INTENTIONAL TEACHING PRACTICES OF EDUCATORS AND THE DEVELOPMENT OF CREATIVE THOUGHT PROCESSES OF YOUNG CHILDREN WITHIN AUSTRALIAN EARLY CHILDHOOD CENTRES

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Author’s Declaration

The thesis contains no material which has been accepted for the award of any other degree or diploma in any university or other tertiary institution and, to the best of my knowledge and belief, contains no material previously published or written by another person, except where due reference has been made in the text. I give consent to the final version of my thesis being made available worldwide when deposited in the University’s Digital Repository, NOVA, subject to the provisions of the Copyright Act 1968.

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# TABLE OF CONTENTS

AUTHOR’S DECLARATION ........................................................................................................ II
ACKNOWLEDGEMENTS ........................................................................................................ III
TABLE OF CONTENTS ........................................................................................................... IV
LIST OF TABLES .................................................................................................................. VIII
LIST OF FIGURES ............................................................................................................... IX
LIST OF APPENDICES ......................................................................................................... XI
ABSTRACT .......................................................................................................................... XII
PUBLICATIONS .................................................................................................................... XIV
  Published Peer Reviewed Paper ......................................................................................... XIV

### CHAPTER 1 ...................................................................................................................... 1

INTRODUCTION .................................................................................................................... 1
  BACKGROUND .................................................................................................................... 1
  INTENTIONAL TEACHING ................................................................................................. 2
  CREATIVITY: MISCONCEPTIONS AND MISREPRESENTATIONS .......................................................... 3
  INTENTIONAL TEACHING PRACTICES OF EDUCATORS AND CREATIVE THINKING IN CHILDREN .................................................................................................................. 6
  CREATIVE THOUGHT PROCESSES ...................................................................................... 7
  RESEARCH PROBLEM ....................................................................................................... 9
  CORE RESEARCH QUESTION: ........................................................................................... 10
    Subsidiary questions: ....................................................................................................... 10
  PURPOSES AND POTENTIAL SIGNIFICANCE OF STUDY ...................................................... 11
  THEORETICAL FRAMEWORK ............................................................................................ 13
  OVERVIEW OF THE RESEARCH METHODOLOGY ............................................................ 14
  OVERVIEW OF THESIS STRUCTURE ............................................................................... 17
  SUMMARY .......................................................................................................................... 19

### CHAPTER 2 .................................................................................................................... 20

LITERATURE REVIEW ......................................................................................................... 20
  INTRODUCTION .................................................................................................................. 20
  CREATIVITY RESEARCH ................................................................................................... 20
  DEFINING CREATIVITY ..................................................................................................... 27
  CREATIVITY IN YOUNG CHILDREN ................................................................................... 27
  CRITICAL PERIODS FOR CREATIVE DEVELOPMENT .......................................................... 28
  CHILDREN AND PLAY ....................................................................................................... 29
  DEVELOPMENT OF CREATIVE PROCESSES ...................................................................... 31
  COLLABORATIVE PROBLEM SOLVING WITH YOUNG CHILDREN .......................................... 33
  INTENTIONAL TEACHING ................................................................................................. 34
  RESEARCH ON QUALITY INDICATORS FOR INTENTIONAL TEACHING PRACTICES ............. 37
  INTRINSIC MOTIVATION .................................................................................................... 39
  PREPARED LEARNING ENVIRONMENT ............................................................................. 40
  CREATIVE PROCESS: INCUBATION .................................................................................... 41
  INTENTIONAL TEACHING AND CREATIVITY: DEVELOPING THE RELATIONSHIP .............. 42
  SUMMARY .......................................................................................................................... 43
CHAPTER 9 .................................................................................................................. 253

THE INTENTIONAL TEACHING STRATEGIES OF EDUCATORS AND THE
DEVELOPMENT OF CREATIVE THOUGHT PROCESSES OF CHILDREN ........ 253

INTRODUCTION ............................................................................................................. 253
UNDERSTANDING CREATIVITY ................................................................................. 254
EDUCATORS PROMOTING CREATIVITY WITHIN EARLY LEARNING ENVIRONMENTS .................................................................................................................. 256
DISPOSITIONS ............................................................................................................... 259
PROBLEM SOLVING ..................................................................................................... 262
MEANING-MAKING ..................................................................................................... 268
IMAGINATION .............................................................................................................. 272
PLAY .............................................................................................................................. 276
QUESTIONING TECHNIQUES OF EDUCATORS AND CREATIVE THOUGHT PROCESSES IN CHILDREN .................................................................................................................. 277
STATE OF FLOW .......................................................................................................... 281
PRETEND PLAY ............................................................................................................ 283
IMPROVISATIONAL CREATIVITY .............................................................................. 287
SUMMARY ................................................................................................................... 289

