important to all living systems. He formulated a cybernetic epistemology with the main focus being on communication and information (Bale, 1995, p. 27). Learning can occur through communication, which, in turn, emerges from mental processes within the brain, which is within the system of “person-plus-environment” (Bale, 1995, p. 41) so having an impact within a social environment.

He was also concerned with the need to conserve “an integrated qualitative/quantitative, value-rich, ethical system” within the University of California’s practices when he was employed as a regent of the university (Peterson, 2012, p. 888). He was concerned that the university was not upholding the knowledge of the society or imparting that knowledge. He was uneasy that education was only concerned with accumulating knowledge rather than pursuing the understanding of drawing out of knowledge (p. 888)

Although some consider Vygotsky a social constructivist, I consider him to be a cultural historicist. I consider his emphasis on cultural mediation as an important and driving feature of his theory, whereby the individual’s culture impacts on the learning of the individual and the individual influences her culture.

2.3.2 Radical constructivism. Ernst von Glasersfeld (1917–2010) has been acknowledged as a main proponent of radical constructivism.

The main understanding of radical constructivism is that the individual “knows...nothing more – and nothing less – than his subjective construction of the world” (d’Agnese, 2015, p. 131). von Glasersfeld (1981) goes on to say that “the operations by means of which we assemble our experiential world can be explored, and that an awareness of this operating...can help us do it differently and, perhaps, better” (p. 1). von Glasersfeld states that each individual must construct or piece together her own reality and consequently each individual must function within a differing reality. The individual must “fit” into experiences and the environment in order to construct or make sense of what is around her and further experience prove rules and regulations to be either reliable and to be trusted or not. von Glasersfeld understands that with radical constructivism there is a functional relationship between knowledge and reality and the organisation of the world is only classified by the individual’s experience (von Glasersfeld, 1981).

2.3.3 Cognitive constructivism. Cognitive constructivism decrees that children should actively participate in their learning and focuses on facts and constructing knowledge within one's own schemas as considered within Piaget's theory (Powell & Kalina, 2009). Powell and Kalina (2009) further comment that "Ideas are constructed by the individual through a personal process" (p. 241).

Although there may be some social interaction, it is not the driver of the learning; it is through the individual's construction through previous experiences. "Piaget proposes that humans cannot be given information, which they immediately understand and use: instead, humans must construct their own knowledge" (Piaget, 1953, as cited in Powell & Kalina, 2009, p. 243). Piaget, however, distinguishes between learning and development. Learning relates to information or actions that are situation specific. Development, however, relates to knowledge that is able to be generalised (Sims & Hutchins, 2011). Therefore, children should be encouraged to "create or re-create knowledge for themselves" so that they can learn and develop. (Perkins, 1999, p. 8)

2.4 Developmental and Piagetian Perspectives

The orientation of children as "thinkers" in their own right was not considered until the 1960s when the early childhood education field started to turn towards a more theoretical research base rather than only a philosophical base to inform practice (Genishi et al., 2001).

Philosophy is considered as the use of reason and argument in seeking truth and knowledge of reality, especially of the causes and nature of things and of the principles governing existence, the material universe, perception of physical phenomena and human behaviour. This definition of philosophy incorporates the concept of ontology (Denzin & Lincoln, 2000), or searching for the nature of reality. Edwards (2009) gives a straightforward definition for philosophical beliefs as "regarding learning and the nature of childhood" (p. 5)

Piaget presented theories of development that tie in with Berk's (2009) definition of a theory as:

...an orderly, integrated set of statements that describes, explains, and predicts behaviour. Theories... guide and give meaning to what we see... [Those] verified by research often serve as a sound basis for practical action. Once a theory helps us *understand* development, we are in a much better position to *know how to improve* the welfare and treatment of children. (p. 6)

Scarr (1992) offers a further definition of a theory to incorporate the observations that can be readily agreed: "explanatory principles do not violate assumptions of causality held by most scientists and...the theory must be scientifically persuasive to one's peers" (p. 2).

It has also been pointed out by Stott and Bowman (1996) "that theories are drawn from the socioeconomic-philosophical context in which they are created" (p. 172). Therefore, when considering these differing statements as a guide, I define theory within this thesis as a set of conceptual tools that are available to inform practice.

Theories such as Piaget's were seen to guide and explain children's development and learning, and provide teachers with further understanding of how to work with children and what experiences are important to extend the children's learning and development. With Piaget encouraging the active involvement of the child in her own learning, his theory can be seen to also tie in with those of philosophers such as Montessori, who advocated that children learn independently from adults (S. Edwards & Hammer, 2006). Piaget reflected on how the individual would be able to attain certain abilities, thereby providing a guide for the teacher to use with young children. Although Piaget has been most recognised for an "ages and stages" theory, in his later thinking, he did, however, allow for the children to gain the abilities at an individual time and not necessarily at exactly the same age (Elkind, 1989). The presentation of ages and stages supported the field of early childhood education as Piaget had identified

what cognitive development occurred within specific age ranges, with detailed descriptions offered of the stages to guide the teacher's understanding.

Piaget set out to understand the origins of intelligence in the child, and how the child made sense of the world. His theory was consequently encompassed within early childhood education because it was felt that teachers were able to support the child's learning more successfully when the activities or experiences were designed to meet the child's current level or stage of development (S. Edwards & Hammer, 2006). Null (2004) offers the suggestion that teachers considered Piaget's stages as a method of teaching, providing direction to the teacher as to what was important for the child's learning and development.

The work of Piaget spread through many countries. In America, the educator Lucy Sprague Mitchell (1878–1967) was greatly influenced by the introduction of Piaget's psychological theories and encouraged the nursery schools to take up Piaget's research and theories as they "should be of immense service to psychologists, teachers, and parents" (Beatty, 2009, p. 442). This interest lasted for a brief time in the 1920s, but was again considered from the 1960s through the Developmentally Appropriate Practice as endorsed by the National Association for the Education of Young Children (Bredekamp, 1987, 1988; Kessler, 1991).

I now move on to consider the period of time in which Piaget had the greatest influence on the field of early childhood education.

2.4.1 Jean Piaget (1896–1980). Jean Piaget was a Swiss psychologist who started to write and publish scientific papers from a young age. His initial interest was zoology, but after graduating from university, Piaget went on to study psychology.

While working in the Binet Laboratory in Paris, Piaget was involved in regular "experimental studies regarding logical classes and relations, causality and the numerical concept" (Kohler, 2008, p. 63).

However, Piaget became interested in why the children were giving answers that were not the expected norm. He became interested in the reasoning processes carried out by the child to give what was considered an incorrect answer (Beatty, 2009; Kohler, 2008). In 1921 he accepted an offer of the post of director of research at the Jean-Jacques Rousseau Institute in Geneva, where he was able to continue his interest in the research of thought in children (Ginsburg & Opper, 1969). He was then able to use his skills of observation that he had developed early on in his life as well as his study of the growth and development of his three children, born between 1925 and 1931, to give particular attention to the origins of intelligence in the child.

Piaget was also noted for his non-standard methods of research. He would follow his own intuition when interviewing children rather than following set criteria. He avoided using control groups in his research and would not consider statistics as the only way to test a hypothesis. His work, however, was presented as an observational, systematic, and highly detailed “analysis of children’s behaviour... designed to discover the nature and level of development of the concepts children use, not to produce developmental scales” (Wadsworth, 2004 p. 9).

Piaget considered that his major role was to identify and characterise new forms of thinking that emerged and developed within the individual and that why “when this purely descriptive phase of research is achieved can we profitably try to explain the transitions from one form of thinking to the next” (Lourenco & Machado, 1996, p. 152).

Throughout his research, Piaget set out to understand how knowledge develops and is constructed. He considered that the individual acquires the knowledge or level of development needed to function in society through her individual construction of the knowledge, through many attempts to construct and reconstruct until it is approximate to that required to function successfully. This reconstruction is always built on the learner’s

preceding efforts. He believed that the child's level of development and comprehension impacted what it was possible to learn (Wadsworth, 2004).

Some major theoretical concepts that supported Piaget's theory were the concepts of schema, assimilation, accommodation, adaptation and equilibration. Piaget "expected children to be independent agents of acquisition" (Kozulin, 2003, p. 16). Schema is defined as the mental structure that allows the individual to organise and make sense of the environment around her. A child constructs new schema as she is confronted by new experiences or stimuli that cannot be fitted into already existing schemata, so that there is a continuing change and generalisation of the schemata by the child. Wadsworth (2004) describes this process thus: "As a child develops, schemata (cards in the file box) become more differentiated and more numerous; the network they form becomes increasingly complex" (p. 16).

It is through the processes of assimilation and accommodation that the child is able to alter the schemata. Assimilation describes the process by which the child is able to match or manipulate a new object or experience in new ways into the already-lived experience or knowledge of which she has experience. Auditory experiences are also included in the assimilation process. A child could be considered to be learning, for example, when adapting the new experience of travelling to the zoo on a bus. When the child has already been on a bus, she will incorporate the change of location into an already-known and performed scenario. Therefore, assimilation supports the growth of the child's schemata.

Accommodation requires the adaptation and alteration of what is already known and understood to adjust to new information and experiences. The child might create a new schema in order to fit the new experience or stimulus into (or alter) existing schemata to fit the experience or stimulus. An example of this can be seen when a child visits a dentist for the first time. If the child has knowledge of visiting a doctor, then the child can adjust the known information to the new experience of visiting the dentist. As summed up by Wadsworth

(2004), “accommodation is the creation of new schemata or the modification of old schemata” (p. 17).

Piaget recognised that there needed to be a balance between the assimilation of experiences and the accommodation of experiences. This balance has been referred to as equilibration. When a child is not able to see similarities, a state of dis-equilibrium would exist; therefore, the child has to work at being able to assimilate new experiences by fitting the experience into an existing schema, or constructing a new schema, to create a balance.

Piaget developed his understanding of adaptation through his extensive studies of molluscs. He noted that over a period of time, growth and development were influenced by maturation and by differing factors in the environment. He concluded from these observations that “biological development was a process of adaptation to the environment; it could not be explained by maturation alone” (Wadsworth, 2004, p. 5). Adaptation occurs when the child has both assimilated and accommodated the new experience or knowledge so that it becomes an accepted routine, knowledge or experience. It is through this continual construction of schemata, with new experiences being assimilated or accommodated, that cognitive growth proceeds for the child.

Piaget also labelled children’s development according to specific stages. He connected activity with chronological age, such as the sensorimotor stage with infants from birth to the age of two. The kindergarten teacher works with the child operating within the pre-operational stage, where, Piaget argued, they require many concrete experiences and materials to manipulate and operate on to build up their knowledge of the world around them:

According to this cognitive-developmental view, children are active thinkers and hypothesizers. Because of limitations that are inherent in the early phases of human development (grounded again in an evolutionary framework), children are incapable

of mature (“formal”) thinking until experiences with objects and people enable the development of adult-like cognitive structures. (Genishi et al., 2001, p. 1178)

It is within the pre-operational stage that Piaget focused on play as being important for the child’s development. He elaborates on his definition of play thus:

Play in its initial stages being merely the pole of the behaviours defined by assimilation, almost all the behaviours we studied in relation to intelligence are susceptible of becoming play as soon as they are repeated for mere assimilation, i.e., purely for functional pleasure...Play...proceeds by relaxation of the effort at adaptation and by maintenance or exercise of activities for the mere pleasure of mastering them and acquiring thereby a feeling of virtuosity or power. (Piaget, 1962, p. 89)

Through the pre-operational stage, Piaget focuses on deferred imitation and symbolic play, referring to activity that is a copy of what the child has experienced:

Symbolic play emerges at around the same time as speech, but is independent of speech, and plays an important role in the thinking of the young child, through being the source of individual (both cognitive and affective) representations and (also individual) representational schemata construction. (Piaget, 1954, p. 270)

When involved in symbolic play, the child is able to participate within a fantasy world and does not have to conform to what reality would expect. During symbolic play, the child learns to attribute meaning to things (Kohler, 2008, p. 178). Piaget presents children as being egocentric when involved within this fantasy world because they attempt to make the environment fit their ideals and wants rather than attempting to fit their ideals and wants within the environment by making adjustments to the ideals and wants. The child is unable to consider another’s point of view (Kohler, 2008; Piaget, 1962; Wadsworth, 2004). However, with time, the child is able to transfer the practised routines and activities to being able to

involve others with these activities, so the symbolic play is extended from beyond her own activity (Piaget, 1962). This, then, becomes a “projection of symbolic schemas onto new objects” (Piaget, 1962, p. 121).

He also labelled differing types of activity that he observed occurring while watching his own children and identified pretence as the main feature of play for kindergarten children, when they would frequently be participating within a social situation to create a world that would be meaningful to them. He also used these very detailed observations to develop his understanding of play, which stated that play was different to imitation, “indicating that play is primarily an assimilation process while imitation is primarily an accommodation process” (Bergen, 2014, p. 15).

Piaget directed that it was the teacher’s role to “encourage, stimulate and support exploration and invention (construction)...construct the initial devices which present useful problems to the child...be a mentor stimulating initiative and research” (Wadsworth, 2004, p. 11).

Education from Piaget’s perspective should support the child to be creative and work towards new goals and not be someone who just accepts the regular routine and usual practices.

Kindergarten teachers should therefore provide a wide range of concrete materials that enable children to explore, thus providing for child-initiated learning to occur (Kohler, 2008).

Piaget’s work was later understood to be a representation of developmentalism since it placed development generally in to specific stages, and also saw play as a “characteristic of children in a specific stage of development” (van Oers, 2014, p. 59). Focus was placed on the child and the child’s level or stage of development, rather than on what the teacher might do to support the learning and development.

Piaget’s work spread significantly throughout the field of early childhood education. His ideas were used to promote practices considered to be appropriate for the child’s age as well as the child’s “unique developing abilities” (Kessler, 1991, p. 184). The United States Department

of Health and Human Services provides a federal program philosophy, Head Start and Home Start. Head Start focuses on the understanding of providing concrete materials to support learning and development (Kohler, 2008). Those centres engaged with the Head Start philosophy were able to use differing curriculums.

Another curriculum model based on Piaget's work is that of High/Scope. The High/Scope Educational Research Foundation (1970) is an association founded by David Weikart (1931–2003) to support research within the early childhood sector. High/Scope has carried out longitudinal studies on the use of a developmentally appropriate curriculum. Core features of the High/Scope curriculum that reflect Piagetian-inspired developmental ideas are the provision of materials to support children's active learning. These materials were not specialised as was the case for Montessori-inspired curricula (Roopnarine & Johnson, 2005). The children's interests are the main driver of the curriculum and the educator's base provisions for learning on the child's level of development (Morrison, 2009). Within this curriculum, the focus is on the children's cognitive development as they are "viewed as people becoming more mature persons" (Johnson, 2014, p. 185).

There is also an expectation with the High/Scope curriculum that the teacher will be actively supporting the cognitive development of the child through conversations and interactions with the child. Therefore, the main aims of the High/Scope curriculum are to provide the highest-quality early childhood education possible by focusing on developmentally appropriate goals and materials for the children to be actively engaged in their own learning, and to have the teachers setting an environment that will support the children's active learning and development (Morrison, 2009). An extension of this understanding became known as Developmentally Appropriate Practice or "DAP".

2.4.2 Developmentally appropriate practice. Following on from Piaget's theory, teachers started to use ideas based on a cognitive/interactive theory of intellectual development to provide what was known as "developmentally appropriate curriculum" (Kessler, 1991, p. 184). In the 1970s, a focus was placed on initiatives to support early childhood education. In fact, Bowman (1993) comments that "During the 1970s the focus was on how to make poor and minority children more like middle-class white children" (p. 104). This shift to developmental views coincided with what Spodek (1982) describes as:

The advent of the Head Start program has been characterized as resulting from the joining of new views of human development with new concerns for social justice...educators seemed to be increasing their concerns for the problems of educating disadvantaged children. (p. 15)

He goes on to say that the work of Piaget was again starting to be considered by American psychologists and educators as a way to work with children to provide positive experiences in their early life that would then have a positive impact on their schooling.

In America, the National Association for the Education of Young Children (NAEYC) favoured the developmental approach to early childhood education inspired by Piaget's theories. The NAEYC was established in 1926 to support improving the overall wellness of young children, with particular focus on education and development through early childhood education. Following Piaget's ideas, and with a child-centred focus, guidelines were drawn up by the NAEYC to form a method of working with children that acknowledged that both their cognitive and behavioural development corresponded to specific ages and stages. These guidelines later became famously known as the "DAP program" or Developmentally Appropriate Practice (Bredekamp, 1998). These original guidelines closely related to Piaget's ideas. A developmentally appropriate curriculum typically focused on the teacher setting an environment that concentrated on the individual child's needs and interests, influenced by the

child's age and current abilities. Krogh and Slentz (2011) comment that "The perspectives encouraged by DAP can be characterized as a *constructivist* approach, with an emphasis on internal processes that allow young children to be actively engaged in constructing their own knowledge and experiences" (p. 59).

The teacher must continually observe and provide appropriate stimulus so that the child is continually challenged to construct meaning and understanding. The following instructions to the teacher emphasised how to work with the young child: "The correct way to teach young children is not to lecture or verbally instruct them. Teachers of young children are more like guides or facilitators" (Bredekamp, 1987, p. 52).

This statement was reinforced by Kessler, who confirms the teacher should not focus on the child's academic skills, use direct instruction, or teach large groups of children. Above all, the teacher must have a sound knowledge of child development (Kessler, 1991). It is also noted by Krogh and Slentz (2011) that "Cultural differences, in the first edition [of DAP], were deemed a part of variations among individuals" (p. 104). This lack of acknowledgement of cultural differences was an issue that was addressed in the revised edition in 1996 and was then stated as "knowledge of the social and cultural contexts in which children live to ensure that learning experiences are meaningful, relevant, and respectful for the participating children and their families" (Bredekamp & Copple, 1997, p. 36).

In 1996 the NAEYC adopted a revised position statement for the '*Developmentally Appropriate Practice in Early Childhood Programs Serving Children from Birth through Age 8*'. A major declaration within the position statement was that "Perhaps the most important contribution of NAEYC's 1987 position statement on developmentally appropriate practice (Bredekamp, 1987) was that it created an opportunity for increased conversation within and outside the early childhood field about practices" (Bredekamp & Copple, 1997, p. v).

This led to an acknowledgement of the changing environment within the field of early childhood education. NAEYC recognised the need for high-quality services to be delivered to all children, including those coming from very low-income families. There was a change to the legal rights of children with disabilities (the *Americans with Disabilities Act, 1993*; *Individuals with Disabilities Education Act, 1993*) so that full inclusion for children with disabilities would also be an important consideration when program planning. Another major change of focus came from the increasing diversity of cultural and linguistic backgrounds of children. Therefore “because culture and language are critical components of children’s development, practices cannot be developmentally appropriate unless they are responsive to cultural and linguistic diversity” (Bredekamp & Copple, 1997, p. 4). Another important alteration comes from the earlier discussion “about two dimensions of developmental appropriateness – age appropriate and individually appropriate – as though these were somehow separable” (Bredekamp & Copple, 1997, p. 39). They now view these considerations as the statement of “using knowledge about child development and learning to inform practice” and “using knowledge of individual children to inform practice” (Bredekamp & Copple, 1997, p. 36), thereby acknowledging the individual differences of children.

Teachers were to focus on providing a high-quality early childhood program using developmentally appropriate practices. DAP focuses on the teacher having a sound knowledge of child development, and what is typical for each of the stages of development. For example, the guidelines stated: “*What is known about child development and learning – knowledge of age-related human characteristics that permits general predictions within an age range about what activities, materials, interactions, or experiences will be safe, healthy, interesting, achievable, and also challenging to children*” (NAEYC, 1997, p. 4. (Italics in the original).

The NAYEC's (1997) position statement also provides further guidance to the teacher by reminding her about the "domains of children's development- physical, social, emotional, and cognitive" (p. 5) as well as the important reminder that:

Development occurs in a relatively orderly sequence, with later abilities, skills, and knowledge building those already acquired...Knowledge of typical development of children within the age span served by the program provides a general framework to guide how teachers prepare the learning environment and plan realistic curriculum goals and objectives and appropriate experiences. (p. 5)

DAP also considered each child to be an individual and the teacher must focus on the individual's needs to encourage development.

Research into child development in the 1960s was following a "cognitive revolution" (Spodek & Saracho, 2003, p. 5), discovering that intelligence was not permanently fixed. Teachers were consequently encouraged to focus on and provide a more academic and cognitively inspired curriculum – for example, the Project Approach (Katz & Chard, 1989); Head Start in 1964; and the Representational Competence program in 1983 – as there was now the push to provide suitable intervention programs that ensured children from low-income families were targeted to give them the best start to their education as possible. Programs such as Head Start were introduced to provide children with a developmentally appropriate program that would ensure a positive start to their lives by enhancing their cognitive skills (Bredenkamp, 1998; Spodek & Saracho, 2003). Previous to this time, very few American children were accessing early childhood education. However, Head Start opened up many more opportunities for young children to access an educational program (Spodek & Saracho, 2003). These programs also focused on school readiness. Many of these programs supplied the same types of materials as schools for the children to play with, always focusing on cognitive development as the first priority. The work also aimed to encourage "all early childhood professionals to

become more accountable” (Bredekamp, 1998, p. 29) by using theories to inform the provision of practice.

Australia also followed the American lead and educators were influenced to follow the DAP programming as the early childhood education sector became informed by the international developments. Therefore, the 1980s saw the introduction of DAP into early childhood services. (Press & Wong, 2015)

However, in light of this focus on developmental appropriateness, Fler (1995b) clarifies that:

The concept of *developmental appropriateness* has two dimensions: age appropriateness and individual appropriateness...Program planning for children by those who take a DAP position, predominantly follows rather than leads children’s development and hence cognition. The emphasis is on the teacher’s understanding of, and planning within, these predictable stages and developmental levels. (p. 12)

Such commentary started the shift away from total acceptance of Piaget’s theory as well as questioning of the DAP curriculum. From within Australia, Fler (1996) started to question the relevance of DAP to children of differing cultures. Dahlberg, Moss and Pence (1999) in the UK felt that DAP did not provide teachers with the opportunity to be flexible with the children because it was detailing a very prescriptive way of working. The concept of the DAP as being a manual for describing how teachers should work is considered by Jipson (1991).

Based in the US, Jipson felt that her research was showing that the teachers:

seemed to be reacting not only to being personally de-skilled as teachers, forfeiting their opportunities to plan and enact curriculum as they deemed appropriate, but also to the imposition of what they perceived as a particular, and sometimes elitist, class and cultural perspective on the children in their programs. (p. 126)

2.5 The Turn to Sociocultural Theory

A shift started to occur in the late 1980s when researchers started to question the authority of Piaget's theory from differing fronts. Researchers questioned his methodology, epistemology, and ontological perspectives. Criticism of Piaget's theory was originally aimed at a number of differing factors, which included his underestimation of the competence of children (Brainerd & Kingma, 1984; Donaldson, 1978), the apparent lack of acknowledgment of the social and cultural impact on the child's intellectual development (Pound 2011), small sample groups, and the fact that he apparently only described his research procedures but did not explain his understandings drawn from the research (Brainerd, 1973b). Further rebuttal has been directed at what appears to be a description of strong homogeneous and synchronous performance across each stage of development (Bruner, 1985); that is, from a Piagetian perspective, a child should be able to perform at an equivalent ability across all areas of development appropriate for their age (Lourenco & Machado, 1996). A problem with this viewpoint was that there did not appear to be recognition for a child to be more advanced in some areas of development compared to another. Further studies conducted by psychologists trying to disprove Piaget's understandings of development have been detailed by Lourenco and Machado (1996). These studies suggested that Piaget did not consider the context for the children he was studying, and that he paid no attention to standardisation or control factors when carrying out research. However, Lourenco and Machado (1996) comment that studies attempting to disprove Piaget's work sometimes simplified Piaget's questions and instructions, and that they cannot be considered to be equal to the testing that Piaget conducted. Despite a range of criticisms from a number of fronts (Brainerd, 1973; Bruner, 1997; Ginsburg et al., 2006; Lubeck, 1998; Sylva, 1990), the position of Piaget's developmental theory was seemingly entrenched within early childhood education as S. Edwards (2003) states: "Piaget's developmental theory had come to occupy a position of such theoretical importance in early childhood education that it became the accepted or assumed purpose for education itself" (p. 254).

Hatch (2010) also voices his reasoning as to why Piaget still holds such an important position within the field of early childhood education:

It is difficult to say why Piaget's core ideas and the assumptions of developmental approaches have endured...Perhaps early childhood educators have associated the precepts of Piagetian developmentalism so closely with a "child-centred" approach that to abandon them would feel tantamount to abandoning their concern for children.
(p. 267)

Fleer (1995a) comments that, while there are some arguments for the need to have sound understanding of developmental theory, there is also the need to focus on the child's cultural and social positioning. She believed this because developmental theory considers ages and stages of development without necessarily showing how children's development relates to the social and cultural experiences they have. This means that Australian scholars such as Fleer (1995a, 2009, 2010), MacNaughton (1995, 2003a, 2003b), and Grieshaber (2000, 2008) started to question the relevance of Piaget's developmental theory as an informant to early childhood education practice in relation to what is defined as typical development within a white, Western culture. Researchers (Blaise, 2005, 2009; MacNaughton, 2005; Robinson, 2005) started to contemplate differing theoretical viewpoints such as critical, feminist, and poststructuralist perspectives. They considered these viewpoints against developmentalism because they felt that the practices of minority groups were not being recognised within the field of early childhood education; that there was a bias towards white, Western culture with regard to how an early childhood education setting should look, how it should be conducted, what curriculum should be considered as appropriate, and how the children should play or participate within the setting. Ailwood (2010) puts forth the possibilities of the educator inviting children to question, challenge, and to choose different ways of being or using power from a poststructural perspective. These alerted educators to consider the consequences of both the educator's and the child's actions within a poststructuralist framework rather than

remaining in embedded developmental traditions. This also acknowledged the fact that the child has a voice in her own learning and development.

This period of time (1990s to 2000) was considered to be a time of “reconceptualisation” in the field of early childhood education. The reconceptualist movement emerged as early childhood scholars sought to participate in discussions that would be unlikely to be considered acceptable in what were seen as “typical” early childhood conferences, particularly within the United States. A main issue of concern for those within the reconceptualist movement was that of the existence of a singular truth when considering the field of early childhood education, and the lack of considering context and values when making decisions (Genishi, Ryan, & Ochsner, 2001; MacNaughton, 2009; Ryan & Grieshaber, 2005). The importance of language as being a system of socially construed signs that also regulate our understandings was also highlighted with concern (Pacini-Ketchabaw & Pence, 2005). Scholars involved in the reconceptualist movement also considered issues of power within the early childhood centre (MacNaughton, 2003), children’s identity (Blaise, 2009; MacNaughton, 2009), curriculum (Wood, 2010), and diversity within cultures and communities, knowledge and practices (Löfdahl, 2010). Cultures other than the Western–European experiences needed to be recognised so that they were not being neglected within the early childhood setting.

Fleer (1996) delves into a discussion on relating the “Western” perspective on play as practised within early childhood education. Although Fleer does not consider herself to be a reconceptualist, she raised the issue of comparing cross-cultural and lower-socioeconomic data with that from predominantly Western, middle-class communities and drawing conclusions without acknowledging the cultural differences that are present and impact on the data.

In 2005, Cannella presented a paper that seriously challenged investment in established norms: “Terms like ‘post-modernism’, ‘post-structuralism’, ‘pedagogical revolution’, and ‘critical theory’ seem to generate avoidance in those professionals who fear the loss of the expert status created for them by virtue of developmental and psychological learning theories” (p. 19).

She questioned the relevance of the popular developmental discourse that assessed development according to white, Western cultures, emphasising a “monocultural way of being and delivering” (Cannella, 2005, p. 21). Research conducted and reported by Wood (2009) also raises questions about the “universal child” (p. 32). She acknowledges that differing cultures have alternative views towards play that need to be considered within the education system and felt that there needed to be “detailed theoretical understanding of cultural differences and variations in home-based child-rearing practices” (Wood, 2009, p. 33).

From these discussions about culture and social relationships, cultural-historical theories can be viewed as providing “a bridge between a fundamentally cognitive and fundamentally social account of learning... Learning and development are channelled through sociocultural activity in which teachers and learners are interdependent” (Wood, 2009, p. 37).

The work of Vygotsky became highly relevant for many scholars working to better understand the provision of quality education for children. This work started to influence the practice of education and some curriculum policy and frameworks such as Te Whaariki: He whaariki maatauranga mo nga mokopuna o Aotearoa: Early childhood curriculum (New Zealand, 1996), the Swedish “Curriculum for the Preschool” (1998), and in Australia, the EYLF (2009) and in 2011 the Victorian Early Years Learning and Development Framework (VEYLDF). In early childhood education research, practice, and policy, the work of Vygotsky was offering an explanation of the centrality of society and culture on development.

Therefore, I now position Lev Vygotsky within the historical and cultural background that influenced his thinking and present the background information on the main components and concepts derived from his work that are used for the purpose of my research in this thesis.

2.5.1 Vygotsky: A brief history of his life and times. Lev Semenovich Vygotsky was born in 1896. He was originally educated by private tutors, completed his higher education at Moscow University, and later began attending the Shanyavskii People's University. Due to the practice of the Tsarist government at the time to expel opponents of its policies, many staff members from the Moscow University were removed from their positions and, consequently, established the People's University. Along with his studies in law, Vygotsky was also studying psychology, philosophy and literature as well as having an involvement with drama.

Vygotsky graduated from university in 1917 and went on to teach both literature and psychology. At this point in Russian history, the Revolution impacted greatly on its citizens and there were major changes afoot as a socialist state was introduced following the principles of Marx and Lenin. During his life, Vygotsky wrote approximately 200 manuscripts, and it was during the 1920s that Vygotsky really started to concentrate on documenting his theoretical understandings of the psychological development of a person in order to articulate “a unified theory of human psychological processes” (Cole & Scribner, 1978, p. 5). This can also be stated as “an explanatory system adequate to become the basis of general psychology” (Kozulin, 1990, p. 87 in John-Steiner & Holbrook Mahn (1996) p 192). Kozulin (1986) also reports that “Vygotsky emphasized that the task of psychology is to investigate those mechanisms that distinguish human conduct from animal behaviour rather than to look for those that might be similar” (p. 3). His other main focus was the development of an “historical approach both as the key to his system and the approach to the development of higher mental processes” (Scribner, 1985, p. 120). Over time, these writings have variously become known as cultural-historical theory, social-historical theory, sociocultural theory and sociohistorical

theory because of the great emphasis Vygotsky placed on the importance of the individual's culture and the history of their culture and how each develops the other. Cultural-historical theory focuses on the importance of the child's place within the social context of her culture in order to learn from her culture what the culture determines is important for the child to know. There is also value and importance placed on the interactions and mediations the child has with peers, adults and the culture within which she lives (Bodrova, 2008; Davydov, 1995).

2.5.2 Dialectics. I have already commented on the fact that Vygotsky was greatly influenced by Marxist philosophies.

He was trying to reform understandings of psychology under the Marxist political environment in order to “create a psychology that would be theoretically and methodologically adequate for the investigation of all aspects of human consciousness” (Lee, 1985, p. 66). Marx was using the dialectical method to support change through an understanding of contradictions and disharmony within the political scene of his present time. Vygotsky took this dialectical method as a means to understand the world by considering the importance of the individual interacting with the social situation and the co-evolution of those involved. He considered the importance of contradictions as a means of bringing about a dialectical situation. These contradictions would react with one another; consequently, there is an interdependent relationship that is always changing. Daniels (2001) reminds us that development can also be driven by internal contradictions as well. Vygotsky (1978) sums up dialectics as “*To study something historically means to study it in the process of change; that is the dialectical method's basic demand*” (p. 64).

The concept of dialectics is relevant to my research because there is a dialectical relationship between myself and the contradictions under which I work that led me to challenge my practice and consequently take on new forms of thinking. There is also a cultural- and policy-

led expectation, described in Chapter 1, that educators consider new theories to support the education of children within the early childhood field as expressed in Australia in the EYLF. My original Piagetian training was presenting as a contradiction to newer theories that were being introduced to early childhood teachers via the policy-led implementation of the EYLF at a national level. Since I am a teacher, I must be involved in the uptake of newer theories. I have to understand how to use the newer theories, in particular, cultural-historical theory because this theory is indicated as one available to teachers to inform their work in the EYLF. This new understanding will then lead to a changing relationship with the children in my kindergarten. This means a co-evolution or transformation between me and the children is created within the social situation of development. The children and I do not stay static psychologically, but are in an interdependent relationship that is always changing. It is the role of the teacher to provide a conducive social situation of development. I, as the teacher, have used Piagetian tools provided by the understanding of his theory to provide a situation of development for the children, but I am now changing my practice to use Vygotskian tools to work with the children as I document the evidence throughout this thesis. These include the knowledge of ZPD, mediation, importance of play and my positioning when working with the children. Since I am now starting to change or re-mediate my practice with the children, I am changing their social situation of development. As I see the children play, I use my new tools to impact on their social situation of development. Their responses, in return, have an impact on my social situation of development. I have had to apply these new skills or tools that have developed with my understanding of cultural-historical theory. These tools have been internalised, as I report in this thesis over the period of the study and then become externalised through my practice with the children. “The emphasis on externalisation is important because it brings a perspective to concept formation which affirms the notion of active agency in learning and development” (Daniels, 2001, p. 44). Vygotsky continually conceptualised the importance of socially shared activities being transformed into

“internalized processes” (John-Steiner & Mahn, 1996, p. 192) and repeatedly foregrounded the importance of the social situation in the child’s development. Vygotsky was able to look beyond these two separate dichotomies and considered the interdependence of both the external activity that is particularly connected to a social activity with the internalisation of the psychological processes within the individual.

When considering cultural-historical theory, the kindergarten environment has its own culture, and, according to Vianna and Stetsenko (2006), “Culture cannot be seen as a collection of inert artefacts but as a living continuous flow of practices that stretch throughout history and are enacted by each generation of people “(p. 89). Culture needs to be considered from the dialectical position of seeing the opposite and contradictory components supporting the generation of new ideas and practices as both the individual and social group act with each other and out of the preceding histories.

Vygotsky was concerned with the apparent crisis that was seen in the field of psychology at the time as differing points of view tried to form a base for general psychology, moving away from what had traditionally been a subjective/introspective-empirical/sensory psychology. Behaviourist psychologists were considered the most influential as they had an “objective and materialist approach;...other approaches were described as the science of behaviour...of reflexes...of reactions...and the science of ‘systems of social reflexes’ ” (Davydov & Radzikhovskii, 1985, p. 40).

He also recognised the importance of identifying “the mechanism that allows the development of psychological processes in the individual through the acquisition of social and cultural experience” (Minick, 2005, p. 36). Bruner (1985) offers an explanation for this process in terms of “scaffolding”, which is often mistakenly attributed to Vygotsky, but was Bruner’s term:

If the child is enabled to advance by being under the tutelage of an adult or a more competent peer, then the tutor or the aiding peer serves the learner as a vicarious form of consciousness until such a time as the learner is able to master his [sic] own action through his own consciousness and control. When the child achieves that conscious control over a new function or conceptual system, it is then that he [sic] is able to use it as a tool. (p. 24)

Having considered Vygotsky's initial conceptualisation for a base that would form a framework for general psychology, I now examine in detail each of the three components that form the core of this theoretical framework, (Wertsch, 1985b), that have importance for the uptake of cultural-historical theory from an insider perspective. These are:

1. The importance of the social situation of development.
2. The importance of mediation via tools and signs.
3. The influence of the genetic law of development.

2.6 The Social Situation of Development

First, I consider the social situation of development. Vygotsky differentiated between single planes of development running parallel with another such as physical development running parallel with cognitive development. He considered development on all planes to be transformative and interdependent, presenting as a dialectical relationship to support the development of the child. His explanation for the connections between these planes of development is the social situation of development. With physical development, there is always a social component to support that development. The adult may introduce the child initially to a new physical activity, so the social situation is present from the beginning. A baby needs the adult to support and encourage her initial attempts at crawling or walking and is acting within an interpsychological situation, with the support and interaction with another.

As the child matures, these skills are internalised, with little support needed from the social situation.

Cognitive development also needs a social component to support it. It is important to remember the dialectical relationship between the child and the adult causing the social situation originally, as it is through this social situation and interaction that the child is able to develop until the point is reached where the action or knowledge can be internalised, thereby functioning within the intrapsychological plane of the individual. In this way, Vygotsky differed from Piaget, who promoted "...a universalistic theory of development. Although social constructivists do engage in an analysis of cultural norms, they maintain a conceptual dichotomy between the individual's constructive activity, on the one hand, and social processes, on the other" (John-Steiner & Holbrook Mahn, 1996, p. 197). Vygotsky argued that such principles need to be incorporated into a larger explanatory framework that deals with sociocultural phenomena as well (Wertsch, 1985b, p. 42). I now consider this larger explanatory framework and show how the social situation causes the child's development.

Play incorporates the social situation that allows the kindergarten-aged child to learn. The child starts the play with an adult or more capable other, thus forming the social situation of development. Initially within this social situation of development, the child operates on her interpsychological plane. This is when she is able to start to make sense of language and the tools available to practise skills that are deemed important by the community and culture. It is through this social situation and the mediation via cultural tools and signs that the child is then able to internalise the learning gained to the intrapsychological plane when the learning and understanding become more advanced, and, according to Vygotsky (1978), "The transformation of an interpersonal process into an intrapersonal one is the result of a long series of developmental events" (p. 57).

As previously stated, Vygotsky was working on his theoretical understandings of the psychological development of a person as he was involved in articulating “a unified theory of human psychological processes” (Cole & Scribner, 1978, p. 5). In studying the psychology of the time, Vygotsky was concerned that there was little understanding of the nature of personality and that “the concept of the ‘higher mental functions’ was essential to understanding the features of personality development” (Kravtsov & Kravtsova, 2010, p. 28).

Vygotsky (1978) distinguishes between two lines of development that weave together to support overall development. First, there is the biological development that controls the early psychological development of the child, which has influence on memory, perception, and the ability to use tools (Scribner, 1985). It is also understood that Vygotsky considered the importance of the second line of development as that of the culture of the child, when “social and cultural processes regulate the child’s acquisition of speech and other sign systems, and the development of special higher psychological functions such as voluntary attention and logical memory” (Scribner, 1985, p. 124). Self-control and the development of planning were also considered to be crucial to the child’s development, which in turn contributed to the development of higher mental processes. Again, Vygotsky (1978) stresses the importance of the social situation of development as he deemed that the higher mental functions are at first evident through a relationship with another person before attaining the status of higher mental functions. This social situation of development, according to Vygotsky (1978), is directed by the history of the culture. He believed that the social group was in the position to alter and change the accepted practices and organisation, leading to the culture having a changing history. He did not believe a culture’s history to be stagnant. Changes in the history of the culture may lead to a change for the individual as the changes can be seen to have directionality. This can be expressed as historic development and is able to be connected to mental development (Scribner, 1985). Since mental development is situated with the social situation of development, the culture’s history provides a social situation for the development

to take place. A child has a place within this culture's history and so operates on the interpsychological plane, thus historic development is able to be connected to mental development. He also considered the development in terms of a system of functions, incorporating and placing great emphasis on affect (an emotion or desire that leads to action) in relation to action and intellect.

Vygotsky (1978) also stresses the importance of the individual being able to master her own behaviour and development as the individual is immersed within the culture because it supports this development. For the individual child to be able to master her own behaviour and take on the norms and the expectations of the immediate culture, there needs to be supportive communication between the child and an adult. This can also be thought of as an act of mediation where the adult is able to support the child through the medium of language. Such ideas are synonymous with the claim that higher mental processes in the individual have their origin in social processes. The child needs to practise the everyday processes within a social situation first, then internalise them. This is through a process of "continual movement of thought to word and from word to thought so that there becomes a conception of a word's meaning as a unit of both generalised thought and social inter-change" (Bigge & Shermis, 2004, p. 125). With the support of a more experienced peer or adult, the child is then able to convert these original thoughts into becoming higher mental or more scientific understandings, which connect back to the idea of the dialectic between the child and the more experienced other person.

These higher mental understandings also connect with and develop from the critical neoformation stage through which the child is progressing. A neoformation relates to the revived form and rearrangement of parts within a structure. When looking at Vygotsky's theory of development in terms of a system of functions, with each critical stage of development, the child is thought to be in a crisis or as having a desire she is unable to fulfil, thus experiencing a change in self-awareness within the social situation of development. With

the support of an adult or more capable peer, the child participates in a social situation, and will slowly gain competence over the crisis. Through this mediation, the child will move into the lytic or stable period and gain mastery and higher mental understanding.

For the kindergarten child, the ‘crisis’ or “central psychological function” concerning emotions may have started at an earlier age as she struggles for independence from the parent or adult. The child will often react negatively to the adult’s request, “when he [sic] does not want to do something only because an adult told him [sic] to, that is, this reaction is not a reaction to the content of an action, but only to the request of adults” (Vygotsky, 1998, p. 283). The child is being driven by her emotions and these emotions bring about a change in her relationship with the adults around her as she is able to express what she may want to happen, demonstrating that she has control of her situation, even though she is not able to change her immediate situation. To further this point, Vygotsky refers back to an idea from Charles Darwin (1809–1882):

Many times, I have called attention to the idea of Charles Darwin that at the moment the child is born, he is separated from the mother, but neither his [sic] feeding nor moving about is possible without the mother. Darwin believes that this is an expression of the child’s biological dependence, his [sic] biological inseparability. (Vygotsky, 1998, p. 286)

With the oncoming of the crisis at the age of three, the child works to become socially separated in that she attempts to alter the social situation within which she functions.

By the age of four, most children have been able to progress satisfactorily through the crisis of becoming more independent within their social situation of development. They are now able to move through the social situation of development, which incorporates the child’s new abilities in communications with both adults and peers, into the new psychological function which Vygotsky has labelled as imagination. This new psychological function of imagination

finally encompasses the leading activity of play where the child is able to achieve her potential development. It is also noted by Kravtsova (2006) “that the formation and development of a leading activity are connected with the child’s communication with adults and peers” (p. 9). During the early stage, an adult supports the child’s play, thus encompassing the child within the Zone of Proximal Development (ZPD). The ZPD can be defined as “taking into account the difference between what the child was able to do independently and how much more the child could do with the support” (Vygotsky, 1978, p. 86). As the child develops, she needs less support from the adult as she is learning to become independent from the adult. It is then during this stage that the child is able to start the process of internalisation, and thus gain the understanding of higher mental processes, which supports the development to the next critical stage.

So how does the social situation of development align with my uptake of cultural-historical theory from an insider perspective and how does this uptake mediate my practice?

I had to be involved with my peers – this being my critical friend, Paru, and my assistant, Rhonda – to create my own social situation (for the purpose of this study, both Paru and Rhonda completed the provided consent through an approved ethical process). I had discussions with them concerning my newly developing understandings of cultural-historical theory. These initial discussions supported me in the social situation of collective theorising as I worked through my own new psychological function of attention so that my leading activity became the learning within the kindergarten environment. These discussions could be considered to be the everyday understandings. My next growth phase was supported by my attendance at university and the time spent with colleagues and my supervisors as I internalised this new knowledge through the social situation, where I was able to learn more about the theory and how to apply it to my work situation, then reflect and eventually translate all the learning into my practice.

Understanding the importance of the social situation of development is important for this study as it has impacted on my interactions with the children through my mediation with tools and signs within the kindergarten environment. This understanding is supported by Duncan and Tarulli (2003) as they confirm:

adults' pedagogical activities in the preschool setting carry the potential to make a dual contribution to children's development: in addition to providing the direct experiences that scaffold and promote children's learning, they also supply the material and models for behaviour that guide children's own subsequent play activities. (p. 278)

However, Vygotsky never really considered these three core components to be totally independent from each other. He considered them to be interconnected. Vianna and Stetsenko (2006) confirm this aspect of Vygotsky's theory, that he focuses on "the centrality of transformative collaborative practices by people who do not adapt to their world but collectively transform it, and, through this transformation, also change themselves and gain their own status and their essence, which also appears as ineluctably social" (p. 86). Through the use of language, the individual is able to interact and alter the immediate situation, which, due to the dialectic, also has an impact on the respondent. However, there is always more than one collaborative practice happening at the time of interaction, thereby supporting the idea of the importance of the social situation. This refers back to Vygotsky's consideration of the society's history impacting on the individual and the individual's history impacting on the culture within which one lives. The individual's communications can have an impact on the culture and this change can then, in turn, affect the next individual.

Bruner (1985) agrees with Vygotsky:

that there is a deep parallel in all forms of knowledge acquisition – precisely the existence of a crucial match between a support system in the social environment and

an acquisition process in the learner...it is this match that makes possible the transmission of the culture, first as a set of connected ways of acting, perceiving and talking, and then finally as a generative system of taking conscious thought. (p. 28)

I now continue with the remaining components of Vygotsky's framework for general psychology that are necessary for my understanding in order to re-mediate my practice, being mediation with tools and signs and the genetic law of development.

2.7 Mediation with Tools and Signs

Play also incorporates mental processes and mediation with tools and signs. Within the play scenario, the child is able to learn how to use and practise with the tools that are deemed important by the culture within which she participates. Play also enables her to learn about and practise the signs that are important to the individual's culture: "Signs are internally oriented, according to Vygotsky, a means of psychological influence aimed at mastering oneself; tools, on the other hand, are externally oriented, aimed at mastering and triumphing over nature" (John-Steiner & Soubberman, 1978, p. 127).

I also learnt to use mediation with tools and signs in my role as a teacher, and I need to focus on this aspect in order to understand the uptake of cultural-historical theory from an insider perspective.

As already stated, a main theoretical approach used by Vygotsky was mediation through the use of signs and tools. Mediation, according to Vygotsky, was:

central to the social formation. It opens the way for the development of a non-deterministic account in which mediators serve as the means by which the individual acts upon and is acted upon by social, cultural and historical factors in the course of ongoing human activity. (Daniels, 2008b, p. 4)

As Vygotsky developed this theory of mediation, he focused mainly on language as the main link to the development of consciousness. He viewed thinking and language to be in a dialectical relationship. Language is used by people as a sign or a tool, to meet society's needs, but over time the meanings of words can change, relating back to the dialectical relationship between the tool – with language being used as the mediator – and the individual within the society making an impact with the tool.

According to Bruner (1985), Vygotsky was able to “interpret thought and speech as instruments for the planning and carrying out of action” (p. 23). This interpretation is connected with Vygotsky's concept of mediation with and through psychological tools, where the definition of tools is expanded. “Psychological tools are those that are internal to the individual, and were considered by Vygotsky as elements of culture” (Davydov & Radzikhovskii, 1985, p. 54). In the early stage of development, the tool is directed at another person, and over time it is turned inwards to the point where it becomes an internal means of controlling the individual's own mental process or activity. For Vygotsky, the moment when language and action converge within the child is a very significant sign of development. External language will support the child to think through a problem that is presenting when the child is quite young. Language is also used as a mediator between the child and adult, by allowing the child to seek help from the adult or more capable other so that the problem can be solved. In this way, language is also enabling the child to plan and control behaviour and needs. The presence of language supports the child to plan a course of action before carrying out the action, creating a mediator between the problem and the solution. This language can frequently be considered to be of an “egocentric” nature, but Vygotsky interprets this language to be the forerunner to the child being able to internalise his language into thought (Vygotsky, 1978). Vygotsky considered signs to be a symbol that had great significance to the culture within which they are used and within which they had been conceived. With it possible to internalise language and thought, they can be used as “instruments for the

planning and carrying out of action” (Bruner, 1985, p. 23). Consequently, it is through this internalisation of the mediating psychological tools that the individual is able to take on the socialisation that is important for development.

Language is therefore seen as the primary mediator as it is a means of controlling behaviour both by the individual towards another individual or group as well as directing behaviour through an internalisation process. It is always learnt within a social situation by learning the behaviours and language from others then using these learnt behaviours and language with others. Therefore, to understand the child’s development of higher mental processes, the tools and signs that mediate them must be understood. A child has to understand the tools of the local culture, and through the action on and with these tools, the child is able to grow in mental development as it is through this interaction that she is able to be influenced “by the social, cultural and historical factors” (Daniels, 2008b, p. 4) of her culture.

Vygotsky introduced the concept of mediation as a means for the individual to understand the culture and be understood within the culture as well as the culture being understood through the actions of the individual by the use of tools or signs.

I, as the teacher, am also shaped by the mediation of tools and signs of my learning and development within the community in which I work as well as that of the wider community and culture. In my case I have to internalise the new theoretical concepts via language and thought and then respond as I externalise the new concepts via my practice.

2.8 Genetic Law of Development

The third key component is Vygotsky’s reliance on the genetic law of development as a core to forming his theoretical framework, with particular reference to a child’s development.

Vygotsky (1978) defines that:

child development is a complex dialectical process characterized by periodicity, unevenness in the development of different functions, metamorphosis or qualitative transformation of one form into another, intertwining of external and internal factors, and adaptive processes which overcome impediments that the child encounters. (p. 73)

He also comments that “It seems that every advance [development] from one age stage to another is connected with an abrupt change in motives and incentives to act” (Vygotsky, 1976, p. 538). Therefore, the genetic law of development can be seen as the physical and psychological growth of the child as she encounters motives and incentives that support this process of development, and consequently responds within the dialectic of her growth and development.

I present some of the ideas from his framework for general psychology, and how they have been accepted by the field of early childhood education and how this re-mediate my practice. This understanding is important to this study because the research I conducted is situated in the context of an early childhood education setting. For the early childhood educational field, the concept of play is considered to be most important as it is through play that the child is understood to learn (Cutter-Mackenzie, S. Edwards, & Fler, 2009; Duncan & Tarulli, 2003; S. Edwards & Cutter-Mackenzie, 2013; Fler, 1996; Hedges, 2000; Hyvonen, 2011; Wood, 2009).

I establish the awareness of play within the literature, and then from a cultural-historical perspective, before I extend the discourse on the theoretical components. I need to have an understanding of the importance of play as it is situated within the genetic law of development as it will support the re-mediation of my practice.

2.8.1 Play. Play has been given many definitions over the years and, accordingly, reflects the various theoretical positions given to play. According to Saracho and Spodek (1995), play could be considered “free from self-expression...the motor habits and spirit of the past persisting in the present...activity in itself free, aimless, amusing, or diverting...usually, though not always, pleasurable” (p. 135).

Play was typically seen as a social experience, with children interacting with others. In more recent times, toys have been introduced as a way to enable a child to function within a solitary situation, as if in readiness for adult occupations (Sutton-Smith, 1997). Another consideration of play has been expressed by Bateson (1955) as “a paradox because it both is and is not what it appears to be” (as cited in Sutton-Smith, 1997, p. 1).

An historical perspective on play shows children from a very young age being involved in work that made a significant contribution to the community to which they belonged; as Elkonin (2005a) has described, in some communities, these children are as early as the age of three. Activities or actions that are now viewed as play did not seem to exist back then:

At the earliest historical periods in the life of society, children lived a common life with adults. The child-rearing function was not isolated as a separate social function...the main objective of which was to make children participants in socially productive work and to give them experience with this work. (Elkonin, 2005a, p. 59)

Children were given the simplest tools to use, and as they grew they became more involved with the work of the adults and became more independent. Tools that were used by adults were made smaller so that the child could practise until she was able to participate in the work with adults. There was still very little play in children’s lives as they mastered the use of their tools.

Rogoff, Paradise, Arauz, Correa-Chaves, and Angelillo, (2003) also confirm that children from as young as three or four years were able and encouraged to participate in community

activities along with adults. During the medieval ages, a child entered the adult's world as soon as it was possible to "live without the constant solicitude of the mother, the nanny or cradle-rocker" (Aries, 1960, p. 125). Children from less industrialised countries still had a major role to play within the family as they were encouraged to participate in activities that supported the family or community (Gaskins, Haight, & Lancy, 2006).

Kozulin (2003) also notes that for these communities the adult-child interactions focused mainly on the activity rather than verbal interactions so that the child is able to quickly participate in the traditional activities required from her. With industrialisation, children stopped having such an important role to play in the functioning and survival of the community and now "are routinely segregated from community work and many social activities" (Correa-Chávez & Rogoff, 2009, p. 631). They have been excluded from adults' work due to the increasing complexity of the employment, and have not been able to use scaled-down models of the tools effectively. Adults also tend to employ more verbal interactions which are child centred (Kozulin, 2003). It appears that during this time of industrialisation, children started to play as a way of entering the adult world that is no longer available to them. Role play developed from the social conditions of the child. The length of childhood grew and the period of role play, or as it is now known, the preschool period of development, was introduced (Elkonin, 2005a).

Play is considered to be the main purpose of the kindergarten child, but there are many and varied definitions to what play is and why children play (Bodrova & Leong, 2011; Kravtsov & Kravtsova, 2010; Saracho & Spodek, 1998; Sutton-Smith, 1997). Theorists have tried to "find something in common among actions of an extremely diverse nature and quality all described by the word 'play'" (Elkonin, 2005a, p. 24). Originally, play was defined by the classical theories as surplus energy (Schiller, 1759-1805), relaxation theory (Moritz-Lazarus, 1824 - 1903), and pre-exercise theory (Groos, 1861 - 1946).

More modern theories of play, including the Dynamic Theories of play and the Psychodynamic or Psychoanalytic Theory include the theories put forth by Freud (1856–1939), Jung (1875–1961) and Erikson (1902–1961), whereby feelings and behaviour have been predetermined due to childhood experiences (Elkonin, 2005a; Isenberg & Jalongo, 2001; Saracho & Spodek, 1995; Vygotsky, 1998). The Constructivist Theory of Piaget (Creasey et al., 1998) has had a major impact on early childhood education and suggests that the child fits or assimilates new information and experiences with what is already known. The child then gains greater knowledge by creating and developing the new information or experience. The child is also able to work through feelings and emotions via play as well as act on wishes that are not available in actuality. Overall, the child is able to gain a sense of mastery over situations. Saracho and Spodek (1998) suggest that dynamic theories of play were important to early childhood education as they had a strong influence on children’s development “implying that play activities provide an important educational purpose” (p. 7). This perspective on the role of play in early learning is consistent with historical beliefs in the field that play supports children’s development (Aronsson, 2010; Frost & Rowland, 1969; Hatch, 2010; Nutbrown et al., 2008) and, therefore, should form the basis of children’s experiences in early-learning settings (Aronsson, 2010; Ashiabi, 2007; Bodrova & Leong, 2003; Flear, 2010). Nutbrown et al. (2008) reflect that:

Research continues to focus on definitions of play, children’s roles and interests in play and how play is supported in various forms of early years’ provision in a variety of international contexts. But questions about the efficacy of play as a pedagogical tool remain (p. 155).

The theories noted above, also assumed that the motives for this type of activity came from within the child (Bodrova, Leong, Hensen, & Henninger, 2000; Sandberg, 2002) and that maturation has an impact on the development of the child’s participation in play (Creasey et al., 1998; Eun, 2010).

My understanding of play has consequently changed as a result of the research and writing that has informed this thesis. I now view the function of play from a cultural-historical perspective instead of a developmental viewpoint and, consequently, consider how this change will affect my practice.

Having situated play within the literature, I will now consider it from a cultural-historical position. An important aspect of the cultural-historical perspective is how play is interpreted and related to development. Vygotsky (1976, 1978) defines play as the imaginary situation within which the child participates, complying with the rules that are required to fulfil the role that is being played; his definition limited play to only include make-believe or dramatic episodes or scenarios. Vygotsky (1976) comments that in play “the child acts in a mental and not a visible situation...learns to act in a cognitive, rather than an externally visible, realm” (p. 544). He continues to support the idea that the child learns through play by offering the observation that “In play a child operates with meanings severed from objects, but not in real action with real things” (p. 548).

The child starts her ability to use a particular object to represent another. In particular, the child is able to use speech to transfer the reality of an object to another. Vygotsky presents the examples of a piece of wood becoming a doll and a stick becoming a horse. The child is able to participate in this form of object substitution and is able to demonstrate that she is developing cognitive and psychological processes through the activity of an imaginary situation (Vygotsky, 1976). An important component of this externalisation of the child learning is the fact that “[a] child’s greatest achievements are possible in play – achievements which tomorrow will become his [sic] average level of real action and morality” (Vygotsky, 1976, p. 549). A child wants to be able to compete within an adult world, and since that is not possible, she is able to imagine the situation and play the role that she wishes, along the way learning the actions that will be expected as a grown-up and being able to practise those actions. Play incorporates the developmental method as it is seen to be the bridge between the

two central neoformations of emotions and memory. Vygotsky (1976) argues “play is not the predominant form of activity, but is, in a certain sense, the leading source of development in the pre-school years” (p. 537). A neoformation relates to the revived form and rearrangement of parts within a structure. Every child’s development follows a certain structure. Kravtsova (2009) states that Vygotsky preferred to refer to “the concept of age-related psychological neoformations in relation to a number of developmental periods” (p. 17). Play therefore becomes a bridge by functioning as the leading activity, the leading source of development between emotions and memory, which are the central functions that allow the child to participate within the social situation. It is also noted by Kravtsova (2006) that “the formation and development of a leading activity are connected with the child’s communication with adults and peers” (p. 9). A neoformation links closely with the importance placed on a state of difference defined as a crisis, or a change in one’s understanding of self-awareness in relation to another. The individual then works towards reaching a synthesis in a social situation, which in turn brings about a reworking of the social situation and a consequent change in development. Blunden (2008) supports this definition by verifying that a neoformation is a psychological process relating to the child’s mental activity within the social situation.

Within each age level, Vygotsky (1998) formulates the concept that “we always find a central neoformation seemingly leading the whole process of development and characterizing the reconstruction of the whole personality of the child on a new base” (p. 197). Central neoformations include sensory motor for infancy, perception for early childhood, and memory for the school-aged child. For the kindergarten child, the central neoformation has been defined as emotions and this emotional development drives her to act within the social situation. According to Vygotsky, this development must be linked with the intellectual development of the kindergarten child – they cannot be considered as separate features (Kravtsova, 2009).

The preschool child, as seen in Australian kindergartens, is usually aged between four and six years of age, although a program for three-year-olds is offered in some kindergartens. The crisis, or the change in the child's understanding of her relation to others, that is considered appropriate for the early childhood age frequently starts at the younger age of three when the child's emotions are dominating the child's development. Vygotsky (1998) refers to the onset of a crisis as when a child displays:

negativism...manifestations in the behaviour of the child when he does not want to do something only because an adult told him to, that is, this reaction is not a reaction to the content of an action, but only to the request of adults. (p. 283)

The child can be seen to want to be independent from the adults who care for and support her. However, to become the independent child, she must break away from the perceived control of the adults, so emotions guide and dominate her behaviour, causing her to act in a tenacious or stubborn manner. For Vygotsky, stubbornness is considered to be a second sign of the crisis for the child at this age, and the motive that drives this stubbornness is the fact that the child is bound by, and must follow through with, her initial desire or decision.

Vygotsky has also highlighted the attitudes of obstinacy and self-will as additionally having a major impact on the child's crisis within this age group as it is now the very strong desire and decision by the child to become independent and not want an adult's help. This crisis "occurs mostly as a crisis of the child's social relations" (Vygotsky, 1998, p. 288). Vygotsky also defines a period of time when the child is considered to be in a more stable period. He has termed this as the "lytic period", which is when the new psychological function supports the child's development. For the kindergarten-aged child, the new psychological function is considered to be driven by imagination (Kravtsova, 2006). As seen, each child must pass through developmental periods. With each period, there is interaction with others that can impact to varying degrees on the child's development.

I will now proceed to articulate the elements of imagination, mature play and the zone of proximal development that elaborate Vygotsky's theory of play within his framework for general psychology that I have used as the explanatory mechanism for my uptake of cultural-historical theory to answer my research question of: What does the uptake of cultural-historical theory involve from an insider perspective, and how does this uptake mediate a teacher's practice?

2.8.2 Imagination. Vygotsky has described the importance of the child creating an imaginary situation to support her development, which will lead to play becoming a leading activity and a leading source of development. The child's imagination first arises within a social situation occurring, and this happens within the lytic or stable period of her growth. At a young age, the child is involved in carrying out actions with either an adult or peer, who supports the development socially. The adult can frequently be the initiator of the activity when the child is very young, basing the activity on an everyday experience and encouraging the child to repeat the actions. Imagination advances when the child is able to draw on previous experiences and rework them in such a manner as to enable the child to create new ideas and behaviours (Vygotsky, 2004).

Imagination is considered to be a stepping stone towards the leading activity of play for the kindergarten child. Kravtsova (2006) comments "that the formation and development of a leading activity are connected with the child's communication with adults and peers" (p. 9). Kravtsova (2006) also comments that although Vygotsky did introduce the understanding of leading activity, Leontiev (1903 - 1979) and Elkonin (1904 - 1984) have extended the original ideas that define a child's development. Imagination is seen as an age-related new psychological function, which supports the child's development through differing stages until it peaks in the leading activity of mature play.

Vygotsky (2004) details the following four important elements of imagination:

1. The imaginative act being directly related to reality.
2. The imaginative act being expanded and altered.
3. The imaginative act being closely tied to reality through emotional association.
4. The imaginative act becoming a new reality through the creation of something new.

I will now examine these four elements of imagination individually. When the child starts to initiate her own activity, she attaches her activity to her everyday experiences. These everyday experiences have meaning and the child builds on these experiences. An example Vygotsky provides is that when the child imagines herself to be the mother, her doll is the child and the child then follows the rules of playing a mother. By so doing, the imaginative act of playing the mother is directly related to the child's reality of experiencing what her mother does and how she then plays out the role. Further to this idea, Elkonin reflected on the fact that children usually played the roles of adults who carried out behaviour that was endorsed by the community, and thus the child was able to work out how to adjust their behaviour to what was expected by the community (Bodrova & Leong, 2003).

Vygotsky (2004) expands this idea by stating that:

the creative activity of the imagination depends directly on the richness and variety of a person's previous experience because this experience provides the material from which the products of fantasy are constructed. The richer a person's experience, the richer is the material his imagination has access to. (p. 14)

Again, Vygotsky stresses the importance of the social situation to provide the child with a rich environment. The child needs the initial interaction with the adult or peer to enable her to make the mental connection between what is seen and what she can perceive to be true through the intent of the actions or words spoken. Through the social interaction, the child is able to participate in many more experiences than would otherwise be possible. The child

needs to be given every opportunity to be involved in new experiences. By providing a rich environment, the child is able to draw on her experiences to extend her imagination, and is then, consequently, able to start combining ideas from her reality and rework them to create new understandings, which lead to a broadening of experience. Vygotsky (2004) states that:

the association of these elements, the product of imagination itself, not just its elements, corresponds to some real phenomenon. This leads to an association of the final product of the imagination and one or another real phenomenon to which it corresponds. (p. 16)

The second element sees the imaginative act expanded and altered. Here the social influence is again strengthened; it is through social influence that the individual is able to expand her own knowledge and experience indirectly through another. Vygotsky gives an example of extending imagination by interpreting the descriptions or writings of others, such as having read widely on stories of history or travel. As a result, the individual has gained understanding and knowledge of specific concepts such as what a desert is like, or what life was like in a particular period of time. With this understanding, the individual is able to create the picture in her mind of an “African desert or the French Revolution” (Vygotsky, 2004, p. 16). The imaginative act is then able to be expanded and altered further by the individual by using her own personal experience.

The third element of imagination is the relationship with emotions and the experience in which the child is involved. The reality for the child has a related emotion so those emotions may then influence the imaginative act, or the actual imaginative act may bring about an emotional response. The emotional response is very real. Vygotsky (2004) comments that “every construct of the imagination has an effect on our feelings, and if this construct does not in itself correspond to reality, nonetheless the feelings it evokes are real feelings, feelings a person truly experiences” (pp. 19–20). The importance of emotions has also been discussed

by Sutton-Smith (1997) as he aligns with Vygotsky. He feels that children's play can be driven by the need to deal with emotions and that the play world usually is more emotive than the child's reality (Sutton-Smith, 1997).

The final element is that something new is created from the imaginative act: "In this way imagination becomes reality" (Vygotsky, 2004, p. 20). At the end of the cycle, the individual will have created something new that can exist in material form and can then become part of someone else's reality. Vygotsky originally considered technical devices, instruments or machines to be examples of the completed cycle of imagination, along with creative expressions such as painting, and I feel that it is the last suggestion of creative expression when considering the "something new" that is more apparent within the kindergarten environment. A modern example of the creation of something new can be read in the article by S. Edwards (2011) as she details how children have made their own mini movies of their Thomas the Tank Engines within their own setting. Other children are then able to view these movies on YouTube. These new creations can then inspire the way other children would play with their own trains.

This concept of imagination connects to that of the ZPD. Vygotsky (1978) discusses this connection with the following:

This strict subordination to rules is quite impossible in life, but in play it does become possible: thus, play creates a zone of proximal development of the child. In play a child always behaves beyond his average age, above his daily behaviour; in play it is as though he were a head taller than himself. As in the focus of a magnifying glass, play contains all developmental tendencies in a condensed form and is itself a major source of development. (p. 102)

It is within the imaginative act that the child is able to submit to the rules that she is not able to follow in real life, and she is able to behave in a way beyond her average age, Consequently, there is a ZPD present. I will consider this aspect later in the chapter.

Having described the importance of imagination for the development and learning of the child, I will now introduce the importance of mature play for the child's learning and development. It is through mature play that higher learning and understanding are able to be internalised by the child (Bodrova, 2008).

2.8.3 Mature play. As I have stated earlier, over time, when children were unable, or discouraged from being with adults, as was more common within more industrialised countries, and had little to keep them busy, they started to play as a way of entering that adult world. Consequently, from a Vygotskian viewpoint, "play is essentially wish fulfilment, not, however, isolated wishes but generalized affects" (Vygotsky, 1976, p. 540).

Play can now be thought of as the child's desire to make sense of and participate in the adult world that is no longer available to her. Role play developed from the social conditions of the child and Vygotsky has limited his definition of play to the dramatic, pretend or fantasy, where the child is able to fulfil her wishes or desires. Vygotsky (1976) believes that play is invented by the kindergarten child as a means of fulfilling unrealizable tendencies. Consequently, when a child wishes to be involved in the adult world that is around her, and this is not achievable, she is able to observe that role she wishes to be involved in, create the imaginary situation, carry out the role, follow the rules associated with that role and be able to operate with object substitution within that role. Elkonin (2005b) also adds further insight to the understanding of mature play as that which focuses purely on the actions and relationships of people and among people. This consequently supports Vygotsky's connection of children creating the imaginary situation, carrying out the role, following the rules involved with the

role, and participating in object substitution in order to carry out the human actions that relate to the role being portrayed.

In Vygotsky's terminology, mature play is when the child is able to create an imaginary situation, where she is able to take on a role, follow the rules associated with that role and be able to substitute objects for another within the play scenario. The child is able to take on any role of her choosing, and although she must abide by the rules that control the role, she is able to perform that role for as long as she chooses and in a way that will help her to experience and fulfil the "unrealizable tendencies" [those needs and wants that cannot be achieved or reached immediately] (Vygotsky, 1978, p. 93). The child is also able to verbalise the scenario, what the rules are and what is involved within that role. The imaginary play for the child is based on the child's everyday experiences; the rules are already laid down by the external, social situation on which the imaginary play is based:

only actions that fit the rules are acceptable to the play situation... Whenever there is an imaginary situation in play, there are rules – not rules that are formulated in advance and change during the course of the game but ones that stem from an imaginary situation. (Vygotsky, 1978, p. 95)

An example is when a child takes on the role of the mother, she must follow the rules that demonstrate maternal behaviour and cannot alter those rules.

Vygotsky (1976) also went on to say that "from the point of view of development, play is not the predominant form of activity, but is, in a certain sense, the leading source of development" (p. 537).

Vygotsky defined play as a leading activity for a kindergarten child, and according to Kravtsova (2009), this was the only time he referred to "a leading activity" (p. 17). A leading activity defines the nature of development at the particular given age. Therefore, if the child had no unresolved wishes or needs, there would be no need for play as a means of resolving

these wishes and, consequently, this would mean no development. It is within play that the child must also “learn to act in a cognitive, rather than an externally visual realm by relying on internal tendencies and motives and not on incentives supplied by external things” (Vygotsky, 1978, p. 96).

The child must start to be able to act against what the physicality of the object suggests by using the object in an alternative manner. This then leads to an important factor of mature play; that is, the ability of the child to operate with object substitution. A child needs to develop the understanding, for example, that she can use a stick to represent a horse and so visualise internally what the horse will look like and how she might look after the horse (Vygotsky, 1976). With this development, the child is able to act independently of what she sees, and act independently with her actions in relation to the props she has.

It is when all these factors unite that the child is able to progress to what can be determined as mature play. The child has been able to participate within a social situation, learning the rules, and learning the language and conventions of the particular situation. Over time, the child is able to internalise the situation by remembering the rules, the language, the roles that are expected within the situation, and the expectations that are placed on the roles.

Another major factor with reaching mature play is the child’s ability to recall and discuss what she has just done. When the child is able to discuss the play, then a change is occurring within the social situation and so the child grows in her development:

A child becomes the subject of his own leading activity. This means that he has mastered all its components and can externalize it individually, that he is able to voluntarily realize this activity under any conditions, and that he reflects its process. (Kravstova, 2006, p. 14)

This understanding of mature play is necessary for my changing practice. This is because for a child’s learning to take place within this medium of play, I, as the teacher, firstly need to

acknowledge that it is the platform for learning and thus be prepared to support the social situation that allows the child to start to internalise and master the “higher mental functions – mediated, intentional and internalized mental processes” (Bodrova, 2008, p. 361) occurring from the play.

So how does the child reach this level of mature play, where play becomes a leading activity? To address this question, I now discuss the importance of the zone of proximal development, and how it influences the child’s learning and development.

2.8.4 The zone of proximal development. The zone of proximal development (ZPD) is, according to Wells (2013):

the only aspect of Vygotsky’s genetic [developmental] theory of human development that most teachers [in the English-speaking world, at least] have ever heard of and, as a result, it is not infrequently cited to justify forms of teaching that seem quite incompatible with the theory as a whole. (p. 313)

Vygotsky was faced with the problem of how to assess a child’s intellectual ability as well as evaluate the teaching practices that supported the child’s learning; “those functions that have not yet matured but are in the process of maturation” (Vygotsky, 1978, p. 86). At first Vygotsky considered the child’s “actual developmental level, that is, the level of development of a child’s mental functions that has been established as a result of certain already completed developmental cycles” (Vygotsky, 1978, p. 84).

He then went on to consider what the child was able to do when shown or supported by an adult or more capable peer, and used this knowledge as a more accurate guide to a child’s mental development. The ZPD was then defined as taking into account the difference between what the child was able to do independently and how much more the child could do with the support of an adult or a more experienced child (Vygotsky, 1978). This factor of development was further explained as: “The actual developmental level characterizes mental development

retrospectively, while the zone of proximal development characterizes mental development prospectively” (Vygotsky, 1978, p. 86). Daniels (2001) adds to this definition with “The ‘cultural’ interpretation of the ZPD is based on Vygotsky’s distinction between scientific and everyday concepts. It is argued that a mature concept is achieved when the scientific and everyday versions have merged” (p. 60).

Consequently, the ZPD was introduced to define the “distance between the actual developmental level as determined by independent problem solving and the level of potential development as determined through problem solving under adult guidance or in collaboration with more capable peers” (Vygotsky, 1978, p. 86).

Vygotsky considered that the best instruction or teaching was that which led the child’s development. By this he was meaning that the child needed the adult or more knowledgeable other to continually show and explain the new learning and, then over time, the child would take on more of the information and learning and need less support to complete what is required. In this way, the adult or more experienced other “serves the learner as a vicarious form of consciousness until such a time as the learner is able to master his own action through his own consciousness and control” (Bruner, 1985, p. 24).

Bruner is referring to the understanding that is also further explained by Kratsova (2009) that Vygotsky also related the concept of the ZPD to the methodology of ontology, where reality is socially constructed through an individual’s participation within a social situation, thus informing the individual’s personality development within a social situation. Therefore, there is an intertwining of both intellectual and emotional development that forms the personality. It is when the child progresses through to a mature level of play that she is able to master her own actions through her own consciousness and control and is consequently aware of becoming and being the source of her own actions.

The ZPD connects to the neoformations when the child has a period of learning and development, which is slow during the lytic period, and appears quickly during the critical period. As the teacher, I can use this knowledge to support the child by being able to work within a time frame that is suited to her individual needs. The following explanations specify how I, as the teacher, can work with the child within the ZPD to gain optimal learning and development.

Kratsova (2009) details five ways the adult or more experienced other can support the child to develop and master her own actions through her own consciousness. These are:

1. Primordial we/greater we. When the adult will frequently physically support the child to complete or achieve success in the task or action that is being practised.
2. The upper position. When the adult will take a more “teaching” or “instructional” position to inform or give direction to the child.

These first two ways of support confirm the belief that Vygotsky expressed in the need for the child to be able to imitate the actions of the adult or more capable other, and that this needs to be recognised as a major way of learning. (Vygotsky, 1976, p. 87)

3. The under position. when the adult feigns ignorance of, or will sometimes even demonstrate incorrect actions so that the child can independently identify and ‘discover’ for herself how to solve the assigned problem to allow the child the opportunity to practise or demonstrate the new knowledge gained by teaching, instructing or demonstrating the knowledge to the teacher

4. The equal position. When the teacher and child are able to work equally together to complete the task without the teacher required to position herself in a more dominant position such as the primordial we or the upper position.
5. The independent position. When the teacher might work alongside the child with minimal support offered or given as the child is able to complete the task by herself. (Kratsova, 2009, p. 23)

Within these positions, there is the expectation of intent from the adult in what they are supporting the child to learn (Hatch, 2010). These understandings of the positions through which a teacher may engage can explain how a teacher needs to practise when using cultural-historical theory as the basis for practice to support optimal development and learning for the child. The positions are therefore able to be used as tools to support me in my practice. The dialectic is seen to be in action within this positioning of myself with the child. As I interact and have a conversation with the child, her answer will help decide on my next response, be it verbally or by supplying supportive tools. It is the process of creating and changing the social situation of development by simultaneously adapting my available tools, observing the effects and again responding to the child's changing actions that form the dialectic. Vygotsky did not restrict the importance of the ZPD to the teaching of skills, but must be considered across all areas of development, including emotions, as it is within the social situation that the child learns what is expected and required of her by the culture in which she lives.

I have now covered the main areas of the importance of play, imagination, mature play and the ZPD that the field of early childhood considers significant for the practising teacher.

I would now like to present a review of literature that compares the theories of Piaget and Vygotsky and the study of teacher development.

2.9 Research Comparing the Theories of Piaget and Vygotsky

Comparisons between Piaget and Vygotsky started to appear in the 1990s. Researchers, such as Fler (1995a), S. Edwards (2003), and Wood & Bennett (1998, 2000), started to reconsider the importance of Piaget and introduced the theory of Vygotsky as an alternative theoretical base that would be more considerate of individuals and differing cultures. Bidell & Fischer (1992) suggests that Piaget supported individualism with his theory of stages in development but acknowledged the need for a social context when considering his theory of knowledge. Piaget focused on the construction of knowledge while Vygotsky considered the influence of the social situation of development for the individual's acquisition of knowledge. Piaget and Vygotsky had contrasting opinions regarding what drives intellectual development. Piaget felt that the level of development and the comprehension possible from the level of development was the driving force for intellectual development; Vygotsky put the focus onto learning through the social situation of development being the driver for intellectual development.

Piaget's perspective on play was that it reflected the level of cognitive development of the child. When there were changes in the child's cognitive development, changes in play were possible (Wadsworth, 2004). However, Vygotsky proposed that play "directly supports the development of children's cognitive powers" (Saracho & Spodek, 1995, p. 143). Vygotsky placed great importance on the child's imaginative play. For Piaget, language was seen as a reflection of where intellectual development was at, but it was not seen as important in gaining higher intellectual understanding. In contrast, Vygotsky considered language to have a major influence on intellectual development as a means by which the individual was able to gain understanding from the social situation of development as well as a means of improving thinking and reasoning. So, while Piaget felt that the child was independent in constructing her own development, Vygotsky placed the emphasis on mediation in specific contexts (Wadsworth, 2004).

Due to this shifting thinking about the relevance of Piaget's theory in early childhood education, pre-service teachers began to be exposed to differing theories within their studies. This was evident in both research and practitioner-based publications at the time. For example, Sumsion (2005) details her account of introducing postmodern theories into her work as an early childhood teacher educator. She highlights the need for pre-service teachers to include examination of social and political factors that have an impact on children's learning and development as opposed to only considering their own input or effectiveness in supporting the children to reach chosen goals or objectives. Meanwhile, textbooks for pre-service teachers at the time – for example, Roopnarine and Johnson's, *Approaches to Early Childhood Education*, 2005 (4th ed.); Arthur, Beecher, Dockett, Farmer, and Death's, *Programming and Planning in Early Childhood Education*, 2007 (4th ed.); Berk's, *Development Through the Lifespan*, 2009 (8th ed.); and Berger's, *The Developing Person*, 2008 (7th ed.) – also started to include theoretical perspectives such as Erikson's (1902–1994) psychodynamic theory, where the child's play was seen to provide mastery over feelings and impulses; Bronfenbrenner's (1917–2005) ecological system of human development, which considered contextual issues for development and cross-cultural studies; Bowlby's (1907–1990) emphasis on the importance of the attachment of the baby to her mother and the future implications for development; and Gardner's (1993) “intelligence in terms of distinct sets of processing operations that permit individuals to solve problems, create products, and discover new knowledge in a wide range of culturally valued activities” (Berk, 2009, p. 323).

Some books focused exclusively on sociocultural or cultural-historical ideas – for example, Fler, S. Edwards, Hammer, Kennedy, Ridgway, Robbins and Surman's *Early Childhood Learning Communities*, 2006; and Fler's *Early Learning and Development: Cultural-historical Concepts in Play*, 2010.

Although cultural-historical theory was being used more often in research and written about in materials for pre-service teachers, there was conflict in the field. This was because pre-service

teachers were learning about new theories in early childhood education but experiencing professional placements in a field that was still mostly using developmental theory. I was placed in this conflict when I returned to the field and began supervising pre-service teachers. They would use terminology that was not understood by me or other teachers. Those of us who had been in the field for some time would discuss this issue. I would try to interpret how I worked and discuss how this interpretation might be linked to what the pre-service teachers were trying to demonstrate to me. Unfortunately, I would find that the pre-service teachers did not have enough knowledge to answer my questions, as they were only learning themselves. I was starting to feel a sense of frustration because I couldn't understand and really support the pre-service teachers when on placement to the degree I was wanting.

The practising teachers did not have as much access to the new ideas that the pre-service teachers did because the in-service teachers were not at university and therefore were not exposed to the readings or the thinking of the lecturers who were leading the charge in change. Consequently, the pre-service teachers at university were better informed on the new thinking for teaching practice whereas the teachers in the field had little to no access to resources regarding the new ideas being circulated.

At this time, Fler and Robbins (2004) reported on the difficulties faced by pre-service teachers entering practicum placements and being faced with opposition from their mentor teachers who had minimal understanding of the various theories that pre-service teachers were being encouraged to use to guide planning for the children and therefore teachers' practice. This conflict is explored further by Robbins, Jane, and Bartlett (2011) as they discuss pre-service teachers trying to advance children's technical skills within block play. They described pre-service teachers using cultural-historical theory as the theoretical approach, focusing on the mediation that would support the child's learning. Problems arose for the pre-service teacher in one kindergarten due to the teaching approach used by the mentor teachers. The in-service teachers provided little interaction with the children and any props provided

appeared to be driven from the teachers' input rather than the children's interests. Teacher-led activities placed emphasis on the end product rather than allowing children to explore technological ideas. They attributed the difficulties the pre-service teacher appeared to have due to working with a differing theoretical base to the mentor teacher. However, after being involved with the research, the mentor teacher started to rethink her practices with the children and so became more involved with the children to support their learning.

Conflicting theoretical drivers between pre-service teachers and the mentor teachers could also be seen in international papers. An article describing Finnish pre-service teachers by Kaartinen (2009) also supports the problem faced by pre-service teachers of having difficulty applying theoretical knowledge gained at university within their practicum placement. In this instance, mediation came to the fore as mentor teachers are not always able to provide the support required by the pre-service teachers. Since this project followed the pre-service teachers for two years, it was also able to demonstrate that the mentor teachers were willing to eventually work with the pre-service teachers to provide a community of learners.

Research conducted in New Zealand by Mahmood (2013) focused on a study of the "reality shock" faced by newly graduated early childhood teachers. Within this study, she found that new teachers struggled to deal with the differences between their personal philosophies that they had developed when at university and those of other teachers they now worked with. They struggled to be understood by the more experienced teachers, who, in most instances, would not compromise on their beliefs about constructivist-based early childhood education. Mahmood (2013) also describes pre-service preparation as presenting "an idealistic view to the student teachers: they go out with rose-coloured glasses" (p. 163). The new graduates also felt there was an element of unreality when going on placement to what they experienced when out as a practising teacher.

An interesting reflection on issues facing pre-service teachers was put forth by Koehler (1985). Findings connected to this literature review have revealed that earlier research on pre-service teachers has described similarities with issues for pre-service teachers that more current research has also indicated. The main issue noted came from the opinion of teacher educators placed within the university system. The teacher education system is viewed as being one of preparing individuals for change and giving the pre-service teacher skills and knowledge to be able to bring about change. In fact, Koehler (1985) states that many teacher educators:

are appalled by the fact that their students may have little opportunity to use these methods in their practice teaching situations: that school situations prohibit their students from using these methods: and that school personnel do not seem disposed to experiment with them. (p. 26)

The seemingly different theoretical positions between practising teachers and teacher educators within the university field, as evidenced by Robbins et al. (2011), Kaartinen (2009), Mahmood (2013) and Koehler (1985), seem to be a continuing issue throughout the field of early childhood education across differing countries. This helps to highlight an issue for practising teachers: the lack of, or inability to gain access to newer theories that become available to pre-service teachers through their studies at university.

The difference between theoretical ideas being used in research and the preparation of pre-service teachers and those used by practising teachers meant that more needed to be understood about the professional learning needs of practising teachers. Research started to be conducted with early childhood teachers connecting the use of cultural-historical theory with their practice. S. Edwards carried out research with Australian early childhood teachers in 2005. She was interested in the processes of teachers' learning when they were provided with opportunities to learn about cultural-historical theory and how it could be used in practice.

She found that teachers initially understood cultural-historical theory as an explanation for cultural differences between children and not as an explanation for learning and development that could be used to inform practice, suggesting teachers:

engage with sociocultural theory at an initial level that positions the theory as an explanation for difference rather than an explanation for development across all cultural communities. Coming to understand the theory as a theory of development for all children is significant, and once achieved allows teachers to engage with questions regarding their own beliefs and values and the implications these hold for practice and consequently what children actually experience in their classrooms. (S. Edwards, 2007b, p. 142)

It also appeared important for teachers to have time to learn about the changing theory from an outsider to allow them to go through differing levels of understanding. Teachers might at first reject the idea of taking up new information from a newer theory to guide their practice and need time to consider what the positives would be to make them change their theoretical base. They also need to be able to question their own beliefs in the light of new knowledge and consider how their practice might change for the betterment of the children they work with. This knowledge can then appear to give them the confidence to engage with the newer theory. From S. Edwards' (2005) study, teachers appreciated the focus on respecting the differences, cultures and knowledge found within the group of children with which they worked, but took time and effort to understand cultural-historical theory as an explanation for the learning and development of all children in all social and cultural settings. This later understanding is in line with Vygotsky's theory which recognises the individuality of the child and the influence of the social situation the child is in and comes from. The teachers were able to then consider and plan for the child's development from a new perspective when using cultural-historical theory as the theoretical basis for their practice.

In the mid-2000s another concern about developmental theory was starting to be raised through research. Ryan and Goffin (2008) sum it up succinctly with their statement: “teachers and their work are largely missing from the early care and education literature. Second, and perhaps more subtly, they are missing in terms of omission: of not having the knowledge and skills necessary for supporting children’s learning” (p. 385).

They go on to say that:

teachers are not valued for the input they can provide about pedagogy and the daily realities of classroom life. The consequence of this oversight is that policies and standards often do not achieve their intended goals, and young children do not receive the quality education they need and deserve. (p. 388)

Vygotsky places the teacher directly in the role of the more knowledgeable other, giving her an active role to play in the child’s learning and development.

The trend to identify the role of the teacher in children’s learning and development was also demonstrated internationally by the research of Duncan (2004), Lohmander (2004), Siraj-Blatchford and Sylva (2004) and Hooks, Scott-Little, Marshall, and Brown (2006). They found that teachers with low qualifications were struggling to provide a high-quality program when compared with teachers with higher qualifications. This meant that those with lower qualifications may not have the professional knowledge base to enable them to understand their social role in supporting children’s learning and development. They also noted that professional development and support could provide the teacher with the skills to be actively involved with the child in a learning situation. Siraj-Blatchford and Sylva (2004) reference the importance of the teacher being actively involved with the child through what they term “sustained shared thinking”. This involved the teacher remaining focused, with the child, on their conversations and actions to support the learning that is occurring. The concept of sustained shared thinking represented cultural-historical rather than developmental ideas

because it placed the teacher in a proactive role with the child. There is an expectation that the teacher will spend time and work directly with the child to support the child's learning and development. It also does not expect that the teacher work with only one child at a time, but can be involved with groups of children. Ryan and Goffin (2008) identify that "teacher education programs therefore should equip teachers with a range of knowledge in addition to child development theory" (p. 389). This statement signalled a shift from focusing only on developmental theory to including other ideas in the preparation of early childhood teachers. However, research was also showing that practising teachers can still benefit from further learning opportunities about cultural-historical theory in contrast to developmental theory as shown through research conducted by S. Edwards (2007a).

More recently, another focus on the influence of theory on an early childhood teacher's practice was presented by Stephen (2012). She was concerned that many teachers of early childhood education do not have a strong focus on theory within their practices. She presented a case that there was tacit understanding of the main theories of Piaget and Vygotsky as drivers of practice, but, in general, there was little focus on theory driving practice as many teachers hold onto their long-standing ideas that reflect their own "values and experiences and the views of others in their community of practice" (Stephen, 2012, p. 235). Stephen (2012) was concerned that although theory is given a place in government regulations and frameworks, as well as by outsider research, it is not given such prominence in the actual practices which possibly remain stubbornly developmental and child centred.

Research findings from S. Edwards, (2007a, 2007b), Siraj-Blatchford and Sylva (2004), and Ryan and Goffin (2008) point to the need for better understanding regarding the use of Vygotsky's ideas in practice as compared to those of Piaget. This included focusing on social and cultural understandings of children's learning and development and an active position by the teacher within the learning environment. However, when studies were carried out into the

use of cultural-historical theory by teachers, they were always conducted by researchers into teachers' practice – that is, from an “outsider's” position and not from an insider perspective.

2.10 Conclusion

This chapter has considered the literature relevant to the study. First, I considered the importance of the developmental theory of Piaget and how it came to be the theoretical backbone of early childhood education practice, and how this theory influenced the introduction of the curriculum-inspired programs including DAP, Head Start and High/Scope from the 1970s. I then reviewed research related to the introduction of the reconceptualists, who started to question the role of developmentalism and constructivism in the practice of early childhood education. The reconceptualists introduced the field of early childhood education to the wider theoretical ideas, which included poststructural, critical and feminist perspectives. The cultural-historical theory of Vygotsky was introduced and I presented a detailed account of the theoretical underpinnings of Vygotsky's framework for general psychology.

This review has shown that there is very little research about early childhood teachers' insider experiences of using a new theoretical perspective to mediate their practice. This is particularly so for cultural-historical theory which has had a position of significance in Australian early childhood education for the past 15 years. Given this lack of research, the research question underpinning this thesis is relevant in that it considers what the uptake of cultural-historical theory involves from an insider perspective, and how this uptake mediates a teacher's practice.

This question fills a knowledge gap about early childhood education because little is known about what a teacher should focus on when seeking to use a new theoretical perspective such as cultural-historical theory from an existing base such as Piagetian-influenced

constructivism. This knowledge is now necessary given cultural-historical theory forms an accepted theoretical framework for use by teachers in the Australian EYLF.

In the following chapter, I consider the theories of teacher learning and development as they guide my learning and changing of theoretical positioning to mediate my practice.

Chapter 3

Theory Overview

3.1 Introduction

Overriding this thesis of change and learning is the theory of teacher knowledge, development and practice, with the focus on my own development being explored from an insider perspective. I acknowledge that there are many differing theories that are available to me with which to understand my research. Jackson and Mazzei (2012) support the procedure of utilising a number of theorists in order to open up their data and find dense, multi-layered understandings. However, since I am focusing on the theory of Vygotsky, I begin this chapter by clarifying cultural-historical theory as this is the theory that I have learnt about in order to change my practice.

My learning and development as the teacher is then considered in the second part of the theoretical components via understanding of theories of teacher learning, teacher development and change and practice.

3.2 What Kind of Theory is Cultural-Historical Theory?

Cultural-historical theory has been developed by Vygotsky as a psychological theory that, according to Davydov (1995), “was connected in its very roots to Russian culture and science of the first decades of the 20th century” (p. 14). This came about through Vygotsky’s far-reaching studies in philosophy, the humanities, physiology and psychology. Davydov goes on to comment that “The genuine sense of this theory of Vygotsky’s is...that the genuine, deep determinants of human activity, consciousness, and personality lie in the historically developing culture, embodied in various sign and symbol systems” (p. 15). Cultural-historical theory is a dialectical materialist theory which operates in a socio-materialist realm so it is interested in the phenomena of the world. It is also a theory of psychological development that acknowledges the materiality of the world. Daniels, Lauder, and Porter (2009) put

forward the explanation that “sociocultural theory sees individuals as a product of their history and culture and argues that learning is about building on the engagement with both” (p. 3). Therefore, it can be considered a very active theory. This emphasis on cultural-historical theory being active is also reinforced by Williams (2009), where he places the learner in a dialectical relationship with the culture.

All modes of research are guided by a set of philosophical domains, these being axiology, ontology, epistemology and methodology. Given that the theoretical basis of this project is located in a cultural-historical theoretical perspective, it is necessary to consider these domains from a cultural-historical standpoint. A dialectic approach derived from cultural-historical theory also connects the importance of societal, institutional and individual opinions, situations, and interactions that contribute to a social setting that causes a simultaneous development to occur across the three components. In this case, the social setting and the associated aspects of this setting included my interactions as the individual teacher with the institution – the kindergarten – which is influenced by the overriding societal expectations and values for a kindergarten. Axiology, ontology, epistemology and methodology are now discussed in more detail.

The axiological principles of cultural-historical theory come from the ideas of Marx. Marx set out to explain “historical changes in society and material life produce changes in ‘human nature’ (consciousness and behaviour)” (Cole & Scribner, 1978, p. 7). Therefore, the axiological principles of cultural-historical research are known as the critical transformative tradition, where it is important to make change happen. This, then, positions the researcher in a very complex position as there is the expectation of change.

I, as the researcher and teacher – the individual – was in a dialectical position with the children that I worked with in the kindergarten – the institution – as well as within the field of early childhood education – the society. I set about to change the theoretical framework,

which guided my practice, which impacted on the children, led them to change, brought about a change in the institution, and, ultimately, brought about a change in the field – society.

I, therefore, worked at understanding cultural-historical theory within the social situation of the kindergarten within which I engaged with the children. I had to consider the axiological position I was in as I looked at changing my own social situation of development and consequently that of the children and my assistant within the kindergarten. This process of change could be considered to have been operating on two levels. I changed my own practices through my learning about cultural-historical theory and these modifications brought about a change in how I implemented my teaching practice with the children. This theory is therefore transformative and it is materialistic since it involved my practices and how I used the tools available to me within my practice. It is also a critical theory in that I have become aware of my own limitations in that I did not know, or have access to, the newer theories pertinent to the field of early childhood education, and I have worked on changing that position through my study.