CHAPTER 10 ............................................................................................................... 291

SUMMARY AND CONCLUSION .............................................................................. 291
INTRODUCTION ............................................................................................................. 291
SCOPE, LIMITATIONS AND ASSUMPTIONS .............................................................. 292
SIGNIFICANCE OF RESEARCH FINDINGS .................................................................. 295
IMPLICATIONS FOR POLICY ....................................................................................... 300
IMPLICATIONS FOR PRACTICE .................................................................................. 305
STRUCTURAL ELEMENTS IN RELATION TO EDUCATOR’S PRACTICE .................... 305
Physical learning environments: .................................................................................. 305
Resources .................................................................................................................... 306
Time: ........................................................................................................................... 307
Routines: ..................................................................................................................... 307
Regulations: ................................................................................................................. 308
Curriculum: ................................................................................................................ 308
PROCESS ELEMENTS IN RELATION TO EDUCATORS’ PRACTICE ......................... 310
Sustained shared thinking (Siraj-Blatchford, 2010): .................................................. 310
Children’s dispositions: ............................................................................................. 311
Problem solving: ........................................................................................................ 311
Meaning-making: ....................................................................................................... 312
Play: ............................................................................................................................ 312
INTENTIONAL TEACHING STRATEGIES OF EDUCATORS ............................... 313
INTENTIONAL LEARNING STRATEGIES OF CHILDREN ..................................... 314
Summary ..................................................................................................................... 314
FUTURE RESEARCH .................................................................................................. 315
CONCLUSION ............................................................................................................. 317

REFERENCES ............................................................................................................ 319
APPENDICES ............................................................................................................. 355
LIST OF TABLES

Table 1:1  Participating centres........................................................................................................63
Table 1:2  Background information of research participants......................................................65
Table 7:1  Intentional teaching strategies of educators.................................................................182
Table 7:2  Explicit and mediating intentional teaching strategies.................................................184
Table 7:3  Coding and categorisation of educator’s questions.....................................................198
Table 7:4  Percentage of open and closed question use by educators in indoor and outdoor learning environments .........................................................................................................................199
Table 7:5  Categorisation of children’s questions as observed in this study................................210
Table 7:6  Intentional learning strategies of children identified in this study.................................214
LIST OF FIGURES

Figure 3:1  Research paradigm (Hatch, 2002) ................................................................. 48
Figure 3:2  The ontological, epistemological and methodological approach of the researcher.......................................................................................................................... 56
Figure 6:1  Structural supports for intentional teaching processes within early childhood learning environments.......................................................... 142
Figure 6:2  Respect as demonstrated within the indoor learning environment...145
Figure 6:3  Intentionally designed learning environments (ten photos) ............147
Figure 6:4  Scarecrows in the garden................................................................. 152
Figure 6:5  Boulders in the garden ...................................................................... 156
Figure 7:1  Process elements of intentional teaching within structural support ..177
Figure 7:2  Indoor and outdoor planned group experiences .........................187
Figure 7:3  Indoor and outdoor free-play experiences ..................................189
Figure 7:4  The number of occurrences of open, closed and rhetorical question types used by educators within indoor and outdoor learning environments ......199
Figure 7:5  Open and closed question use by educators within various learning environments ......................................................................................... 200
Figure 7:6  Percentages of the types of questions used by children in their interactions with educators............................................................... 212
Figure 7:7  Children's contributions to an empty shelf ................................. 216
Figure 8:1  Structural and process elements for creative development in children ......................................................................................................................... 220
Figure 8:2  Use of outdoor space at Carl's and Rita and Sally's centres........... 227
Figure 8:3: Use of outdoor space at Joan and Nelly's centre............................ 228
Figure 8:4  Indoor arrangement of space at Carl’s centre........................................229
Figure 8:5  Indoor arrangement of space at Joan and Nelly’s centre .......................229
Figure 8:6  Indoor arrangement of space at Rita and Sally’s centre ......................230
Figure 8:7  Building a ramp: Peer collaborative problem solving .........................236
Figure 8:8  Engagement with natural resources .....................................................238
Figure 8:9  A learning story: Making turtles ..........................................................239
Figure 8:10 Carl’s outdoor space: Lack of imagination and purpose .....................242
Figure 8:11 The stick insect: Carl’s attempt to engage children with nature (a series of five photos) ...........................................................................................................243
Figure 8:12 Natural resources added to the learning environments (a series of four photos) .....................................................................................................................245
Figure 8:13 Time constraints: The Daily indoor routine .......................................247
Figure 8:14 A learning story: Our rainbow rocket .................................................249
Figure 8:15 My pink rocket ship ............................................................................250
Figure 9:1  The cycle of creativity ..........................................................................256
Figure 9:2  Together we built the Eiffel Tower .......................................................268
Figure 9:3  Making Sushi .....................................................................................284
Figure 9:4  The hairdressing salon ........................................................................285
LIST OF APPENDICES