Methodologically, cultural-historical theory is an active theory. While I was changing my practices, I actively altered my social situation of development. I was also keenly studying my interactions and conversations with the children as well as observing their reactions to what and how I was presenting the materials or tools which I was considering in order to implement and practice my new understanding of using the ZPD to support a child's development. I would then later reflect on the data that I was generating from the kindergarten setting by either writing down my thoughts or through discussion with my assistant or critical friend. The reflections became the conscious-raising evidence of my new understandings concerning cultural-historical theory. Within a cultural-historical approach, both the community's and the researcher's values should be considered within the research project. Kemmis and McTaggart (2000) also acknowledge the need to recognise the influence of both historical and social constructs which place a dialectical perspective on that which is being

researched. They comment that “people’s actions are caused by their intentions and circumstances, and also people cause intentions and circumstances – that is, people are made by action in that world and they also make action and history” (Kemmis & McTaggart, 2000, p. 578).

This relates to the historical and social values and norms that support the society as well as the individual and the social setting. The researcher’s own values and norms informed the actions within and on the institution as well as the institution’s values and norms informing the researcher’s values and norms. The researcher needs to acknowledge individual values and also consider society’s values and the ethical procedures that must be observed when participating in research. Within a cultural-historical theory, there is an intertwining of both the individual’s and society’s values. Since I am the researcher, my values are interconnected with both society’s values and those carried out within the kindergarten. Within cultural-historical theory, values may be considered to be socially distributed through interactions “from the social to the individual, in collaborative activities with other people” (Vianna & Stetsenko, 2006, p. 87).

From a cultural-historical perspective, ontology involves the viewpoint that reality is socially constructed through an individual’s participation within differing institutions and within society (Hedegaard & Fler, 2008). This perspective is also supported by Kravtsova (2009) as she also endorses the perspective that reality is socially constructed through an individual’s participation within a social situation, thus informing the individual’s personality development within a social situation. Consequently, there is the understanding that a dialectical ontology will be about how things are understood in society as the three components – the individual, the institution and the society – all exist in relation to each other, influencing and developing each other’s material realities.

In this study, the dialectical-ontological perspective is reflected in my own participation within the institution that is the kindergarten – which is governed by social rules and expectations – and as I modified myself with my new understandings, these changes affected the children and the kindergarten setting within which I worked.

Epistemology questions the nature of knowledge, or asks the question what is knowledge. Cultural-historical theory considers that knowledge is held within the culture and it is through interaction within the culture that the individual is able to obtain knowledge. Tools and sign systems “are created by societies over the course of human history and change with the form of society and the level of its cultural development” (Cole & Scribner, 1978, p. 7). These systems help form a bridge for the individual to gain access to the knowledge held by the culture. The cultural-historical perspective requires the dialectical stance that supports the understanding of how the objective (dealing with outward things/reality) and subjective (the personal) can co-evolve as each has influence over the other. Radford (2008) suggests that the “epistemological position consists in specifying the way in which, according to the theory, objects can (or cannot) end up being known” (p. 221).

3.3 Theories of Teacher Learning, Teacher Knowledge and Development

Learning theories have been developed to support the ways in which a teacher works, and as stated by Cochran-Smith and Lytle (1999), it seems to be assumed that those teachers “who *know* more teach better” (p. 249) (italics in original). Research done by Pajares (1992), suggests that beliefs were usually formed before knowledge, thus having an impact on knowledge. Beliefs are able to influence a teacher’s practices and knowledge as they “influence...perceptions and judgments, which in turn, affect ...behaviour in the classroom” (Pajares, p. 307). Beliefs also act as a filter which teachers can use as their base to guide individual practical theories. These belief theories can then be used as a stepping stone for the

individual teacher to gain more general knowledge and learning (Briscoe, 1996; Fairbanks et al, 2010; Hollingsworth, 1989)

According to Cochran-Smith and Lytle (1999), teachers generally have three main conceptions of knowledge. They are “knowledge-*for*-practice,... knowledge-*in*-practice... and knowledge-*of*-practice” (p. 250) (italics in original). These concepts include formal education, the embedded, practical knowledge that teachers gain, and the knowledge gained when teachers work within their community, “understanding, articulating, and ultimately altering practice and social relationships in order to bring about fundamental change in classrooms, schools, districts, programs, and professional organizations” (Cochran-Smith & Lytle, 1999, p. 279).

Further understanding of knowledge is contributed by Fenstermacher (1994). He recognises that there are many titles to knowledge – propositional, case, strategic, formal, and practical to name a few. He goes on to state that “knowledge continues to be understood as a form of justified belief” in its strictest definition and that knowledge can also be based on “the basis of an objectively reasonable belief” (Fenstermacher, 1994, p. 24). Fenstermacher, (1994) presents a final thought on teacher knowledge as he highlights the importance of “teachers to be knowers of the known” (p. 50).

Bigge and Shermis (2004) define a learning theory as “a systematic integrated outlook in regard to the nature of the learning process whereby people relate to their environments in such a way as to enhance their abilities to employ both themselves and their environments effectively” (p. xv). Accordingly, there is agreement that there will be a change in understanding. This change will come through the process of maturation or of learning. Maturation can be considered a developmental process while learning involves “a systematic change in behaviour or behavioural disposition that occurs as a consequence of one’s

experience in some specified situation” (Bigge & Shermis, 2004, p. 1). With this definition in mind, it supports those teachers who look to change the way they work, or their practice.

Radford (2008) also adds to the conversation on theories of learning by commenting that there are differing conceptions about: “(a) the content to be learned; (b) the learner; and (c) how learning actually occurs” (p. 215). He commented that an understanding of the importance of the social situation is often neglected with many theories. Research conducted by Guzell & Stringer (2004) also highlights the importance of contextual and theoretical frameworks for pre-service teachers to enable them to gain important knowledge. This needs to be provided consistently over a period of time.

Sfard (1998) looks at ways in which people learn and defines two metaphors to help clarify the positions people can take within their learning. Her two definitions are acquisitional learning and participational learning. Her understanding is that with acquisitional learning the individual gains knowledge. She commented that “Concepts are to be understood as basic units of knowledge that can be accumulated, gradually refined, and combined to form ever richer cognitive structures” (p. 5). Acquisitional learning connects with Fenstermacher (1994) when he describes formal learning that is not restricted to the immediate environment. However, participational learning involves the learner to be more active with their own learning. Fenstermacher (1994) describes this learning as practical knowledge, and is “bounded by time, place or situation” (p. 28). It is seen as a process and thus:

the ongoing learning activities are never considered separately from the context within which they take place. The context, in its turn, is rich and multifarious, and its importance is pronounced by talk about situatedness, contextuality, cultural embeddedness, and social mediation. (Sfard, 1998, p. 6)

Sfard (1998) also argues the case that these two metaphors for learning can be used together to support the learning of the individual as they can offer “differing

perspectives rather than competing opinions” (p. 11). These two positions can also be considered to be dialectic since they are not considered competing when viewed from Sfard’s positioning. This consequently has also been positioned within the interactionist/cognitive learning theories of which the cultural-historical theory is placed.

Professional development has been a generally accepted practice within the education system (Guskey, 2002; Koster, Dengerink, Korthagen, & Lunenberg, 2008; Beijaard, Korthagen, & Verloop, 2007; Riojas-Cortez, Alanis, & Flores, 2013) and from this learning there is the expectation that the teacher will be able to introduce positive change to the classroom via modifications to practices, attitudes or beliefs, which, in turn, will lead to changes in the children’s learning.

Bigge and Shermis (2004) also define two major learning theories. The first major learning theory relates to a stimulus–response theory, where the individual is provided with a stimulus to gain mastery of the required response through reinforcement. These types of learning theories can also be considered to be behaviouristic theories whereby behaviour can be altered through manipulation of the environment (Bigge & Shermis, 2004; Roopnarine & Johnson, 2005). B. F. Skinner (1904–1990) is considered to be a major proponent of behaviourism and the stimulus–response theory.

The second learning theory has been labelled “*interactionist theories of the cognitive family*” (Bigge & Shermis, 2004, p. 10) (italics in original text). “For cognitive interactionists, learning is a process of gaining or changing insights, outlooks, expectations, or thought patterns. In thinking about the learning processes...these theorists prefer the terms *person*..., *psychological environment*, and *interaction*” (Bigge & Shermis, 2004, p. 11), (italics in original text).

Vygotsky's cultural-historical theory can be related to the interactionist theories of the cognitive family as he considered the individual's psychological development and environment, as well as the individual's interaction within the culture, which supported the development. Therefore, teacher learning and development must be viewed within the context of the work environment that the teacher is in. As the teacher introduces new learning and understanding within her practice, a process is set in place whereby she will observe the effects the new practice has on the children and the response of the children will then also lead her to think about what is being done and why. The teacher is then considering her practice from both the intrapsychological (internal) and interpsychological (external/between) planes of thought simultaneously.

This understanding of situating the learning, development and knowledge within the context of the work environment also sits with Wilson and Berne (1999) along with Fogarty and Pete (2004) as they all suggest that collaborative participation of learning, development and knowledge should continue within the work environment and requires the interaction and engagement of the learner. This then supports the new learning to become embedded into the teacher's practice and knowledge base. Putnam and Borko (2000) continue with the understanding that learning is situated in particular physical and social contexts, is social in nature, and is distributed across the individual, other people and tools. They also support the idea that when teachers come together, there is the opportunity to have rich conversations and gain new insights to support new learning. Guskey (2002) extends this understanding of the learning and development being situated within the work environment or the classroom and comments that teachers frequently look for opportunities to improve their practice. When teachers are able to use new information within their actual context and see how it can be used to support and or improve existing practices, then there is a more positive reaction to the newer information and this can lead to the teacher incorporating and embedding the newer information into the already existing practices.

Howe and Berv (2000) propose constructivism as a suitable theory of learning as it is considered a general theory of knowledge. Constructivism initially considered two lines, where knowledge is grounded in experience and the mind contributes to the construction of learning. Learning takes place when the knowledge, attitudes and interests are pivotal to the initiation of learning, and the individual is able to construct her own understanding from the inside from what is already known. Briscoe (1996) puts forth the understanding that if “teachers are to reconstruct their beliefs to be consistent with ideal images and innovative practices, they must be in a setting that promotes the reconciliation and reconstruction processes” (p. 327).

Another important aspect to consider for teacher learning, development and knowledge is that of time. The recognition that a teacher needs time to become proficient at using new skills and information is highlighted by several authors. Guskey (2002) summarises this up by saying “Any change that holds great promise for increasing teachers’ competence and enhancing student learning is likely to require extra work, especially at first” (p. 386). This is also supported by Fogerty and Pete (2004), who agree that this learning and development should occur over time as well as connecting colleagues in the learning process. Riojas-Cortez et al. (2013) confirm this by commenting that “change is gradual and requires time for planning and reflecting with colleagues. Without time, teachers cannot process the dissonance among theory, their implicit beliefs, and daily practices” (p. 44). The recognition of the need for time is certainly evident within this study as my learning took place over several years. I was able to practise my new understanding and skill and thereby give myself time to consolidate my new skills and knowledge into my practice.

A further element of adult learning is that the learning is eclectic; that is, it should be multi-faceted, employing many differing forms of learning from different sources such as text, web-based or online material, and face-to-face discussion and dialogue. Research frequently reports on face-to-face discussions (Cutter-Mackenzie et al., 2009; S. Edwards, 2007b;

Edwards & Cutter-Mackenzie, 2013; Hedges, 2010a; Williams & Ritter, 2010) as having a significant role to play in professional learning and development. This was also a contributing factor with my initial interest in learning about cultural-historical theory as I would have face-to-face discussions with the lecturer from university who was presenting professional development sessions for the early childhood teachers.

Another focus to support teacher learning and development is through readings. Hedges (2010b) explains that one way in which she was able to connect the teachers with research, professional learning and their practice was through the provision of readings. Within her research with early childhood teachers, she was initially challenged as to how theory could be relevant to the current practices. This was also a major stimulus for my learning. I was given readings very early on in my journey by the pre-service teacher who was undertaking her placement at my kindergarten. I found some of these readings very difficult to really understand, but I would return to them again and again as I slowly gained further understanding and knowledge. For example, this was the case with my early readings of Vygotsky (1976, 1978), which, at the outset, I found very difficult to comprehend. However, I would re-read his works as I gained greater insight into his theory and eventually I began to make small connections with it. These connections continued to expand as I learnt more and was able to use the knowledge to guide my practice. I also gained more understanding of the readings when I was able to create a social situation of development for myself with the lecturer who was presenting the professional development sessions as well as at a later point with my supervisor.

I also attended conferences and other seminars that were primarily focused on incorporating cultural-historical theory into a teacher's practice. An interesting point I noticed when attending these sessions was that most of them were presented by a researcher, who was usually from a tertiary institution, rather than being delivered by a practising teacher. Consequently, I found that it was not always easy to transfer the knowledge I received from

the sessions into my practice. An initial problem I had was in my actual understanding of the terminology. I would write down the words and attempt to find references or examples at a later date to extend my understanding. At times these sessions presented a scenario that was set within a school or an early learning centre, where there was only one group of children accessing the room; in contrast, the real-life situation for me was that there were two groups of children accessing the same room. This meant that some ideas presented were difficult to follow through with. For example, it was not as easy to leave materials and the children's work out until they returned. However, since these were the main resources from which I was able to gain information, I continued to absorb as much as possible from all sources.

Radford (2008) expands on these issues of eclectic learning by demonstrating the importance of mediation with artifacts such as books and sign systems as he follows a Vygotskian line of understanding for learning. He states that "Artifacts are neither merely aids to thinking nor simple amplifiers, but rather constitutive and consubstantial parts of thinking. We think with and through cultural artifacts" (p. 218). The artifact is able to support change for the learner, leading to the acquiring of new skills and knowledge (Radford, 2008). Radford (2008) also places importance on the social situation of development, emphasising the point that learning usually involves a social setting or environment for the learner.

3.4 Research about Teachers Using Theory in Practice

I begin this section by detailing a definition of practice and the differing traditions of research into practice that are relevant to this study.

3.4.1 Practice. An important element in understanding how teachers take up and use a new theory to mediate practice is the importance of having a definition of practice in relation to teaching.

A definition of practice is necessary to understand existing research into teachers using theory in practice from an outsider and insider perspective. There are many definitions of practice in

relation to teaching. As a base from which to start, a simple definition of practice is “the enactment of the role of a profession or occupational group in serving or contributing to society” (Higgs, McAllister and Whiteford, 2009, p. 102). From this point the concept of practice can be built upon. Practice can also be defined as “the skills, or tacit knowledge and presuppositions that underpin activities” (Schatzki, 2001, p. 11), “a set of doings and sayings organized by a pool of understandings, a set of rules and a teleoaffective structure [that is considering what is the end result required]” (Schatzki, 2001, p. 61), and “Practices are interwoven activities in a given social domain” (Schatzki, 1997, p. 285).

Another interesting definition is that practice is “movement and change” or that “practices are not simply becoming (activity), but in addition a site, or contest, where activity occurs” (Schatzki, 2001, p. 53). Schatzki further describes practice as an action within an activity, thereby recognising the “doing” within an activity. As part of the definition of practice, there is also the need for a teacher to learn or to improve her own ability or skills, and this can be achieved by repeatedly “practising” the skill. Consequently, as a teacher, and one researching the mediation of my practice using cultural-historical theory, this was incorporated into my understanding and definition of “practice”. Green (2009) also comments on Reckwitz’s (2002) thoughts about practice being an individual action or a sense of social undertaking. Practice also allows for choice. Taking Schatzki’s, Green’s and Reckwitz’s viewpoints into consideration, practice can be defined as having these components – skill, knowledge, theory, values and understanding – which all intersect in a dynamic relationship with the social and historical contexts that govern a work environment.

There was one further issue that I needed to consider from a cultural-historical theoretical position for the purpose of this thesis, which was what is the difference between activity and practice in the context of answering my research question. Hedegaard (Hedegaard & Fler, 2008) makes the distinction between activity and practice by stating that activity is an individual phenomenon whilst practice is an institutional phenomenon. Hedegaard (2009)

suggests there is a need for the researcher to consider “the practice tradition of the institutions, the norms and values of the educators in the everyday practices, and the demands from both the home and educational settings and how the children respond” (p. 80).

The kindergarten has a history of what is expected to be practised within an early childhood education setting. In Chapter 1, I detailed how I was taught to be a teacher, and since the theoretical perspective was Piagetian, the teaching methods were mainly constructivist. These methods also impacted on how the teacher should work and were reflected in how the rooms were set up, which took into consideration the specific goals intended for the children and the particular experiences for them to undertake to develop their skills and abilities. Teachers were expected to present specific tools such as the blocks, painting, scissors and clay, and provide, for example, opportunities for outdoor play that would enable the children to practise their gross motor or large muscle skills. Over time the norms, values and traditions can change or be continued by individuals practising within the institution of the kindergarten. With this research, I am looking at potentially changing these norms, values and traditions as I become more involved with using cultural-historical theory to mediate my practice. Therefore, the importance of learning and improving the individual’s own skills and knowledge base is acknowledged. Cultural-historical theory is also driven by the dialectic, which is when there is a contradiction between two elements that need to be synthesised. In this thesis, it is when my social situation of development changes through the dialectic between myself, my assistant and the children. My situation within my institution and the practices that govern both me and the kindergarten are therefore changing, which means there will be a co-evolution between me – the individual –the children, and the institution of the kindergarten.

For the purpose of this thesis, I have purposefully combined aspects from the above descriptions to give my definition of practice as having these components – skills, knowledge, theory, values and the actions and sayings of the individual, which all intersect in a dynamic

relationship with the social and historical contexts that govern a work environment, with the purpose to support others in their learning and development. These actions are carried out within a social situation that is governed by both the social and historical contexts. This social situation enables me to strengthen my new theoretical understanding of Vygotskian concepts and be externalised through my practice. Hedegaard (2008) defines an understanding of the integration of activity with learning as “the double move approach” (p. 317). She details this understanding as:

A person’s relation to the world is mediated by the social practice in which a person participates. It is through this participation in institutionalised social practice that a person acquires new motives and competencies. Thereby, learning basically becomes a change in the person’s motive relation to the world through changes in the person’s relation to other persons and in the person’s contribution to shared practice. (p. 317)

The kindergarten is where I practised my new competencies, which, in turn, changed my relation to the children and my assistant within the kindergarten environment, as well as changed my practices.

Building on this definition of practice means the traditions of research associated with research into practice can be considered. Kemmis and McTaggart (2000) define four main traditions when considering research into practice. They argue that these four traditions arise from differing understandings as emphasised within different theories and differing intellectual traditions. The four traditions include:

1. Outsider viewing the individual within the practice, when the outsider or researcher is able to objectively view the individual practitioner’s performance and there is no input by the researcher.

2. Outsider viewing the collective social practice of the group. With this position the researcher is able to consider the social situation of the group and how the individuals participate and interact within the social group
3. Insider looking at the individual practice, the individual viewing the practice in a subjective manner.
4. Insider practitioners looking at the social practices of the members of the practice.

Importantly, Kemmis and McTaggart (2000) and Kemmis (2009) consider a fifth aspect that “practice” (p. 21) is socially and historically constituted and is reconstituted by “human agency and social action” (p. 578). They have also looked at the dialectic of the individual/social positions and the subjective (internal or participant perspective) and objective (external or observer) positions. Kemmis and McTaggart (2000) consider these concepts to be dialectically related as opposed to opposite. The concepts relate to the interaction of the individual within the social situation and how the individual can perceive or understand her own perspective within the social situation. This positioning can then be in the dialectical relation to what the observer sees and understands of the individual within the social situation. The fifth aspect aligns very strongly with the philosophical branches of axiology, ontology, epistemology and methodology that are based on a cultural-historical perspective. This is because from an axiological position, when based on a cultural-historical perspective, both the institution or social values co-evolve with the individual and the individual co-evolves with the social or institutional values, thus having influence on the practice. The ontological position, when based on a cultural-historical perspective, states that reality is socially constructed and, when considering the different traditions of research into practice, it is difficult to isolate the individual from an original social situation or institution. The epistemological position, when based on a cultural-historical perspective, again,

considers the nature of “truth”, emphasising the influence of the social situation on the subject even if working as an individual. When considering the methodological position from a cultural-historical perspective, accessing knowledge through a social source is, again, examined. Knowledge has been built upon through social interactions and discourses; therefore, the social situation of learning must still be acknowledged. Although my thesis is predicated on an individual/insider’s position on cultural-historical theory, I am in a dialectical position within my social situation, which creates a further addition to Kemmis and McTaggart’s (2000) five traditions of practice.

Another viewpoint for consideration is put forward by Richardson (1994) of what she has titled practical inquiry, when she considers the importance of the practice of the teacher, enabling the opportunity to communicate their knowledge, beliefs and understandings through the researcher’s avenue. Richardson (1994) considers that results from practical inquiry “are suggestive of new ways of looking at the context and problem and/or possibilities for changes in practice” (p. 7). Practical inquiry does not necessarily contribute to formal knowledge.

Some theorists (Rouse, 2007; Callon & Latour, 1992) consider the importance of and the contribution of non-humans, such as machines, to the practices of humans, and how each is bound to the other. These inanimate elements can also be considered an aspect of practice because they have meaning in relation to human activity and can have a direct impact on the activity. Within my study, tools play a significant role, and Vygotsky has emphasised the importance of mediation via signs and tools within his framework for general psychology (Vygotsky, 1978).

Green (2009) stresses the idea that in practice there are always routines which dictate the way bodies move, objects are handled, subjects treated, things described, and the way the world is understood. Green’s understanding of routine is that there are differing functions or activities that are repeated frequently within practice as a way for the practice to continue. My initial

understanding of routines was the everyday practices that occur within a kindergarten such as mat time, time to play inside or out, and the process for getting ready to go home. However, after further analysis and discussion, I have come to realise that routine is the repeated aspect of the practice that can be observed in most kindergartens in Victoria, Australia.

These routines consist of the way the room is set up, how the children may be grouped, how the day may be organised, and the way the various teachers work within the room – for example, one might always clean the tables and the paint brushes, the other might always take the group time. These practices belong within the culture of “being at kindergarten”. After some consideration, I felt that the concept of practice being routine did fit with a kindergarten environment. The institution of the kindergarten has formed distinctive routines over time. These routines may also be governed by the socially accepted practices of the culture within which the kindergarten operates. However, since there is a dialectic between the institution and the teacher, the accepted routines can be changed over time. As the teacher, I have the skills, understandings and dispositions available to me through my original and ongoing training and professional development. I was provided with the knowledge of the available theory of the time to inform my activity as a future kindergarten teacher. Through the training, I also acquired the necessary teaching skills and was given some time to practise them. However, it was not until I was able to fully apply all the knowledge and skills to my actual teaching that I was able to reach a comprehensive understanding of my practice. Consequently, I now consider my practice to be in a social situation with the children I teach and within the institution of the kindergarten.

In the paradigm of cultural-historical theory that is relevant to my situation, the social context is the original training institution, the Institute of Early Childhood Development, as I outlined in Chapter 1, where I provide an extended discussion of my experience at that institution.

In this context, students were also given an understanding of what was socially expected of a kindergarten teacher. Consequently, I conformed to those expectations as I saw that that was what everyone did as part of their role as a kindergarten teacher. Consequently, the practice was informed by the social expectations as well as the social context in which I was located.

This point also ties back to Kemmis and McTaggart's (2000) fifth aspect of practice as that which is socially and historically constituted and is reconstituted by "human agency and social action". This is demonstrated in my practice, which was influenced earlier by the historical expectations placed on me by the original developmental theoretical base from which I worked (as discussed in chapters 1 and 2) and the individual site within which I was placed that enabled me to move forward through my agency within the social situation of the kindergarten environment. Within cultural-historical theory, "the social situation of development can be understood as an implicit concept of 'practice', and Vygotsky's arguments reflect an orientation to the idea of practice as the source of psychological development" (Hedegaard & Chaiklin, 2005, p. 37).

Kemmis (2005) comments that:

there is a permanent demand for practice to justify itself to those it is intended to serve ("clients"), not only in terms of "effectiveness" but also in terms of appropriateness (moral, social and historical). There are always critical questions to be asked about the nature and conduct of particular kinds of practices, and about the nature and conduct of particular instances of practice. (p. 413)

These statements are inferring that society expects the individual teacher to continually question her individual practice. Should she be learning new skills, upgrading new knowledge? There is also the question of whether the teacher has the enthusiasm to seek the newer skills, knowledge and understanding from her own interest, or whether this change to practice is being "forced" upon her by society's expectations, policy initiatives and

institutional expectations. For example, with the introduction of the Early Years Learning Framework for Australia (2009), which can be considered a tool to support the teacher's practice as delivered by the Australian Government's Department of Education, Employment and Workplace Relations and the Victorian Government's Early Years Learning Framework (2009), teachers may have felt great pressure to change the practices they had been working with for a number of years – yet had no real means at their disposal to do so, especially when research shows that professional learning that results in change requires time and input from external support systems (S. Edwards, 2007a, 2007b; Wood & Bennett, 2000).

With the understanding that there is continually upgraded and advanced information and research about teaching, knowledge and learning with young children, it behoves the individual teacher to regularly consider this new information to inform her individual practice. In the context of this study, this means acknowledging that changing knowledge also affects the social situation of the work environment. If society expects teachers to keep up to date with current research and thinking (Fleet & Patterson, 2001), it is then up to the individual to work out how this will best sit in the setting, and how this new knowledge and understanding can be transformed into the practice or change the practice. This can present as an unfair situation as the teacher is not always in the position to access appropriate resources to support this learning, as I found in my own situation. I did not have the opportunities to attend training courses or professional development sessions during my working hours; most of my learning, therefore, was accessed after hours. Unfortunately, there was little encouragement given to attend such opportunities due to the cost of paying a reliever's wages. External professional development can be expensive, which creates a barrier to further learning. I had to be strongly motivated to seek out my opportunities for accessing and learning about cultural-historical theory.

3.4.2 Traditions of research into practice. I now present an understanding of research that has been conducted into understanding teacher practice.

As already explained, Kemmis and McTaggart (2000) define four main traditions when considering research into practice and introduce a fifth tradition. Despite the emphasis Kemmis and McTaggart (2000) place on the fifth aspect of research into practice, most research into teacher practice is conducted from an outsider perspective.

3.4.3 Outsider research. Most research investigating teachers changing their practice has been conducted from the outsider position (Fleet & Patterson, 2001). Researchers have entered the classroom to observe, present professional development programs, and work with and support the teacher to become competent and successful in incorporating the newer understandings into the program, or to use a newer theoretical perspective such as cultural-historical theory.

It has been noted by a number of different outsider researchers (S. Edwards, 2007a, 2007b; Edwards & Cutter-Mackenzie, 2013; Fleet & Patterson, 2001; Wood and Bennett, 2000) that early childhood teachers will consider challenging, changing and taking up a new theoretical base after intensive professional development.

S. Edwards (2007a, 2007b, 2009) worked with a group of early childhood teachers over a number of months to support their learning about cultural-historical theory. This involved the teachers taking time out from their practices to attend a series of in-service sessions, with the intention being that they would go back to their centres to apply the theoretical ideas they had just learnt to their own practices. Her research suggested that, when given support from a more knowledgeable other, teachers are willing to consider how they can change or adapt their current practices. This research also confirmed the understanding that support from peers is beneficial in the uptake of new knowledge. This support was also noted in the following research undertaken by Fleet and Patterson (2001).

Fleet and Patterson (2001) consider how practising early childhood teachers can reconceptualise their practices through professional development. The teachers were initially able to participate in sessions with an outsider researcher. This later turned into ongoing support being given by the researcher as the teachers began to facilitate their own learning. In their findings, they argued that teachers, when supported by peers, are able to take ownership of their own learning and development. Opportunities for lengthy periods of time to enable the teacher to focus and consolidate the new understandings are most beneficial. They also found that “Unfortunately, practitioners seem to be regularly assaulted with single unrelated in-service sessions on different ideas or topics, rather than having opportunities to revisit or consolidate new challenges” (Fleet & Patterson, 2001, p. 7).

Mesquita-Pires (2012) became involved in a study with staff wanting to change their educational practices. The teachers were willing to undertake study and engage in reading and discussions as well as visit other centres with support from the researcher. Together, and over time, the researcher was able to support the teachers in reconceptualising their image of the child to the point where they could envisage the child as a co-constructor of the learning.

Both Fleet and Patterson (2001) and Mesquita-Pires (2012) find that teachers are willing to spend time in professional development when given the time to understand new theoretical concepts, curriculum and pedagogical considerations. This is in line with Guskey (2002) and Riojas-Cortez et al. (2013), when they comment that teachers need time to understand the differences between theory and their beliefs and practices. This time is considered a vital component of teacher learning and development.

Cheng (2006) was involved with early childhood teachers in Hong Kong as they attempted to translate Western teaching approaches “such as the Project approach (Katz, 1994), Reggio Emilia (Malaguzzi, 1996) and High Scope (Schweinhart & Weikart, 1997)” (p. 228) into their local setting. This research indicated that the teachers all struggled to bring about change

within their practices when they were isolated within their practice. The teacher educator did not have enough experience to support the teachers in the field, and the teachers did not have enough knowledge or motivation to extend their learning. Although all teachers were able to make some progress in changing the curriculum provided, it was seen to be in a very simplistic manner as the teachers did not really understand the theoretical positioning behind the methods they had chosen. Cheng (2006) sums up her results by stating that translating Western teaching practices is not an easy task for teachers in Hong Kong. From my reading of practice, I would say that this difficulty was likely to have been the result of the sense of isolation that these teachers would have felt because they had not been able to participate in a social situation that was supportive. Consequently, they did not have ownership of their changing practices and, importantly, they did not appear to be given the time and support from the teacher educator as she did not have a strong knowledge base herself from which to work in order to provide the necessary support. Teachers at all levels needed support to understand the theoretical stance of new theories as well as a team of teachers willing to provide the support needed, be it from university level to peers or researchers.

Yet another outsider research project found that the individual teacher is not necessarily going to be able to use knowledge gained from professional development if the teacher is not motivated to learn. Lieber et al. (2009) completed detailed research entitled *Factors That Influence the Implementation of a New Preschool Curriculum: Implications for Professional Development*. Their study emphasised that the teacher needed to be wanting and willing to change practices or incorporate new understandings into her practice. They also felt that when the teacher was actively involved in the process of learning new theoretical ideas, she was more willing to incorporate them into her existing practice, or change her practice to support her new understandings. Outside support was also found to be of greater value when the teacher was motivated and willing to take on board the new understandings about the theory and curriculum.

Research conducted within Northern Ireland also demonstrated how changing government policies towards early childhood education could affect the teachers' practices. Walsh and Gardner (2006) completed a survey on teachers introducing an "enriched curriculum approach" for four- and five-year-old children. The Northern Ireland Council for Curriculum, Examinations and Assessment (CCEA) was advocating for the change to align with "a more constructivist, play-based and child-initiated learning environment" (Walsh & Gardner, 2006, p. 127). It was found within this survey that many of the teachers were struggling with the uptake of the new curriculum. Although many teachers agreed in principle with the proposed changes, they needed information, support and training to understand how to incorporate the changes required into their own pedagogies in order to produce the required results from using a play-based curriculum.

Outsider research consequently established that when teachers are able to gain understanding about a new theoretical perspective through a shared environment with peers and the participation of the outsider researcher, they will more readily become involved in professional learning processes. Edwards (2007a) summarises these as:

1. the teachers' reflection on their existing tools and practices;
2. the opportunity to implement and model new ways of working;
3. the opportunity to share newly developed models with colleagues; and
4. the consolidation of internalized approaches to work represented by reflection on the role of social and culture experiences in children's development and learning. (p. 103)

Research conducted by Wood and Bennett (2000) also reflects on the impact of governmental reforms and the necessity of teachers to take on board new directives. It included how new directives could be implemented in practice while acknowledging the individual theoretical

and practical stance of teachers. Wood and Bennett (2000) explore how teachers contemplate changing theoretical perspectives and the implications of this for their practice. Like S. Edwards (2007a) and Fleet and Patterson (2001), they found that teachers need time to take on board the new theory, and that teachers go through a cycle of reflection, consideration of theories, and adapting their subsequent practices according to constraints in place within the workplace.

A further study conducted by outsiders researching within the early childhood environment was conducted in Finland to consider “the role that children’s previous academic performance plays in their teachers’ observed teaching practices” (Pakarinen, Lerkkanen, Poikkeus, Siekkinen, & Nurmi, 2011, p. 37). This article suggested that a teacher’s practices may be defined by how a child is presented through previous testing and by what results those tests have shown. The results indicated that the teacher had made great efforts to support those children with lower scores to gain the learning needed to obtain an improved score at the next test.

In general, all the outsider research confirmed that the teacher needed to be willing to be actively involved with the process when considering the uptake of new theoretical perspectives that will consequently affect her practice. There was also a very strong emphasis on the need for a social support group – be it a critical friend, a group of peers, the researcher – or an academic base consisting of university staff. Ideally, this support enables the teacher to fully explore the new information and learning, and consider how this new information can be successfully incorporated within her practice. This finding of the need for a social support group ties in very strongly with Vygotsky’s identification of the importance of the social situation of development for learning to occur optimally.

However, in my situation I was not initially able to function within the social situation of development. I had to work on aspects of my practice as I did not understand the new theory

thoroughly. Once I gained a greater understanding, I was able to use this knowledge to then begin altering my social situation of development as I was then able to articulate and discuss the new theory more successfully.

However, outsider research can only present one side of the research being carried out inside a classroom with respect to teachers engaging with a new theoretical perspective. Insider research is able to bring a differing experience and understanding to this research.

3.4.4 Insider research. Kemmis and McTaggart (2000) describe insider research as the insider looking at their individual practice, with the individual viewing their practice in a subjective manner. They also describe how the insider practitioner can focus on the social practices of the group. Research into the uptake of new theoretical perspectives and how these mediate practices in early childhood education has, as I have previously shown, mainly been carried out from an outsider perspective. Outsider research involves researchers coming into the teacher's classroom and/or professional learning space. It is hoped that these researchers would usually come in with sensitivity and a certain understanding of what it may be like for the teacher who is considering changing her theoretical perspective to mediate her practice. Such sensitivity is important because many of the researchers have an early childhood background, but do not necessarily have a full understanding of what it is like to be changing the theoretical base from an insider position.

Insider research on using a new theoretical perspective to mediate practice in early childhood education is very limited. However, examples of teachers using their insider position to research changing their practices can be found amongst tertiary teachers. Schuck and Segal (2002) engaged in a self-study where they involved their pre-service teachers in the fourth year of early childhood studies as well as a small group of teachers who were recent graduates. Schuck and Segal (2002) researched their practice from the fourth tradition of research: that of the insider practitioners looking at the social practices of the members of the

teaching group. The research was designed to discover how the courses offered by Schuck and Segal provided the direction to pre-service teachers to enable them to fulfil their roles as beginning teachers, and whether there might be benefits in keeping in contact with each other after they had graduated. Schuck and Segal felt that there was difficulty for those teachers just starting out as the “beginning teachers might not want to be completely frank in conversation with us about any perceived shortcomings of our (university course) subjects” (p. 92).

Consequently, an outsider researcher was employed to work with the beginning teachers to make a bridge and allow the new graduate teachers to speak freely about any issues they felt they could not bring up with their former university lecturers.

This setback indicates a possible difficulty that can occur for an insider research project as there might be unconscious withholding of information by participants that could help the insider researcher to better understand her practice. Another interesting factor that appeared with this insider research came about between the two researchers as they shared the role of a critical friend for each other. The final analysis showed that the tertiary teachers benefited from the input from the graduate teachers into what was advantageous to pre-service teachers who were facing an initial round of placement, as well as pointing out the constraints within the school system and the support they received into becoming independent teachers. This research has complied with both descriptions of insider research as discussed by Kemmis and McTaggart (2000) and Kemmis (2009) – insiders looking at their own individual practice as well as situating the practice within the social situation.

A further study of a tertiary teacher using an insider perspective to support his teaching at university can be found in the article by Munby and Russell (1994). Russell is a practising teacher and uses his experiences within the school classroom to improve his teaching within the university course. He felt that by still practising, he had more credibility with his students and was able to speak with “the concept of the authority of experience” (Munby & Russell, 1994, p. 93). Russell conducted a program for pre-service teachers to help them work through

issues they might face before going on placement as well as helping them think about the assumptions they might hold about teaching and what they were learning as they shifted from being “under authority to being in authority, without appreciating the potential that the authority of experience can give to their learning to teach” (Munby & Russell, 1994, p. 94). The pre-service teachers were asked to write down comments about what they perceived to be the strengths and weaknesses and to provide suggestions from their observations of their classes at university as well as their classes on placements. However, it was found that some of the pre-service teachers did not take on the lessons about authority as Munby and Russell had originally expected. Nevertheless, Munby and Russell concluded from the results that they needed to continue with their focus, even if in slightly differing ways.

Another self-study into practices with pre-service teachers was carried out by Schuck (2006). She felt that the question with the highest priority for this type of research should be “What am I actually trying to achieve in my teaching? While this is a seemingly obvious question, the answer is not always self-evident” (p. 216). Results from her study showed that by closely working with and listening to her pre-service and graduate teachers she was able to improve her own teaching practices, ensuring that she became a more effective teacher. This study also demonstrated the social position of insider research as described by Kemmis (2000), which includes how the social group has an influence on a change occurring – in this case for the better – as the outcome of the research. The positive outcomes occurred as a result of the insider researcher’s willingness to look at her practices with her pre-service teachers.

S. Edwards (2005) writes about her fight with her own feelings in changing from a Piagetian theoretical base to a cultural-historical knowledge base while writing her PhD. This struggle supports the findings that teachers do go through a cycle of reflection, consideration and consolidation as described by Wood and Bennett (2000) before taking up a new theory.

S. Edwards' study occurred within a tertiary setting, not within an early childhood education setting from where she had started. She later used a self-study methodology to consider her own beliefs in how she needed to alter her teaching practices in order to overcome what she deemed to be an issue of transfer from theory to practice for her pre-service teachers. S. Edwards (2012) was able to theorise the concept of "teaching through assessment" with a group of her pre-service teachers through reflection and action on her own practice to support the learning of the pre-service teachers from an insider perspective. As she commented:

I began to think about my own role in accepting these practices and wondered if it was possible to teach theory/practice not as a concept, but as an embodied presence within my own pedagogical and assessment practices. In thinking this way, I took the first steps along the path towards self-study, a methodology arguably "embedded in the desire of teacher educators to better align their teaching intentions with their teacher actions" (Loughran, 2007, p. 12). (p. 587)

An article by Swick, Da Ros, and Pavia (1998) entitled *Inquiry as Key to Early Childhood Teacher Education* is one of the few studies relating specifically to early childhood education that I was able to find. The article supports the notion that early childhood teachers do and should participate in professional development and continue to examine and reflect on their values and beliefs that are embedded within their practices. The authors suggest a framework for a teacher to consider as a means by which she could become an effective and informed learner, who will be able to grow as a teacher and "accept new challenges and create new possibilities for ourselves. If we answer this challenge in nurturing and responsive ways, children are certain to benefit" (p. 70). Although their study could not be considered as insider research, the authors are suggesting that early childhood teachers could benefit from fostering their own learning and participating in insider research.

An interesting article by Schaefer (1971) is an early example of insider research. He was interested in providing a “comprehensive, integrated system of education in which everyone is a student, everyone is a teacher, throughout his life-span and throughout his life-space” (p. 3). Schaefer’s main focus was on improving early childhood education, so he carried out a detailed search of the literature relating to early childhood education so that he could bring about positive changes to the early childhood education sector. He devised a new educational model that he named “Ur-education”, where parents and children would work closely together to form the base for all subsequent education and teachers would become the leaders of the educational team. The teachers were also to spend more time with the families in their homes. This research ties in with Kemmis & McTaggart (2000) when he describes the third position of research of the insider subjectively looking at the insiders’ work, whereas Schaefer’s main focus was on how teachers within the early childhood field could improve the learning and development of the young children.

There is extremely limited research that examines early childhood teachers’ insider experiences of using new or different theoretical perspectives to mediate their practices. As already noted, there have been examples of teachers in the tertiary level changing facets of their teaching after engaging in insider research. A literature review conducted by Genishi et al. (2001) found that there is a “dearth of research in ECE on teaching itself” (p. 1178). They also discovered that most research conducted on teaching covers the elementary/primary years of formal schooling. They argue that previous research focused on the settings for children that supported their development, not the actual teaching that was incorporated within that setting.

During my literature search, I located a study that detailed insider research that had been conducted by a kindergarten teacher in collaboration with a teacher educator, where they had both participated in “action research centred on improving our professional practice” (Kremenitzer & Myler, 2006, p. 166). The kindergarten teacher wanted to improve his skills

at using an inquiry-based form of learning within his program. This collaboration was a longitudinal study that was conducted over four years. The research combined insider research within their (Kremenitzer's and Myler's) own practices and then collaboration with a group of pre-service teachers. The overall outcomes were an improvement within their own individual practices as well as supporting the improvement of study programs for the pre-service educators. However, this study did not show how using a new theoretical framework such as sociocultural theory mediated practice. The literature relating to insider research that uses a new theoretical framework such as cultural-historical theory to mediate practice in early childhood education is therefore minimal.

3.5 Conclusion

In this chapter I have briefly outlined considerations defining cultural-historical theory. I have given the reader an understanding of learning theories that impact on teacher and adult learners and the main requirements that will make learning successful and enable positive outcomes for the teacher. I then defined the concept of practice.

I have also considered outsider and insider research from a teacher's perspective. I have commented that there appears to be minimal research that has been produced from an insider perspective within an early childhood setting, or that examines an early childhood teacher's insider experience of using a new theoretical perspective to mediate practice. Therefore, for the purpose of this thesis I have undertaken my research from the position of being an insider teaching within the early childhood education sector in order to answer the question of: What does the uptake of cultural-historical theory involve from an insider perspective, and how does this uptake mediate a teacher's practice?

In the next chapter, I will consider this study within a qualitative framework and discuss the methodology, which involves self-study, ethics, the sources for data collection and the process involved, data analysis, and issues relating to validity and limitations.

Chapter 4

Methodology

4.1 Introduction

This thesis is a study to consider what the uptake of cultural-historical theory involves from an insider perspective, and how this mediates a teacher's practice. In this chapter, I am going to describe and justify the methodology used to answer the research question posed in this thesis. I will start by presenting the case for qualitative research and place my study within a qualitative approach informed by cultural-historical theory. I will also position this study within a self-study framework, but re-theorise its placement to align with a cultural-historical point of view. This is necessary as I am studying my uptake of cultural-historical theory within the social situation of a kindergarten. I therefore have to acknowledge the dialectic that exists between myself, my assistant, and the children with whom I work on a day-to-day basis. I will detail the methods used for data collection and then how the data was analysed. I also consider the issues presented for ethics, qualitative validity and limitations.

4.2 Defining Research

Broadly speaking, educational research is undertaken using either of two main methods – quantitative or qualitative. In the case of this study, I chose the qualitative method as it is best suited to focus on “understanding social phenomena” (Wiersma & Jurs, 2009, p. 15).

Research is guided by frameworks that incorporate ontology, epistemology, and axiology.

Mason (2002) explains that:

we can explore a wide array of dimensions of the social world, including the texture and weave of everyday life, the understandings, experiences and imagining of our research participants, the ways that social processes, institutions, discourses or relationships work, and the significance of the meanings that they generate. (p. 1)

These basic guidelines “shape how the qualitative researcher sees the world and acts in it” (Denzin & Lincoln, 2000, p. 19). Qualitative research sees knowledge as having been shaped by a collection of “social, political, cultural, economic, ethnic and gender factors” and then converted “into a series of structures that are now taken as ‘real’, that is, natural and immutable” (Guba and Lincoln, 2004, p. 26). Mason (2002) states that when considering using a qualitative design, there can be influence from the “professional culture, the norms of acceptability which appear to operate in your professional setting and codes of ethical practice” (p. 43). Qualitative research aligns itself, therefore, with studies set in social environments, as was the case with this study, which looked at me as the individual participating within the social environment of the kindergarten and considering and interpreting the influence that is simultaneously occurring between the individual and the social environment.

4.3 Qualitative Research

This study employed a qualitative approach because it aligned best with the aim of finding the answer to the research question of: What does the uptake of cultural-historical theory involve from an insider perspective, and how does this mediate an educator’s practice?

4.3.1 Axiology. Axiology is the branch of philosophy that considers values and ethics (Lincoln & Guba, 2000) and is concerned with the position a researcher takes in terms of the ethics and values associated with their work.

For example, Baptiste (2001) states that axiology is focused on three main issues. These are:

1. The place and role of the researcher’s values in research; is it possible to not be influenced by the researcher’s own values and how will this impact on the study?

2. The role of research subjects: what will be the level of participation expected of the research subjects?
3. The appropriate way(s) to use research products; how will the researcher use or report the future findings?

These guidelines informed my research from my own personal perspective and values since I was the researcher. I used the core principles, as presented by Early Childhood Australia (2006):

The core principles in this Code of Ethics are based on the fundamental and prized values of the profession. They act to guide decision making in relation to ethical responsibilities. These core principles require a commitment to respect and maintain the rights and dignity of children, families, colleagues and communities.

The Australian Code for the Responsible Conduct of Research (2007) on what is ethical practice was used as a guide on how to carry out the research. Since I was researching my own practices, I expected to be totally involved within the whole process of research.

4.3.2 Ontology. Ontology is concerned with understanding the nature of reality (Denzin & Lincoln, 2000). This main principle focuses on the fact that what is important in the research process is understanding what is “real” for the participant, what is her reality – not the researcher’s view of reality. It is necessary for a researcher to establish the nature of a participant’s reality because a definition of reality will affect how the researcher frames the answers. In educational research, ontology is understood as the “practice and its improvement; [there is] a commitment to improving the world through improving the practice of the inquirer” (Pinnegar & Hamilton, 2009, p. 55).

For the educational researcher, the reality is the classroom and the children for whom she is responsible, and this is frequently changing.

Since an insider position was the basis for the research, my reality was the focus, and what I considered to be important is what I focused on as the researcher. I made the commitment to look at how I could change and improve my practice with the children with whom I engaged. I chose to consider the theory of Vygotsky (1976, 1978, 1998) as a means to make that improvement.

4.3.3 Epistemology. Epistemology considers the relationship between the researcher and what the researcher wants to know. Denzin and Lincoln (2000) state that there is an “intimate relationship between the researcher and what is studied” (p. 8). Epistemology questions the nature of the truth in the human and social sciences. These questions focus on the individualistic terms of society or the social realm of society (Kemmis & McTaggart, 2000,).

However, this is where Kemmis and McTaggart consider the two dichotomies of the social and individual as dialectically related rather than opposed. They have suggested that it is through research that the individual acknowledges the social situation that has already been formed through social historical and discursive events but the researcher, although participating within the social situation, wants to change the situation “especially by their efforts” (Kemmis & McTaggart, 2000, p. 579). They continue to say that “The study of a practice as complex as ...education is a study of connections... all of which must be understood dynamically and relationally” (Kemmis & McTaggart, 2000, p. 579). This then leads the researcher to consider how the environment within which she works is known and understood as well as how that environment directs or guides the actions of the individual so that she has an understanding of the environment. Carter and Little (2007) remind the researcher that epistemology also influences the quality of the data collection as well as having an influence on how the research is represented, in what form and what voice.

My research was conducted within the social situation of my work environment, which is the kindergarten where I work. Kemmis and McTaggart (2000) refer to the fact that research

conducted from the insider perspective means that the researcher is wanting to change a situation, and this directly aligns with what I have focused on – the adoption of a new theoretical perspective which has been a guide to mediate my practice. This change occurred through the dialectical relationship I had with the children attending the kindergarten, Rhonda, my assistant and Paru, my critical friend.

4.4 Ethics

Ethical behaviour within the research field includes the requirement to have respect for the individual, and the responsibility of the researcher to have integrity and avoid harmful and risky practices to the individual. This may include reminding participants about why they are participating in the research every time they contribute and being aware of any potential positions of power in which the researcher may find herself. Cultural practices, religious beliefs and socioeconomic conditions also need to be respected (Israel & Hay, 2006).

LaBoskey (2004) identifies teaching as being a “social-pedagogical” task that is moral and value-laden. Therefore, I am governed by my own values and morals as well as being guided by the values, norms and politics of the professional culture.

The Australian Code for the Responsible Conduct of Research (2007) details how research should be conducted by advocating and describing best practice for research, including information on “how to manage research data and materials, how to publish and disseminate research findings, including proper attribution of authorship, how to conduct effective peer review and how to manage conflicts of interest” (online).

The Code of Ethics endorsed by Early Childhood Australia (2006) also articulated how I should conduct myself as the researcher. As this code was updated during the very last stage of this thesis, I have not included any possible changes from the 2016 version:

1. The need to be responsive to the children by ensuring their safety, privacy and interests.

2. My involvement with this research should strengthen and expand the knowledge base of early childhood education.
3. Provide informed consent to colleagues, children and families.
4. Follow legislative and policy requirements for handling of data and images.
5. Represent the findings honestly and use the information in the best interests of the children and educators. (<http://www.earlychildhoodaustralia.org.au>).

Ethics approval was also obtained through the Monash University Human Research Ethics Committee (Appendix A-1), where I commenced this project, and later at the Australian Catholic University (Appendix A-2), where I completed the study. Ethics approval through the Department of Education and Early Childhood Development/Early Childhood Research Committee was also obtained (Appendix A-3). For the purpose of ethics approval, I was required to give a brief summary on the methodology, a description of what was being studied – Vygotsky’s cultural-historical theory, data collection processes and the importance of the thesis; in this case, it is giving an insider perspective on using cultural-historical theory to mediate practice.

All families at the kindergarten were given an Explanatory Statement (Appendix B) along with a consent form for the parent or guardian to complete and sign (Appendix C-1) and a consent form for the child to complete (Appendix C-2). Informed consent implies that the participants understand the nature of the research and what is required of them and that they voluntarily agree to participate (Israel & Hay, 2006). Informed consent can be given by anyone over the age of 18 in Australia, while someone under the age of legal consent can give assent (Conroy & Harcourt, 2009).

I had gained the child’s consent when I started this process before the newer understanding of gaining the child’s assent (consent) was fully understood within the field. Initially I explained

the research to the individual parents and asked that they talk to their child. The Explanatory Statement and the consent form for parents and carers, as well as the child consent form, were given to the parents for them to read through and consider what the implications of the research would be for their child and provide informed consent if they were satisfied. From a total of 52 parents provided with the information, 28 gave permission for their child to participate in the study. Three parents returned the papers without having the child complete the child consent form so those parents were verbally asked if I could speak to their child given that they had consented to the child participating. I then confirmed with the children if they had provided consent (assent). Only one child originally stated he did not want to participate in the project so I respected his wishes and did not use any data that may have been available within my research. The three children to whom I spoke all agreed after I explained what was going to happen and circled the appropriate symbol on the child consent form.

Israel and Hay (2006) comment that “written consent forms can be difficult to follow and may not be helpful in guiding queries” (p. 62). Consent forms given to the children allowed them to consider if they wanted to be involved with the research, what parts of the research they were willing to be involved with and a way to record their permission. Conroy and Harcourt (2009) comment that “adults must be conscious of the language, or other forms of communication, which will be used to support the child’s decision-making” (p. 162). They also felt it was important that children were able to be allowed to construct their own form of assent or permission “in a way that the children felt comfortable and competent” (Conroy & Harcourt, 2009, p. 162). With this in mind, the children were able to circle the appropriate symbols of either a smiley face or a sad face to show they consented to participate.

Parents and children were given the option of using their given name or a pseudonym of their choice and had the option to withdraw at any time. Sargeant and Harcourt (2012) stress the importance of informing the children of the project but go on to state:

It is critical at this point to reassure the children that their agreement to participate is important for your project to proceed, but that their initial agreement is not a one-off and final decision. It is therefore equally important that the children are sufficiently informed that a decision to withdraw their agreement, at any point in the project, would be respected without consequence. (p. 73)

The children's body language was also considered as a reflection of whether they wished to be involved at the particular moment or otherwise. Lindgren (2012) also supports the importance of recognising the child's point of view in not wanting to be "photographed" or involved with the project. An example of this was a girl who deliberately turned her back to the video camera if I came near her to ask if her activity could be taped. As a result of this reaction, her choice was acknowledged and she was consequently never taped despite her initial response having been positive.

My critical friend, Paru, and my assistant, Rhonda, were also given the appropriate explanatory statements and consent forms to read through and consider the options of being involved with this research. In this context, I had to be mindful that I was not coercing or manipulating either of them as it could be considered that I was in a position of power (Israel & Hay, 2006, p. 64). To manage this potential situation, I would always discuss what I wanted to achieve so that they had the information to decide how they might choose to proceed. Both Paru and Rhonda were willing to participate and signed the appropriate consent form.

4.5 Methodology

I now consider the impact of using a self-study of teacher education practices methodology and how it may be theorised from a cultural-historical point of view. I will also deliberate on the connection of self-study of teacher education practices (from now on stated as self-study) to my externalisation of the new theoretical concepts that I have considered in order to focus

on the research question of: What does the uptake of cultural-historical theory involve from an insider perspective, and how does this uptake mediate an educator's practice?

Methodology relates to how the researcher proposes to access knowledge to find out what is to be known about that which is being researched. Denzin and Lincoln (2000) ask the question "how do we know the world, or gain knowledge of it?" (p. 19). Hamilton, Smith, and Worthington (2009) consider that "the position of the 'I' is critical" (p. 25) as this will inform how the researcher will access knowledge to find out what is to be known. For this research, I am the main focus of study, but need to also focus on the responses and interactions with those around me.

4.5.1 Self-study of teacher education practices. Self-study has come from an interest and concern that teachers should study their own practices.

Korthagen and Vasalos (2005) and Schön (1987) refer to the importance of reflection on practice. However, as Korthagen and Wubbels (1995) portray, there are many differences in thought as to what reflection is. Reflection can refer to critical inquiry, responsibility, experimentation and interpretation. However, reflection always refers to what can be considered good teaching and good practice. Consequently, for teachers, the concept of self-study is important.

Self-study was originally considered to be related to individuals working through their own learning. Loughran (2004) refers to self-study relating to psychological studies of the development of self-image. Self-study has also been related to organisations when the study might be seen to be an evaluation or audit. However, Loughran (2004) indicates that for the purpose of teaching and reflective practice, self-study is used "in order to better understand: oneself; teaching; learning; and, the development of knowledge about these" (p. 9).

Self-study became prominent when a group of teacher educators met in 1992 at the American Educational Research Association (AERA) (founded 1916) during a conference symposium

titled *Holding up the Mirror: Teacher Educators Reflect on Their Own Teaching*. This group of teacher educators became known as the “Arizona Group”. They raised concerns about “the very nature of the way they themselves conducted their own teaching and were conscious of wanting to know if and how their teaching made a difference for their students’ learning about teaching” (Loughran, 2004, p. 14). They were starting to question practices that were routine and started to examine and reflect on many questions that were being proposed through their reflection.

Through the commitment shown by an increasing number of teacher educators, Self-Study of Teacher Education Practices became a recognised group of the AERA conference in 1994. However, there are a number of factors that influence the methods used. These can be the context and focus of the study, insights from other participants within the study, the researcher’s own position on values and understanding, self-confidence and vulnerability, the need for action or change being highlighted by the study and the way the study is reported and disseminated to peers (Loughran, 2004).

LaBoskey (2004) identifies five characteristics that mark research as self-study research. Self-study “is self-initiated and focused; it is improvement-aimed; it is interactive; it includes multiple, mainly qualitative, methods; and it defines validity as a validation process based in trustworthiness” (p. 817).

LaBoskey (2004) focuses on “ ‘who’ is doing the research and who is being studied” (p. 842) and considers that the self is the important component in self-study. Self-study is consequently self-focused and initiated, using the work environment of the researcher and the language used by the researcher within the work environment. For the teacher, the work environment is the classroom and the language used is that of the teacher with the children with whom she works. She continues to emphasise that self-study also aims to resolve problems and achieve short- and long-term reforms.

LaBoskey (2004) also identifies the importance of interactive self-study strategies compared to collaborative strategies. Her reasoning is that within a self-study, the interactions of the researcher are included within the data generation as part of the data set even while there is extensive collaboration between the researcher and colleagues. One way this collaboration can be authenticated is by having critical friends within the research. A self-study also requires that the interactions with the teacher's students are included within the data set as they can be used as a main source of information.

Qualitative methods have been identified as the main method used when considering self-study research, and they can be approached through an action research, or a narrative via an autobiography category for the self-study.

Finally, LaBoskey (2004) emphasises the importance of the self-study being validated as trustworthy. This can be evidenced through the demonstration of experience and authority. She also argues that "social construction of knowledge is an appropriate way to conceptualize what has been done in self-study: We advance the field through *the construction, testing, sharing, and re-testing of exemplars* of teaching practice" (LaBoskey, 2004, p. 860). (Italics were in the original text).

Lighthall (2004) argues that the main features and components that make up the structure of a self-study include:

1. The author of the study examines his or her own teaching practices
2. The author examines the author's teaching effects on his or her students
3. The author examines processes or outcomes of his or her program or organisation.

In this thesis, the first self-study component identified by LaBoskey (2004) and Lighthall (2004) has been reflected in the observation, collection and analysis of the data compiled over

the course of the specified time for data collection to answer the research question relating to this thesis.

This component is evident in the following way:

1) The author studies her own practice (LaBoskey, 2004; Lighthall, 2004): within this thesis, I consider the theory of Vygotsky through focusing on his framework for general psychology, using the components of: (a) the developmental method; (b) mediation with tools and signs: and (c) the social situation of development. Direction on how cultural-historical theory could mediate my practice through the findings is compared to the theory and the practices used when working within a Piagetian framework.

However, the other two components must be seen within the dialectic as my position of studying cultural-historical theory is placed within this dialectic so there is an expected co-evolution with the children and assistant at the kindergarten. Their influence and responses will be necessary for me to consider in examining cultural-historical theory from an insider perspective to find out how it will mediate my practice.

Self-study of teacher practice is a method that aligns with the principles of qualitative research. It is a “situated activity that locates the observer, and the researcher is able to study things in their natural settings, attempting to make sense of, or to interpret, phenomena in terms of the meanings people bring to them” (Denzin & Lincoln, 2000, p. 3).

Self-study of teacher practice focuses on the social situation of the educational environment. Self-study of teacher practice has been defined as “a simple truth, that to study a practice is simultaneously to study self: a study of self-in-relation to other” (Bullough & Pinnegar, 2001, p. 14). Teachers began to consider self-study as an option for research when questions started to be raised concerning positivist assumptions that reality is “driven by immutable natural laws and mechanisms” (Guba & Lincoln, 2004, p. 23), by questions regarding the continued use of statistics and numbers to guide truths, as well as the assumption that others knew better

(Bass, Anderson-Patton, & Allender, 2002). Loughran (2004) suggests that self-study has “become a focal point for those pursuing a better knowledge of their particular practice setting and the work of those with a concern for teaching and learning” (p. 9). Loughran (2004) also suggests that “one outcome of teacher educators researching their own practice is that they commonly design and implement new approaches – classroom interventions that are intended to achieve change” (p. 25). Loughran and Northfield (1996) also support the idea that there is a “growing need for teacher educators to ‘practise’ what they preach” (p. 7) as there is an increasing drive for teacher educators to be answerable and have closer scrutiny applied to their practices. For these authors, self-study “suggests that our understanding of teaching and learning derives from contextualized knowledge, by a particularly reflective knower in a particular teaching situation” (Bass et al., 2002, p. 56). For this thesis, I am positioning the research as a self-study since the main focus is on my uptake of cultural-historical theory, which has created a new experience for me and those I teach, and how this uptake mediates practice. However, cultural-historical theory is framed by the dialectic where I will be co-evolving with the children and my assistant so their input also has to be recognised.

The epistemological viewpoint from a self-study method is seen as being shaped by the values, intentions and judgments of the practitioner (Kemmis & McTaggart, 2000) and can be considered to be context and culturally sensitive (LaBoskey, 2004). When considering the epistemological stand from a cultural-historical position, self-study of practice must be located within an institutional setting, as this is the origin of knowledge while acknowledging that the individual, the institution and the culture are all simultaneously co-evolving.

The axiological stand refers to the values and ethics of the researcher. Self-study of teacher educators is “generated from and guided by our moral, ethical, and political beliefs, values, and agendas” (LaBoskey, 2004, p. 830), therefore this aligns with a cultural-historical position where both society and the researcher’s values can impact on the environment under study. Self-study of teacher practice is most appropriate in research aiming to improve

practice, where it is “initiated by and focused on the teacher in relation to the others who are our students” (LaBoskey, 2004, p. 820). For this reason, self-study of teacher practice was considered an appropriate method for the conduct of the research reported in this thesis.

Self-study is also recognised by Dinkelman (2003) “as intentional and systematic inquiry into one’s own practice” (p. 8). He also credits self-study with having the potential for knowledge production that is of value for the local context as well as the broader teacher education research community:

There is knowledge about applications of specific techniques; the educator/researcher in the process of investigation, stands to acquire a deeper, more sophisticated theory of promoting reflection that can be brought to bear on problems of practice extending beyond those posed by the particular instance of research. (p. 9)

This thesis fits this definition and expansion provided by Dinkelman as it is an intentional and systematic inquiry into my practice, and it also has the potential for knowledge production of specific guidelines to mediate a teacher’s practice when seeking to use a new theoretical perspective to inform her practice in the early childhood education field.

4.5.2 Fundamentals of self-study of educator practice. LaBoskey (2004) and Lighthall (2004) frame some fundamental conceptual features of self-study of teacher practice. Some of these features present as being significant in my own self-study. For example, LaBoskey (2004) and Lighthall (2004) advocate that a primary feature of self-study of teacher practice is that there is collaboration between colleagues, and the teacher and students.

Lighthall (2004) comments on the significance of face-to-face collaboration among colleagues, saying that “colleagues collaborate with each other in their practices, often commenting on the process, difficulties and benefits of the collegial interaction they describe” (p. 204). Smith (1998) also reports on the impact of colleagues sharing uncertainties and

feelings within a support group and found that many feel this to be beneficial as it can lead to a more cohesive group.

Within my self-study of teacher practice, a collaborative partnership occurred with a colleague who has been identified as having the important role of critical friend (as discussed in Chapter 1). The relationship between me and my critical friend, Paru, had been built up over a period of four years, so mutual respect and trust were already established. Lighthall (2004) suggests this is crucial to allow this type of collaboration to be successful. Handal (1999) supports this understanding with the following four points of what is needed within a critical friendship:

- A personal relationship of confidence
- Belief in the professional competence of the critical friend
- Expectation of personal integrity
- Basic trust in the good intentions of the critical friend (p. 64).

Wennergren (2016) and Costa and Kallick (1993) also confirm the importance of trust within the critical friend relationship, as the end result is hoped to be a critique that will promote learning and a change in the practice for the individual.

I reflected on the use of either conversation or interview for the meetings with Paru as these were an integral part of having a critical friend. Richardson (1994) supports the idea of a discussion between practitioners as a means of helping to clarify “contexts, practices, and, in the case of teachers, their students” (p. 7). Interviews conducted for qualitative research seeks an understanding of what the interviewee is saying (Kvale, 1996). An interview can also allow for deep, probing questions to be asked that might not be considered within a more informal discussion situation. Both the interview and discussion can be considered as appropriate means of collecting data; however, I went with the informal situation of a

discussion rather than an interview. I felt that my input was equally as important since the thesis is considering my changing theoretical practices.

Although there were only three official meetings with Paru for the purpose of this self-study, these were face-to-face meetings held for up to an hour each time. These also had the potential to be expanded to include more informal discussions in a face-to-face situation as well as via the electronic medium of email. I also provided Paru with a variety of reading material such as articles by Vygotsky (1976, 2004); Bodrova and Leong (2003); Bodrova et al. (2000); and S. Edwards (2011), that were relevant to my thesis, and which would also help her knowledge expand as well.

Paru was able to provide opinion and comment on the process of the study and discuss understandings of the new theoretical base with which this research was aligned. Paru and I were able to analyse in depth our comprehension of the differences between Piagetian theory and cultural-historical theory. We were able to discuss how we had both been introduced to theory at university and how this theory was expected to be used as a guide to our practice.

Discussion on how theory supported the practice led to the current concern of how cultural-historical theory can mediate my practice. Discussions were held concerning difficulties faced when working with the children as well as, importantly, the positives of working with cultural-historical theory and how we viewed the newer understandings of focusing on the social situation of development and the importance of imagination.

These discussions allowed both Paru and me time to consider what we were doing and how we viewed our practices from these differing lenses. The discussions also provided social support for the reflection needed as I considered the uptake of cultural-historical theory from an insider perspective, and how this would mediate my practice. Clarke and Erickson (2004), Lunenberg, Zwart, and Korthagen (2010) and Feldman (2003) all confirm this as a critical

aspect of self-study as the researcher can gain great support and critical engagement from colleagues.

I also had discussions with Rhonda, my assistant. These discussions supported the social situation in which I was located. These discussions helped me to articulate my newer understandings clearly so that Rhonda could also start to implement the concepts and understanding of imagination, ZPD and mature play with her work with the children. We spent time discussing what these themes looked like within the children's play and how we could best respond. I was also able to be a participant within a Higher Degree by Research (HDR) group established at ACU and this group also provided a forum in which I could discuss my increasing knowledge and issues relating to the process of studying and taking up a new theory to support my practices within the kindergarten.

Kemmis (2005) acknowledges that when there is a change in practice, there is also a change within "the social, discursive and historical dimensions in which the practice is constituted" (p. 393). Since changing the theoretical basis of my practice, there should be a noted change in the social, discursive and historical dimensions within my practice. There can be friction with the historical component if the individual is changing the social environment. When a teacher does a self-study of teacher practice, the changes made might not align with societal expectations, as the teacher changes her own individual institutional practices.

Kemmis and McTaggart (2000) also argue that research is carried out in order to "change the practice, the practitioner and the practice setting because changing practice requires changing not only behaviour or intentional action but also the situation in which the practice is conducted" (p. 585).

I was able to use my own kindergarten as the site for this study. This meant I was able to be involved with both the social and physical environment as I was responsible for setting and maintaining the environment, with support from Rhonda and the children. This change was

occurring in order to answer my research question. Therefore, the self-study method was utilised, while also acknowledging that it was a self-study being conducted within the dialectic with the kindergarten children. The statement by Kemmis and McTaggart also supports the simultaneous application of cultural-historical concepts, requiring changes from myself, Rhonda and the children, changes to the environment and changes with the children.

4.5.3 Connecting self-study with cultural-historical theory. Self-study fits with cultural-historical theory as they both expect change to happen. As previously mentioned, Kemmis and McTaggart (2000) remark that self-study research is conducted to bring about change while the axiological principles of cultural-historical theory come from the ideas of Marx, who also sought to bring about a change within the culture.

In this thesis, I have worked to bring about a change in my theoretical base, from a constructivist theory to a cultural-historical theory to mediate my practice with the children I work with and within the culture of the kindergarten room.

4.5.4 Enactment of self-study. Self-study dictates that there is a change in the teacher's practice. Enactment of a teacher's practice therefore is the visible externalisation of the changes that have come about through the self-study. I had to situate my new theoretical understandings that I was gaining through my self-study into my practice. Loughran (2007) considers that "Being able to articulate one's own knowledge of practice is vital to enacting a pedagogy of teacher education" (p. 4). This became a relevant issue for me during my study as I needed to explain my new understandings of practice with my assistant so that she could understand what I was doing and why it was important. I also had to encourage her to follow through with my practices so that we were working together with the children. This enactment of my practices meant that it was desirable for me to have a close working relationship with Rhonda.

I will now detail the three forms of data sources used for my thesis.

4.6 Data Sources

For this study, I used three forms of data sources. Source 1 came from self-observations in the form of journaling. I also used interviews with my critical friend, Paru, and, finally, the main programming diary that I used in my day-to-day work in the kindergarten.

4.6.1 Self-observations in the form of journaling. Advantages of taking observations, according to Creswell (2014), are that the researcher gains firsthand experience, is able to notice anything unusual that is occurring, and can record observations as they are happening.

Another advantage of using observation for this thesis is that I was known to the children who were being observed, and I was able to interact freely with them as my role of teacher required. This enabled me to write down my interactions with the children immediately as the main focus for the observations was to enable me to also capture my interactions and reactions to their play scenarios, language and the communications that occurred between us.

My initial focus when observing the children during their play was on those activities that aligned with Vygotskian principles of imagination and mature play. As noted by Mason (2002), “The range of contexts and phenomena that you select is ultimately guided by a combined empirical and theoretical logic” (p. 124). She argues that the researcher will select groups or categories that apply to the question under consideration and that align with the theoretical framework that is being used to guide the research. Therefore, I was continually looking for episodes of play that related to the theme of mature play and imagination or where I could work with a child using knowledge of how the teacher could place herself to support the child’s learning within the child’s ZPD. This activity was consequently recorded via notes or photographs. I would consider and reflect upon my actions and/or conversations with the particular children, writing down the initial reflections, and then at a later date, I would record what was different with the action or conversation when working within a Vygotskian

framework as opposed to a Piagetian framework. For example, I commented thus: “I became involved in the activity and remained for quite a length of time. I used to become involved but would also leave quite quickly, leaving the activity to the children” (reflection diary, 21.3.2011). These observations and reflections within the activity were the major data source for this study (Appendix D-1).

The ontological perspective of cultural-historical theory involves the viewpoint that reality is socially constructed through an individual’s participation within differing institutions and within the society (Hamilton, Smith, & Worthington, 2009; Hedegaard & Fler, 2008; Korthagen & Vasalos, 2005; Loughran & Northfield, 1996; Mason, 2002). Therefore, observation was regarded as an appropriate method for the collection of data to be considered and analysed to enable me to compile the data sets as I was an active participant within this particular social situation and considered this kindergarten to be both my individual and my institutional social situation.

As previously stated, taking an epistemological stand from a cultural-historical position, self-study of teacher education practice must be located within an institutional setting that is a social setting, as this is the origin of knowledge. In order for me to be able to carry out this study, observation within my social setting was necessary to obtain insight into my practice on how I work and respond with the children in order to understand what does the uptake of cultural-historical theory involve from an insider perspective, and how this mediates a teacher’s practice. I am the insider looking at what I do differently when working with cultural-historical theory.

I used my new understanding of the elements of imagination that I outlined in Chapter 2 to look for children demonstrating those elements of imagination as a start to my journaling. I took time to observe children, watching to see if or how they were connecting their reality to the play scenario they were involved in, for children extending that reality, for children

connecting their emotions to the play scenario, and for evidence of mature play. I particularly focused on Harrison and his friend, Hayley; Beth and Sarah, who were two friends who spent a great deal of time working on block construction; Judd, a quiet boy; and Callum and Luke, who made great progress in art experiences.

I observed Harrison's involvement in a camping scenario as one of the first episodes of play that I could identify as making a connection to his reality (refer Chapter 5 for further examples). I would write down or take photos of the children playing within these elements of imagination. I would also write down my immediate interactions with the children. I also wrote down the interactions I had with children when working within their ZPD. I would focus on the positions that I could take to support the child's learning and development as previously detailed by Kravstova (2009) and discussed in Chapter 2.

I would return to these writings at the end of the day, and reflect on my externalisation of the cultural-historical concepts through my practice and consider the differences from using Piagetian theory and how my role as the teacher may be changing, and how cultural-historical theory would mediate my practice. I wrote down what I was doing differently. What was I saying to the children that was different? How was I talking with the children? Was I really listening to what they were saying to me? How was I interpreting their play? How was I deciding what tools to introduce to support and extend the children's play scenarios? Why was I becoming so aware of how time was impacting on what I was doing? I used these reflections to guide my considerations and analysis of what and how I was working differently when using cultural-historical theory to mediate my practice. I would also go back to these reflections and add further understanding as my knowledge grew.

4.6.2 Discussions with Paru. Interviewing or discussions are often viewed as appropriate ways to generate data within a qualitative study.

Interviews and/or discussions provide participants with the opportunity to voice their views and opinions (Cresswell, 2014). The ontological position when using the cultural-historical perspective considers the viewpoint that reality is socially constructed. Considering that a discussion is usually conducted between two or more people, a social situation is consequently in place, therefore “people’s knowledge, views, understandings, interpretations, experiences, and interactions are meaningful properties of the social reality” (Mason, 2002, p. 63).

Clarke and Erickson (2004) also suggest that the support of colleagues via dialogue and inquiry is beneficial to the teacher when involved with self-study. The discussions that were held between Paru and me met the criterion of a social situation where the people’s views and knowledge were meaningful properties of the social reality (refer Appendix D-2). Language is a means by which the social situation is established and maintained, and this relates to Vygotsky’s framework for general psychology as language can be considered a tool used in mediation. Language is also a means by which meaning and understanding can be represented within the culture that is being considered within this thesis.

Creswell (2014) suggests that interviews and discussions should be open ended and that an advantage of this type of data collection is that the researcher has some control over the line of questioning and discussion. The discussions between Paru and me were conducted in such a way that we were both able to have equal voice in the conversation, there was no set structure to the discussion, and I did not have a rigid set of questions. Paru and I were able to discuss our initial understanding of cultural-historical theory. For example, as teachers, we were able to consider how the theme of imagination was able to be observed within children’s

play. We considered how to support the children's learning and development through the theme of imagination as the following example of our discussions show:

Elizabeth: yeah, so what I was looking for wasn't, um... I was sort of thinking the wrong way where as I know now that imagination with this is connected to reality and so then, knowing now I could do a lot more, but he'd sort of moved on.

Paru: for me, as soon as I read this, I thought he's witnessed reality as far as camp is concerned... he came back to kindergarten with, and in that context, he used his imagination to put that reality into the kindergarten context, and then if he was allowed to go back and sit down and draw a picture about what had exactly happened, he's going back to reality again. Like he... he just visualised what he had just experienced at camp and then produced it on paper what he had done at kindergarten and what he had done over there; it's sort of like a cycle to me. (interview transcript, 20.4.2011)

The role of the critical friend can at times bring forth feelings of discomfort and unease. This was highlighted by Schuck and Segal (2002) as they entered into the position of "critical friend" for each other in their joint research. They found that they both struggled at times with what each perceived to be hurtful or personal comments that they found to be confronting. However, they both endorsed the fact that:

We feel that the discomfort experienced by having a critical friend might well dissuade teacher educators from conducting self-studies...[but] situations...need to be resolved...a resolution of sorts was arrived at in our situation, because we are such good friends and trust each other. This trust allowed us to raise issues with each other that others, with lesser relationships may (would) not. (p. 99)

In light of their self-study, they propose three criteria for successful relationships with a critical friend: (1) the need to have trust in each other; (2) the need to be on an equal base,

preferably both people would be working together in the research; and (3) the possibility of the critiquing being tested between the partners before any conversations are presented to a wider audience.

4.6.3 Main programming diary. The third data source was the daily planning and programming format that I used for my everyday work with the children (refer Appendix D-3). This format gave a general daily and weekly overview of the group activities and interests, child-initiated experiences that led to further adult-supported learning, and adult-directed learning that was planned for either individual children or the group as a whole. These programs also highlighted the intentional teaching with those children involved in scenarios that were being observed and what would be added as extra artefacts to support the developing play, or how the interest and learning could be extended to other children.

As I progressed with the study, I became more aware of creating the “rich” environment (Vygotsky, 2004) that would enable the children to connect to reality and so support their imagination to gain mastery of their activity, and I would consequently incorporate this thinking within my daily and weekly written planning. An advantage of having these documents was that I could easily refer back to them to give the background detail needed for observational journaling. Programming details indicated the children involved in particular play episodes and my response to these episodes with regard to how I intended to extend the possible learning.

4.7 Data Generation

In order to collect relevant data relating to the research question of how cultural-historical theory will mediate a teacher’s practice, I initially became engaged with many readings and discussions with both my supervisor and colleagues so that I could gain greater, in-depth understanding of Vygotsky’s theory. This engagement included reading a number of articles that dealt with the main areas of cultural-historical theory. I initially read about Vygotsky and

his theory, so my investigations included reading the works of Daniels (2008) and Davydov (1995). Reading the works of Heddegaard (2009) and E. E. Kravtsova (2006) also brought an initial understanding of my role and how I could work with the children. I then moved to reading Vygotsky's actual works where I gained a greater understanding of imagination (Vygotsky, 2004), Vygotsky's definition of play and the importance of play (Vygotsky, 1976), and how to use his theory within my practice through the understanding of mature play and the ZPD (Vygotsky, 1978, 1997). Consequently, his works (Vygotsky, 1976, 1978, 1997, 2004) became very important texts for me that I would return to frequently.

With these new understandings, I initially decided to focus on the element of imagination, as defined in Chapter 2, so that I had a strong understanding of how children used this theme to extend their play, and how I might respond to their play scenarios. I would observe the children playing, focusing on their communications and interactions with each other as well as any props or equipment that was used. I would note down their dialogue, their actions and use of the props. I was also highlighting my interactions and responses to them. I would ask questions to clarify how the children were relating the play episode to their reality so that I could make the connection of what they were doing to the theory about which I was learning. I wanted to capture my externalisation of how I, as the insider, used cultural-historical theory to mediate my practice.

At a later date, I would then transfer my notes to a journal using a narrative form, and then reflect on what I had written, considering that what I was seeing and doing was quite different from when I worked under a Piagetian framework. The reflections were written in the journal using the New Comment function in Word. In this way, my initial journal and later reflections were directly tied to each other. In the reflections, I would consider my communications with the children, how I might be presenting equipment differently, how I was supporting the children's learning from the cultural-historical perspective, and taking note of any other differences I had started to introduce to my practice using cultural-historical theory rather than

the Piagetian theory. Since the focus for the thesis was on my uptake of cultural-historical theory and how it mediated my practice, my reflections in the form of the New Comments were the main sources of the data used in the thesis, with the children's observed actions comprising a form of stimulus data. However, because cultural-historical theory sits within the dialectic, my actions and responses with the children are of course interconnected with their actions and responses.

Data generation occurred from early in Term 2, which was in April 2011, and continued throughout that kindergarten year until December 2011. From the observations I made of the children, and my engagement in their play using concepts from Vygotsky's theory, there were three main episodes of children's play that occurred early in that term. These three play episodes continued to develop over the course of the year between myself, the children and Rhonda. These three episodes became the main stimulus for the data generation as I journaled and reflected on my observations.

When choosing the episodes that would be followed for the remainder of the year, I was guided by my observations of the children's original play scenario and my reflections regarding that play as to how it was connecting to the child's reality, and how I, as the teacher, might be able to extend the learning that was possible. I was also guided by Vygotsky's elements of imagination that would lead the child to mature play as this was the concept in Vygotsky's work that had initially captured my attention as an aspect of practice that I wished to pursue further.

With these new guidelines in focus, I first followed a play episode of Harrison, one of the children in my classroom at the time. I considered Harrison's original play of camping as I could see how he was connecting the camping to his "reality" – his family had gone camping on an earlier weekend. This play episode continued as a general camping situation, with his friends joining him in the experience in outside play, which then continued in some inside

play. The focus of Harrison's play started to change after I added a large felt mat, which detailed an African safari scene with a variety of animals, people and a tent available as felt cut-outs that the children could use to create a story. Harrison picked up on the scene and created a connection to the movie *Madagascar*TM. This story involved the hunting of animals as they were wanted for a zoo in another country. Harrison extended this activity by creating more felt pieces to use with the mat and allowing other children to also participate in the experience. I called this episode of play "camping with Harrison".

Once the elements within the play episode were recognised, my role as the teacher in supporting the child's learning and development was then reflected upon. I had been very conscious of the communications I had had with the child or children. I tried to focus on the guidelines set by Vygotsky (2004) pertaining to imagination, and further elaborated on by S. Edwards (2011), which were to focus on supporting the child through the differing elements of imagination to reach mature play, identify possible learning opportunities within the mature play and on my positioning with the child within the play episode to guide the child within the ZPD to reach the optimal learning and development that was possible (Kravstova, 2009). What did I need to do to further the play, to provide a rich environment to support the play? What did I need to say? What position did I need to be in to support the learning? Changes to the interactions with children were then implemented, and/or materials were supplied to support the play until I had confirmation that the children had moved on with the play. An example of this was when Harrison created his own felt pieces to use with the large felt play mat:

Harrison: *I wish there was a gun. Can we make a gun, so like we can shoot? Hunters need to shoot some animals so they can eat as they don't have food.*

Elizabeth: *Maybe you could draw one later and I could find some felt* (journal observation, 13.5.2011).

On some occasions, I would be part of the play episode, and on others I would be the observer and recorder of the play. This meant that as well as recording how I was focusing on using cultural-historical theory to mediate my practice, I was actively exploring the new theoretical ideas to see how I could position myself to support the learning and development for the children.

My discussions with Paru were organised for a time that was convenient for both of us. We held three official meetings, and at these times, our conversations were audiotaped and then later transcribed. Paru had given consent for these discussions by signing the consent form before data collection commenced. During the initial phase of organising the consent forms, I gave Paru an important article entitled *Becoming a Critical Friend* (Nelson, 2008). The article discusses what is required to be a critical friend – the responsibilities, positives and negatives involved when taking on such a role. I gave her the article because we both needed to understand the expectations and any boundaries that might need to be considered when taking on the role of a critical friend. During the course of the year, I would also send her articles that I had read on cultural-historical theory so that she could also gain an understanding of what I had been reading, and so be able to participate in our discussions on a more equal footing since we were both gaining more knowledge of the theory at the same time. Paru was given a copy of the transcribed interviews for her to review to make sure her thoughts and comments were accurately represented.

My program format was detailed in my main programming diary. I would write up the weekly and fortnightly objectives, where I would focus on the children's interests, my intentions for direct teaching with the children, the new experiences that were to be provided to them, and the new equipment that was to be made available to the children. I also wrote down some references to how my planning was different using cultural-historical theory to my planning when I used a Piagetian-informed format.


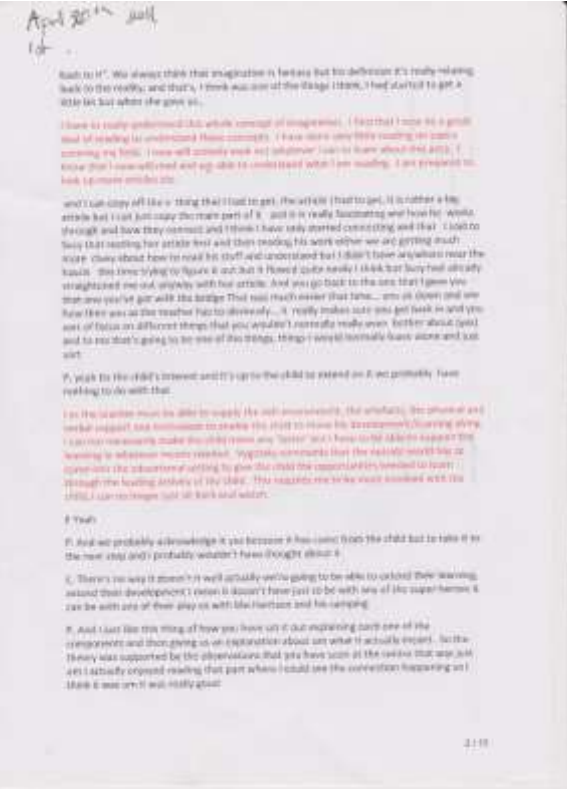

Data Type		
Observation and Reflection Diary	Interview Transcript	Programming Diary
 <p>The page contains several paragraphs of text, some of which are highlighted in blue. There are also handwritten notes in the left margin, including the date '12.11' and some small diagrams or symbols.</p>	 <p>The page is dated 'April 20th 2011' and contains several paragraphs of text, some of which are highlighted in red. There are also handwritten notes in the top left corner.</p>	 <p>The page features a table with several columns and rows, some of which are highlighted in different colors (red, blue, green, orange). There are also handwritten notes and diagrams around the table.</p>

Table 4.1 Summary of Data Type.

I will now present my approach to data analysis.

4.8 Data Analysis

Hatch (2002) says “Data analysis is a systematic search for meaning. It is a way to process qualitative data so that what has been learned can be communicated to others” (p. 148). In this section, I present the three rounds of analysis that I systematically applied to the data to find the answer to the research question of: What does the uptake of cultural-historical theory involve from an insider perspective, and how does this uptake mediate a teacher’s practice?

The data analysis commenced with a review of all the collected documentation, which included the journal observations, the reflections on the observations, the interview transcripts with Paru, and the main programming diary. I then used a deductive analysis to look for the a priori themes of imagination, mature play and the ZPD within the children’s play. Restall (n.d.) has defined *a priori* as “truth is something that can be known independently of any particular evidence or experience” (p. 3). Another definition provided by Jenkins (2008) states that “a priori knowledge is knowledge whose justification is independent of empirical evidence” (p. 437). I initially used the themes of imagination, mature play and the ZPD as my *a priori* or “theoretical knowledge” because they had formed the starting point for my uptake of cultural-historical theory through my study of Vygotsky’s writing and the application of these to my observations of the children’s play episodes. These a priori themes were my abstract understandings, and I examined the data through my analysis for concrete externalisations of these abstract understandings in practice. Aneshensel (2002) confirms that:

In deductive reasoning, we assume that what is true of the general class is also true for the particular case. This assumption is tenable insofar as the particular case is an element of the general class, in the sense that a whole is composed of its parts. (p. 27)

This point aligned with my analysis since I was considering the specific elements of imagination, mature play and ZPD that combined to make a distinct entity within Vygotsky's theory. This was also relevant since I was seeking to answer what the uptake of cultural-historical theory involves from an insider perspective, and how this uptake will mediate a teacher's practice – mine.

All the analysis was done manually by examining the hard copies of all the data. As I read and re-read through the data, I would tag key words and phrases, and then physically cut them out according to the deductive code that was relevant to that text. Consequently, the initial sorting of the data was into the main a priori themes of “imagination”, “mature play” and the “ZPD”. Within these themes, I then tagged main key words and phrases such as “mission”, “connection to theory”, “tools and artefacts”, “teacher”, “identity”, “new skills”, “connection to time”, “technology”, “previous methods” and “questioning my work”. These key words and phrases became my sensitising sub-codes. In order to visualise the categories easily, I hung a very large sheet on the wall and taped the sub-codes to the sheet in the appropriate main a priori categories. This process also made it possible to move, combine and organise sub-codes easily, while at the same time see the whole mapping of the sub-codes to the categories.

I then used these sensitising sub-codes to complete a second round of deductive analysis of all the data using the three components of Vygotsky's framework for general psychology – developmental method, the social situation of development, and

mediation with tools and signs – as the main categories. Creswell (2014) supports deductive analysis as shown:

Deductively, the researchers look back at their data from the themes to determine if more evidence can support each theme or whether they need to gather additional information...deductive thinking also plays an important role as the analysis moves forward. (p. 186)

I found that there were four main categories arising from the initial sensitising sub-codes. These were as follows:

1. Practices relating to interpretation and interaction of the teacher were defined as references to identity, understanding the new theory, questioning work practices, and interacting with the children and other adults.
2. Practices of tool adaptation were defined as popular culture items, together with all equipment and materials used as part of the kindergarten program.
3. Practices relating to temporality were defined when words such as “return to”, “continue”, “leave out” and “again” referred to both myself and the children.
4. Practices introducing technology were defined as when equipment such as the laptop, flip camera, cameras and cd players were used.

This second round of deductive coding served to reduce the initial number of sub-codes identified in the first round of coding. Dey (1993) comments “The virtue of reducing values and variables is that we can increase the focus of our analysis” (p. 201). As I reduced the sub-codes into these four larger categories of practices, I found that these

practices could all be aligned with the developmental method, mediation with tools and signs, and the social situation of development, which I had already understood to be the driving theoretical components in Vygotsky's work. It was during this time of deductive coding that I started to see the importance of my role as the teacher. I could strongly align with the words of LaBoskey (2004): "Self-study...is self-initiated and focused; it is improvement-aimed; it is interactive;" (p. 817).

The final analysis was carried out inductively. Hatch (2002) provides the following description that "Understandings are generated by starting with specific elements and finding connections among them" (p. 161). This understanding is followed by Creswell (2014) extending thus:

Qualitative researchers build their patterns, categories, and themes from the bottom up by organizing the data into increasingly more abstract units of information. This inductive process illustrates working back and forth between themes and the database until the researchers have established a comprehensive set of themes. (p. 186)

I inductively re-analysed the entire data set according to the four categories that were established from the second round of analysis that led to the development of the four practices, namely: (1) Practices relating to interpretation and interaction of the teacher; (2) Practices of tool adaptation; (3) Practices relating to temporality; and (4) Practices introducing technology. Again, there were very strong connections between the new categories to the three components of Vygotsky's framework for general psychology. The inductive analysis was to identify the sub-codes within each type of practice. With this analysis, I did a frequency count for each identified sub-category of practice. Johnson and Christensen (2004) comment that "Word or code frequencies can help researchers to determine the importance of words and ideas. Listing frequencies can

also help in identifying prominent themes in the data” (p. 510). I had determined the cut-off point for a sub-code of practice would be anything below 10 frequencies as there was little influence on the overall findings from those with a count of less than 10. Any sub-codes with a frequency count higher than 10 were then included. Johnson and Christensen (2004) also believe that prominent themes within the data can be identified more easily when using a frequency count. The sub-code of identity was excluded as it scored a low count (7) and had no impact in answering my research question. The sub-code of technology also had a lower number than 10 but was included within the stronger sub-code of culture/artefacts to become cultural tools since technology can be considered a cultural tool.

By re-analysing the data against (1) the practices relating to temporality; (2) practices relating to interpretation and interaction of the teacher; (3) practices of tool adaptation; and (4) practices introducing technology, I used the strategy of triangulation to support the validity and reliability of the findings. Triangulation occurs when different data sources of information are examined “to build a coherent justification for themes. If themes are established based on converging several sources of data or perspectives from participants, then this process can be claimed as adding to the validity of the study” (Creswell, 2014, p. 201).

Table 4.1

Frequency Count for the Concepts and the Connection to Vygotsky’s Framework for General Psychology

Concept	Related concept from Vygotsky’s framework for general psychology	Frequency
Practices of interpretation and interaction	Social situation of development	117
Practices of tool adaptation	Mediation with tools and signs	45
Practices of temporality	Developmental method	41

These results gave me the final frequency count used for my practice and supported the conclusions in response to what the uptake of cultural-historical theory involves from an insider perspective, and how this uptake mediates a teacher's practice.

The uptake of cultural-historical theory involves the teacher focusing on practices of interpretation and interaction, practices of tool adaptation, and practices of temporality. However, due to the dialectical interconnectedness of the three themes, there is also interconnectedness between the three findings that mediates a teacher's practice as I will demonstrate in the following chapters.

Having detailed the process of data collection and analysis, I will now cover the importance of validity and how I addressed this as well as discuss issues and limitations that can be considered.

4.9 Validity, Issues and Limitations

Qualitative research is conducted with an inherently multi-method focus. Different understandings of validity, issues and limitations can be considered for these multiple methods. For the purpose of this thesis, I will base my discussion on a self-study model while acknowledging the social situation on which this thesis is based.

Qualitative validity relates to the researcher checking “for the accuracy of the findings by employing certain procedures” (Creswell, 2014, p. 201). LaBoskey (2004) gave another understanding of validity from the position of a self-study. She confirmed the articulation of Elliot Mishler (1990) that validation should be redefined as “the process through which we make claims for and evaluate the ‘trustworthiness’ of reported observations, interpretations and generalizations” (p. 853).

Creswell (2014) describes a number of processes that can be applied to support qualitative validity. One way to support the validity of the research is through the

researcher spending prolonged time in the field. He goes on to say “the researcher develops an in-depth understanding of the phenomenon under study and can convey detail about the site and the people that lends credibility to the narrative account. The more experience that a researcher has with participants in their settings, the more accurate or valid will be the findings” (p. 202). Due to the understanding that self-study is, as highlighted by Dinkelman (2003), “an intentional and systematic inquiry into one’s own practice” (p. 8), it will also be conducted within one’s own site of work. My research was conducted within my workplace so I was able to present accurate, valid findings. I also developed an in-depth understanding due to my ability to undertake the research over the period of a year.