Appendix 1: Ethics approval letter (The University of Newcastle) .................. 355
Appendix 2: Participant information sheets .................................................. 357
Appendix 3: Participant consent forms .......................................................... 372
Appendix 4: Focus group plan ........................................................................ 378
Appendix 5: Five focus group sessions ............................................................ 381
Appendix 6: Overview of research carried out over a six month period .......... 390
INTENTIONAL TEACHING PRACTICES OF EDUCATORS AND THE DEVELOPMENT OF CREATIVE THOUGHT PROCESSES OF YOUNG CHILDREN WITHIN AUSTRALIAN EARLY CHILDHOOD CENTRES.

Abstract

This thesis presents an in-depth investigation of the intentional teaching strategies of educators as they provided provocations for creative thinking in four-to-six-year-old children. This qualitative research draws from constructivist grounded theory methods (Charmaz 2006) within context dependant case study analysis as a methodology to analyse and interpret rich data about two phenomena: ‘intentional teaching’ and ‘creative thinking’.

The relationship of intentionally teaching young children and the development of creative thought processes of young children is a new area for investigation; one that requires conversations around what is currently understood. This study embraces the unity of social interactions in which new understandings are formed. This research was developed within a constructivist paradigm emphasising description, analysis and the co-construction of interpretations together with six educators and fifty-seven children from three participating early childhood centres.

This research examines the role of the educator as an intentional teacher within Australian early learning environments and investigates the relationship of this role to children’s developing creativity. Theoretically informed by Vygotsky’s sociocultural constructivist approach (1930, 1978) and neo-Vygotskian theories on creativity (John-Steiner & Moran, 2012), this study explores the creative thought processes of children through play, meaning-making and imagination. Evidence from this research suggests that the role of the educator is pivotal in assisting children in the development of innovative solutions and ideas within social learning contexts.

This thesis presents an opportunity to examine previously unexplored territory in early childhood education. One significant implication of this study is its potential to assist educators in the recognition and implementation of specific identified strategies for intentional teaching as part of their pedagogical practices. This
study concludes by contributing further understandings for the role of the intentional teacher in supporting the development of creative thinking in young children as part of the Early Years Learning Framework (EYLF) within Australian contexts.
Chapter 1
Introduction

This study presents an in-depth investigation of the intentional teaching practices of early childhood educators providing provocations for creative thinking with four-to-six year-old children. The purpose of this chapter is to introduce the research problem and questions and to present a preliminary argument for the purpose and significance of the study. Firstly, background information will be presented providing a context for the current study. Secondly, an explanation for the research problem will be provided, followed by the purpose and significance of the study including the potential contribution to Australia’s current national early childhood curriculum framework, the Early Years Learning Framework (EYLF) (DEEWR, 2009). Thirdly, this chapter presents an overview of the socio-cultural theoretical and methodological underpinnings of constructivist grounded theory (Charmaz, 2006). Finally, this chapter provides an outline for the overall thesis by presenting the aims and purposes of each chapter.

BACKGROUND
The Australian Government’s agenda for Early Childhood Education and Care commenced in 2008 with a focus on providing Australian families with high quality, affordable and accessible care for children from birth to six years. The Council of Australian Governments (COAG) committed to making Early Childhood an area for national reform. A National Partnership Agreement was developed providing $970 million in order to ensure that by 2013 every child had access to a quality early childhood program in the year prior to formal school education (DEEWR, 2009). This major funding agenda initiated the establishment of a National Quality Framework (NQF) and development of the national Early Years Learning Framework (EYLF). The EYLF draws from the very best approaches from global perspectives and current research in Early Childhood Education and Care (ECEC) (DEEWR, 2009). In particular, brain research shows that from birth to age five, children have developed most of the physical brain capacity they need. We now
know that substantial learning and neurological development occurs during the early years (McCain & Mustard, 1999; Vimpani, 2005). This evidence has significant implications for the role of the educator in providing stimulating learning environments and quality interactions.