However, this may also be considered to be an issue of validity since there has only been the one site used with the two groups of children at the kindergarten and therefore the findings and conclusions are based on only one insider’s perspective. I am not able to present other teachers’ insider perspectives and so cannot triangulate different data sources in this way. I have only been able to triangulate my own data sources as a means of validity. It is suggested by Lichtman and Tech (2002) that “the researcher is the conduit through which information is gathered and filtered. It is imperative, then that the researcher has experience and understanding about the problem, the issues, and the procedures” (p. 16).

This is my first major research project and I have come into this study with a limited knowledge of issues that I may face as well as a limited knowledge regarding the procedures. I came from a background of having only one theory with which to work. This study may have been presented differently if it had been completed by a teacher with a number of differing theoretical bases from which to work. My observational skills may not have been of sufficient richness to provide the clear and detailed descriptions that is suggested by Feldman. Feldman (2003) suggests that when involved

with such research, teachers usually have hopes that not only will there be improvement seen within their own practices, but that the scholarly work will have a direct influence on other teachers. He goes on to highlight, as main points, the need to “provide clear and detailed descriptions of the data collection process as well the value of the changes in our ways of being teachers” (pp. 27–28). Feldman (2003) continues:

If we want others to value our work, we need to demonstrate that it is well founded, just, and can be trusted. By making our inquiry methods transparent and subjecting our representations to our own critique, as well as that of others, we can do so. (p. 28)

When considering the validity of using discussions within this study from an epistemological perspective, the relationship between the researcher and what the researcher wants to know must be considered. The discussions used to generate data for this study were between my critical friend Paru and me. In listening to Paru’s point of view regarding the study and asking her questions relating to the study, I was able to gain information that I considered would be valuable. However, these conversations may have led to the discussions being confined to too narrow a field, and I may not have allowed Paru to fully express her thoughts and opinions and understandings.

Although equity and social justice are core values for self-study, my research was influenced by my own values and the expectations under which I work as a kindergarten teacher. Further referencing to this can be read in Chapter 1. I was also working within the dialectic that existed between the children in the kindergarten and Rhonda.

I did, however, fully understand the problem. I was being presented with new theoretical perspectives in my professional development, and I wished to find out what it meant to take up cultural-historical theory from an insider perspective, and how this uptake would mediate my practice.

4.10 Conclusion

This chapter has given a detailed account of the methodology I used for this study. It set out why self-study is an appropriate methodology conducted within a dialectic framework since this thesis is presenting an insider perspective on the uptake of cultural-historical theory. The details of my data collection and analysis methods have been presented in this chapter. There has also been careful consideration given to the ethics of working with my critical friend, Paru, my assistant, Rhonda, and the children attending the kindergarten and ensuring they were all able to give informed consent and assent to participate in this study.

In Chapter 5 I present a detailed account of the findings from the research in order to answer my research question.

Chapter 5

Findings

5.1 Introduction

In this chapter I present the findings of the research for this thesis. I will present how I was able to work with the original concepts as defined by Vygotsky to define how they supported my uptake of cultural-historical theory and so develop an answer to the research question: What does the uptake of cultural-historical theory involve from an insider perspective, and how does this uptake mediate a teacher's practice?

I present three main concepts to inform the uptake of cultural-historical theory to mediate a teacher's practice and these are:

1. Practices of interpretation and interaction
2. Practices of tool adaptation
3. Practices of temporality

These three themes will be interpreted further in Chapter 6.

These main concepts are manifested by a combination of the three components comprising Vygotsky's framework for general psychology. These components were:

- 1) The developmental method, which manifests in practices of temporality
- 2) Mediation with tools and signs, which manifests in practices of tool adaptation
- 3) The social situation of development, which manifests in practices of interpretation and interaction.

I will commence with the concept of "practices of interpretation and interaction" as this focuses on how the uptake of cultural-historical theory began to mediate my practice.

5.2 Practices of Interpretation and Interaction

“Practices of interpretation and interaction” was found to be the main concept that should be considered from an insider perspective to mediate a teacher’s practice. Practices of interpretation and interaction revealed how I actually implemented the uptake of cultural-historical theory and used it to mediate my practice.

Previously my role, from a constructivist viewpoint, was to observe the child as an individual and look for the perceived deficits in the child’s development within the fields of gross and fine motor skills, cognition, social and emotional wellbeing, and communication. I would use a fortnightly programming cycle for planning the children’s learning and development. I would decide the objectives to work on and set up the environment to support those objectives. I had limited interaction with the individual child to encourage the child in her learning.

My program book detailed the activities/ deficits we were working on at the beginning of the year. For example, March 3 – “We are learning to share and take turns; we have been learning about measurement, tall, short, long”; and March 17 – “We have been trying to balance on the seesaw and learn how to work it, and we are learning how to put things in our bags”. A further example of this is observed with my initial thoughts on two children whom I considered to have a deficit in fine motor skills.

I asked Thomas and Luke to come and paint as they rarely do one, and need to practise their skills of holding a brush/pen etc. (reflection diary, 13.8.2011)

I would then set up the environment to extend the child’s learning as I considered being appropriate within the specific area that I was planning. I commented on this fact early on in my reflection diary 23.3.2011:

I would previously set up the play setting to my design and what and how I was expecting the scenario to act out. I did not ask the children what or how they would like to extend their interest because I did not follow the children's interests. I basically decided what was happening in the program by observing what was needed.

I would have some initial contact with the child, which was usually in a more formal structured situation, and then leave the child to explore and use the environment to gain the skills or knowledge that I had proposed that I was wanting.

For this thesis, practices of interpretation and interaction is seen to be the most significant of the three concepts (themes) as it scored the highest with a frequency count of 117 as detailed previously in Chapter 4.

I now present the findings that indicate the progress of the change of my practices of interpretation and interaction when I consider cultural-historical theory from the insider position and how it mediates my practice as evidenced within the data findings. The practices of interpretation and interaction also demonstrate my enactment of my new understanding that I have gained through this self-study. I will start with this extract from a discussion with Paru:

Elizabeth: You never...you didn't have all that interaction, you did to a point, but you had quite a specific developmental goal in mind and it wasn't the learning in the same way, it was...and that's a very difficult thing for me to actually put in words as to how it's been; it's a different way of looking at it, I suppose; it's a different way of understanding how they're learning. I think that's what's coming out with this.

(interview transcript, 20.4.2011)

Also, in my reflection diary, I was considering how I was changing my interactions with the children and how I was starting to interact with the children. I was starting to note the difference in how I used to work:

Previously, I would only become involved briefly, but with this episode I stayed with Harrison as he pretended to cook on a campfire. I became involved in the activity and remained for quite a length of time. I used to become involved but would also leave quite quickly leaving the activity to the children. (reflection diary, 21.3.2011)

Further evidence from my reflection diary indicates the initial conversations with Sarah and Beth when they started to work:

When I started to talk to the girls about what was happening, they were providing me with more details of what they were doing and giving me some idea as to the storyline so I was able to question them further. (reflection diary; 6.9.2011)

I was writing down how I previously interacted with the children so that I could see my progress as I compared the differences between my practices:

I would have previously had some discussion with the child about what to do, and would have been functioning in what I now consider to be the “upper” position, but I would not have spent the same amount of time working through the process, talking through each step while helping the child to think about each step. I also would not have spent the time recalling the process at the end, and I certainly didn’t consider revisiting the activity, placing myself in a differing position. (reflection diary, 13.8.2011)

The role of the teacher is manifested by the social situation of development. I was starting to understand how important my role was to foster this social situation of development, which was quite evident within the kindergarten environment, whether it was that of the teacher and child, or child and child.

I became very aware of the importance of the social situation of development when considering the importance of the developmental method within the cultural-historical theory,

and I was becoming very aware that I needed to be involved in creating this social situation of development and so altered my practices of interpretation and interaction.

I find that I have been continually thinking back to the newer theory I am learning about. I have to think about how I work with these children. After reading more, I know I need to be very active with these children. I need to be actively modelling and discussing how different artefacts can be used in a variety of ways, showing the child how to participate in object substitution, and then how to connect the object to a scenario which will start to use imagination in the way Vygotsky has described – I need to help the child connect to her reality. (reflection diary, 21.3.2011)

A major change that I first made, as can be seen from the data, was that I became more involved with the children. My goal was to create a social situation of development through my practices of interpretation and interaction.

I became very involved with a child named Judd, as by the start of Term 2 (April 2011), he still had minimal interaction with other children (noted in my journal observation, 26.4.2011, that Judd rarely speaks with other children when playing), and was rarely involved with them in their activity. As can be seen from this statement, I was still struggling with how I could turn the negative or deficit perception of the child around even though I now had a better understanding of the importance of the social situation for learning and felt that he needed support to enter and join in with a peer activity. I had noted at an earlier date (21.3.2011) in my journal observation that he did not seem to understand another child's pretend play as quoted by Judd: "You haven't got any [pancakes]" that Harrison was pretending to make for me. I had not seen him involved in many pretend play episodes independently. I wanted to work on this as a way for him to join in with the others. Here I was thinking about my new "practice of interpretation" as to how I could support him by initiating a social situation of development. Judd spent a great deal of time watching the other boys build with the indoor

blocks, as evidenced by observations I had made of him during Term 1. I approached him to see if he would come to build with me – here I was considering how to change my “practice of interaction” to support his involvement in a social situation of development. I was very aware that I needed to help Judd connect his activity with the blocks to his reality. Here, again, was a new practice of interpretation since I now had greater understanding of the importance of imagination as defined by Vygotsky’s first element of imagination (Vygotsky, 2004, p. 13). This movement towards the practice of interpretation and interaction was evidenced in a conversation held with Paru:

I have to really understand this whole concept of imagination. I find that I now do a great deal of reading to understand these concepts. I will now actively seek out whatever I can to learn about this area. I know that I will now read and am able to understand what I am reading. (interview transcript, 20.4.2011)

This demonstrates how I was involved with the enactment of my new learning and understanding through this self-study as I was seeking a deeper understanding of the theory (Loughran, 2007).

Further evidence of this movement was in my journal observation:

I started by asking which blocks he would like to use, and modelling what to do with the blocks as we talked together. This intense involvement was something that I previously did not commit to when supporting a child’s learning and development. (reflection diary; 27.4.2011)

This interaction is detailed in the following running observation: I pulled out some long blocks, asking if Judd wanted to start with some long blocks.

Judd: *Yes, it can go here.* [He placed the long block against the tower (previously built by another child) to make a ramp down.]

Elizabeth: *Would you like some curved blocks or some small blocks?*

This dialogue indicated to me that my interaction with Judd was not one that I would have previously had using a constructivist theory.

He chose the curved blocks and then I gave him the small blocks.

Elizabeth: *Would you like some longer blocks?*

Judd: *Yes.* [He took two.]

Elizabeth: *Would you like some of the longest blocks? These are the longest blocks.*

Judd: *I can put them here.* (journal observation, 27.4.2011)

This dialogue indicated that I was changing my practices of interaction through the introduction of mathematical concepts in a play-based experience, something that had not been done previously.

The individual moves from a social situation of development through to the leading activity. For this study, I was specifically focusing on the child moving through the different elements of imagination to the position of play being the leading activity, which was discussed in more detail in Chapter 2, and what my response was to the situation, and how I should work differently when considering the guidelines from cultural-historical theory. I, as the teacher, needed to be focused when participating in this social situation in order to support the child's learning and development, with particular attention to higher learning or more scientific learning.

My role through my practices of interpretation and interaction became the focus as I worked with the children, connecting their actions to the elements of imagination; the connection to reality; the extension of reality; the impact of emotions and the making of something new

from the play episode. This new understanding of imagination that I gained as a result of this self-study is detailed more comprehensively in Chapter 2.

Previously I would have had a predetermined goal that I wanted to achieve, such as for Judd to build a house with the blocks, but since this study is to consider what the uptake of cultural-historical theory from an insider involves, and how this uptake mediates a teacher's practice, I noted the following comments in my reflection diary:

Since it was his first effort, I did not want to push him too far and accepted when he had finished. (28.4.2011)

This dialogue is evidence of my consideration of my practices of interpretation. I was prepared to work slowly with my interactions. I was also frequently referring back to my new understanding of cultural-historical theory, as I felt I was still practising these new practices of interpretation and interaction.

Previously, I would have continued until I felt that the result I wanted had been achieved. However, with Vygotsky's theory, I must stand back and consider where the child is at – element of imagination – as well as consider the ZPD. (reflection diary, 28.4.2011)

This comment also shows that I was looking for ways to move forward positively with my changing practices

I will encourage more next time. I also felt that I was using more descriptive words when talking with Judd. (reflection diary, 28.4.2011)

My practices of interpretation also focused on how I could position myself to work with the child within her ZPD to further her learning and development. Kravstova (2009) refers to the differing positions in which the more capable person can position herself to support the

child's learning. These are the "primordial we", the "up position", "under position", "equal position", and finally the "independent position". Kravstova (2009) reminds us that:

the methodology for determining the ZPD is associated with children's ability to do, with the help of an adult, what they cannot do or solve on their own, we assume...that the individual value of the zone of proximal development is associated with, on the one hand, what basic structure of personality...the child can realize with the help of an adult, and, on the other, what form of communication makes this help truly effective.

(p. 22)

Later in the year, I became more confident in using the knowledge I had gained on the positions I could use to guide to my interactions with the children, as briefly described above, so I could support the child within the ZPD. Again, this is a reference back to my re-engagement with this new theory and, through my self-study, I am learning the skills required to improve my practice (LaBoskey, 2004). I recorded this aspect in my reflection diary, 1.5.2011, as follows:

I started with Judd needing a great deal of hands-on support, with me taking the primordial we position and the upper position as I supported Judd in his beginning to build and construct with the blocks.

I was finding that when working more closely with the child, I was able to observe gains made more easily, which then guided my practice of interaction:

As he became more competent, I would move to the under position, asking if the block needed to go there.

I later added further comments:

Again, I am able to support the learning and development through my knowledge of how I can position myself within the child's ZPD. This way of working helps me to

support the child and gives me insight into where the child is placed along the journey to reaching mature play and having play as his leading activity. (reflection diary, 1.5.2011)

The following observation also shows how I, as the teacher, was starting to explore how I could work with this knowledge to support a child with her learning and development. Callum had been spending some time pasting, but had only been completing two-dimensional works:

Today I worked with Callum at pasting. I decided to support his development in this area to include 3D construction (pasting using materials such as boxes, feathers, icy-pole sticks). (journal observation, 15.8.2011)

My practice of interaction was again manifest through my using the positions as described by Kravstova (2009):

I have spent some time with him pasting in the “upper” position. I decided to work in the “under” position today to see if he could transfer some of his learning into this newer area.

As recorded in my journal observation, I was finding that my practices of interaction were usually guided by my practice of interpretation as I would have to change my thinking and guidance quickly to support potential learning and development:

I found, however, that I was shifting from the “upper” to the “under”. I realised quickly that I needed to start in the “upper” position to get Callum started with this work as he started to question me as soon as we sat down”. (journal observation, 15.8.2011)

However, I at times, still questioned myself as shown:

I have found this the hard part of this work, moving to the under position, pulling back. (reflection diary, 1.9.2011)

I was noticing that my practices of interaction were changing as I was spending more time with the child as indicated in the following:

I am finding that at times I am having no choice but to continue working with the child for longer periods of time in primordial we and the up position than I would have previously as I am now far more aware of what I have to do to support the development. (reflection diary, 1.9.2011)

In the next month, I had affirmation from a child that I took to heart that I was now working confidently with the children and was able to really support their learning and development through the knowledge I had gained from my self-study of Vygotsky's theory. My continuing to practise and engage with this theory was being rewarded. My changing role as the teacher was starting to have positive effects for the children as observed in the following:

I had been sitting at the table with Luke and he started to draw himself after he had written his name.

Luke: *A round head, nose, round eyes and arms there, then down, have two legs.*

Elizabeth: *You didn't know how to draw a person before, did you?* [referring to several weeks ago, when I started working with him.]

Luke: *Yeah, but now I know.*

Elizabeth: *Is it good?*

Luke: *Yes.* (journal observation, 16.9.2011)

I was reading that I must become far more actively involved with the child if I were to support the learning that can come from their play (Bodrova et al., 2000; Hedges, 2000), and in particular the importance given to imagination when considered from the Vygotskian viewpoint.

I was also feeling tentative as I initially explored this new method of working with the children. I was starting to be more comfortable in supporting the child, taking direction from the child, not directing as would have previously been the case. As the year progressed, I was becoming more confident at recognising where a child might be positioned within the elements of imagination and was also starting to use my knowledge of positioning myself, as described above, to support the child's learning and development. I discussed these ideas in my reflective diary as follows:

I feel that I am gaining the skills needed to accurately judge where and/or when I should join in so that I can best support the experience/learning. (reflection diary; 21.7.2011)

I was starting to feel more confident with my choices when considering my practices of interpretation and how this affected my practices of interaction.

I have the knowledge now of how to position myself as the more experienced other to benefit the child. (reflection diary; 21.7.2011)

And, again, I am more aware of my practices of interpretation:

I am becoming more confident in considering where the child might be positioned with the elements of imagination. (reflection diary; 21.7.2011)

I was recognising the elements of imagination more easily now that I was observing the children's activity within the play. I joined in with the children as indicated by my new understanding of the teacher's role to support the child's learning and development. I could

observe how they connected their play to previous experiences, as well as observe them altering the reality, so that as the teacher, I was able to encourage and extend the play by mediation or through my direct interactions as discussed further on in the findings. Thus, I was able to apply the new learning I had gained from my self-study to my changing practices.

My readings were also alluding to the importance of the teacher providing a rich environment as referred to earlier (Bodrova et al., 2000; Vygotsky, 2004; Wood, 2009). Previously, I would have set up an experience with a specific objective in mind as my observations would have shown a child with a deficit in this particular area of concern, which I now realise, armed with my new knowledge, did not really allow for the child to explore or make his own interpretations understandable. The materials that I provided previously would have had a very specific purpose. I commented on this fact in June 2011 in my reflection diary as follows:

I previously would put only a small variety of objects out for the children to use. They would have been very specific: e.g. plastic /wood animals, cars etc.

My previous practices meant that I was quite restrictive in what I would put out when working from a constructivist position.

I never put items such as materials out. I would think about what the children might build with what was available and would then encourage building along those ideas.
(reflection diary, 15.4.2011)

However, I was now more willing to provide extra materials to the children as I could see a two-fold purpose to these materials. My practice of interpretation was enabling me to understand the importance of creating the rich environment. First, I was gaining an understanding that such materials were adding to the enrichment of the environment as they could be considered as tools, and these materials were also needed to support the child to

move through the elements of imagination. My practices of interpretation needed to support this movement for the child:

I am looking at using more items that suggest a variety of uses, not just a particular use. I will leave these types of materials out for longer periods of time so that the children can explore them in differing ways. (reflection diary, 15.4.2011)

This was another reference to my changing practices of interpretation that were supporting the child's movement through imagination.

Later on, we found some other sparkly materials, crystal-like pipe cleaners, and some small butterflies. (journal observation, 3.5.2011)

The materials that I had now started to provide also gave the child different options of use within the play scenario as exemplified within the following observation:

Hayley was playing with Reed, Charlee and Emily. By their actions, I asked if they were camping. Hayley replied that they were. "Let's go camping, bring the sleeping bags," she said. "That's mine," she said, referring to the large blue piece of fur that was on the stage. Charlee picked up the brown fur. "This is mine". (journal observation, 23.6.2011)

My practices of interpretation were certainly extending what I made available.

Reed commented, "I don't have one. Can we share?" Hayley replied, "No you don't share sleeping bags. I'll get you one. We have to roll our sleeping bags up." (journal observation, 23.6.2011)

I was finding that I would quickly supply, if possible, further items needed or requested by the children to support their play.

Emily joined the girls and I went to get some blankets, cushions, material that the girls could use for their camping. (journal observation, 23.6.2011)

Block construction – provide material, paper squares, cardboard tube”. (programming diary, 5.2011)

I was no longer limiting the addition of materials that were concrete in nature, but would provide different options such as this variety of props.

Towards the end of Term 3, I was feeling very confident with how to work with the children from a cultural-historical theoretical perspective. I was able to consider the knowledge that the children had brought into the play scenario as a base from which to work and support their learning and development as demonstrated by the examples of Harrison camping and Hayley’s interest in camping later on. I was confident with my understanding of the elements of imagination, and I was becoming, importantly, far more conscious of my role as the teacher to support the child’s learning and development within the social processes that would support the higher learning of the child. My time involved with this self-study was indicating how the enactment of this new theory was impacting on my practices.

This was evident in comments I wrote following an episode with Harrison:

Camping Harrison: I was able to see the learning happening as Harrison moved through the stages of imagination. It is my task as the teacher to provide a rich experience and support the child’s learning. (reflection diary, 13.5.2011)

I was now considering how my practices of interpretation would support the child’s learning and development:

I was supporting Harrison in his endeavour to follow through with his interests and this encouragement saw him work in areas that he would previously not participate in - drawing/art work. (reflection diary, 13.5.2011)

I was more aware of how my practices of interaction were encouraging the children to extend their interests such as had occurred with Harrison.

By my supporting this experience, he was confident in working in these differing areas. (reflection diary, 13.5.2011)

My practices of interpretation also gave further insight into the importance of the peer group for a child's learning and development. Since I was originally unaware of the importance of the social situation for the child's learning and development, I would previously focus on the deficit of the child and mainly support it from an individual perspective. However, my readings of Vygotsky's theory, (Kozulin, 2003; Kravtsov & Kravtsova, 2010; Kravtsova, 2006; Vygotsky, 1978, 1998; Wells, 2013) led me to start to also consider the importance of the peer group as a support to the individual child's learning and development, as evidenced by the reflection below through my practices of interpretation:

I certainly did not use the peer group to the extent I do now. I will actively encourage children to work together. (reflection diary, 26.4.2011)

I have a better understanding of the need for the social situation of development now, whereas previously I did not, as I expound in the following:

I used to only see the peer group as necessary for learning social skills and for friendships, and not as a source of skills that can be taught to a friend or peer.
(reflection diary, 26.4.2011)

Again, in another example from my programming diary, I was moving forward in my understanding of my practice of interpretation:

Camping Harrison: continue to support Harrison's activity with camping. Small group discussion with others – Bailey, Hayley, Alex for further conversation on camping holidays. (programming diary, 6.5.2011)

Luke and Thomas worked together to paint a very detailed person. They had to talk about the features needed. (programming diary, 11.8.2011)

As I have previously stated, I did not consider that it was my role to focus on the importance of the peer group. From a constructivist viewpoint, I understood that my role was to set the experience up for the child, and I did not encourage any interaction with another child or use another child's skill or understanding to support the development and learning of others.

Looking back now, I can see how well the peer group can support the learning and development, and I, as the teacher, can be involved with the peer group to help the child further the knowledge gained to a higher level or encourage the children to progress with minimal input from me.

My practices of interaction have been changed now that I am using my newer understanding of my practices of interpretation, as demonstrated, when I consider the children can create their own social situation of development:

When the children become involved the way these two did (Judd and Alex), more learning occurs and I am able to pull back to let them work through issues themselves when one child is more competent. (reflection diary, 29.4.2011)

Later on, when re-reading my notes from an early conversation with Paru, I noted:

I purposely look for "the more experienced other" within the children to support each other's learning. This allows me to cover more children, gives responsibility to others, and becomes more of a community/social learning situation. (interview transcript, August, 2011)

I also started to consider children's interests as a starting point for other children:

I will look for what learning I can take from the interests [of children] that may be relevant for other children so that I can incorporate it into the program as well.

(reflection diary, 27.4.2011)

Another point of peer interaction that I have had to consider is when or if I need to enter the play. This references my practices of interpretation.

I entered at this point (the block area where two girls were building), just listening and watching them as they were very focused on what they were doing. I did not want to interrupt them at this point. I feel that I am becoming far more careful about when I do enter a scenario now. (reflection diary, 21.4.2011)

I started to realise that if the children were to gain this higher understanding, as defined by Vygotsky, then I needed to place myself more thoughtfully within the play scenario. I was able to strongly focus on my interactions to support higher learning within the social situation when I worked with a group of children using the large outdoor blocks as noted below.

Together, we made an aeroplane because a child was going to Tasmania in the school holidays and a couple of other girls had not been on a plane before. Again, I considered the influence of the peer group, but was also becoming aware of the importance of my own input into the learning situation. I was able to have an impact on the learning of the children who previously had not been on a plane as described in the following observation, which illustrates my engagement with the new theory through my self-study via my practices of interaction:

It took us a long time to get to Tasmania.

Elizabeth: *Are we there yet?*

Children: *No, we have to keep going.*

Elizabeth: *You have to buckle your seatbelts on.* (journal observation, 6.4.2011)

I was engaged through my practice of interaction. I had to consider what appropriate words, concepts and higher learning was possible in this play scenario as I listened to the children's interactions:

Child 1: *Oohhh, it's a bit bumpy!*

Child 2: *Who's driving?* (journal observation, 6.4.2011)

At this point I knew that my practices of interaction must support the children's learning as shown:

This then meant that I led a discussion on the role of the pilots, where they sit. We then had to make sure the pilot always stayed in the seat so that the plane was flying safely. Two girls learnt about the role of pilots today! (journal observation, 6.4.2011)

This episode was early in the data collection and had quite an impact on my understanding of my role as the teacher and the way I could use my practices of interaction within the social situation of development for the individual children. I later reflected that if I had not been present, an opportunity to support the learning of the girls would have been missed. With my being present and involved in the episode, the girls were able to learn about the role of pilots in a way that was supporting their learning and development. Previously, I would not have stayed and been so involved with the group's play scenario. I would not have been able to support the children's learning through their play. This is because my grounding in developmental constructivism would have suggested that I remain outside the play, leaving the children to construct their own learning. Kozulin (2003) reminds us that Piaget "expected children to be independent agents of acquisition" (p. 16). However, my understanding of the significance of the social situation meant I changed this practice and I was learning to be involved in the play.

I had to really think through my role in supporting the social situation when I was observing a conflicting interest occurring with Hayley. Hayley enjoyed playing with Gemma, but was put into a follower's position where she was given very little opportunity to contribute to the play scenario. When she played with another group of girls, I had noticed she was contributing in a far more active manner. These observations from my position were something that I would not have been so aware of previously. Since I had understanding of the differing elements of the ZPD, I was able to observe the differing positions in which Hayley was participating. It consequently caused me some concern to see this situation developing of when Hayley was participating in a follower-only position, and was having no input into the play scenario. I had to seriously re-think my role as the teacher to support Hayley in this situation:

Hayley is participating at differing levels of her ZPD while participating in activities with different children. (reflection diary, 29.6.2011)

I was able to use my practice of interpretation to understand how she was functioning, but was unsure of the way my practices of interaction should lead her.

What is my role here? Do I support her abandoning the others to join Gemma as I can see her working with the others in a more leadership/more experienced other position? Is it okay for her to be in this follower position?" What might she be learning when with Gemma that she cannot learn when with the other girls? (reflection diary, 29.6.2011)

I found I was paying close attention to this situation, far more than I would have previously. I would have briefly spoken to the child who was acting in the very dominant position, reminding her to consider the other child in the play, and would have left the play scenario after a short period of time to allow the children to work through the situation by themselves, with very little further support from me. However, I was now more conscious of what my

changing role as the teacher, through my practices of interpretation and interaction, might involve as evident in the following critical reflection:

I need to encourage her to play with all children. Children need to be able to sort out their friendships, but I feel that the educator also needs to be there to support; talk about the consequences of some friendships; how this friendship is altering what she wants to participate in etc. (reflection diary, 29.6.2011)

Although I did not fully understand my new role in situations that presented in what I perceived to be more negative for a child's learning and development, I was feeling more confident to handle the situations like the one mentioned above as I had my new understandings of positions within the ZPD to guide me. I thought about this further in August 2011 and decided that:

By using the differing positions, I am providing varied types of interaction and communication to support children's development and am modelling ways to interact with others. (reflection diary, 15.8.2011)

Now that I was more knowledgeable about the social situation supporting the higher learning for the individual, I was more prepared to enter and remain in the play scenario to support the child within a situation that might be less than positive. Previously, I would have been less so as I would have been working within a constructivist theoretical framework.

As discussed in an earlier observation (27.4.2011), I had started to work with Judd as he used the indoor blocks for the first time. It was during these first few sessions with Judd, Beth, and Sarah that I strongly started to understand my role as the teacher and how my practices of interpretation and interaction connected to the support I needed to give to the child to create the social situation of development. I felt that the first understanding was the need to steer the social situation of development through my conversations with the child. In the following

example, I was very specific with my conversation with Judd and able to spend time discussing important mathematical concepts while building:

Judd: Come and build with me. I made a zoo. I want to build it high so the animals don't escape.

He also said his walls kept falling; this wasn't being helped with two other children trying to take the rainbow blocks to look through. Judd realised his building was not very stable as it still kept falling when the others had left. We tried to put the blocks back so they wouldn't fall. (journal observation, 11.5.2011)

My practice of interpretation gave me an understanding of the problem and how I could help through my practice of interaction as shown in the following scenario:

I started to explain why they were falling – the triangles meant that there wasn't a straight surface to balance on, there wasn't a level surface.

Judd: What's level? (journal observation, 11.5.2011)

Again, my practice of interaction supported the learning to take place:

We discussed the concept of level, and I modelled how the two triangles could be placed together to form a level surface. (journal observation, 11.5.2011)

The above observation reflected my focus on what I needed to say via my practices of interaction to support Judd's learning and I was thinking ahead about what I needed say to help him gain the understanding that I was supporting. Previously, I would not have remained so focused on my conversation with the child for such a length of time. I was now continually thinking of my practices of interpretation and interaction to support the social situation from which higher mental processes can originate and this was evident in the discussion held with Judd on the physical concept of "level".

Previously, when drawing from constructivist theory, I would not focus on the importance of making the connections between the theory I knew and my conversations with the children. However, in the above conversation, I was focusing on my greater understanding of the importance of the elements of imagination and mature play and was thereby making a strong connection with my practices of interpretation and interaction, as well as the social situation, to support the higher learning that I was aspiring to with the children. The application of my new understanding of Vygotsky's theory was becoming more evident through my changing practices. This was also evident in the following extracts from my reflection diary:

Again, I am continuing to support this activity [the felt-mat scenario] by leaving it out as well as providing the materials that will encourage the extension of the play [the making of more figures]. (reflection diary, 25.5.2011)

I was more confident in connecting the children's activity and play to my new theoretical understanding:

This was a return to stage 3 [of imagination], I think, as he [Harrison] was enjoying the activity of making pieces for the felt set. (reflection diary, 25.5.2011)

I have changed how I interpret a play scenario through my new theoretical understanding. My practice of interpretation meant that I could understand the importance of imagination, and how I could support its development for the child:

Now I see the potential for any item to be used in an imaginative way and do not take away items as I used to. The use of the materials can also show signs of the girls being able to participate in object substitution, a component of mature play. (reflection diary, 8.3.2011)

Again, my newly understood practice of interpretation relied on my new theoretical understanding to recognise maturing play:

Looking back, I think the girls have gone to stage 4 as they have actually created something new from the original experience. The block building has changed and so the story line has changed. [I had read a story that had influence on their work and one girl was going on a holiday, also influencing the change]. (reflection diary, 15.7.2011)

In the following conversation with Allannah, Beth and Sarah, I was also reflecting on what my practices needed to be focused on. This episode turned out to be a starting point for their fairy play. I was indicating that I understood why getting details from them about their activity would help me extend their learning:

Elizabeth: *Can you tell me about your fairy castle?*

Allannah: *It's in fairy land.*

Sarah: *We have decorated it beautifully. Fairies are beautiful.*

Beth: *I like fairies. Do you like fairies? Fairies live in castles. That's why we built our castle.* (observation journal, 3.5.11)

I find that I am considering where the children are in terms of their “play” skill or ability. Are they actively participating in mature play, are they working towards play being the leading activity, or are they still in the experimental leading activity?
(reflection diary, 3.5.2011)

These thoughts indicate my further ponderings on my practices of interpretation from another play scenario:

These positions or stages give me the clues as to what I need to do to work with the children to support the development or learning in the given situation. (reflection diary, 14.6.2011)

I previously would not have bothered with extending this conversation to consider how I, through my practices, could support relevant learning. I would have left the girls to follow their own understandings:

When I started to talk to the girls [Allannah, Beth and Sarah] about what was happening [building fairy castles], they were providing me with more details of what they were doing and giving me some ideas as to the storyline so I was able to question them further and seek responses from them. So, there was a change happening within our relationship; they were able to verbalise the situation [fairy lands and the tooth fairy]. Therefore, they were starting to master their leading activity – play. (reflection diary; 20.6.2011)

Again, the following critical reflection indicates how I was becoming far more involved with the children's activity than I had previously. My thinking was always connecting to the new theory, and I was considering how the children were connecting to the elements of imagination to reach that of mature play and how I needed to act through my practices of interaction to support them within the social situation for their learning to occur:

We discussed how far away it [Sydney] was and how long it might take. (journal observation, 21.7.2011)

I found that I needed to focus on my practices of interaction:

At this point I was very conscious of connecting this activity of imagination to the reality of going to the Sydney Opera House. I know I was thinking of what I could add or do to support the learning and the development. (journal observation, 21.7.2011)

During this episode, I was very aware of the learning that was taking place amongst the girls and that I was able to contribute to it significantly. I was able to support the girls so that they could understand the learning that would develop from this play.

I become very conscious of using the correct terminology to fit the situation, of what I can do to support the learning (reflection diary, 21.7.2011)

I was very pleased to see how my interactions were supporting the learning that was taking place with the girls. This was an area that had certainly been neglected in my previous practice when using constructivist theory because I would have only briefly discussed the idea of play with the girls, given them a few brief comments such as “that will be fun” in response to Beth’s forthcoming holiday, and maybe have asked whether they were flying or driving to Sydney.

However, now I was very conscious of what learning was possible within this play episode. I considered what advanced mathematical concepts could be introduced such as time and distance, what language could be extended, what both girls could contribute from their own previous individual experiences of going on holidays. Consequently, these reflections highlighted my growing realisation of how important my role as the educator really was in focusing on the potential learning for them both within this play episode through my practices of interpretation and interaction.

I also found that my practices of interpretation and interaction were being influenced by the concept of mediation with tools and signs. I was becoming far more aware particularly of my conversations with children in order to support their possible learning and development. I was starting to understand the importance of the dialectic through my engagement with Vygotsky’s theory and the application of it to my changing practices. Vygotsky (1978) considers that mediation through tools and signs is an important component of his theory. For me to fully grasp the importance of my practices of interpretation and interaction when taking up cultural-historical theory from an insider perspective, I needed to understand Vygotsky’s (1978) definition of tools and signs so that I could understand my data correctly. According to Vygotsky (1978):

The tool's function is to serve as the conductor of human influence on the object of activity; it is *externally* oriented; it must lead to changes in objects. It is a means by which human external activity is aimed at mastering, and triumphing over, nature. The sign, on the other hand, changes nothing in the object of a psychological operation. It is a means of internal activity aimed at mastering oneself; the sign is *internally* oriented. (p. 55)

Mental development or learning is supported by the mediation or use of tools and signs. Signs are used by the child to master behaviour, which, in turn, helps to master the tool. Language, however, can be used as both a sign and a tool as it can be directed inwardly or outwardly. The educator uses the sign of language as well as other items or tools to support the child's learning, including supporting the child's individual use of language.

For further understanding of this concept, I focus specifically on language as a sign and a tool for both the educator and the child within this section on the social situation and will consider tools further in the next section pertaining to 'practices of tool adaptation'. However, for now I continue to focus on practices of interpretation and interaction.

My early reading focused on mediation with language (Karpov, 2006; Kozulin, 2003; Vygotsky, 1978) and I could observe that language being the main means of communication was necessary for the child to be able to participate within a social situation and thus enable the mental learning to progress. I was finding that I needed to focus on my communication with the child to support learning. Through my conversation with Harrison, I was able to place his play in context and thereby give myself a guide as to how to continue through my practice of interaction:

Harrison: *Would you like some pancakes? Do you want jam on your pancakes?*

Elizabeth: *Could I have honey, please? I really like honey on my pancakes.*

Judd: *But you haven't got any pancakes.*

Elizabeth: *Harrison is pretending to make me some pancakes.* (journal observation, 21.3.2011)

The following extract also details my practices of interaction through my conversations with the children, in supporting their learning opportunities:

Jordan: *There is a fire in the gaol. Get me out.*

Elizabeth: *What will you need to get the fire out, boys?*

Jordan: *Get the fire engine, Aaron!* (journal observation, 26.4.2011)

Again, I tried to focus on my conversation as part of my practice of interaction to understand how I might support the children:

Harrison: *I'm spotting them, I'm spotting them!*

Harrison: *The tent will go here.* [to Hayley]

Elizabeth: *Do you need the fire near the tent to keep warm?*

Hayley: *The fire is to cook.* (journal observation, 13.5.2011)

Language was also the means through which I could support the child's learning and development. I was becoming far more aware of the priority that I needed to contribute to my conversations with the children to support their learning and development. I felt that my following reflection of Judd was a starting point for taking on board the importance of the process of mediation through language – which was a practice of interpretation. As I commented, I previously did not focus so intently on the impact of my conversations with the child when working from a constructivist perspective:

Observations have shown that Judd does not do a great deal of talking while functioning in this area (the leading activity for Judd at this particular time was experimenting). I, therefore, will now need to concentrate on talking to Judd and encourage his verbal interaction while we work, which was an aspect of my work that I had never really focused on. (reflection diary, 26.4.2011)

After this episode with Judd, I spent some time reflecting on what my role as the teacher needed to be and how this related to my practices of interpretation and interaction. I had been reading Karpov (2006) and found that the clarification he provided about my role of interpreting and interacting with the children to be beneficial to my understanding. It was able to give me further guidance on the importance of mediation via either tools or signs and my role through my practices to support the children's learning and development:

My role needs to "clarify children's understanding" (Karpov,2006, p. 147), and this will involve being with the child as he works through a play situation – provide stories, discussion, set up spaces for him to experience differing roles. (reflection diary, 26.4.2011)

This provided clear directives on how to proceed with my practices of interaction.

I know I have to be far more involved within this type of activity when children struggle to extend their roles and interactions, either physically by acting out a role or at least by providing props to support the roles they are acting out. (reflection diary, 26.4.2011)

I then started to focus on this understanding of my role as the teacher through my practices of interpretation and interaction with mediation through language to help my communication with the children. I also started to focus on what the child was saying to gain further insights into the understanding she had. My following reflection was on my understanding of higher-order thinking or more advanced learning through my practices of interpretation:

I find that I now become very conscious of the scientific learning/more advanced learning that is possible in the teachable moment. I will now consider the child's position within the ZPD and how I, as the educator, need to position myself to support the potential learning that I have recognised could come. (reflection diary, 11.5.2011)

This was a new possibility for me. Although I had previously always considered the basic knowledge or skill that needed to be taught or learnt, I did not really consider that the child could learn the more advanced concepts at kindergarten. This was a new concept for me to take on board and it made me feel quite excited about the potential that I could reach with the children. I was aware that they were coming to kindergarten with more scientific knowledge that they had learnt from home, and yet I had not previously considered that I should or could be involved with this learning. Cultural-historical theory opened up this possibility that I must be involved. I was starting to note how I could use my understandings of the teacher's positioning within the child's ZPD to support the learning through my conversations with the child:

Elizabeth: *Thomas, think about the shape of your face. What shape do you think it is?*

[upper position] (journal observation, 10.8.2011)

Elizabeth: *I can help you use the tape to attach your legs [making a box robot].* [upper position] (journal observation, 15.8.2011)

Elizabeth: *Will your robot's mouth go under the tummy?* [under position] (journal observation, 15.8.2011)

This positioning encouraged differing ways of communication but still meant that I, as the teacher, was supporting the learning.

Although I was realising the importance of mediation, I did not always know how to go about using the concept of mediation to its greatest benefit. This could be seen in a reflective diary

entry I completed following an observation I had conducted of Harrison. Here, I was working hard to try to identify the degree of support I should provide:

I was consciously thinking of what I could or should be doing to support Harrison within this element, or do I just stand back and let him work by himself? (reflection diary, 25.5.2011)

I was struggling with my choices – practices of interpretation, or should I step in with my practices of interaction?

I know I was observing a mature level of play and I was aware that he was creating something new for his activity. To me, he was definitely functioning with play as his leading activity. (reflection diary, 25.5.2011)

I was being guided by my practices of interpretation:

I felt that apart from supplying materials if required and joining in the conversation as required, I was able to leave him to just experience this place for himself. (reflection diary, 25.5.2011)

My readings of Kravstova (2009) had informed me of the added element in development – that being the zone of potential development – and the new understandings of these positions I could use as a teacher within the ZPD had given me support as to how I could use mediation to really support the child's learning and development. I had become aware of the importance of supporting the children's learning and development by introducing them to more complex knowledge and learning. As I reflected on my readings as follows, it informed my practices of interpretation:

Previously I would have considered children too young to learn some information, difficult words and concepts. (reflection diary, 15.8.2011)

Again, my practices of interpretation had an impact on my practices of interaction:

Now with the newer knowledge on development, and the understanding that children can learn the “scientific concept” from the “everyday concept”, I find that I do not hesitate to give a more scientific concept, or give a more detailed explanation or word to describe the situation. I understand the concept of the zone of potential development – that which is to come. (reflection diary, 15.8.2011)

This conversation was a starting point through my practice of interaction as I established a context for Beth’s play so that I could open up possibilities for higher learning:

Elizabeth: *Where is your fairy boat going to sail?*

Beth: *We’re going to the Opera House*

Elizabeth: *Have you been to the Opera House before? You will be able to sail right up to the Opera House. I wonder what else you will see as you go?* (journal observation, 21.7.2011)

Previously, I would not have been involved with supporting the child to learn the higher, scientific understanding. My new readings were frequently commenting on the need for adult mediation as the following reflection stated:

My further readings have frequently commented on the need for adult mediation. I am finding that I will stay with the child, discussing what steps might be needed, encouraging the child to think through what he might do. This mediation can involve the physically showing what or how, it doesn’t have to be just verbal and I will now become involved in recalling processes as well as revisiting experiences to encourage the child to extend the learning that he has been involved in. (reflection diary, 10.8.2011)

This point was written in my programming diary when I used higher-order terminology:

We have been learning about our Australian animals. We know that some animals are nocturnal, we are all vertebrates, we are mammals and some animals are marsupials.

(programming diary, 27.5.2011)

And, again, in June 2011:

Skeletons – vertebrates – people, amphibians, reptiles. (programming diary, 3.6.2011)

I used to be satisfied when the lower-order thinking had been consolidated by the child.

However, I had now started to change my habits when working with the children as I was becoming conscious of my practices of interpretation and interaction. Consequently, I was becoming more involved in mediation with the children through the means of language. It was through language that I could really support their learning and development and I had become aware of the importance of this mediation in July 2011 when working with Judd. This new thinking is manifested in the following critical reflection:

I will have to go back to spending the time with him and talk about what he is wanting to do when he is building, talk about experiences he has had that might be able to support his continuing learning. (reflection diary, 20.7.2011)

I was applying the new learning I had gained from my self-study to positive situations in order to support the children's learning and development.

Another aspect of my role as the teacher being influenced by mediation occurred during my interactions with my assistant, Rhonda. Previously, I had had little discussion with her about theory or newer ways of working. Up to that point, she had mainly focused on children's skills. I found Rhonda very keen to be able to work in a different way with the children. I knew she was very skilled at telling the children pretend stories that always had the children enthralled. She was eager to learn about the process of imagination so that she could also be

involved. With encouragement and support from me, Rhonda was soon able to view a play episode and consider how we could work together as the teachers to support and extend the potential learning for the children:

Rhonda had discussed with them in some detail what they had done, and then asked them if they would like the stage turned into a fairyland. (journal observation, 3.5.2011)

We talked about the apparent lack of ability to imagine – and I explained briefly how Vygotsky links imagination to reality and that there are four stages to progress through, but for this discussion, only focused on the first. (reflection diary, 16.5.2011)

I saw this as possibly providing another means of supporting children's learning and development through imagination as well as enriching their learning. Consequently, we spent time discussing Vygotsky's theory and how I wanted to work with the children. My discussions with Rhonda led to the following reflection:

I had never really discussed theory with Rhonda, or to that matter, any other assistant I have worked with. So, for me to sit down and go into some detail is a very different way of working. (reflection diary, 19.5.2011)

Instead of just providing concrete items for the children's use, Rhonda also began to introduce items with multiple uses. We also discussed what items the children were continuing to use frequently within their play and consequently began to leave them out for the children. This was something that neither of us had really considered previously as I had always worked to a fortnightly program, and the previous teachers Rhonda had worked with programmed in a very similar way. We would now frequently discuss the learning potential within the play episodes that we were seeing develop with the children and would work towards planning and supporting that learning and development.

My role as the teacher slowly changed during the data collection time as I adapted my practices of interpretation and interaction so that I was more involved with the children through my discussions that I had with them within a social situation and mediation with the language that I used. I was also able to use my knowledge of the elements of imagination as a means of supporting their learning and development. Again, language was the main tool that I used to support this development, which facilitated the child's potential learning through my practices of interpretation and interaction within the social situation.

I was also participating in the play scenarios far more than I previously had when I was teaching from a constructivist perspective. I was now very aware of the potential to support the children's learning and development when I was present rather than just leaving the children to themselves. My self-study was demonstrating how I was applying my new theoretical understandings of Vygotsky's theory to my changing practices.

The next finding to be considered is that of practices of tool adaptation. I discuss this finding next because, according to Vygotsky (1978), cultural tools manifest from mediation with tools and signs.

5.3 Practices of Tool Adaptation

The second finding that became significant as a mediator to a teacher's practice when using cultural-historical theory was that of "practices of tool adaptation". I will define my understanding of cultural tools then present the data that demonstrates the significance of this finding for the insider when using cultural-historical theory to mediate practice.

Cultural tools are best described by Cole (2005) as being "an aspect of the material world that has been modified over the history of its incorporation into goal-directed human action. By virtue of the changes wrought in the process of their creation and use, artefacts are simultaneously *ideal*, (original version) conceptual and *material*" (p. 200). Cultural tools, as defined within this study, also include the definition incorporating tools specific to the child.

Plowman, Stephen, and McPake (2010) detail the inclusion of modern technologies in the understanding of cultural tools as follows:

Vygotsky's work begins with the premise that children inherit the cultural tools of the society in which they live, and then goes on to study this process. By "cultural tools", he means the ways of living in and making sense of the world that are shared by a society, ranging from technological resources such as clocks, cars, computers and cranes to ideas and concepts like mathematics, scientific theories and, most critically, language. Importantly for our research, technology is both a part of the context which influences children's learning outcomes and is one of the cultural tools which they make their own as they learn. (p. 42)

I have, therefore, included popular culture toys and artefacts that have been specifically marketed to children through media such as films and retail in the form of videos, DVDs, books, toys and food, with labelling associated with specific media. Information communication technological tools such as cameras, mobile phones, iPads and computers/laptops have also been considered as a main cultural tool within this context. These have also been included as tools as children are able to actively use the tools to support their learning and development.

I will now focus on the connection of cultural tools to the child. As I progressed through the data collection stage of the project, I realised that the introduction of cultural toys and, in particular, popular culture toys, had become a catalyst to create the social situation for the higher learning of the child to develop. This had not been an understanding I had gained from the previous constructivist framework under which I worked. In fact, I had understood technologies and popular culture to be items that had little educational relevance. The children could not construct their own learning and, with regard to cultural items, they had no role that was applicable to my programming. In the following extract with Hayley and Gemma, I

demonstrate how I was understanding “practices of tool adaptation” from a cultural-historical perspective:

Hayley was playing with Reed, Charlee and Emily. By their actions, I asked if they were camping. Hayley replied that they were. The girls were using Hayley’s little pony figurines. (journal observation, 23.6.2011)

And later:

When Gemma arrived later in the session, she broke the activity up, telling Hayley to join her as she [Gemma] did not want to play with the other girls or play camping; she had her ponies to play with today. (journal observation, 23.6.2011)

Previously, I had rejected these specific types of toys, such as My Little Ponies™, because they were usually associated with a fast-food outlet, where they came with a particular meal deal, cartoons and the newest movie released for children. These particular toys were often easily broken and in children’s favour for a short time only. I stated in my reflection diary:

I have previously considered some of the activity with the McDonald™ toys and cars to be quite unproductive, certainly un-educational. (7.6.2011)

I did not like the way the children frequently wanted to only play with these toys. I thought there was more value in children using what was available within the kindergarten as I had chosen equipment and materials with an educational emphasis rather than playing with these “corporate” toys. This was consistent with my use of a developmental constructivist theory because I believed there was no perceived educational value associated with the toys the children were interested in. I did not see children use them in developmentally appropriate ways within their play as the toys reflected only a very specific way of playing or a role to be played, and did not appear to support the development of any deficit that may have needed support (Bredekamp and Copple, 1997).

I often felt that they were not suitable toys for the age group that the toys were being marketed towards. I had attended professional development seminars over the previous 10 years on how to incorporate the use of these toys into my programming and how the children could construct their own learning using these toys, but I never made any tangible connections to the educational value of them even through this training. I saw the toys as purely promoting commercial enterprises rather than promoting educational values that I thought more appropriate for the kindergarten.

However, with my increasing use of practices of tool adaptation, I began to notice that when a child brought in a popular culture toy, other children would gather around to discuss, for example, who had the same toy, who had seen the movie, who the favourite characters were, thus creating a social situation in which the toys became the tools for learning. The following extracts are examples of when I noticed that the popular culture toys became the catalyst for a social group to occur and so the social situation of development was created. This, then, was the initiation for me to consider my practices of tool adaptation.

Dylan, Flynn, Thomas and Jared brought their superhero figurines in today. They later played with them outside in the large mud puddle they had made. (journal observation, 9.6.2011)

And again:

The boys had brought their cars in again today and went to the blocks together to build a racetrack. (journal observation, 11.5.2011)

I would have previously told the children to put their toys away as I did not want the children to only focus on the toys brought in from home. From a constructivist perspective, I had the perception that the children would not participate with any other activities available to them when at kindergarten if they focused solely on the popular culture toys. However, since learning about Vygotsky's theory of the importance of imagination (Vygotsky, 2004) and the

necessity of creating a social situation (Kravtsova, 2009; Vygotsky, 1978), and, in particular, trying to understand the influence of the child's particular culture via tool mediation (Vygotsky, 1978), I started to consider the value of the toys the children were bringing into the kindergarten, and how these toys could be a tool to support the child moving through the elements of imagination, in addition to supporting and sustaining the social situation. Another reading that had great impact on this changing understanding of practices of tool adaptation was by S. Edwards (2011), as I commented on in a discussion with Paru:

I have certainly had to rethink this idea after reading Suzy's article on *Thomas the Tank Engine*. (interview transcript, 7.6.2011)

I began to see how the children were able to use their popular culture tools to connect to their reality and then extend their play from what they knew. I was able to clearly see the connection with the reading of *Lessons from a really useful engine...Thomas the Tank Engine* (S. Edwards, 2011) within my kindergarten because so many of the children were bringing in these particular trains as well as superhero figurines on a very frequent basis. I was seeing them act out the stories that they had access to from books and the television programs, as well as create their own storylines with friends at kindergarten. The superhero figurines would go to the park, would play with their pets, would go camping in the way the children would play and act. From these everyday activities, the children would start to extend what the superheros did. I was seeing the children participate within the stages of imagination while using their popular culture toys.

The following reflection points to my changing attitude to accepting these popular culture toys into the kindergarten:

Jared, what do you think you will do with your Spiderman today? Would you like to go and paint a picture of him, or use him in the block building with the other boys? (journal observation, 9.6.2011)

I had started to accept the children bringing toys into kindergarten more readily by the middle of the year and I gave them opportunities to use them as they wished. I had begun to understand the importance of these tools for the children in creating their social situation of development, and it was important for my role to support this aspect through my practices of tool adaptation.

Today some of the boys had some small McDonald™ type toys that they had brought from home. Dylan had also brought in some cars which he has been doing for the past three weeks. (journal observation, 7.6.2011)

I was starting to change my attitude towards popular culture toys as I reconsidered my practices of tool adaptation:

Usually we have encouraged them to put them away so they don't lose the cars, get broken etc. I have not been worrying about the cars, or toys at present, letting them include them with their activity, usually involving block work. (reflection diary, 7.6.2011)

I was working on changing my attitude towards popular culture toys. I had been doing extensive reading on imagination (Vygotsky, 2004) and was attempting to connect the understanding of imagination with the children's learning and development. Again, this is evidence of embracing the new theory I was learning about. I was seeing the social situation with the introduction of the toys, and I could certainly see that the individual child had a strong interest in the toy, so as I was considering the linking of these differing elements. I made the following critical reflection:

I am trying to find the teachable point to some of the toys brought in, or see how they can be tied in with the child's interests at kindergarten. (reflection diary, 23.6.2011)

There were still times, however, when I struggled with the concept of using these types of toys, as I noted in my reflection diary, 8.6.2011.

However, today when the small toys came out, I looked at them and, with old habits hard to ignore, I asked the boys to put them away till later. I think I will need to do small steps at a time with some of these toys. I'm not sure if the issue is the actual size of the toys – some are very small – or the thought of what is behind the toy – usually a connection to a movie. However, I have seen improvement in seeing the teachable moment in the activity of the girls, so there is still hope!

I was spending a great deal of time contemplating how I could support the child to reach her higher learning potential through the activities that could be connected to the popular culture toys. Previously, I had never given these toys any consideration that they might be a means of encouraging a child to enter into a learning situation. I was beginning to see the importance of using tools to encourage a social situation of development, so my practices of tool adaptation were able to focus on this occurrence. However, I was now considering the possibilities of when higher learning could occur. I was seeing the social situation being established around these toys so I felt that I needed to consider my role to support this learning.

I had started to accept the idea of the children bringing in their toys and was no longer telling them to put their toys away after they had been shown to their friends. I was starting to encourage the children to use the toys with activities such as block building and painting. This change in thinking was again evident in another critical reflection as follows:

I would never run with superheros and such, but here I am acknowledging it and finding out about the movie and supporting the activity that was occurring from the introduction of the animals and the transfer to the idea of *Madagascar*TM. (reflection diary, 13.5.2011)

Another example of being challenged by the acceptance of cultural tools, and in particular, popular culture toys, was when Harrison and Hayley introduced an influence from the film *Madagascar*TM into their play scenario. They did this using the felt African safari play mat that I had set out as a support to the camping theme in which Harrison was engaged. Another example of how I was slowly starting to change my thinking is in the following extract when I had started to observe Harrison and Hayley again. I was starting to realise that I needed to become more involved with the play scenario, but since I did not know the movie, I needed to find out about it, so I entered the scenario by asking the following questions:

What are the names of the animals?

Are they the animals from The Lion King (movie)?

Who are the people?

Where are the people driving to?

Where are you going to put the tent? (journal observation, 13.5.2011)

I was conscious of the movie being a very popular one with many children, and by asking the questions, I was trying to gain further understanding so that I might be able to support the social situation by using the toys as the tools that would, in turn, support the learning that would be possible from this play scenario:

I put out the large sheet depicting a jungle scene with a number of African animals, a tent, campfire, two vehicles, and two people (journal observation; 13.5.2011)

I had wanted Harrison to be able to extend his play through his imagination. I had been able to see the importance of this mat as an extension to Harrison's original play, thereby demonstrating a change in my practices of tool adaptation:

Harrison noticed the tent in the collection and went to the activity with Hayley. He spread out all the pieces and quickly put the tent, campfire and people on the sheet, and then he started with the animals. They started to give some of the animals' names: Nafissa? Fossa? Maurice? I asked were they the names of the animals in *The Lion King*TM. Harrison replied that they were in *Madagascar*TM. (critical reflective diary, 13.5.2011)

I was finally starting to see how I could support the children's learning and development through the children's popular culture toys and other outside influences.

McDonaldsTM is an important place to go to eat for many children and I was able to see past the consumerism of McDonaldsTM to find the teachable moment for the following group of children. I felt that this was a major step forward in my acceptance of the impact on the children of this cultural institution and the toys that children frequently obtained from it. This acceptance of popular culture toys became a major learning point from my self-study. I was able to see my practice of tool adaptation being able to use these provided tools as a catalyst for further learning that if I had ignored it, as had previously been the case, a learning moment would have been missed. The following observation really shows this changing attitude:

The last three sessions have seen the children talking about McDonaldsTM. They haven't brought any toys in, but Ryder and Angelina started it off by pretending to go to McDonaldsTM to buy some food and were asking for any orders. (reflection diary, 2.6.2011)

I was able to see past the consumerism and support the learning through this McDonaldsTM play as part of my practices of tool adaptation. I was able to consider the context of McDonaldsTM as the tool to drive the play.

I joined in the activity by considering using it to talk about some maths concepts – previously I would not have consciously thought about what learning could take place

and would not have turned it into a “teachable” opportunity. (reflection diary, 2.6.2011)

Along with the popular culture toys, I was also finding that books were being used as tools within a social situation to support the children’s learning and development. I had read a book to the group on a previous session as a follow-up to another child’s interest. However, with the following observation, I was able to see just how much of an influence books could have on children’s elements of imagination.

They [Beth and Sarah] acted out fishing and both caught some. Beth commented that she had caught an octopus – we had read *Meg at Sea*TM (a story book about a witch named Meg and her cat called Mog) – and Mog had caught an octopus in that story. (Again, connecting to the reality of the story we had read). (journal observation, 21.6.2011)

I was starting to consider what was available within the kindergarten that I could make available to the children that would support their play scenarios as a practice of tool adaptation. As well as books, I was starting to consider other materials that could serve as tools. I was becoming more aware of how my new consideration of tools was influencing the children’s play. I was also leaving items out that had been used for specific experiences so that the children could re-use the items for furthering their own learning. The following example illustrates this point. It shows Beth and Sarah returning to use the cut-out feet (we had drawn around some children’s feet and laminated them for a measuring experience at an earlier session and these feet were still available to the group) for use with their block building:

They made frequent use of fabric, cut-out feet and cardboard cylinders that were available. (reflection diary, 6.4.2011)

By the end of the data collection period, I was frequently noticing how cultural tools were being used within a social situation in such a way as to be supporting the children's higher learning. I was not necessarily buying new tools, but considering how "tool adaptation" could be used through my practices to support the higher-order learning.

Another aspect of cultural tools is the importance placed on using language as a mediator with tools and signs (Vygotsky, 1978). I have already given some detail on this importance within the teacher's role in this chapter, but I will now extend that original idea further. Language supports the social situation that is necessary for learning and is also necessary to support the mediating effect of the cultural tools, which include the popular culture toys and technologies that are used by the children. I have been considering how I, as the teacher, can use my language to support the higher learning of the children. I realised how this use of language was an important element of my enactment of my new practices. I discussed my thoughts regarding these popular culture toys with Paru as I tried to consider how these particular forms of cultural tools impacted on the children, and how I needed to respond compared to how I previously felt:

Previously I would look at McDonald™ toys as worthless. If children brought toys in from home, I was more concerned with them being lost or broken, both causing distress to the child, so would usually tell the child to let Mum take it home or leave it in the bag. I would basically try to ignore the toy unless it was a birthday toy. However, when I look through the cultural-historical lens, I must consider the influence of the toys as they are very much a major influence in the child's life. The toys frequently suggest the role the child will act out when playing and since I want to support the child's development through this activity, I must accept the importance of the toys. (interview transcript, 20.4.2011)

My discussions with Paru supported my changing attitudes as indicated in the following observation. I was trying to look at the toys brought in by the children as a way to support their development, which was demonstrating my increasing acceptance of the toys as a cultural tool for mediation. Again, a conversation with Paru enabled me to talk through how I could support learning through the use of these toys:

I think we'll have a relook at that [previously asking children to put the toys away] and maybe we can sit down together and have a bit of a discussion about it. Okay, boys, what are they (the toys/superhero figurines) going to do? What can Spiderman™ do? Let's sort of have a bit of group discussion with those boys about why he is so good. (interview transcript, 20.4.2011)

My conversation with Paru, however, as to how to support the child's development was still somewhat limited as is evident from the following observation as I really had limited ideas myself on how to expand the child's possible learning through these types of toys:

Today I had two shifts in my attitude. Jared had his Spiderman™. I did not tell him to put it away. I suggested that he might like to paint his Spiderman™, which he didn't; he chose to use him with the block activity for a while. (reflection diary, 9.6.2011)

Along with my changing attitude to the popular culture toys, I was starting to rethink my attitude to technologies such as flip cameras, iPads and computers. Previously I did not consider that they had any role to play within a kindergarten setting, and I strongly rejected the use of these tools within my program in any way. However, I had been reading several articles (Bird, 2011; Fler, 2011; NAEYC, 1997; Verenikina & Kervin, 2011) that challenged my thinking about the use of such tools within the kindergarten environment. I consequently introduced the use of flip cameras; first, for my own use to revisit the scenarios that both the children and I had taped of their play episodes. For example, Harrison and Hayley playing with the floor mat and Beth and Sarah block building. The children enjoyed watching

themselves on the camera, but I decided that the next step would be to bring the laptop into the room so more children could see what they were doing, and maybe through the mediation of what they were seeing, gain more ideas to extend their learning. The following extract shows the pinnacle of this change when I actually did introduce the laptop into the kindergarten room:

Rhonda: *Girls, come and watch the video we made. Elizabeth is getting it ready for us.*

The girls gathered in front of the laptop and the other children joined them as well.

(reflection diary, 19.5.2011)

I later reflected on this event with the laptop, questioning how I needed to use my conversations with the girls to really support their learning and development. I was not feeling very confident with the use of the technologies, so I was still unsure of the best way to proceed so that the technologies were used to mediate the learning as well:

I would never have done this type of documentation before, partly because the technologies were not as user friendly (my lack of skill!). Maybe we need to revisit with the girls only in a quieter time and then ask more questions or encourage them to reflect on what they had done. (reflection diary, 19.5.2011)

A critical and enlightening observation occurred during the replaying of some footage I had taken of children working with the blocks. I observed the lack of use of language as a form of mediation, so with my new understanding of the need to support learning through mediation, I used the flip camera as a support for my observation. I was then able to consider what I should say to the child to support her learning and development in a way that I had never considered or explored previously. In this way, I was engaging with my new theoretical understanding and consequently applying this new knowledge to my practices. I was certainly changing my attitudes towards the use of technologies and could see the potential of their application in working with the children and the mediation that I would be able to introduce

with these cultural tools. These newer ideas were expressed in the following reflective comment after viewing videos taken by the children:

I have been watching the videos on the flip camera. (reflection diary, 8.6.2011)

My use of the flip camera as a changing practice of tool adaptation impacted on the children's play. The children enjoyed using the cameras to video their play and would ask for help to review what they had done. This excitement had not appeared when I put the laptop into the room for the children to initially watch the videos on the larger screen. I was interested to note that the children were very quiet watching themselves on the larger screen compared with watching on the flip camera. It wasn't until later that they started to refer back to what they had seen.

I questioned my use of these technologies within the room and how it impacted on my practices of tool adaptation. Who was getting the most benefit from using them? I suspected that it may have been me given the following comment in my reflection diary, 19.5.2011:

I still have to really think about how I will continue with using the video evidence with the children. There are the practical issues that I just don't know how to use this equipment at an advanced level to enable me to feel confident. I also think that I will be able to do more talking/discussion with the children to enhance their learning.

It is also interesting to me that I did not have a problem with using CDs or cassette tapes with the children. These technologies were used frequently for music, listening games and stories, and I was quite happy to encourage the children to make the most of opportunities to use these pieces of equipment. These were older technologies that I somehow considered acceptable for children in my constructivist way of thinking. References to these types of technologies were frequent throughout the program;

We have been having fun listening to our sound songs. (programming diary, 2.5.2011)

We have been listening to the songs and stories on our new CDs. (programming diary, 28.7.2011)

We participated in a sounds story, where we listened to the sound to tell us what was happening in the story. (programming diary, 2.8.2011)

By September 2011, I was starting to note an extension to the use of technologies, where I have added the following:

We have been using different technology at kinder. We have been able to take photos with the camera. We will be able to make a story with our pictures. (programming diary, September 2011)

Along with my new understanding of the importance of mediation with cultural tools, my readings were frequently referring to providing a “rich environment” for the children (Vygotsky, 2004) that could also support their learning and development via tool mediation. Vygotsky talks about a rich environment as one which provides the individual with many opportunities to explore differing experiences and opportunities:

The creative activity of the imagination depends directly on the richness and variety of a person’s previous experience because this experience provides the material from which the products of fantasy are constructed. The richer a person’s experience, the richer is the material his imagination has access to. (Vygotsky, 2004, p. 14)

This led me to thinking about what a rich environment might look like within a kindergarten environment and how it would impact on the learning and development of the children. How could I, as the teacher, through my practices of tool adaptation incorporate my communications to also support their learning and development? This thinking is evident in the following critical reflection:

I have not as yet found an actual definition by Vygotsky, but the dictionary definition of “rich” includes copious, abundant and ample. Consequently, I feel that I as the teacher need to supply, set up and contribute to a great many experiences that cover a wide range of topics, themes and skills opportunities. I also feel that the rich environment can include the rich interactions – verbal and physical – that can be incorporated within the environment and within the experience. (reflection diary, 22.3.2011)

My thinking about providing a rich environment was also reflected upon during the following conversation with Paru:

I, as the teacher, must be able to supply the rich environment, the artefacts, the physical and verbal support and motivation to enable the child to move his development/learning along. (interview transcript, 1.4.2011)

I also explored the use of natural materials as a source of providing a rich environment, as indicated in the following extract:

With all the rain we have had, there are good puddles around our weeping mulberry trees and at the end of some fencing. The children have been enjoying poking sticks into the puddles around the trees. Today the boys were having so much fun, there was great cooperation happening, conversation happening and experimenting. I decided they could be left alone to the delights of mud play. (reflection diary, 9.6.2011)

I was also considering the use of natural materials as an extension of tools that could be made available to the children and that supported the understanding of providing a rich environment for the children. Occasions such as this also supported a social situation of development to form and, again, I noticed that the quieter children were able to have an equal voice:

The group – Dylan, Flynn, Thomas, Ethan, Milo and Jared – spent over half an hour busily working, collecting leaves, and twigs to use in the activity, and getting dirty.

(journal observation, 9.6.2011)

Previously, I was not as concerned with how rich the kindergarten environment was for the children. I would put out a variety of experiences and a variety of materials that focused on the goals I had planned for the children. There was little available for the children to use in their own decision-making about their play scenarios. The following reflection indicates my thoughts on using cultural items as tool mediators to support the learning and development. I was finding that I was starting to put a greater variety of items out for the children to use in their activities:

I am becoming confident with my choices that I put out. I will choose some objects that are quite specific in their use, but I will also put quite a great deal of differing types of material out that allow the children to participate in object substitution – a sign of mature play. (reflection diary, 4.5.2011)

My changing attitude to what was being made available to the children was also evidence of my understanding of the importance of Vygotsky's developmental method, which included the elements of imagination. I was also considering the importance of object substitution, which I now know to be an important element of mature play (Bodrova, 2008; Bodrova & Leong, 2011; Elkonin, 2005b; Vygotsky, 1976). The following observation is an example of items I was providing for the children to use and indicates my understanding of the practices of tool adaptation:

Today Sarah and Beth decided to play in the fairy world. We have materials, glittery pipe cleaners, small wooden circles, two dragons, three flying horses, three fairies and the variety of small wooden blocks that were being used previously. The girls started to play with horses and fairies. (journal observation, 10.5.2011)

I was seeing the higher level of play from the children with the increased variety of materials being made available as tools. I was noticing that the materials were providing their own source of mediation and supporting the children's learning and development through the discussion I had with them and the discussions the children had with one another about how to use the materials available, in addition to what role would be supported with the inclusion of the materials. I could see that the social situation was evolving with the use of the variety of tools. I was able to support the children's learning through my choices, as the following reflection comments:

I was frequently adding items that let the children choose what they were going to be.

I have now started to consider if an item put out is going to allow the children a choice of what it will be rather than a specific thing only.

My practices of tool adaptation meant that I looked for items that would have multiple uses.

By doing this, I find the children are using the materials for a very wide range of items. Previously, I would usually only consider one maybe two uses for an item, or would look for something actual. (reflection diary, 6.4.2011)

I was finding that I would be seeing the children using the tools for a greater variety of uses. These observations, similar to the following, were then used by me as a catalyst for extending the range of tools that I made available as well as entering into conversations to support their learning. Previously, from a constructivist perspective, I would not have considered the possibilities available to me to support the children's learning through the mediation of a variety of materials and tools:

Beth found the two "s" shaped blocks. These [blocks] will be [used] to make a "block thing" you keep the icy, freezy fish." (journal observation, 21.7.2011)

The understandings I gained of the level of higher learning that was possible using my practices of tool adaptation with the cultural tools supported, in part, an answer to my quest to find out how the uptake of cultural-historical theory would mediate my practice. It came about as a result of my self-study to engage with cultural-historical theory.

The final finding that supported my uptake of cultural-historical theory to mediate my practice was that of time. Time was particularly prevalent within the theme of the developmental method within Vygotsky's framework for general psychology (Cole & Scribner, 1978; Davydov & Radzikhovskii, 1985; Vygotsky, 1987; Wertsch, 1985a).

5.4 Practices of Temporality

"Practices of temporality" connect with the developmental method, which comprises Vygotsky's framework for general psychology. Time appeared to be significant to my thinking as within this analysis there were two lines of development coming to the foreground that were immediately impacted on by time. The first line of change connected to time was concerned with the children's development and learning through the developmental method. The second line of change became evident through the application of my new practice as I worked with the children over periods of time. When considering the importance of the developmental method, time could no longer be based purely on days or weeks, covering the children within the kindergarten group, but became very individualised for each child. Consequently, I began to notice how my practice was changing over time and how I was recognising the importance of time. I will now present the data pertaining to practices of temporality and how the application of the new theory mediates my practice.

Previously, when working within a constructivist framework, I would plan on a fortnightly basis. However, as I proceeded to incorporate Vygotsky's theory into my work, my changing concept of time meant that I focused on how I could support the children's learning and

development, and not “box” their learning into a specific time frame. This is evident from my comments in June:

Previously I would have thought “We did that last week, 2 weeks ago, and I don’t really want to revisit it.” (reflection diary, 14.6.2011)

I had started to change how I wrote up my programming diary, and it wasn’t until I looked back that I connected my changing vocabulary to my changing practice of temporality. This consequently became an initial sign of the importance of temporality to my work.

Within my program, I started to use words such as:

We have continued [to play in the restaurant]. (programming diary, 20.5.2011)

We are going to continue [with learning about our bodies]. (programming diary, 2.9.2011)

We have nearly finished [reading the Meg and Mog stories]. (programming diary, 28.7.2011)

Previously, I would not have used such words as “continuing” or “nearly finished” when I was planning on a fortnightly basis. The activity was noted and why it was important, but there was never any thought given to it possibly continuing beyond its originally scheduled duration.

This shift to a practice of temporality was particularly noted for Hayley, as she had been involved with Harrison’s camping theme, but she also wanted to pursue her own camping scenario as indicated in the following comment:

I am now able to work with the individual child when it comes to his/her progress through the stages of imagination. I was able to see that this revisiting of camping was still significant for Hayley, so I actively encouraged it. (reflection diary, 14.6.2011)

I started to see that I could not push the child along with her learning as I had previously tried. I began to understand that I needed to provide the children with the necessary time to fully explore their new learning and development. I reflected on this issue in a conversation with Paru:

I know that a child should get to where play is his leading activity, but I also know that it will take time for that to happen. (interview transcript, 20.4.2011)

The developmental method encompassed the differing elements of imagination that the child needed to progress through to reach the position of mature play, where play then became the leading activity for the child and the position where the child could extend the learning available. The developmental method also encompassed the importance of my practices of interpretation and interaction, practices of tool adaptation and practices of temporality to support the child through the elements of imagination as well as the positioning of myself within the child's zone of proximal development. These concepts were discussed extensively in Chapter 2.

I started by considering how I would embrace the challenge of following a child through the elements of imagination as I was not sure how long that might take. I had to totally change my way of thinking when considering the developmental method. Consequently, my old ways of planning on a fortnightly basis were discontinued, and I followed the children's lead in their interests during the early stages of data collection, as is evident in the following comment:

I know I was very aware of Harrison connecting this activity to his reality of his own experience of camping as well as to the experience that had been set up previously by me as the educator as several children were going camping on the long weekend. (reflection diary, 21.3.2011)

This abandonment of time limitations is further supported by the following observation:

Today Harrison revisited his camping theme. When we went outside, he came up to me and said he wanted to go camping again. (journal observation, 27.4.2011)

I was becoming aware of how children were holding on to an interest that continued over several sessions; they then might leave it for a week or two, before returning to it again. I was starting to understand how the children needed time to progress through the different elements of imagination, and I was not going to try to rush them through as previously would have been the case when planning on a fortnightly basis. I could see that even if I followed through with a theme for another fortnight, I would have never gone longer than that, which would have removed any chance of the child returning to that same interest at a later date. This changing practice of temporality was considered in the following reflection:

I would not have supported the continuation of a theme as I am doing now; individual objectives would run for two weeks usually, occasionally up to four and were not around a theme as Harrison is doing. (reflection diary, 27.4.2011)

I was becoming aware of the importance of time for the child as well as for myself as the teacher. I needed to allow the child time to continue the learning and development available through her interests as well as for what I had planned for her. I found that by planning with the child's interests taken into consideration, her interests could continue for a number of weeks, if not for a whole term. The child was able to come and go with her interests. This was particularly evident with both the play of Harrison, with his interest in camping – as demonstrated by the programming diary extracts from 31.3.2011, May 2011, and 3.6.2011 – and the interest of the girls, Sarah and Beth, in their block building of fairy worlds and fairy boats. My programming diary references the fairy play as commencing from March 2011 and happening again on 20.5.2011 and 21.7.2011.

I had initially become involved with Harrison's interest in camping, which supported the development of the social situation within which his higher learning could take place. I was

also very aware that Harrison was still involved with the play that he had started in March, as I again refer to in my observation journal:

Harrison came in today and asked for his felt pieces within 15 minutes. He started back on the theme he and Hayley had been acting out on Friday. (16.5.2011)

I was able to continue to support Harrison with working on some felt pieces that he had made to go with the large felt mat that he had been using. I had reflected on how to support Harrison earlier in the year in a conversation I had with Paru:

With my still limited knowledge of imagination, I was focusing on how Harrison was connecting his previous experience to the action [camping] that was happening. I was far more aware of where I wanted him to go, reach/participate in a mature level of play, to broaden his activity. (interview transcript, 20.4.2011)

My initial understandings were only seeing practices of temporality through the child's development, and what I wanted the child to achieve, but there was little grasping of the concept that I had to support and provide the unbroken time needed to achieve this.

Again, I noted that the time frame Harrison was employing within this experience was still continuing:

Harrison again came back to the felt today, but drew a kangaroo and some grass. He again spent about half an hour with the activity then folded it up and put it away. (journal observation, 1.6.2011)

Previously, I would not have had any understanding of the importance of the time frame associated with this activity and how it connected to his development and learning. The longer he was involved with this activity, the more he was developing his play through the stages of imagination to reach mature play.

My changing practices of temporality meant that I was making tools for learning (for example, materials) available for longer periods of time. This is evident in the play of Beth and Sarah. Previously, I would only have had the tools to support the fairy play out for a month at the most – definitely for no longer than six weeks. I was becoming very comfortable leaving items available for lengthy periods of time as I could see how the children were returning to the materials and interests and frequently using them in different ways:

This was when the theme of fairies appeared and consequently remained for the remainder of the term. (reflection diary, 22.6.2011)

The following observation reinforced the way my thinking was changing when I saw Beth and Sarah return to the block building and start to build the fairy boat. I could see how the tools that I had made available were being used in different ways. I could also see how important time was for the children to continue to explore and make their own meanings from what tools were available:

Sarah used the cut-out feet for fans (journal observation, 3.2011) and in June the feet were used to represent a swimming pool. (journal observation, 22.6.2011)

Harrison used the tyre and wooden blocks for the campfire, a green plastic plate for the lettuce, and a piece of corn became the chicken. (journal observation, 21.3.2011)

[These had been used the previous week by other children for a camping experience, but Harrison had not been involved.]

I was starting to appreciate how I needed to allow the children the time to progress through the elements of imagination as I watched the girls start to extend their fairy theme by connecting it to experiences from home:

Today Beth and Sarah went back to building. They built a rectangular building to start with and after 10 minutes approximately, the conversation turned to building a fairy boat. (journal observation, 21.7.2011)

Time was becoming an important aspect for my uptake of cultural-historical theory and how it was mediating my practice. I was starting to understand that the children needed to be given the time to progress through the elements of imagination, and that I needed to support this progress. To facilitate this eventuating, therefore, I had to change my practices regarding how I planned and organised the room and the tools I needed to leave out for the children to use for given periods of time to explore their play:

Previously I would have thought that if I didn't change items every fortnight, I was not really doing my planning very well. However, I now know that children need time to revisit their work as they are able to apply new understandings to what they are doing. (reflection diary, 22.6.2011)

The following reflection also highlights my changing thoughts about my practices of temporality, and how I was changing from the rigid timetabling and expectations that children only needed the two-week window of opportunity that I had previously provided to support their learning and development:

These days I am not driven by time (rigid planning), but allow the child to remain within his leading activity of either experimentation or play as required. (reflection diary, 27.4.2011)

By the end of the period of data collection, I was able to articulate my newly developing understandings of time to Paru. I was able to discuss the two elements of time that I now recognised as being necessary for the children's learning and development, as well as the impact on my practice as the teacher:

“Looking back at this now, I know the importance of time, for me as the teacher learning about these new ideas, and how I need to give the child the time to be able to progress through the elements of imagination. (interview transcript, 6.10.2011)

I could see my reflection again on the influence of my practices of temporality on my actions as the teacher as well as how these practices impacted the children in the following extract:

Since I now have the knowledge of play being a leading activity, and the knowledge that the child has several elements to go through to reach this final stage or achievement, I know I have to give the child time, the opportunities to experience and experiment with a wide range of materials. (reflection diary, 29.9.2011)

My reflections during the data collection phase kept referring to the changing practices of temporality and how these changes were influencing both me as the teacher and my methods of responding to the support required for the children’s learning and development. My reflections also led me to consider how time impacted on the children’s learning and the need for them to progress through the elements of imagination. Overall, through my critical reflections, I discovered that it was easier to consider my role as the teacher through my practices of temporality when attempting to understand how these findings would mediate my practice when using cultural-historical theory from an insider perspective.

5.5 Conclusion

In this chapter, I have reported on the findings in answer to my research question: What does the uptake of cultural-historical theory involve from an insider perspective, and how does this uptake mediate an educator’s practice?

The findings identified three main concepts that should be given priority from an insider perspective when using cultural-historical theory to mediate practice. They are (1) Practices of interpretation and interaction; (2) Practices of tool adaptation; and (3) Practices of temporality.

Throughout this chapter I have argued that these are the main concepts to understanding the uptake of cultural-historical theory that will mediate a teacher's practice from an insider perspective. These concepts must be understood as dialectically related rather than as separate components because each concept has an impact on the other concepts. This interdependence of the concepts will form the core of my discussion in the next chapter.

In this findings chapter I have also indicated how each of these three concepts relates to core ideas from Vygotsky's theory, which include the developmental method, the social situation of development, and mediation with tools and signs. In the next chapter of the thesis, I will discuss in detail how these three concepts support each other within a dialectical relationship and how this relationship impacts on the application of cultural-historical theory to the mediation of my practice.

Chapter 6

Discussion

6.1 Introduction

This chapter discusses the findings from the research I conducted into answering the question: What does the uptake of cultural-historical theory involve from an insider perspective, and how does this uptake mediate an educator's practice?

My new understanding of cultural-historical theory, in terms of the three practices of interaction and interpretation, tool adaptation and temporality, created conflict with my previous conception of what it was to be a kindergarten teacher. It took time to fully comprehend this change, as well as consider and re-mediate my practices. These changes that came about aligned with the characteristics of self-study as my motivation was "initiated by and focused on the teacher in relation to the others who are our students" (LaBoskey, 2004, p. 820). I was facing a challenge to my theoretical understanding, the way I worked with the children, my interactions, my setting up of the room, my planning, and even the way I supported my assistant.

Another major issue that I faced as the teacher was giving myself the time to accept this new theory. I had to try to create my own social situation of development; this included university staff, my assistant and critical friend as I attempted to understand and internalise the theory. A. Edwards (2007) explains that "there is a relationship between the intermental (collective and external) plane of activity and the intramental (personal and internal) plane" (p. 86). I found that I was attempting to understand each part of cultural-historical theory in isolation, initially, rather than seeing all sections as being interrelated because when I commenced the study, I did not have a good understanding of the dialectic. My readings of the new theory were signposting the dialectic, but I was not understanding the significance of the dialectic for my uptake of cultural-historical theory. I also found that research on teachers taking up this

new theory was usually focused on a single aspect as well (Cutter-Mackenzie et al., 2009; Duncan & Tarulli 2003; S. Edwards, 2005, 2007a, 2007b; Flear & Surman, 2006). However, over time, I was able to see the dialectic operating as I worked with the children and put into practice the new understandings gained from my self-study of cultural-historical theory.

Since I have framed this research from the paradigm of the insider perspective, the findings outlined in the previous chapter that have led to the development of the concepts of the practices of interpretation and interaction, practices of tool adaptation and practices of temporality as related to using cultural-historical theory to mediate practice have become evident to me. This understanding of the role of the practices of interpretation and interaction, the practices of tool adaptation and the practices of temporality by the teacher now highlights the importance of the teacher's role for the child's learning and development. It also places the teacher's role within these three types of practices as a pivotal concept in the dialectic pertaining to Vygotsky's general framework for psychology that leads to the child's learning and development. This is because I now know through my embracement of Vygotsky's theory that the teacher can bring all three practices together to provide the optimal environment for learning and teaching.

This study is important because existing research has not examined the use of cultural-historical theory in practice from an insider perspective. Most research in this area has been conducted from the outsider perspective (S. Edwards, 2007a, 2007b; Flear & Robbins, 2004; Nuttall & Edwards, 2004; Wood & Bennett, 2000). This means that little is known about how teachers from an insider perspective experience and think about transitioning from Piagetian theory to cultural-historical theory, and how this change might be externalised in the teacher's practice. Therefore, my voice as a practising teacher has been able to come to the fore through my self-study as I examine my own transition from Piaget to cultural-historical theory to discover how I will mediate my practices. Knowing how a teacher transitions from Piaget to cultural-historical theory is of use to the education sector because it may provide a way for

other teachers to engage in also using alternative theoretical perspectives to inform their work. As noted in Chapter 1, this knowledge is now critically important because of the 2009 policy initiative that saw the Australian Government release the Early Years Learning Framework (EYLF) (DEEWR, 2009). The ELYF invites educators to use a range of theoretical perspectives in their practice including cultural-historical theory (p. 11).

6.2 What Does the Insider Perspective of Cultural-Historical Theory in Practice Look Like?

The findings suggest that an insider perspective on cultural-historical theory demands engagement with the three main concepts of (1) Practices of interpretation and interaction; (2) Practices of tool adaptation; and (3) Practices of temporality. These three concepts were found to be interdependent and so should be considered within the dialectic, each forming part of the whole framework that impacts the teacher's practice when considered from an insider perspective (Figure 6.1).

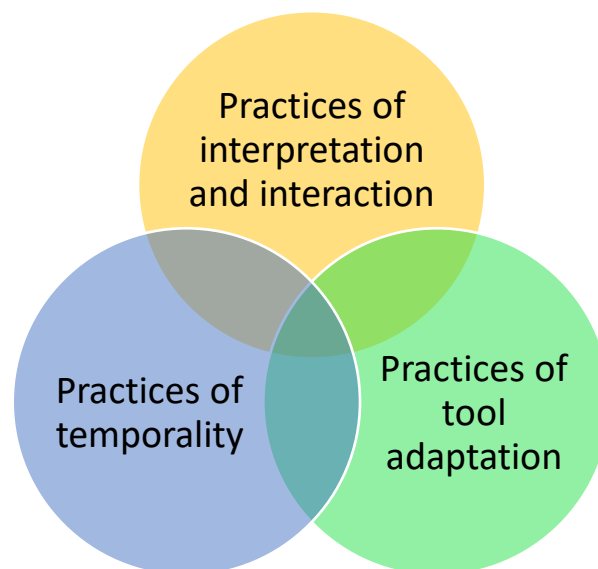


Figure 6.1. Model representing the original equal dialectical relationship between the three findings of practices of interpretation and interaction, practices of tool adaptation and practices of temporality comprising an insider perspective on the uptake of cultural-historical theory and how this mediates practice.

In this chapter, it will be demonstrated how each concept informed my insider perspective on using cultural-historical theory and, importantly, how they are related within a dialectic relationship and are understood using Vygotsky's framework of general psychology.

I initially thought of these concepts as having equal importance and considered each being separate to each other, but over time through my embracement and application of the new theory, I came to acknowledge the dialectical positioning between each concept. I also realised that the positioning of each concept could become more prominent in different situations. This change in my understanding of the dialectical positioning also supports a definition of a learning theory I presented in Chapter 3. Bigge and Shermis (2004) acknowledge that there will always be a change in understanding through the process of learning.

Also in Chapter 3, I indicated that Sfard (1998) contends that participational learning within a particular context is important. I learnt the basic concepts of cultural-historical theory within a kindergarten context, which gave me greater insight into the theory, that finally enabled me to understand the dialectical relationship between each of the practices and how there could be a change in the dominance of one of the practices. This shift in thinking is evidence of the significant transformation in my learning in that I no longer relied on constructivist ideas and, instead, understood the three practices as interrelated and of different emphasis during different periods of the children's learning.

In the next section, the three concepts, beginning with practices of interpretation and interaction, followed by practices of tool adaptation and, finally, practices of temporality, will be discussed.

6.2.1. Practices of interpretation and interaction. A main difference I found between my study and those conducted from an outsider's perspective was the importance of the teacher's role through practices of interpretation and interaction. For example, Hedegaard (2009) discusses teachers using cultural-historical theory and says that it is important to focus on the child's perspective, the conditions for children's learning and development, and the child's ability to participate and engage in experiences that were made available. Hedegaard's study did not identify the teacher's role through practices of interpretation and interaction as significant as the focus was on the child's participation. Also, Bodrova and Leong (1998) examine how teachers use cultural-historical theory to support the "development of dramatic play in young children and its effects on self-regulation" (p. 115).

They found that there was a need for the children to plan their own play and that these plans "provide a vehicle for teachers to intervene in many aspects of dramatic play without participating in the actual play itself" (Bodrova & Leong, 1998, p. 122). The need for teachers to introduce the initial plans is also acknowledged as, at times, it is important to help the children stay on task with their play, but otherwise they did not identify the teacher's role as important to practice. Cutter-Mackenzie, Edwards, and Fler (2009) conducted research into how children might gain scientific understanding through play. They found a need for teachers to have some input into framing the knowledge to be gained for the children, but again the main focus was on the children learning through their play.

In contrast, my findings show that the teacher's role is central to the practices of interaction and interpretation via the social situation of development. I found that, as the teacher, I was frequently the pivotal point from which the social situation for the children's learning would be established. This is an important new insight into research regarding teacher uptake of cultural-historical theory because it highlights how critical the teacher's role is for the child's learning and development. The teacher can initiate the social situation of development that will support learning and, provided that she can engage in re-mediated practices of

interpretation and interaction, she is able to facilitate the learning using the dialectic between cultural tools and signs, together with the time needed for the learning and development to take place.

Vygotsky (1978) alludes to the role of the teacher, and in the following description of the ZPD, as an example, I demonstrate this role in my changing practice of interpretation and interaction:

I feel that I am gaining the skills needed to accurately judge where and/or when I should join in so that I can best support the experience/learning. I have the knowledge now of how to position myself as the more experienced other to benefit the child.

(reflection diary, 21.7.2011)

I also noticed that my practices of interpretation and interaction were further intersecting with my practices of temporality; I was becoming increasingly aware of the dialectic between the different practices. I was also more conscious of the time I was leaving for children to work out their problems for themselves, as is noted in the following extract:

I am fascinated that I will now jump into “primordial we” a lot more quickly, knowing why I am doing it, than previously (reflection diary, 15.8.2011)

I no longer leave the child to struggle to try (reflection diary, 15.8.2011)

In this context, I am talking about time on two scales: my time in the moment as the teacher, and my practices of interpretation that were leading me to intervene much sooner than I would have previously. I had changed my time scale because I was changing the time scale of the child’s social situation of development – a manifestation, consequently, of the dialectic between practices of interaction and interpretation and practices of temporality:

If it is obvious that he really will not get the skill without the intervention, why leave the child to get frustrated when a quick couple of minutes’ support in this way means

that the child can then progress and continue to try when he has been given the steps or action to take to achieve the goal? We used to be encouraged to let the child experiment, try for himself, but now I can work with the ZPD and know that at times ‘primordial we’ is the way to move the development along. (reflection diary, 15.8.2011)

My findings suggest that the teacher needs to be able to understand and use her knowledge of the concept of practices of interpretation and interaction *along with* an understanding of the social situation of development, practices of tool adaptation and practices of temporality to foster cognitive and social development. This is supported by Duncan and Tarulli (2003), who describe the teacher’s role as a dual action in supplying mediation for the child’s learning and development through interactions and supplying tools for the play experience.

A teacher needs to have an understanding of the importance of play as a necessary element for the child’s learning and development, and be able to support this learning through her practices of interpretation and interaction. This is evident in my findings where I, as the teacher, was able to use my knowledge of the developmental method and in particular, the importance of imagination to support Harrison’s play through my practices of interpretation and my practices of tool adaptation. I was able to provide the felt play mat that depicted the African safari scene. The addition of the mat enabled Harrison to bring in new ideas that expanded his original theme. It also led him to actively create new figures for the play mat. This, again, meant that I was able to step in and support his work on the figures by providing materials – the practices of tool adaptation – in addition to speaking with him – practices of interaction – on how he was going to achieve the desired results. I was changing my understanding of the importance of play to the child through understanding the development method so my practices of interpretation were changing:

Harrison again came back to the felt today, but drawing a kangaroo and some grass.

He again spent about half an hour with the activity then folded it up and put it away.

(journal observation, 1.6.2011)

Previously, I would not have understood the importance of this activity and how it connected to his development and learning. My new understanding meant that I was able to focus on the importance of the child reaching a mature level of play to support the learning that was possible. My practices of interpretation altered as I considered the learning situation. My practices of interaction also changed as I became more involved with the child through my mediation. The changes in my own thinking allowed me to reconsider the importance of the play. I had to focus on not cutting off the play scenario if I felt it was inappropriate, as was the case with Harrison's play when he was exploring the element of *Madagascar*TM and hunting the animals within his own play scenario. Previously, I would have stopped the play, but due to my embracement of Vygotsky's theory and the enactment through my practices, I was able to support Harrison's interests to facilitate his reaching a level of mature play whereby he became very focused on creating new felt pieces for the play mat. This did not mean I was comfortable with the play, and I was certainly facing a contradiction with it, but with these new practices, I was able to continue through to the end result. Therefore, a teacher changing from constructivist to cultural-historical theory will expect to confront these types of contradictions but can appreciate how their own practices of interpretation and interaction will need to consider the child's development.

Throughout the play episode with Harrison, my practices of temporality also altered. My practices of temporality meant that I was leaving the child for a longer period of time to enable the elements of imagination to be successfully reached and worked through by her. By allowing the child the time to work through these elements, I was seeing her reach a mature level of play. I had not seen this type of play when I was using a Piagetian framework for working with the children. By only planning for a fortnight, I was, essentially, cutting off the

time the children needed to develop their play to this mature level. My understanding of how my practices of interpretation and interaction were supported by my practices of temporality slowly changed as I became more confident in my understanding of the importance of imagination and the developmental method. Therefore, the teacher must consider her practices of temporality as *being interdependent* with her practices of interpretation and interaction.

Vygotsky (2004) describes in great detail the importance of imagination in how it supports the child's development and learning through the developmental method. The teacher has a role to play in supporting this element of the child's activity as through imagination, the child is able to reach mature play and so learn.

Supporting the importance of imagination, the teacher needs to be actively striving towards providing a rich environment within the kindergarten setting. I considered this play episode to be a means of providing such an environment. In understanding the need to provide this rich environment, I also had to re-examine the cultural tools I was providing to the child, which was evidence that my practices of providing equipment and materials – that is, the practice of tool adaptation – was changing as well.

The teacher frequently has to consider the importance of a rich environment and what is required in terms of cultural tools to provide this supportive environment. Therefore, the teacher's practice of tool adaptation needs to be considered in order to support the child's learning.

Vygotsky (2004) clearly states that:

the creative activity of the imagination depends directly on the richness and variety of a person's previous experience because this experience provides the material from which the products of fantasy are constructed. The richer a person's experience, the richer is the material his imagination has access to. (p. 14)

As the teacher, I strove to provide this rich environment in the kindergarten setting through a variety of ways, the most common of which was to use existing cultural tools, as indicated in the following entry:

Emily joined the girls and I went to get some blankets, cushions, material that the girls could use for their camping. (journal observation, 23.6.2011)

Today Sarah and Beth decided to play in the fairy world. We have materials, glittery pipe cleaners, small wooden circles, two dragons, three flying horses, three fairies and the variety of small wooden blocks that were being used previously. The girls started to play with the horses and fairies. (journal observation, 10.5.2011)

My practices of interpretation and interaction were also supported by my practices of tool adaptation. My practices of interpretation regarding the tools had changed. The biggest change for supplying materials and cultural tools came through reconsidering what I had in the storeroom that could have multiple uses. I was not going to purchase new equipment all the time to support the children's play, so I contemplated how the equipment and materials we had could be used in different ways or presented in a new fashion. My practices of interaction then supported the children's new ways of using the equipment or the cultural tools. The other change that was evident within my use of the available cultural tools was that, although I might set up a play space, I was always open to suggestions from the children to add further items to support their play. Previously, I would not have welcomed or followed through with requests for other items. Consequently, my practices of tool adaptation needed to change to support the children develop their imagination.

I also found that supporting one child's needs could lead to other children benefiting and using the enrichment for their own experience as described in the following extract. In this case, a story that had been read in the previous session was the catalyst for the enrichment:

They acted out fishing and both caught some. Beth commented that she caught an octopus – we had read *Meg at Sea*TM (a story book about a witch named Meg and her cat, Mog) and Mog had caught an octopus in that story. (journal observation, 21.7.2011)

This change of practice with tool adaptation through the re-mediation of my practice of interpretation also indicated that the social situation of development had become stronger as more children were benefiting from what I was providing. This change of practice also demonstrated the dialectic at work as it indicated to me the interdependence of my practices of interpretation and practices of tool adaptation. This change of practice is also evidence of the enactment of Vygotsky's theory to the mediation of my practice.

Kratsova (2009) details how the teacher can be in a position to support the learning and development of the child. These positions include the “upper” and “under” and “primordial” or “greater we”. As the teacher, I was able to be in a position to support the child extend her learning through the play situation. The learning would become evident through the language the child used or by the child becoming more confident in the use of tools and the skill level she was reaching. An example of how I worked with a child using my knowledge of the developmental method and the concept of the importance of the teacher's practice of interpretation and interaction was with Judd. Judd would frequently stand back and observe other boys playing with the indoor blocks:

I had noted at an earlier date that he did not seem to understand another child's pretend play and had not been seen to be involved in many of his own pretend play episodes. I wanted to work on this as a way for him to join in with the others. Judd spent a great deal of time watching the other boys build with the indoor blocks, so I approached him to see if he would come to build with me. (journal observation, 27.4.2011)

I was able to use my knowledge of the positions that Kratsova (2009) describes. During the time spent with Judd, I had created a social situation of development, which supported his higher learning. This social situation of development for two participants was expanded to include three or four children over the course of time that I worked with him. It was important that I started this social situation of development as it is through this situation that the child is able to gain the higher learning that develops from social situations. I was also able to mediate Judd's use of the blocks – an example of tool adaptation – with learning mathematical concepts as we worked together:

I was able to really encourage his working with his peers, using the blocks as a way to mediate the interactions between the children. I was also slowly able to pull back from the social situation as Judd became more confident at using the blocks to build with and more confident at interacting with his peers. (reflection diary, 16.6.2011)

This entry focuses sharply on how the practices of interpretation and interaction, practices of tool adaptation and practices of temporality work within the dialectic – the three of them are in an interdependent relationship, where the teacher plays a pivotal role in supporting the child's learning.

In this scenario, the teacher's role through the practice of interpretation and interaction became the most dominant of the three practices. Originally, I thought they were of equal importance, but an examination of the data revealed that one practice can sometimes be more dominant than another at different times, which indicates the dialectical positioning between the three. I will discuss this point later in this chapter.

When working within these positions, I also facilitated the social process that enabled the child to gain this greater or higher mental understanding. In this environment, the teacher's practices of interpretation and interaction cannot be underestimated when assisting the child with the new learning. I was able to capitalise on many of the incidental learning

opportunities that presented within a play episode because I was involved with the child in some capacity and was using the knowledge of the positions described by Kravstova (2009) to help the child gain more knowledge, improve a skill, or make learning easier.

The following example demonstrates this incidental learning opportunity. I was present with a group of girls building with the outdoor blocks. The girls decided to make an aeroplane and go to Tasmania. During this play episode, I was able to enter into the play and extend the children's learning by expanding the knowledge of the two girls who had not been in an aeroplane before and had no real knowledge of the role of pilots:

One child asked who was driving. This then led to a discussion of the role of the pilots and where they sit. We then had to make sure the pilot always stayed in the seat so that the plane was flying safely. Two girls learnt about the role of pilots today! (journal observation, 6.4.2011)

We were able to take on different roles within our scenario. Consequently, I was able to support the incidental learning that appeared. If I had not been there, the potential learning for the girls would have been lost. This scenario emphasises the point that the teacher's practices of interaction are a major component of the children's learning and development. When focusing on cultural-historical theory, practices of interpretation and interaction are seen to be a major factor for the teacher to consider and implement.

With the teacher being present, mediation, another component of Vygotsky's framework for general psychology, is also, via language, able to reinforce the learning. This occurs, for example, when new terminologies, new directions, and new questions are offered that enable the child to work through the process of gaining the newer understanding. I found that this act of mediation with language became a high priority for me when working with the children.

When I commenced re-mediating my practices of interaction, understanding the role of

mediation became important as a way of supporting the child within the social situation of development.

My role needs to “clarify children’s understanding” (Karpov,2006, p. 147) and this will involve being with the child as he works through a play situation by providing stories, having discussions with him and setting up spaces for him to experience differing roles. (reflection diary, 26.4.2011)

Therefore, the teacher who is considering using cultural-historical theory to guide her practice has to consider the importance of applying mediation to her practices of interaction. The application of mediation to my practices of interaction was vital. I talked with the children more frequently, explaining, and asking them questions, eliciting their thoughts and ideas, and helping them to discover ideas and explanations for themselves. Another important concept that I had to consider was the importance of time. My practices of temporality also changed as I spent longer periods of time speaking to the children. I could see how these practices of temporality were affecting my changing practices of interaction with the children and how this then impacted on their development, and I could see the changes occurring in their play over time.

Through this mediation, I discovered a great deal more information about the children than I would have when previously working with the Piagetian developmental way that I initially used. Through this act of mediation, the findings also suggest that a larger social situation had been created by including other children, which became a form of scaffold learning through having the other children offer their opinions and ideas to the play:

I used to not really use the peer group, but now find it a great source of support and knowledge. When the children become involved the way these two did, more learning occurs and I am able to pull back to let them work through issues themselves when one child is more competent. (reflection diary, 29.4.2011)

This focus on a teacher's practices of interpretation and interaction does not appear to be evident in outsider research on teacher use of cultural-historical theory. For example, I did not find a reference to it in the earlier work of Forman and McPhail (1993, as cited in John-Steiner & Mann, 1996) as they focused on "collaboration". Hedegaard (2009) looks mainly at the place of the child within the three perspectives of person, institution and society, and how the child can be influenced by the three situations from a cultural-historical theory of development. There is little evidence of the importance of the teacher's practices of interpretation and interaction within this positioning. Research by Wood and Bennett (1998) examined teachers' theoretical positioning of their practice and theory of play. Although some "significant areas for change included: making time for quality interactions to enhance learning through play" (Wood & Bennett, 1998, p. 26) were noted, there was not a focus on the role of the teacher. Also, in the Wood and Bennett (1998) research the teachers were focusing on the importance of play rather than their role within the learning situation. Cullen (1999), in researching children's and teachers' knowledge, acknowledges "the important contributions of adult and peer interactions to learning" (p. 23). However, in this body of research there appears to be no demonstrated understanding of the dialectical situation between concepts as has been suggested with my insider study.

Siraj-Blatchford and Sylva (2004) introduce the concept of "sustained shared thinking" (p. 720) as an important tool for teachers. They were researching the pedagogy in English preschools in order to discover what the most effective environments were for "intellectual, social and dispositional outcomes" (p. 713). Their findings suggest "that adults should use their involvement with children in a planned and focused way to encourage shared thinking" (p. 722). However, they also found that "in the settings where sustained shared thinking was most encouraged, a substantial proportion of interactions were child-initiated" (p. 722). They also define the necessary prerequisite for the most effective pedagogy, and this is defined in

terms of “(a) the teacher/adult having an awareness of, and responding to, the child’s understanding or capability vis-à-vis the particular subject/activity in question” (p. 727).

The reference to sustained shared thinking calls for the position of the teacher to be in a dominant position; it needs to be a priority in the practice. However, with insider knowledge of what concepts are important within a cultural-historical framework, as derived from my study, an early childhood teacher would be able to respond to this directive of sustained shared thinking in a more effective and constructive way. My study would be able to help teachers understand how to engage in the practice of sustained shared thinking instead of simply saying that sustained shared thinking is important for children’s learning.

The teacher can also play a dominant role in supporting the child within the social situation that leads to higher-order learning. Hatch (2010) wrote a provocative article about the need to reconsider whether early childhood teachers are more focused on the child’s development rather than the child’s learning. He feels that there needs to be a change of focus and that learning needs to be given a more “prominent place in early childhood classrooms” (p. 260). He also indicates the importance of learning to take place between the child and adult “or more competent others” (p. 260).

S. Edwards and Cutter-Mackenzie (2013) also position the teacher as necessary to provide a rich environment for learning to take place within the kindergarten environment. They place the adult in a teacher’s role and focus on the importance of the teacher’s practices of interpretation and interaction as well as the practices of tool adaptation. Whilst these studies identified the importance of the teacher’s interactions with children to foster learning, they did not demonstrate, as my findings do, how the teacher does this in relation to her practices of temporality and tool adaptation as additional elements from a cultural-historical perspective. My study, therefore, makes a contribution to not only the research literature pertaining to play-based learning but also acts as a guide to teachers in how to incorporate cultural-

historical theory into their practice. It shows how teachers can function within a dialectical situation using their practices of interpretation and interaction, practices of tool adaptation and practices of temporality to support children's learning and development.

This claimed contribution is evident in the description I provided of working with Judd in Chapter 5:

I pulled out some long blocks, asking if he wanted to start with some long blocks.

Judd: *Yes, it can go here.*

He placed the long block against the tower (previously built by another child) to make a ramp down.

Elizabeth: *Would you like some curved blocks or some small blocks?*

He chose the curved blocks and then I gave him the small blocks.

Elizabeth: *Would you like some longer blocks?*

Judd: *Yes.*

He took two.

Elizabeth: *Would you like some of the longest blocks? These are the longest blocks.*

Judd: *I can put them here.*

Judd made a large square with the blocks. He then saw a small half-figure and proceeded to make the figure walk around the square. (journal observation, 29.6 2011)

Initially, I needed to be in the more dominant position or the upper position. I found that I was able to set up a play experience for Judd with cultural tools to enable a social situation of development to occur, as well as at a later time, encourage peers to join in, which extended the interaction between the children and me. I discovered that bringing in peers became a

significant way to broaden the learning as the children would also add what they knew. When a child was able to use new terms, or talk about information provided by peers, I found that I could move away, only needing to give minimal support when required as I felt that the child's learning was being consolidated and established. Again, this indicated that the teacher can be in a dominant position when needed and can move to the background when the situation warrants it, thereby emphasising the fluidity and interdependency of this model.

In Chapter 2, I outlined how Ryan and Goffin (2008) describe the position of the teacher as “missing in terms of omission: of not having the knowledge and skills necessary for supporting children's learning” (p. 385). This claim derives from a critique of the reliance of the field on mostly developmental constructivist theory to inform practice. The findings from my self-study research strongly suggest that the role of the teacher through her practices of interpretation and interaction is vital to the child's learning and development; the teacher will no longer be missing from the learning environment.

If teachers are able to incorporate the findings from my research regarding the importance of the teacher's role into their practices of interpretation and interaction, practices of tool adaptation and practices of temporality, then the resultant mediation to their practices will ensure the teacher is no longer absent from supporting and guiding the child's learning and development due to a lack of knowledge necessary to support learning.

Using the three practices identified in my findings means that teachers can use new information within their contexts to improve practice. As I outlined in Chapter 3, Guskey (2002) claims this is important for generating change.

6.2.2 Practices of tool adaptation. The second concept of Vygotsky's framework for general psychology focuses on the importance of mediation with tools and signs. In my research, mediation with tools and signs was manifest in my practices of tool adaptation. Again, I found a dialectical relationship between the teacher's practices of interpretation and interaction and practices of tool adaptation.

My literature search revealed little acknowledgment of the interdependency between cultural tools and the teacher's role when working with cultural-historical theory. This appears to have been because previous research had predominantly been conducted from an outsider perspective.

In the available research, the outsider was not focusing on the interdependency or dialectic of cultural tools and the teacher, but rather on a single understanding of elements within Vygotsky's framework for general psychology. For example, Flear (2011) supports the introduction and a new positioning of technological and popular culture tools within a kindergarten program but gives limited insight into how this might translate into practice by the teacher (p. 22). The findings in my study, however, suggest that the teacher can play an important role by managing the mediating tools and signs to support the child's learning and development through the practices of tool adaptation and practices of interaction and interpretation.

Wertsch and Tulviste (2005) cited Vygotsky (1981) as defining a sign as "always originally a means used for social purposes, a means of influencing others, and only later becomes a means of influencing oneself" (p. 63). The main sign used was language, therefore mediation through the teacher's language and the child's stage of development are interdependent. This interdependency is a dialectical relationship, where the child's development is guided and supported by the teacher through her practices of interpretation and interaction via the child's

zone of proximal development. As the child becomes more confident, so the teacher changes the language (sign):

We discussed how far away it (Sydney) was and how long it might take. At this point I was very conscious of connecting this activity of imagination to the reality of going to the Sydney Opera House. I know I was thinking of what I could add or do to support the learning and the development. (reflection diary, 26.9.2011)

During this trip, I was very aware of the learning that was taking place amongst the girls and that I was able to contribute to it significantly. I was able to tie all the ideas and knowledge together for the girls so that they could then expand on their reality. I was very satisfied with how my interactions were supporting the girls' learning. Since the child needs to move through the stages of imagination to reach mature play, the teacher, again, can use her practices of tool adaptation, particularly via mediation, to facilitate the child's movement through the stages of imagination, which, in turn, will lead to the development of mature play. It will be through the mediation of language that the teacher can work with the child to reach that stage of higher learning, which is the ultimate aim. This mediation also provides the social situation of development that is necessary.

In the following example, my practices of interaction are balanced with my practices of tool adaptation – and both are interdependent. As presented in Chapter 5, I worked with Luke to support the development of his fine motor skills via art experiences. He rarely did any drawing or painting, so he struggled to hold a brush or writing tool with any skill or competence. Luke needed to practise with the tools because without them he was not going to achieve any skill level. Therefore, I spent several weeks working with him to develop his skills in this area. I found that by talking him through what he was drawing, he was able to realise his ideas, and with mediation through language and the physical help of showing him how to hold a brush or pencil, he became more confident in developing his skills:

Elizabeth: *You didn't know how to draw a person before, did you?* (referring to several weeks ago, when I started working with him.)

Luke: *Yeah, but now I know.* (reflection diary, 16.9.2011)

This mediation can also occur through the representations of popular culture play items and technologies. This acknowledgement of the importance of popular culture tools was a major change for me. Looking at the influence these tools had on the child's social situation of development was a factor that I could not ignore. I had witnessed the phenomenon of a group of children coming together when popular culture tools were introduced to them. I could see how a child was able to enter discussions with peers on equal footing when in possession of such tools.

Over time, I was able to turn my thinking around to one of acceptance rather than denial of the importance of these tools for cultural mediation. The teacher using practices of tool adaptation needs to acknowledge the importance of cultural tools in supporting a child to establish a social situation of development. This modification in my thinking was able to develop as my practices of temporality were also changing at the time. I observed the transformation in the children's social situation of development, which then led to my practices of interpretation and practices of tool adaptation changing. Guskey (2002) and Fogerty and Pete (2004) highlight the importance of time. They all confirm the need for teachers to have time to understand the new practices.

As the teacher, I was able to introduce these cultural tools and help the child develop and achieve a more mature level of play as well as connect the play to more complex or scientific learning whenever possible. I was able to reconcile the contradiction I felt with the introduction of these popular culture tools when I saw how they were able to support the social situation of development for many children.

Stetsenko and Arievidtch (2002) provide a broad definition of cultural tools as the following:

Cultural tools are not merely static “things” but embodiments of certain ways of acting in human communities. They represent the functions and meanings of things, as discovered in cultural practices (p. 87).

The practice of tool adaptation is also highlighted as an important element within this interdependent dialectic with the teacher’s practices of interpretation and interaction.

Although outsider research (S. Edwards, 2014; Mawson 2011; Robbins, 2008; Robbins et al., 2011; Zevenbergen, 2007) has focused on the importance and use of cultural tools within cultural-historical theory in practice, there has been little research *connecting the teacher’s role to the use of cultural tools*. Cultural tools, like most other previously studied elements within cultural-historical theory in early childhood education, have been studied as an independent element, not as a part of a whole. For example, Zevenbergen (2007) studied the uptake of digital technologies within the kindergarten environment, with a specific focus on the use of these cultural tools for the child’s learning with minimal reference to the teacher’s role in the uptake of this new tool. Robbins et al., (2011) add to research using cultural tools, with a chapter discussing the use of blocks in a research project where the aim was to find out “how young children can be supported to develop technological knowledge and design processes in their play” (p. 224). Their findings suggest that in one centre the children were provided with little support from the teachers, leaving the children to explore the blocks on their own. Consequently, there was little learning gained by the children from the use of the blocks. This suggested to me that there needed to be input from the teacher in the initial stages of the children working with tools if there were specific concepts that the teacher wanted the children to understand. Once the teacher had shown the children what her goals are, the children can then have time to further explore all possibilities that are available with the tools.

Edwards and Cutter-Mackenzie (2013) carried out research with teachers that considered different types of pedagogical play. Within the study, it was found that the tools became the focus of the child’s extended play, which facilitated greater exploration after the teacher had

spent some time with the child guiding her through the potential learning. The research also suggests that the time the teacher spends using the tools with the child is important because it gives the child some ideas of how to work with the tools and what the tools are able to be used for. This initial learning allows the child to further explore what is possible with the tools and how the tools can be adapted at times and therefore supports her future learning. Consequently, in this study, the concept of tools also included the popular culture play items that children bring from home. The findings indicate that popular culture toys can play an important role for children's learning and development when considered under the umbrella of "cultural tools". The following extract indicates my changing attitude to popular culture toys as cultural tools:

I have started to consider the value of the toys the children bring in and how these toys can be a tool to support the child moving through the elements of imagination.

(reflection diary, 7.6.2011)

The following reflection suggests my changing attitude to accepting these popular culture toys into the kindergarten:

Today some of the boys had some small McDonaldTM type toys that they had brought from home. Dylan had also brought in some cars, which he has been doing for the past three weeks. Usually we have encouraged them to put them away so they don't lose the cars, or get broken etc. I have not been worrying about the cars at present, letting them include them with their activity, usually involving block work. (journal observation, 7.6.2011)

These tools are the catalyst that is needed to set up the social situation of development and they, consequently, provide the important first step for many children to enter a social situation to advance their learning. I found that for many children who struggled to make connections with peers, the presence of the tools contributed positively to them joining in

with the other children. This revelation finally broke my reluctance to recognise the importance of popular culture toys when I made the connection between them and the social situation of development.

When the teacher adopts the upper position, the learning and development is able to encompass all the children within the group, thereby meeting each child's individual needs within the group. I was able to focus on each child and the appropriate stage of development as described by Vygotsky (1976). I could then make decisions within the social group as to how to progress the child through the elements of imagination to reach the level of mature play that would lead to higher learning. Again, this shows the interdependency of the elements of the teacher's practices of interpretation and interaction and practices of tool adaptation, and how the influence of Vygotsky's agenda through his framework for psychological development can all work together to facilitate the learning of the child when used by a teacher to mediate her practice.

As I have already commented in Chapter 2, cultural tools endorse and encourage the establishment of a social situation of development within which the higher learning of the individual can be initiated:

A child has to understand the objects of the local culture and through the action on and the action with these objects, the child comes to grow in mental development as it is through this interaction that he is able to be influenced "by the social, cultural and historical factors" of his culture. (Daniels, 2008b, p. 4).

The findings suggest that at times I played a predominant role as the teacher, and there were other times when I was not so dominant, where my practices of tool adaptation were more to the forefront in supporting the children's learning. I could support the initiation of the social situation of development through my practices of interpretation and interaction and allow the cultural tools, together with the contribution of peers, to assist the development of higher

mental processes and re-enter the social situation to give more input if required. The children's interactions provided indications of what higher learning might be occurring. My changing practices of interpretation and interaction meant that I then provided more advanced terminology through my mediation or supplied additional tools if required.

An example of how I supported the learning taking place via the use of cultural tools was when I made available the felt play mat for Harrison. Harrison had been enjoying playing camping, and by adding the African safari play mat, I helped extend his play. Vygotsky (2004) observes that "imagination always builds using materials supplied by reality" (p. 14). Harrison's original play was based on his interest and experience of camping. I had been able to provide camping supplies of cooking utensils, pretend food, wood and a tyre to make a campfire, and blankets to support the building of a tent. These cultural tools provided the components for the play scenario as Harrison practised cooking on the campfire, which enabled him to connect with his early experience of camping with his family. He used these tools to create a social situation of development by making a campfire with the items provided, and then cooked a hot drink for me, which meant that I then entered the play. He continued using the tools by extending the cooking scenario to include another child. At that point he was able to participate with object substitution, thereby demonstrating a mature level of play, with a block becoming a mug and pieces of corn representing the hot chocolate that I was given. The cultural tools became prominent again when a felt safari mat was made available to him. This mat had a variety of pieces that could be used to tell a story. There were several people, some animals, a campfire, a tent and a vehicle:

I put out the large sheet depicting a jungle scene with a number of African animals, a tent, a campfire, two vehicles, and two people. (journal observation, 13.5.2011)

I was able to provide a quiet place within the kindergarten so that Harrison could use the mat in whichever manner he chose. He started to set the pieces out on the mat. His friend, Hayley,

approached and asked if she could join him. She had observed him using this new cultural tool and, consequently, the mat could be considered to have been the catalyst that supported the beginning of the social situation of development that leads to higher learning within the individual. Harrison extended his play over the next few sessions by introducing characters and ideas from the movie *Madagascar*TM into his storylines with the play mat, as indicated in the following extract:

Harrison noticed the tent in the collection and went to the activity with Hayley. He spread out all the pieces and quickly put the tent, campfire and people on, then started with the animals. They started to give names to some of the animals. Nafissa? Fossa? Maurice? I asked were they the names of the animals in *The Lion King*TM. Harrison replied that they were in *Madagascar*TM. (journal observation, 13.5.2011)

Harrison particularly enjoyed using the animals. He named several animals as well, giving them names based on characters from the movie. These episodes really demonstrated how the cultural tool of the movie impacted on his story line and the extension of his original theme of camping. This episode of play also demonstrates my practices of tool adaptation as being critical in supporting Harrison's social situation of development through the introduction of the mat as well as my practices of temporality in providing Harrison with opportunities to repeatedly come back to use the play mat.

Harrison's movement through the differing elements of imagination, as described within Vygotsky's (2004) developmental method, were supported through his play with the felt pieces and the mat. The extension of his interest that developed from the introduction of the felt play mat then led to a further use of tools as he decided to create and construct further figures to use with the mat. He was able to draw and cut out figures on paper and then transfer the figures to the felt so that they would adhere to the mat. This interest had led Harrison to have an art experience, an area of the kindergarten program in which he rarely became

involved. I was increasingly realising that I was becoming more involved with the children, learning about their interests with popular culture items and acknowledging these tools as a source of learning for the child as well as being a catalyst for developing a social situation of development, as indicated in the following extract:

I would never run with superheroes and such, but here I am acknowledging it and finding out about the movie and supporting the activity that was occurring from the introduction of the animals and the transfer to the idea of *Madagascar*TM. (reflection diary, 13.5.2011)

In this section, I have discussed cultural tools as one of the concepts that mediated my practice. Cultural tools are important because there are different ways they can be used to support the creation of a social situation of development as well as help maintain a social situation of development. They can be the dominant focus of the social situation of development or they can be supportive, with the teacher using the tools to support the child, either individually or within a social situation of development. Importantly, practices of tool adaptation were in a dialectical relationship with the educator's practices of interpretation and interaction, thus reinforcing the child's learning and development.

Throughout the whole data collection phase, I also became aware of the importance of practices of temporality. This was in terms of how I understood my learning of this new theory could impact on my practices of interpretation and interaction, and how my changing thoughts of temporality impacted in a positive way on the children's time to be involved in their play.

In the next section of this chapter, I discuss the third finding of practices of temporality.

6.2.3 Practices of temporality. The third concept I argue is important when using cultural-historical theory to mediate practice from an insider perspective is practices of temporality. Vygotsky's developmental method is manifest in my practice of temporality.

Time was identified 41 times within the data, and is the third concept within the dialectic with the teacher's practices of interpretation and interaction and practices of tool adaptation. I discovered that the practices of temporality had two considerations, which were also interdependent. These two considerations incorporated the teacher's role in using time to foster learning, and the length of time the children needed to engage in learning. With this understanding of time, I, as the teacher, had to provide opportunities for the child to be involved in the chosen activity for lengthy periods on a single day as well as for periods lasting days and weeks if so chosen. This focus on time was certainly evident with the observation of Harrison as I continued to provide the items needed by him to keep returning to his interest in camping each session over a time frame of weeks. I found that children would keep returning to their chosen activity over a period of weeks if items were left out for them for longer periods of time. Children would bring new ideas to their play after a break from their play, or would extend the original play scenario. This was strongly evident in the play of Beth and Sarah, as indicated in the following extract:

Previously, I would have only had the items to support the fairy play out for a month at the most, definitely not for more than six weeks. I was becoming very comfortable leaving items available for lengthy periods of time as I could see how the children were returning to the materials and interests and frequently using them in different ways:

This was when the theme of fairies appeared and consequently remained for the remainder of the term. (reflection diary, 22.6.2011)

The girls kept returning to block play over the course of the term (11 weeks) and each time a different element was included within the play, but it was still connected to their original play of making buildings and forms of transport. They extended to fairyland and then by the end of the term constructed a fairy boat and created a very involved scenario around Beth's upcoming trip to Sydney. She was also able to make use of secondary information about Sydney as her father and sister had visited earlier in the year. During these episodes, I was able to observe them connecting the play to their reality of what they had experienced, and this scenario, in turn, gave me the opportunity to provide other items to support their play. Part of my role as the teacher is to "broaden the experiences" (Vygotsky, 2004, p. 15) and these experiences take time. I also noticed that Beth and Sarah would use information from stories that had previously been read at kindergarten to enrich and develop their play. Vygotsky (2004) details this to be an important component of the child's development through imagination when the play is originally connected to reality and then slowly altered as new aspects are included.

I could also see how important time was for the children to continue to explore and make their own meanings from the items and tools that were made available. Consequently, it is important for the teacher to provide opportunities of uninterrupted time for the children to access materials that will support them to extend and develop their play so it can reach a mature level. If the teacher terminates the play prematurely, it can stifle the children's development and learning.

In my work at the kindergarten, my practices of temporality also connected with my practices of interaction because as the teacher, I would spend time with Harrison and Hayley discussing what was happening in their play, often taking on a character within the play scenario, and providing the extra props and materials they were able to use to extend their original ideas. Consequently, I was able to observe Harrison move through the stages of imagination as described in Vygotsky's (2004) theory of psychological development and therefore adjust my

means of supporting him according to his needs. This development occurred over two terms at kindergarten. This continuation of providing the cultural tools that would support the development of children was not the way I used to work, as indicated by the following extract:

Previously, I would plan on a fortnightly basis; however, as I worked with Vygotsky's theory, my concept of time meant that I focused on how I could support the child's learning and development and not box the learning into a specific time frame. I started to see that I could not push the child along with the learning as I had previously tried. I started to understand that I needed to allow the children the time they needed to explore their new learning and development. When considering the importance of the developmental method, time could no longer be based purely on days or weeks, covering the children within the kindergarten group, but became very individualised for each child. (reflection diary, 22.6.2011)

My original teacher training had concentrated on fortnightly planning, so this change in the focus of time was a major finding from an insider perspective when using cultural theory. I now knew the benefits of being able to support Harrison temporally through this lengthy process, using the knowledge that I had of development, as well as knowing how important the social situation of development was for his continued learning.

Practices of temporality also supported my interactions with children as we worked together to establish new skills. During these periods, I would use my knowledge of the developmental method and the play positions to support the learning of the new skills. I found that by acknowledging this concept of practices of temporality, I was able to let a child take the necessary time to practise new skills such as in the case of Luke:

I had been sitting at the table with Luke and he started to draw himself after he had written his name.

Luke: *A round head, nose, round eyes and arms there, then down, have two legs.*

[Luke talked his way through the drawing].

Elizabeth: *You didn't know how to draw a person before, did you?* [I was referring to several weeks ago, when I started working with him.]

Luke: *Yeah, but now I know.*

Elizabeth: *Is it good?*

Luke: *Yes.*

(journal observation, 16.9.2011)

Practices of temporality enable the child to work through at an individual pace so that positive results can be achieved. I was able to spend the time focused on the child's needs. Time has been mentioned by several outsider researchers. For example, Siraj-Blatchford and Sylva (2004) focus on the importance of "sustained shared thinking" (p. 720), where time is spent so that "both participants contribute to the learning process, although not necessarily in equal terms, or to an equal extent" (p. 727). My search of the literature in relation to the two-pronged aspect of time (teacher time and child time) and, in particular, the length of time needed by the child to work through the learning revealed little published research on this aspect of cultural-historical theory as an important concept for mediating a teacher's practice. The discussion of the findings so far indicates how practices of interpretation and interaction, practices of tool adaptation and practices of temporality are important to understanding an insider perspective on using cultural-historical theory to mediate a teacher's practice. The findings that support these three concepts are significantly different from other research into teachers' uptake of cultural-historical theory because they suggest that the three concepts are interrelated and form a dynamic whole pertaining to the mediation of practice. Originally, I considered these three concepts to be equal, but as the study progressed, it became obvious

that sometimes one concept was more evident, or in use, than another at any given moment of practice. By this, I mean that while all three exist in a related dynamic whole, sometimes one concept was being used or emphasised to mediate practice over another. Existing research into early childhood teachers' uptake of cultural-historical theory has neither focused sufficiently on the teacher's role through her practices of interpretation and interaction, practices of tool adaptation and practices of temporality, nor brought clearly to the fore how these three practices should be understood in relation to each other. In the next section of this chapter, I explain how I think these practices can be brought together to provide a model to help other teachers use cultural-historical theory to mediate their own practice.

6.3 Towards a Model for Using Cultural-Historical Theory in Practice

The findings suggest there are three main practices for using cultural-historical theory from an insider perspective. They are (1) Practices of interaction and interpretation; (2) Practices of tool adaptation; and (3) Practices of temporality. In the earlier part of this chapter, I discussed each of these elements, how they were expressed in the findings, how they are understood theoretically in terms of Vygotsky's general framework for psychology, how they have been researched and understood by others working from an outsider's perspective, and how I experienced them from an insider perspective as they mediated my practice. The findings suggest that a teacher could most profitably think about all three concepts within a dialectical relationship with each other as part of her practice.

In Figure 6.1, I presented the practices as dialectically related – all three elements are present and are considered related to each other. As I have indicated throughout this chapter, a teacher's practices of interpretation and interaction cannot exist without practices of tool adaptation and vice versa. In the same way, practices of temporality cannot exist without the practices of interpretation and interaction and/or practices of tool adaptation. Sometimes, one practice will be more dominant than another (Figure 6.2).

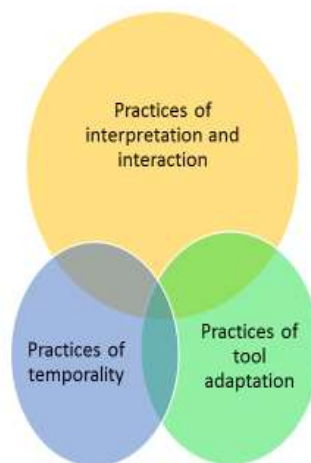


Figure 6.2. Model showing how one concept such as practices of interpretation and interaction can be more dominant than other practices.

This is a dialectical understanding of the three elements. Dialectical understanding is important to cultural-historical theory because it is a means of comprehending the world by considering the importance of the individual interacting with the social situation and the co-evolution of those involved. Vygotsky (1978) considers the importance of contradictions as a means of bringing about a dialectical situation.

Within this study, I have considered the importance of the teacher interacting with the social situation thereby creating a connection between her practices of interpretation and interaction and practices of tool adaptation and practices of temporality. With my changing practices of interaction with the children, I had to change how I presented cultural tools to the children as well as reconsider the time frames within which I worked to support the children's optimal learning. I will now continue to relate how the three concepts of the teacher's practices of interpretation and interaction, practices of tool adaptation and practices of temporality form the dialectical situation, and thus show the interrelatedness between the three concepts.

When considering the findings, it is the teacher's practices of interpretation and interaction that appears to be the most predominant concept from the insider perspective, with practices of tool adaptation and practices of temporality being concepts that appear to have less emphasis within the dialectic. I have already stated that the concept of practices of interpretation and interaction scored the highest with 117 codes, which suggests that it has significant importance for this study. This result in the findings for the teacher's practices of interpretation and interaction indicates that in developing a model for using cultural-historical theory, the teacher's role needs to be brought more to the fore than that shown in Figure 6.1, where each concept is seen to be equal. The emphasis on the teacher's role through her practices of interpretation and interaction is evident in the significant findings that demonstrate that the learning for Harrison, Judd, Callum, Beth and Sarah had been supported and extended by my interactions and mediation, and therefore supports the claim that this concept is considered the most dominant of the three. The following extract is a good example demonstrating my changed interactions with the children:

Today I worked with Callum at pasting. I decided to support his development in this area to include three-dimensional construction (pasting using materials such as boxes, feathers, icy-pole sticks). As I have spent some time with him pasting in the "upper" position, I decided to work in the "under" position today to see if he could transfer some of his learning into this newer area. I realised quickly that I needed to start in the "upper" position to get Callum started with this work, as he started to question me as soon as we sat down. (journal observation, 15.8.2011)

As the teacher, I was able to use my new knowledge of positioning to work with Callum; therefore, my interaction with him changed as I was prepared to work with him in the different positions. I was conscious of how I interpreted what Callum was doing and what I was doing to support his learning. This example supports how the teacher's role can come to the fore when working with a child to support the learning. The teacher's practices of

interaction and interpretation are able to initiate and support the child's social situation of development. It suggests that through mediation, the teacher can focus on specific teachable moments and skills that would be missed if the teacher did not have the input. This also supports the understanding of intentional teaching as required through the Australian early childhood learning frameworks outlined in Chapter 1. For example, in the EYLF, DEEWR (2009) notes that "They [early childhood educators] engage in sustained shared conversations with children to extend their thinking" (p. 15). This refers back to the research conducted by Siraj-Blatchford and Sylva (2004) and is considered to be of great importance. My findings also concur with the need for the teacher's practices of interaction to be of great significance in supporting the initiation of the social situation of development as well as supporting the child to progress through the stages of imagination. All the interactions should have the extension of the child's learning as the ultimate goal.

When the teacher has knowledge of the stages of imagination and the importance play has for the child, her practices of interpretation and interaction are able to enhance the learning for the child. I was able to interpret Harrison's play according to the stages of imagination so that my interactions could support his learning through his play.

When working with Callum, I was also aware of my practices of temporality as I was spending more time with him than I would have previously. The positioning of the teacher to the forefront, where she can play a dominant role in relation to time and the use of cultural tools to support children's development and learning has not previously been examined by outside researchers considering the application of cultural-historical theory to a teacher's practice (Cutter-Mackenzie, S. Edwards, & Fleer, 2009).

Through this study that provides an insider perspective on teacher uptake of cultural-historical theory, the dominant position of the teacher's practices of interpretation and interaction in relation to time and the use of cultural tools is now recognised. In future research that

examines the teacher uptake of cultural-historical theory, the dominant position of the teacher's practices of interpretation and interaction in relation to practices of tool adaptation and practices of temporality should be considered an important part of how cultural-historical theory mediates practice. The following extract indicates my realisation of the importance of the positioning of the teacher in the child's learning:

I feel that I am gaining the skills needed to accurately judge where and/or when I should join in so that I can best support the experience/learning. I have the knowledge now of how to position myself as the more experienced other to benefit the child. I am becoming more confident in considering where the child might be positioned with the elements of imagination. (reflection diary, 21.7. 2011)

Again, as I changed my practices of interpretation, my practices of temporality were also being transformed. I was giving myself the time to understand the new information as well as practise the new understandings with the children. This, in turn, meant that I was spending more time with the children. This changed understanding of how practices of temporality interrelate with a teacher's practices of interpretation and interaction can be considered an important finding.

At other times throughout the study, both the practices of interpretation and interaction and practices of tool adaptation were at the foreground. In those situations, the practices of interpretation and interaction appeared to be the dominant concept at the beginning of an episode (such as that previously described regarding my interactions with Judd when he was working initially with the blocks). Then as the episode unfolded, the practices of interpretation and interaction lessened and the practices of tool adaptation and the practices of temporality became more dominant (Figure 6.3). This changing scenario was evident when Judd became more competent with his play and more confident within the social situation of development.

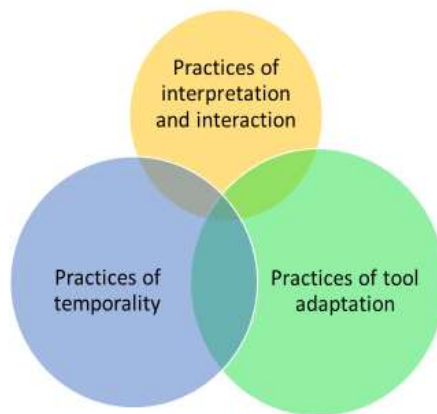


Figure 6.3. Model showing two practices – those of tool adaptation and temporality able to be dominant simultaneously.

The next findings in the study to consider are the practices of tool adaptation and the practices of temporality. In the findings, according to the frequency counts, these two practices are of relatively equal importance. The findings indicate that there can be any combination of two practices in the dominant position at any given moment of practice, although all three concepts remain connected and interrelated regardless of the position of dominance any of them might hold.

The findings suggest that the practices of tool adaptation will appear in the dominant position when there is a peer-group gathering. For example, as I stated in Chapter 5, my observations indicated that I was noticing that when a child brought in a popular culture toy, other children would gather around, discussing, for example, who had the same toy, who had seen the movie, who were the favourite characters and were, consequently, creating a social situation of development.

The following journal entries indicate some of the toys that the children brought:

- journal observation, 11.5.2011 – cars
- journal observation, 9.6.2011 – superhero figurines
- journal observation, 23.6.2011 – my little ponies

I further commented on the social situation of development that was evolving:

By acknowledging them [the popular culture toys], I am starting to see the most detailed activity happening in the block area with all the figures as well as all the extras that we have supplied...I am able to see the creativity, co-operation, listen to the communication that is happening for extended periods of time. (reflection diary, 22.6.11)

I would only enter the social situation of development as needed to offer support, direction and suggestions as appropriate. I soon observed that the children would take their popular culture toys into other areas of the kindergarten program, thereby extending their interactions and role play and sustaining the social situation of development. Practices of temporality would then be in a co-dominant position with the practices of tool adaptation, which would impact on the social situation of development as the peer group would strategise and co-operate on how to use their toys and what the storyline of their play was going to be.

Practices of temporality should always be considered as a dual component consisting of both the teacher's time and the child's time. Therefore, I understood that the children needed time for their learning and development and I should not interrupt or break this learning through play.

The concept of practices of temporality is interrelated with both the teacher's practices of interpretation and interaction and practices of tool adaptation. As I discussed in Chapter 5, I

was becoming aware of the importance of time for the child as well as for myself as the teacher. I needed to allow the child time to continue the learning and development available through her interests and what I planned as well. I found that by scheduling activities with the child's interests at the centre of the planning, the interest could continue for a number of weeks, if not for a whole term. The child was able to leave her interest and focus on another activity within the kindergarten for a period of time and then return to that interest at a later date since I was no longer putting items away within a couple of days of the child not using them in her play. As indicated by the following journal entries, I was more aware of my role in providing continued access to materials to support the children's learning, demonstrating the interrelatedness between time, the teacher's role and cultural tools:

Harrison again came back to the felt today, but drawing a kangaroo and some grass. He again spent about half an hour with the activity then folded it up and put it away. (journal observation, 1.6.2011)

Previously, I would have thought that if I didn't change items every fortnight, I was not really doing my planning very well. However, I now know that children need time to revisit their work as they are able to apply new understandings to what they are doing. (reflection diary, 22.6.2011)

Practices of temporality was also a concept that tended to be in the dominant position when children were learning new skills or had established a social situation of development that supported their learning. Therefore, the teacher needs to consider how her practices of temporality will impact on both her practices of interpretation and interaction and the children's opportunities for learning and development.

In this thesis, I have considered the question: What does the uptake of cultural-historical theory involve from an insider perspective, and how does this uptake mediate an educator's practice? This question has not previously been considered before as most other studies have

looked at the uptake of cultural-historical theory in early childhood education only from an outsider's position. In response to this question, I have established that the implementation of the concepts of (1) Practices of interpretation and interaction; (2) Practices of tool adaptation; and (3) Practices of temporality will mediate an educator's practice through the application of cultural-historical theory.

Using these three practices, I have developed a model that shows the interrelated and interdependent aspect of these three concepts that form a dialectic for describing *how* cultural-historical theory can mediate a teacher's practice from an insider perspective. When a teacher focuses on the dialectic of the three practices, it enables core features of cultural-historical theory to become priorities within her practice. These priorities are:

1. the importance of the developmental method
2. the importance of establishing a social situation of development from within which the higher mental processes of the individual can be initiated
3. the importance of tools and signs to support mental processes and learning.

The contribution to knowledge made by this thesis is that **the uptake of cultural-historical theory by teachers is best achieved using these three practices that bring to the fore the core features of cultural-historical theory in a dialectical relationship**. This contribution is in stark contrast to the existing literature that examines the application of cultural-historical theory to early childhood education, which typically focuses on teachers using one or more features of cultural-historical theory in a stand-alone form. For example, researchers talk about the ZPD (Arthur et al., 2007; Berk, 2009; S. Edwards, 2009), play (Arthur et al., 2007; Berk, 2009; Sumsion, Grieshaber, McArdle, & Shield, 2014), social context (Arthur et al., 2007; Berk, 2009; S. Edwards, 2009; Roopnarine & Johnson, 2005), and cultural tools (Yelland, 2011). This tends to occur in both publications for practitioners and in research publications.

Increasingly, the research literature considers the importance of the child's culture and the need to understand the implications of cultural experiences *on* and *for* children's learning (S. Edwards, 2007a), particularly as a way of helping teachers understand how to use cultural-historical theory in their practice. An article by Harvey and Myint (2014) gives a detailed account of the importance of supporting a child with the home language. It is noted within this article that the benefits of the bilingual worker are many; in particular, she can act as a bridge between the family's cultural practices and the expectations of the teacher.

The ZPD, a Vygotskian concept, appears to be used in early childhood education literature as a means of assessment and a way to work with children to support skill development (Fleer, 2006; Fleer & Surman, 2006). Current literature for researchers and teachers also focuses on different aspects of Vygotsky's theory and from an outsider perspective, considers, for example, the use of the ZPD by teachers (Doolittle, 1995; S. Edwards, 2009). Wertsch and Tulviste (2005) discuss how concepts can be taken from Vygotsky's theory and not always be understood as a part of a larger whole. For example, they say the idea of the zone of proximal development has "taken on particular importance in contemporary developmental psychology in the West [and] a sort of life of its own in the contemporary developmental literature" (p. 61).

Van Oers (2014) presents an overview of play from a cultural-historical perspective, focusing on the imaginary situation, the importance of rules within the play and the cultural influences on the play. Wood and Bennett (1998) discuss the differences between constructivist and social constructivist theories of play. They are able to give teachers a clear insight into how the theories can be enacted within the teacher's practice. Play is discussed further in articles by Varga (2003) when she discusses ways that a teacher might support a child to enter a social situation to extend the learning that is possible through playing within a group.

In this thesis, by answering the research question through the development of a new model for illustrating the three practices, I am able to suggest how other teachers, who, like myself, are the “insiders” and are not able to easily access professional learning, literature and discussions about a new theory, such as cultural-historical theory, could think about using cultural-historical theory to mediate their own practices.

This model shows the interconnectedness of the three practices that can work together so that when a teacher focuses on these three practices, cultural-historical theory can mediate her teaching methods in such a way that it has a major impact on supporting the child’s learning and development and, in the process, transitions her practice from working within a developmental constructivist theoretical framework.

Previous theorists and philosophers (Froebel 1782–1852; Hall, 1846–1924; Montessori, 1870–1952; Piaget, 1896–1980) focused more specifically on developmental ages and stages and placed a high priority on the environment and the need for the teacher to set the space or environment for the child to be in. Approaches such as DAP and Head Start emphasised that teachers should observe the child and plan for the child’s learning and development, taking into account the interests that have been observed. In these approaches, apart from setting the environment, the role of the teacher was not regarded as of great importance.

As I described in Chapter 1, my own experience and training to be a teacher did not highlight the role of the teacher as having a great bearing on the child’s learning or development. In these approaches, and also in my original training, cultural tools were also not considered in relation to the child’s learning, and, therefore, were not available to teachers as concepts useful for mediating practice. The impact of time was given more importance than the teacher’s role and cultural tools because “time” was usually associated with the child’s age and stage of development. The concept of time is perhaps marginally more evident in

accepted early childhood education practices because early philosophers such as Froebel (Ediger, 1992; Ransbury, 1982) did consider the child needed time to engage in play.

Consequently, I have developed my model to illustrate to other teachers how they may engage with cultural-historical theory as a new theoretical framework that has entered the field of early childhood education through research and in policy.

6.4 Conclusion

Educational research, as outlined in Chapter 2, is undertaken with the common aim of improving practice (Edwards, 2007a, 2007b; Fleet & Patterson, 2001; Kremenitzer & Myler, 2006; Lighthall, 2007; Pakarinen et al., 2011; Wood & Bennett, 2000). This thesis has been guided by the question: What does the uptake of cultural-historical theory involve from an insider perspective, and how does this mediate a teacher's practice? By conducting a self-study into my own reading, study, and use of cultural-historical theory in practice, I have presented three main concepts that have been developed from Vygotsky's framework for general psychology.

Presented in the model (Figure 6.1), the three concepts of cultural-historical theory that mediate practice from an insider perspective are practices of interaction and interpretation, practices of tool adaptation, and practices of temporality. The three concepts are dialectically related and at times are in different modes of domination (Figures 6.2 and 6.3). The teacher's practice can be considered to be relevant to supporting the children's learning and development within the kindergarten environment when focusing on the teacher's role in supporting the social situation of development through her practices of interpretation and interaction, mediation via cultural tools through her practices of tool adaptation, and the developmental method through her practices of temporality.

This model provides new insight into the use of cultural-historical theory to mediate practice because as I have detailed in Chapter 2 and throughout the thesis, the existing literature details

research that has been undertaken mostly from an outsider perspective, and therefore mainly focuses on the importance of cultural-historical concepts in relation to children. The literature does not consider how the concepts are deployed dialectically by the teacher.

I have been able to remain “self-initiated and focused” throughout this research to discover this model – a directive of self-study defined by LaBoskey (2004) – and it is “improvement-aimed” at myself and other early childhood education teachers, which is another directive of self-study defined by LaBoskey (2004). Therefore, I have met the critical requirements for this research.

In the next, final chapter of this thesis, I highlight the significance of the contribution of this completed research to the early childhood education sector.

Chapter 7

Conclusion

7.1 Introduction

I conclude this thesis by highlighting the significance and contribution that I have made to the field of early childhood education through this research. I will present the limitations which appeared within the research, what I have learnt from undertaking the research, and I will finish with describing some future research implications arising from the findings, including some final reflections on my uptake of cultural-historical theory.

7.2 Summary

The objective of this thesis has been to ascertain what the uptake of cultural-historical theory involves from an insider perspective, and how this mediates a teacher's practice. I indicated at the beginning of the thesis that it was a story of change. In addressing the research question, I have described my story of change from a teacher using constructivist developmental theory to a teacher using and able to describe for others the core practices of cultural-historical theory.

Reading the available early childhood education literature on the application of cultural-historical theory in education practice revealed that the existing research had been more focused on the child's learning rather than the teacher's involvement with that learning. As I delved further, I began to realise that little research had been undertaken into the use of cultural-historical theory from a practising teacher's perspective in the field of early childhood education.

As I detailed in Chapter 4, the majority of research conducted on teacher uptake of cultural-historical theory to mediate practice has been conducted from an outsider position. Therefore, there has been little support for a teacher trying to understand what to focus on, and how to

implement changes to her practice when required to consider using a new theoretical framework such as cultural-historical theory in response to policy amendments as detailed in the EYLF (DEEWR, 2009).

In the past 15 years, there has been a great deal of interest in the different elements of cultural-historical theory that might be used in the practice of early childhood education – for example, great interest has been given to the ZPD, the influence of children’s cultural backgrounds, the basing of much of the program on children’s interests and a changing awareness of the value of play. However, all the research to date, despite being able to give the teacher great insights into the importance of cultural-historical theory, and how it may be considered when planning for the kindergarten child, has always been conducted from an outsider perspective. As far as I was able to ascertain from my extensive literature search, no one had examined the uptake of cultural-historical theory in practice, and how using the theory mediates practice from an insider perspective.

I identified this significant gap in the level of research available to help teachers in the use of cultural-historical theory to mediate their practice in Chapter 2, the literature review section of the thesis.

The lack of research into the uptake of cultural-historical theory from an insider perspective presents an interesting dilemma as Vygotsky refers to the individual’s interactions within the community or the social situation as always starting from being between people (Vygotsky, 1978, 1997). This dilemma suggests to me the critical necessity for the insider’s voice to be henceforth heard from within the kindergarten community and the teacher’s social situation. I established this self-study within the community or social situation that I currently work within, which is my kindergarten classroom. This meant that I positioned my own learning firstly within the inter-psychological plane – where I was learning from others or with others – then within the intrapsychological plane, where I processed the information internally in

order to externalise the new understandings I had gained from within my practice. As I discussed in Chapter 3, existing theories of teacher learning suggest that this is one of the most significant ways to realise a change in practice. The diagrammatic models I presented in Chapter 6 (figures 6.1, 6.2 and 6.3) are therefore my claim to explaining my learning and for being heard within the social situation in a way that includes my interactions with the children, my assistant, Rhonda, and my critical friend, Paru.

To provide the conceptual grounding for this thesis, several definitions needed to be established. Since this research was conducted within the site of my workplace, the kindergarten where I am the teacher, I had to focus on and clarify the particular articulations from Vygotsky's cultural-historical theory that are particularly relevant to early childhood education. Through this study, I have been able to highlight specific concepts that are necessary for the teacher to focus on when using cultural-historical theory to guide her practice. I have been able to show how the teacher's practices are in a dialectical relationship and that they are interdependent with each other. I have also been able to demonstrate how one practice can be in a dominant position over another and that this dominance can change according to the circumstances. These practices have not previously been identified and used in a model to show how teachers can engage with the uptake of cultural-historical theory.

A major influence on this thesis has been the passage of time. Time became an important contributor to my growing knowledge and enabled the changes in my understanding to be become more readily manifest. I was fortunate to be able to gather my data over three terms of the kindergarten year. I did not have to rush the data collection through a relatively short space of time. As it happened, I was able to take the time to follow the children's developing play and take my time in learning to understand the play and consider how my practices were changing as my uptake of cultural-historical theory mediated what was occurring with the children within my kindergarten.

7.3 The Significance of this Thesis

The premise for commencing this thesis was my journey of changing from using Piagetian theory to guide my thinking and planning when working with kindergarten children to adopting the cultural-historical theory as espoused by Vygotsky to plan and work with the children.

Consequently, the research question that was developed for this thesis was: What does the uptake of cultural-historical theory involve from an insider perspective, and how does this uptake mediate a teacher's practice?

The introduction of the early years learning framework (EYLF) (DEEWR, 2009) throughout Australia seven years ago, encouraged teachers to “draw upon a range of perspectives in their work which may include:

- Developmental theories
- Socio-cultural theories
- Socio-behaviourist theories
- Critical theories
- Post-structuralist theories” (p. 11).

The inclusion in the EYLF (DEEWR, 2009) of these stated theoretical perspectives as informants to practice gives this thesis added significance to the teacher practising within the field of early childhood education. This is because my model showing the three practices is now available to other early childhood teachers as a way of thinking about and using cultural-historical theory to inform their own practice, therefore supporting them to align their work with the requirements of the EYLF (DEEWR, 2009) that they draw on cultural-historical theory as an informant to practice.

This study offers, therefore, a significant contribution to the field because it helps teachers to understand how to use cultural-historical theory in practice in an integrated, dialectical way. I have also been able to present ways that the teacher can align with the EYLF directive of “planning and implementing learning play and intentional teaching” (DEERW, 2009, p. 14) through her practices of interpretation and interaction. I have presented the importance of play for the child’s learning as well as the importance of imagination for the development of play.

The model I developed also indicates how the teacher’s practices of tool adaptation can support the importance of play as well as the teacher’s intentional teaching. The model also helps teachers to undertake and meet the requirements of the EYLF (DEEWR, 2009), which focuses on teacher initiated, and intentional teaching practices when working with children (p. 15; VEYLDF, 2011, p. 12). This is because the role of the teacher, as presented in the model, aligns to both of these foci presented in the EYLF (DEEWR, 2009) and the VEYLDF (DEECD, 2011). For example, the role of the teacher is necessary when focusing on intentional teaching. Intentional teaching can be supported by sustained shared thinking, which is evident through practices of interpretation and interaction (Siraj-Blatchford, 2009a). The teacher’s role is also needed to provide the “rich” (Vygotsky, 2004) learning environment that is also noted within the EYLF (DWEER, 2009).

I have attempted to highlight the impact that the dialectic has on the three practices of interpretation and interaction, tool adaptation and temporality so that the teacher can now feel confident in knowing how to use this new knowledge, and in doing so engage with the uptake of cultural-historical theory to mediate her practice more confidently than I was able to when I first set out on this story of change. This confidence includes thinking about, and understanding, the dominant and co-dominant positions of each practice in the model.

This thesis also makes an important contribution to the literature of early childhood education because it presents an insider perspective on how the uptake of cultural-historical theory

mediates practice and what this mediation looks like. This is an important contribution to the field because it addresses an identified gap in early childhood education literature. I have already noted that Genishi et al. (2001) found in an earlier study that there was a lack of research into *teaching* within the early childhood education field, and even less research conducted from an insider perspective.

The new model is also potentially useful to researchers from the outsider perspective because they could consider each practice and the relationships between the practices as used by teachers to achieve different learning and developmental results for children.

7.4 Limitations

In the initial stages of data collection, I was focusing on one particular cultural-historical concept at a time as I did not have a full understanding of the significance of the dialectic. As my knowledge of cultural-historical theory grew, so I gained further understanding. This meant that when I reviewed my data, I noticed gaps in my data collection that I had not realised when I had completed the work two years earlier. Therefore, I reconsidered my critical reflections when I had a greater understanding of how the dialectic worked and the interdependency between the three practices had become much clearer. I am not sure if this clarity of knowledge would have been so evident if I had only had a short time to collect my data in addition to the time I had available for understanding cultural-historical theory.

I have had to change my understanding of what play is, and how play is important for the kindergarten child. From a cultural-historical positioning, Vygotsky (1976, 1978) is quite clear in his definition that play is the imaginary situation within which the child participates, and thus is able to follow the rules associated with the role being played. Vygotsky's (1976) definition is limited to the dramatic or pretend play scenarios only. I had to learn to focus on the imaginary situation, and learn to reinterpret what I was observing. I also learnt how to interpret play as supported by the child's movement through the differing elements of

imagination. I had to learn how the teacher is able to consider the stage of learning and development in which the child is functioning, and is then able to position herself according to the ways as detailed by Kratsova (2009) to support the learning and development that is possible for the child through the ZPD.

I was willing to take up a new theoretical understanding with which to guide my practice, but, like many early childhood teachers required to update their use of theoretical frameworks in practice, I was in an isolated situation. I needed external support to assist me in my work environment. It was not until later in the study that I was able to secure the support of my assistant, Rhonda. I believe that if I had recognised my own social situation of development earlier, there may have been more profitable discussions between Rhonda and myself as we would have both had a similar understanding of the three practices for using cultural-historical theory.

7.5 What I Have Learnt

My initial readings of research into teachers' practice when using new theoretical perspectives led me to understand the importance of being actively involved with my own study. Initially I had to learn about and understand all the elements of cultural-historical theory before I could appreciate the existing research detailed in the literature regarding teachers' practices of using cultural-historical theory.

Time has also been mentioned as being an important aspect for teachers when considering the uptake of a new theory in order to mediate their practice. S. Edwards (2007a) strongly emphasises this point, and this concept became a critical practice within the dialectic found in my study. Research conducted by outsiders, both locally and internationally (for example, Fleet & Patterson, 2001; Wood & Bennett, 2000), all referred back to the need for greater support for teachers wanting to implement a new theoretical perspective to mediate their practice. For example, Mesquita-Pires (2012), Cheng (2006) and Lieber et al. (2009) all found

that teachers showed a great willingness to change their practice. Isolation was a problem for some (Cheng, 2006), but when there was active involvement and support (Lieber et al., 2009) for others, obstacles were usually overcome or reworked to suit the teachers' environment. This struggle with changing practice was evident internationally through the research of Walsh and Gardner (2006), where they also found that isolation from supportive peers was a problem for teachers wanting to change their practice, as well as there being an unwillingness to change from what were regarded as "tried and trusted" methods of teaching young children.

7.6 Implications

The intention of this thesis is to explain how a teacher can use cultural-historical theory to mediate their practice from an insider perspective. To date, outsider researchers have not been able to articulate the three essential interconnecting practices that I have established as those that a teacher needs to understand when using cultural-historical theory. The three practices are:

1. Practices of interpretation and interaction
2. Practices of tool adaptation
3. Practices of temporality

Researchers external to the early childhood education sector also appear to have been unable to articulate how the dialectic that exists within cultural-historical theory is an essential factor when using cultural-historical theory to mediate a teacher's practice. Therefore, when a teacher, such as me without a background in cultural-historical theory, considers the uptake of this theory to mediate their practice, these three concepts must be presented to her as dialectically related as opposed to discrete or opposing concepts (Kemmis & McTaggart, 2000) to be implemented in practice. Otherwise, wholesale change in practice will not occur.

Of the three types of practices, the practices of interpretation and interaction was found to be the most dominant and should be seen as being multi-faceted. The teacher will be involved in setting and establishing a social situation for the child's potential learning and development. Through the use of language, the teacher is able to interact and alter the immediate situation which, due to the dialectic, also has an impact on the child. However, there is always more than one collaborative practice happening at the time of interaction, which supports the proposition of the importance of the social situation. The teacher may be involved in supplying, organising, contributing and supporting the child in the physical situation to support learning and development. The teacher can also be involved with mediation through the equipment that she makes available to the child, and the time she allows for the child to explore the tools that are available and the play scenarios that have developed in which she, the teacher, is also often involved. Duncan and Tarulli (2003) confirm this role for the teacher when they comment that:

adults' pedagogical activities in the preschool setting carry the potential to make a dual contribution to children's development: in addition to providing the direct experiences that scaffold and promote children's learning, they also supply the material and models for behaviour that guide children's own subsequent play activities (p. 278).

These are the times when the dialectic is the most visible in mediating practice.

This thesis indicates that the practices of tool adaptation have greater importance than I previously considered when I was using the developmental constructivist theory. Cultural tools were frequently considered to be a stimulus for creating the social situation. It was often noted that a group of children would form together when new toys – that is, cultural tools – were produced and shared amongst the children. The teacher may be involved with this scenario or the children may provide their own stimulus to extend their learning and

development. In these situations, the cultural tools were the more dominant concept of the dialectic, with time supporting the scenario. The cultural tools were frequently used in a mediating process with children who had difficulties in entering the peer group, as noted in chapters 5 and 6, when I discussed how Judd struggled to join his peers.

Vygotsky (2004) hints at another use for cultural tools by the teacher, and that occurs when the teacher “broaden[s] the experiences” (p. 15) by introducing cultural tools to the children. According to my new model (Figure 6.1), cultural tools need to be given more attention due to the impact they can have for the child’s learning and development.

Practices of temporality was the unexpected final practice I found that time impacted on two lines of development: one connected with the teacher’s role, and the other with the child’s development and learning. Previously, I had not appreciated how important this practice was. As presented in Chapter 6, time was important from the teacher’s perspective to support the child’s learning and development. One method to provide the support was through “sustained shared thinking” (Siraj-Blatchford & Sylva, 2004, p. 727), where “both participants contribute to the learning process, although not necessarily in equal terms, or to an equal extent” (Siraj-Blatchford & Sylva, 2004, p. 727).

Time impacted on the child’s learning and development through the developmental method when she progressed through the stages of imagination to reach the point when the play became the leading activity that enabled learning and development to occur. Vygotsky (1976) defines this as “play is not the predominant form of activity, but is, in a certain sense, the leading source of development in the pre-school years” (p. 537). Every child’s development follows a certain structure.

With this understanding now established, I created a new model (Figure 6.1) showing the three practices of cultural-historical theory from an insider perspective. This model is an accessible way of explaining the three main practices and their dialectical relationship in a

visual form. This visual model will help other teachers in the future because when they study the model they will be able to gain a clearer understanding of the dialectical positioning of the three practices and how they can be used in dominant and co-dominant positions to mediate their practice. This should in turn make it easier for other teachers to successfully focus on these three core features of cultural-historical theory that I identified in Chapter 2 as the influence of the developmental method, the importance of mediation via tools and signs, and the importance of the social situation of development. Teachers who are now considering changing the theoretical base from which they work will be able to study these three dialectically related practices to gain greater practical understanding of cultural-historical theory. Teachers who already have some knowledge and understanding of cultural-historical theory will also benefit as they will gain a deeper understanding of how the practices can be viewed as interdependent, rather than as discrete elements of the theory as often presented in the literature (Fleer, 2011; Robbins et al., 2011) or as presented within support materials such as those provided through DEEWR, Early Childhood Australia and Lady Gowrie for practising teachers.

7.7 Future Research

Further research could be considered as to how the identified dialectic between the three practices may be used by teachers to best support the Australian Government's Early Years Learning Framework (DEEWR, 2009) that now guides teachers in all sectors of early childhood. The important directions within the EYLF most suited to further research using my model include the use of cultural-historical theory as an informant to practice (p. 11). As I have outlined within the discussion, focusing on the teacher's practices of interpretation and interaction, practices of tool adaptation and practices of temporality will specifically address the ideas of "learning through play", "intentional teaching", and "learning environments" in the EYLF (DEEWR, 2009, p. 15).

The practice described as “learning through play” in the EYLF (DEEWR, 2009, p. 15) requires the teacher to be actively involved with the child’s play. Knowledge of how the teacher can place herself within the play as previously described within Chapter 2 will guide the teacher as to how to also work with the child.

Another priority to recognise is that when the child is functioning within the elements of imagination, it is important that the teacher works with the child to enable her to reach mature play, which is where the most constructive learning can take place. The teacher also needs to acknowledge the significance of cultural tools as a valuable support to the learning and development that is possible for the child through play. The last practice for the teacher to recognise is the impact of time in enabling the child’s learning to reach its full potential through allowing the play to take its natural course.

Further research into the dialectical relationship between these elements should benefit the teacher’s ability to use this model to optimise the mediation of her practice when based on cultural-historical theory.

Intentional teaching is also a vital practice in the EYLF (DEEWR, 2009, p. 15) that is supported by my study and could also benefit from further research. Intentional teaching relates directly to the role of the teacher through the practices of interpretation and interaction. This can involve the teacher using the different positions to support the child’s learning and development as described by Kravstova (2009) when using the theme of the ZPD to drive the child’s learning and development. Siraj-Blatchford and Sylva (2004) and Siraj-Blatchford (2009b) also identify a strategy that supports intentional teaching and effective outcomes for the child known as “sustained shared thinking” (Siraj-Blatchford & Sylva, 2004, p. 719). This term has also been documented within the EYLF (DEEWR, 2009, p. 16) as being of influence within the learning environment, but it should also be highly considered when the teacher is involved with the child in an intentional teaching scenario.

The EYLF (DEEWR, 2009) states:

Learning environments are welcoming spaces when they reflect and enrich the lives and identities of children and families participating in the setting and respond to their interests and needs. Environments that support learning are vibrant and flexible spaces that are responsive to the interests and abilities of each child. (p. 15)

Vygotsky (2004) reinforces the understanding of providing a “rich” environment as discussed in Chapter 6 of this thesis. This “richness” may be provided and extended by the teacher as part of her role in supporting the learning and development of the child. It can also be reinforced through the use of cultural tools, which would include the technological tools suggested in the EYLF (DEEWR, 2009, p. 37 & p. 44).

There could be further research conducted on the impact these tools could have on the learning environment as well as further details regarding what a rich environment might look like – particularly when including popular-culture toys and technologies for young children.

7.8 Conclusion

The objective of this thesis has been to answer the question of: What does the uptake of cultural-historical theory involve from an insider perspective, and how does this uptake mediate a teacher’s practice?

I have been able to discover the answer through undertaking a thorough examination of Vygotsky’s framework of cultural-historical theory that formulates a general law of development for higher mental processes. I found the three main components of (1) the influence of the developmental method; (2) the importance of mediation via tools and signs; and (3) the importance of the social situation of development were able to be incorporated into the following three concepts that I developed from my findings:

1. Practices of interpretation and interaction

2. Practices of tool adaptation
3. Practices of temporality

These three practices operate within a dialectic, where they are always interrelated.

When focusing on these practices, I, as the teacher, am now able to bring to a central position the core features of cultural-historical theory. I now focus on a play-based program that supports the children through their learning and development using the stages of imagination within a social situation of development that includes mediation through tools to the point where play becomes a leading activity for the kindergarten child.

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Appendices

Appendix A – Ethics Clearance

Appendix A-1: Ethics clearance from Monash University

 **MONASH** University

Monash University Human Research Ethics Committee (MUHREC)
Research Office

Human Ethics Certificate of Approval

Date: 24 February 2011

Project Number: CF10/3392 - 2010001788

Project Title: A teacher's journey: Shifting theoretical positions within early childhood education

Chief Investigator: Dr Susan Edwards

Approved: From: 24 February 2011 to 24 February 2016

Terms of approval

1. The Chief investigator is responsible for ensuring that permission letters are obtained, if relevant, and a copy forwarded to MUHREC before any data collection can occur at the specified organisation. **Failure to provide permission letters to MUHREC before data collection commences is in breach of the National Statement on Ethical Conduct in Human Research and the Australian Code for the Responsible Conduct of Research.**
2. Approval is only valid whilst you hold a position at Monash University.
3. It is the responsibility of the Chief Investigator to ensure that all investigators are aware of the terms of approval and to ensure the project is conducted as approved by MUHREC.
4. You should notify MUHREC immediately of any serious or unexpected adverse effects on participants or unforeseen events affecting the ethical acceptability of the project.
5. The Explanatory Statement must be on Monash University letterhead and the Monash University complaints clause must contain your project number.
6. **Amendments to the approved project (including changes in personnel):** Requires the submission of a Request for Amendment form to MUHREC and must not begin without written approval from MUHREC. Substantial variations may require a new application.
7. **Future correspondence:** Please quote the project number and project title above in any further correspondence.
8. **Annual reports:** Continued approval of this project is dependent on the submission of an Annual Report. This is determined by the date of your letter of approval.
9. **Final report:** A Final Report should be provided at the conclusion of the project. MUHREC should be notified if the project is discontinued before the expected date of completion.
10. **Monitoring:** Projects may be subject to an audit or any other form of monitoring by MUHREC at any time.
11. **Retention and storage of data:** The Chief Investigator is responsible for the storage and retention of original data pertaining to a project for a minimum period of five years.

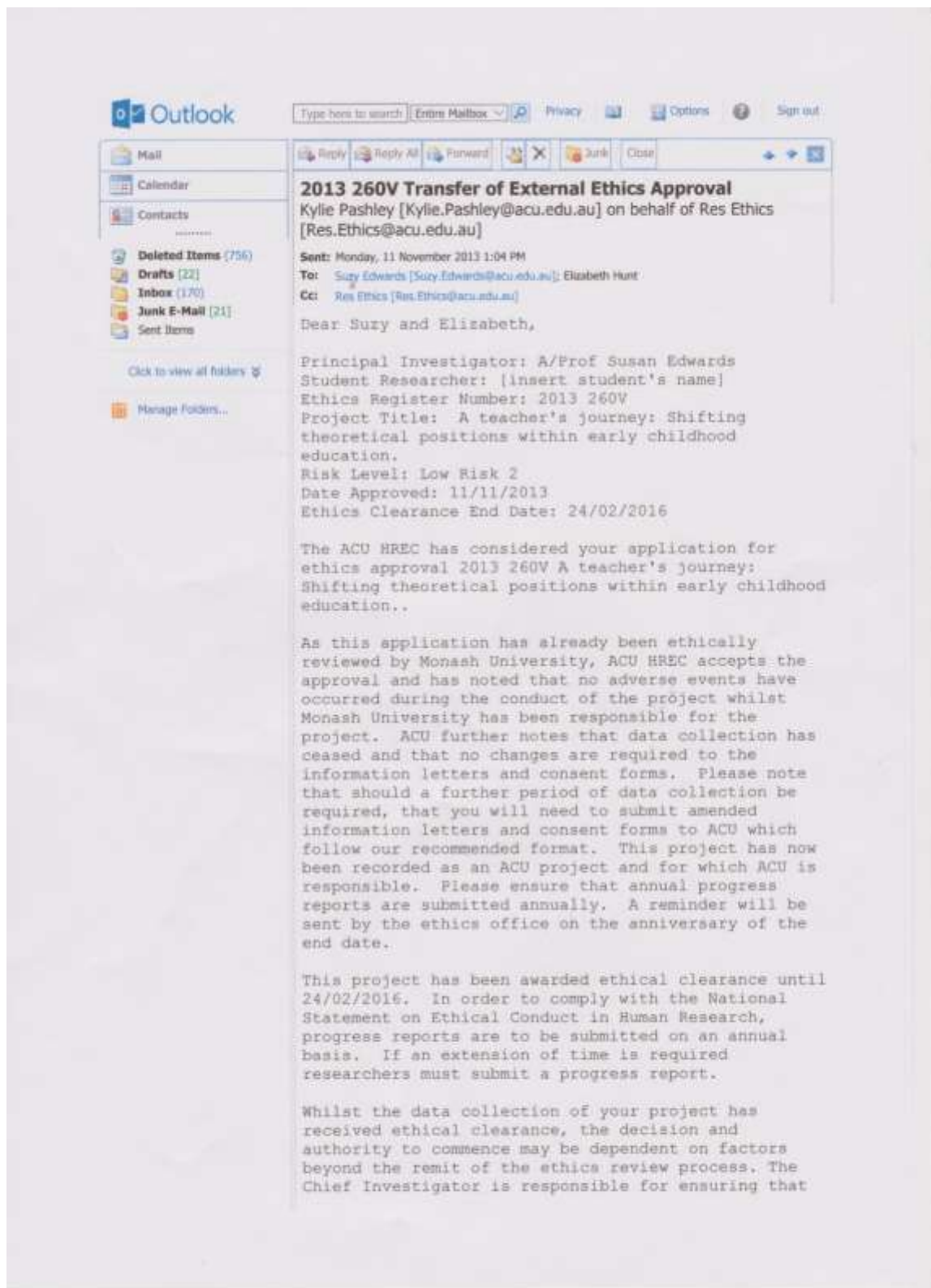


Professor Ben Canny
Chair, MUHREC

Cc: Ms Elizabeth Hunt; Ms Judith Williams

Postal – Monash University, Vic 3800, Australia
Building 3E, Room 111, Clayton Campus, Wellington Road, Clayton
Telephone +61 3 9905 5490 Facsimile +61 3 9905 3831
Email muhrec@monash.edu.au <http://www.monash.edu.au/researchoffice/human/>
ABN 12 377 614 012 CRICOS Provider #00008C

Appendix A-2: Ethics clearance from Australian Catholic University



appropriate permission letters are obtained, if relevant, and a copy forwarded to ACU HREC before any data collection can occur at the specified organisation. Failure to provide permission letters to ACU HREC before data collection commences is in breach of the National Statement on Ethical Conduct in Human Research and the Australian Code for the Responsible Conduct of Research.

If you require a formal approval certificate, please respond via reply email and one will be issued.

Decisions related to low risk ethical review are subject to ratification at the next available Committee meeting. You will only be contacted again in relation to this matter if the Committee raises any additional questions or concerns.

Researchers who fail to submit an appropriate progress report may have their ethical clearance revoked and/or the ethical clearances of other projects suspended. When your project has been completed please complete and submit a progress/final report form and advise us by email at your earliest convenience. The information researchers provide on the security of records, compliance with approval consent procedures and documentation and responses to special conditions is reported to the NHMRC on an annual basis. In accordance with NHMRC the ACU HREC may undertake annual audits of any projects considered to be of more than low risk.

It is the Principal Investigators / Supervisors responsibility to ensure that:

1. All serious and unexpected adverse events should be reported to the HREC with 72 hours.
2. Any changes to the protocol must be approved by the HREC by submitting a Modification Form prior to the research commencing or continuing.
3. All research participants are to be provided with a Participant Information Letter and consent form, unless otherwise agreed by the Committee.

For progress and/or final reports, please complete and submit a Progress / Final Report form:
www.acu.edu.au/465013

For modifications to your project, please complete and submit a Modification form:
www.acu.edu.au/465013

Researchers must immediately report to HREC any matter that might affect the ethical acceptability of the protocol eg: changes to protocols or unforeseen circumstances or adverse effects on participants.

Please do not hesitate to contact the office if you have any queries.

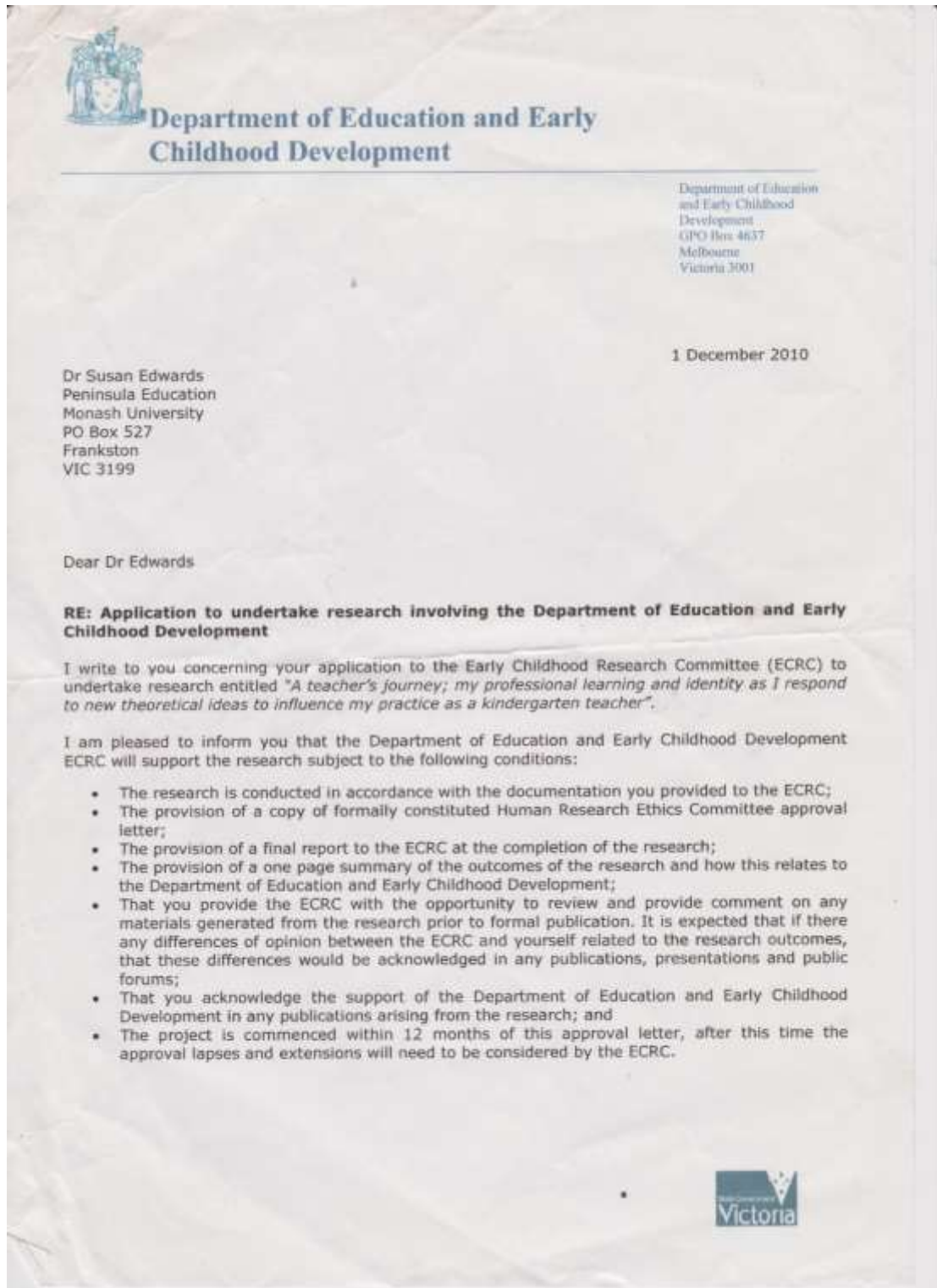
We wish you well in this research project.

Regards,

Kylie Pashley
Ethics Officer | Research Services
Office of the Deputy Vice Chancellor (Research)
res.ethics@acu.edu.au

Converted to Microsoft Exchange

Appendix A-3: Ethics clearance from the Department of Education and Early Childhood Development




If you have any further enquiries, please don't hesitate to contact the ECRC Secretariat on 03 9637 3629 or via email hood.suzanne.s@edumail.vic.gov.au. The ECRC wishes you the best in your research and we look forward to seeing the results in due course.

Yours sincerely

A handwritten signature in black ink, appearing to read "Joyce Cleary". The signature is written in a cursive, flowing style.

Joyce Cleary
Chair, Early Childhood Research Committee

Appendix B – Explanatory Statement



Explanatory Statement

March 2011

Explanatory Statement for Parent/Carers of the children

Title: A Teacher's Journey: Shifting Theoretical positions in Early Childhood Education

This information sheet is for you to keep.

My name is Elizabeth Hunt and I am conducting a research project with Dr. Susan Edwards, a Senior Lecturer and Dr. Judy Williams, a Lecturer in the Department of Education towards a PhD at Monash University. This means that I will be writing a thesis which is the equivalent of a 300 page book.

You have been invited to participate in this research because your child attends Timbarra kindergarten. I will not be using any contact details for this research. I have chosen this group as I am the teacher at this kindergarten and the research data will be collected during this group's usual session times.

The aim/purpose of the research
The aim of this study is to explore how learning about new theoretical ideas alters my professional philosophy and teacher identity. I am conducting this research to find out what changes I make to my programming and the way I work with the children at the kindergarten as a result of this learning. I also want to discover what implications this might have for my professional identity

Possible benefits
I expect this research will be of benefit to early childhood educators as it will detail how becoming informed about new theories, particularly cultural-historical theories could lead to improvement in their teaching. With knowledge of Vygotsky's theory on play, the early childhood teacher is able to re-look at the importance of play and how it can be the leading source of development for the child in the early childhood setting.

What does the research involve?
The study involves my looking critically at how I use Vygotsky's theories to guide my planning and working with the children as they participate within the kindergarten environment. I will not be using any special tests with the children. I will be observing play that occurs naturally within the usual session time as well as set up environments to support the children's play. I will be taking some observations and photos of what the children are doing as well as recording some interactions between the children and myself. I will be collecting the data for 30 weeks during the year with time intervals of no more than 30 minutes at a time.
There will be no inconvenience or disruption to the children as they will only be involved in their usual activities at the centre. They will not be asked to do anything that would not normally occur during the session. My own professional learning is the object of this research. However, to explore this learning I will need to refer to my teaching and interactions with children in the normal processes of my work.

Can I withdraw from the research?
Being in this study is voluntary and you are under no obligation to consent to participation and may withdraw at anytime of your choosing. Your child will not be disadvantaged if you choose for him/her to not participate in the research as all children will still have equal opportunities to participate in the whole programme. During the year learning experiences are usually set up according to developmental

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abilities, needs or interests but are still available to all children, and staff then adapt the experience as necessary for your child.

Confidentiality

You have the choice of allowing me to use your child's first name or assign a pseudonym which I will strictly adhere to. I will also choose photos that do not show your child's face unless I am given permission to do so within any published material.

Storage of data

Storage of the data collected will adhere to the University regulations and kept on University premises in a locked cupboard/filing cabinet for 5 years.

Use of data for other purposes

A report of the study may be submitted for publication, but individual participants will not be identifiable in such a report unless permission has been granted.

Please keep in mind that efforts will be made to maintain anonymity but that this may not be possible in all cases where images might be used.

Results

If you would like to be informed of the aggregate research finding, please contact Elizabeth Hunt on 03 97967356 or Elizabeth.Hunt@monash.edu The findings are accessible for 4 months from January 2012 from the stated address.

If you would like to contact the researchers about any aspect of this study, please contact the Chief Investigator:	If you have a complaint concerning the manner in which this research <insert your project number here> is being conducted, please contact:
Elizabeth Hunt Timbarra Kindergarten 27 Parkhill Dr. Berwick, 3806 timbarra@kindergarten.vic.gov.au 97967356	Executive Officer, Human Research Ethics Monash University Human Research Ethics Committee (MUHREC) Building 3e Room 111 Research Office Monash University VIC 3800
Dr. Susan Edwards Faculty of Education Peninsula Campus Monash University, 3800 99044638 Susan.Edwards@monash.edu	Tel: +61 3 9905 2052 Fax: +61 3 9905 3831 Email: muhrec@adm.monash.edu.au
Dr. Judy Williams Faculty of Education Peninsula Campus Monash University, 3800 99044478 Judy.Williams@monash.edu	IMPORTANT: For projects in non-English speaking countries, a local person who is also fluent in English must be nominated to receive complaints and pass them onto MUHREC. Please replace above section (in blue) with the details of that person.

Thank you



Elizabeth Hunt

Appendix C – Consent

Appendix C-1: Informed consent: parent/carers

Consent Form for Parents/Carers

Title: A Teacher's Journey: Shifting Theoretical Positions in Early Childhood Education

NOTE: This consent form will remain with the Monash University researcher for their records

I agree for my child to take part in the Monash University research project specified above. I have had the project explained to me, and I have read the Explanatory Statement, which I keep for my records. I understand that agreeing to take part means that:

- My child's image may be used in the thesis or any resulting publications or conference presentations. Yes No
- Documented observations of my child may be used in the thesis or any resulting publication or conference presentations. Yes No

I agree to my child's first name to be used when reporting data Yes No
or
I want a pseudonym assigned when reporting data Yes

(preferred name)-_____

and

I understand that my child's participation is voluntary, that we can choose not to participate in part or all of the project, and that I can withdraw my child at any stage of the project without being penalised or disadvantaged in any way and that the data of my child can be withdrawn from the project at any time of my choosing.

and

I understand that data from the research will be kept in a secure storage and accessible to the research team. I also understand that the data will be destroyed after a 5 year period.

Child's name
Parent's name
Signature
Date

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Appendix C-2: Child consent

CHILD CONSENT



This is Elizabeth. Elizabeth is your teacher.



She is writing a book. She often writes down what children say at kindergarten. She would like to write down what you say in her book.



She normally takes photos at kindergarten. She would like to take your photo to put in her book.



Elizabeth can take my photo to put in her book



Elizabeth can write down what I say in her book



Appendix D – Samples

Appendix D-1: Reflection diary with journal observation

to imagine – and I explained briefly how Vygotsky links imagination to reality and that there are 4 stages to progress through, but for this discussion only focused on the first. We discussed how maybe the children that just roam are also still in the experimenting stage. We discussed how this lack of imagination is probably (and I know it is) the reason the children are not ‘playing’ like they used to. I then talked about how the girls are doing beautiful block work relating to fairies but as we have both noted they have not really become involved with the ‘fairyland’ that has been set up. I asked Rhonda if she would be prepared to work with the girls and see if they could start to talk about what they were building, what characters might be involved with their work. Rhonda asked how long this might go for and my reply was about 15 – 30 mins, depending on how things were progressing. I talked about **ending the episode and she asked where she might put the camera to best advantage.** Rhonda was

I have totally changed my opinion on the use of ICT’s within the kindergarten. I have had to accept that these children are growing up with this type of tool or artefact and it does have a major influence on their experiences. Vygotsky comments that the child’s social world needs to be brought into the schooling system, (find the references), and if I am to bring the child’s world into my educational setting, then I must take on board the technologies that they use in their everyday life. This ties in with my professional mission where I am ‘experiencing being part of (a) meaningful wholes) and in harmony with superindividual units such as... cultures’ (Korhagen, 2005, pg 53). It also ties in with my professional identity as it has been affecting how I experience myself and my self-concept. I am not totally confident with using this but at least am trying and will have a lap top running within the room and will have the children take photos.

very keen to help work with the girls. She picked up her copy of the leading activity and went to pin it to the shelf above the sink. She has a copy of the frameworks printed out for her to use, but it is hanging up, never looked at. Interesting.

17.5.11

Rhonda and the girls worked together today – Sarah, Alanah, Angelina – started then left, Elizabeth and Lazy. Check if have permission form for Alanah as she is starting to show up in several items.

I find that I am becoming far more conscious of analysing the children’s activity/experiences. I am always looking for signs for mature play, or for signs of the child participating within a level of imagination, or whether the child is still functioning within the leading activity of experimentation. I will then quite consciously consider how I am going to support the child in extending the learning, how I can use the stages of the ZPD to support each one. I must admit that previously I would not really be so concerned about the children’s development within the social/dramatic/home corner ‘play’. I would set up various scenarios for them and maybe participate within the experience to a point, and consider some very basic learning, but there was certainly no recognition of its importance, that I now have knowledge of.

19.5.11

4

Comment (E5): Rhonda lasted a 30 min episode today, I’ll still not remember to her how to actually use the camera. I will get her to show the footage to the girls on Thursday and see if this comes up with any comments. Again taking use of digital technology that I would never have previously used.

Comment (E6): Is the focus is not connected to reality enough? The girls are not able to use enough elements from their previous experience to use the action through? On the other hand, there is object substitution as well as following the rules pertaining to the roles they are acting out thinking signs of mature play. There is also some discussion about what they are doing, showing signs of starting to reason their leading activity which is play.

Appendix D-2: Interview transcript

April 20th 2011
1st .

back to it". We always think that imagination is fantasy but his definition it's really relating back to the reality, and that's, I think was one of the things I think, I had started to get a little bit but when she gave us ,

I have to really understand this whole concept of imagination. I find that I now do a great deal of reading to understand these concepts. I have done very little reading on topics covering my field. I now will actively seek out whatever I can to learn about this area. I know that I now will read and am able to understand what I am reading. I am prepared to look up more articles etc.

and I can copy off the v thing that I had to get, the article I had to get, it is rather a big article but I can just copy the main part of it - and it is really fascinating and how he works through and how they connect and I think I have only started connecting and that I said to Suzy that reading her article first and then reading his work either we are getting much more cluey about how to read his stuff and understand but I didn't have anywhere near the hassle this time trying to figure it out but it flowed quite easily I think but Suzy had already straightened me out anyway with her article. And you go back to the one that I gave you that one you've got with the bridge That was much easier that time... you sit down and see how then you as the teacher has to obviously... it really makes sure you get back in and you sort of focus on different things that you wouldn't normally really even bother about (yes) and to me that's going to be one of the things, things I would normally leave alone and just sort

P. yeah its the child's interest and it's up to the child to extend on it we probably have nothing to do with that

I as the teacher must be able to supply the rich environment, the artefacts, the physical and verbal support and motivation to enable the child to move his development/learning along. I can not necessarily make the child move any "faster" but I have to be able to support the learning in whatever means needed. Vygotsky comments that the outside world has to come into the educational setting to give the child the opportunities needed to learn through the leading activity of the child. This requires me to be more involved with the child, I can no longer just sit back and watch.

E: Yeah

P. And we probably acknowledge it yes because it has come from the child but to take it to the next step and I probably wouldn't have thought about it

E. There's no way it doesn't it well actually we're going to be able to extend their learning, extend their development I mean it doesn't have just to be with any of the super heroes it can be with any of their play so with like Harrison and his camping

P. And I just like this thing of how you have set it out explaining each one of the components and then giving us an explanation about um what it actually meant. So the theory was supported by the observations that you have seen at the centre that was just um I actually enjoyed reading that part where I could see the connection happening so I think it was um it was really good

Appendix D-3: Programming diary




MAY Dolphin group

Working with Vygotsky's theories

Block construction with Elizabeth, Sarah, Elizabeth
Provide material: paper squares, cardboard tubes
Aim to encourage girls to discuss their building with adult to be working in the social situation of devpt – imagination in action
-showing substitution
Is there any other activity connecting to reality when they build

Drawing – plain paper, black pencils Rhonda
Milo, Dylan, Ethan, Sebastian, Ib
Boys have experimenting as their leading activity
Purposely framed play – let them draw then discuss lines, shapes, how might they draw a person

Look for other children who are still experimenting as the leading activity – what items are they experimenting with?
Look for other children who are functioning in the differing components of imagination
Look for the wanderers? Where are they functioning?

WEEKLY EVENTS: DOLPHIN GROUP	
OUTCOMES	 <p>July 28th</p> 
IDENTITY Children have a strong sense of identity	<ul style="list-style-type: none"> - Shanville, Ryder and Luke were working together on building a camp firetogether. - Thomas was able to use his words to ask if he could play with Sebastian. - Sebastian asked Thomas to come and read the book with him
COMMUNITY Children are connected with and contribute to their world	<ul style="list-style-type: none"> - a number of the boys worked together to build a wall with the big blocks that they could walk along - Flynn sat with Jared when he had fallen and hurt his knee - Jess was able to negotiate turn taking with 3 other children so everyone had a turn with the ball and hoop game.
WELLBEING Children have a strong sense of wellbeing	<ul style="list-style-type: none"> - many children practised their cutting skills today – straight and curving lines. - Luke, Dylan, Ethan worked with the tool for a long time – fine motor skills/eye-hand co-ordination - Angelina and Allannah were practising their ball skills 
LEARNING Children are confident and involved learners	<ul style="list-style-type: none"> - we are working on our concepts – over, under, hard, soft etc. - Wyatt and Winston worked on the position game using the words in front of, beside, behind. - we found out that not all mummies look after their babies from the story today. - the boys had to manipulate and experiment with the blocks to make them safe to walk on, otherwise they were going to fall down
COMMUNICATION Children are effective communicators	<ul style="list-style-type: none"> - we read "The littlest turtle" - we participated in a sounds story where we listened to the sound to tell us what was happening in the story. - we are recognizing our written name