INTENTIONAL TEACHING
‘Intentional teaching’ is a newly adopted term introduced in Australia in 2009 as part of the first national curriculum Early Years Learning Framework (EYLF) (DEEWR, 2009). The underlying philosophy is that children’s learning is greatly enhanced through interactions that are thoughtful, planned and deliberate (Epstein, 2007). What this means for early childhood educators within Australian Early Childhood contexts has not yet been clearly articulated due to lack of context-based research. For intentional teaching to become an integral aspect of the EYLF implementation, educators need to understand what this requires of their pedagogical practice and the relationship it now has with children’s learning. This study contributes new definitions under the context of intentionality within pedagogical approaches to teaching and learning by providing revised definitions for the intentional teacher, intentional curriculum and the intentional learner. These definitions as a result of a constructivist grounded theory approach are found in chapter seven on pages 194-195. This research builds on what is known and contributes to it by providing a wider theoretical coverage, thus enhancing the conceptual clarity in the field (Furlong & Oancea, 2008).

Recent paradigm and theory shifts in education from developmental/scientific to postmodern perspectives, have shifted the role of the educator from ‘passive’ to ‘intentional’ (Grieshaber, 2008; Leggett & Ford, 2013; McArdle & McWilliam, 2005). This has been reflected in global curriculum philosophies and framework models; the national early childhood curriculum framework (EYLF) in Australia is one example. Until recently, theoretical discourses on what constitutes the role of educators in children’s learning have provided broad definitions ranging from carer, guide (Rogoff, 1990), facilitator, scaffolder (Bruner, 1986), co-constructor (Vygotsky, 1962, 1986) and role-model (Lumpkin, 2008). According to McArdle and McWilliam (2005) such terminologies inadvertently have silenced the term
‘teaching’, suggesting that it is not the role of educators to ‘teach’ (Grieshaber, 2008). Given intentionality is a newly introduced term within the EYLF it suggests a stronger positioning for the role of the educator.

This research explores intentional teaching practices of educators and has the potential to strengthen the professional identity of educators empowering their role and capacity to teach young children, reinscribing the previously absent emphasis on educator as teacher. The types of strategies educators use as part of their intentional teaching practice has implications for how children develop cognitively.

The most important types of productive thinking involves the ability to think divergently (coming up with potential answers) and convergently (coming up with the right answer) (Guilford, 1967). The ability to think divergently in order to solve problems or come up with new ideas is a transformational imperative of children’s growth. Transformational bases of personal creativity are universal and apparent wherever an individual constructs new understanding (Runco, 2004). There is strong evidence to suggest that between four and six years of age children are considered to be at a heightened level of creativity (Doidge, 2007; Eliot, 1999; Goswami, 2004; Martindale, 1999; McCain & Mustard, 1999; Mednick, 1962; M. Root-Bernstein & R. Root-Bernstein, 1999; Runco, 2007; Siraj-Blatchford, 2005). How educators construct curriculum and interact throughout the day with children has the potential to either stifle or stimulate creative thought processes.

CREATIVITY: MISCONCEPTIONS AND MISREPRESENTATIONS
‘Creativity’ is a term often used by educators to describe the actions children take to represent their thinking, commonly recognised, encouraged and demonstrated through the creative arts. However, creativity also goes beyond the artistic domains; it is an ability that extends throughout the curriculum (Plucker & Beghetto, 2004; Richards, 2007; Robinson, 2009; Runco, 2004). This research challenges previously held beliefs of creativity as belonging solely to the arts and through the integration of data and research evidence positions creative development at the heart of all learning. Misrepresentations of creativity within
curriculum documentation will therefore be contested in an attempt to reinstate the value of creative thinking as a core cognitive process for young children.

The Early Years Learning Framework refers to curiosity and creativity as a child’s ‘disposition’ stating that ‘play’ is a context for learning that “enhances dispositions such as curiosity and creativity” (DEEWR, 2009, p. 9). ‘Curiosity’ is a disposition that leads to creative thoughts and actions, whereas definitions from research indicate that ‘creativity’ requires novel thoughts and products that are appropriate to society (Amabile, 1983; Sawyer et al., 2003; Sternberg, 2005). Therefore, creativity moves beyond the realms of a disposition into an idea or activity. In comparison, the Early Years Foundation Stage (EYFS) in the UK emphasises that children’s creativity must be extended by the provision of support for their curiosity, exploration and play (FDfEE, 2012). This statement from the UK better positions curiosity as a disposition that leads to creative behaviour. However, the EYFS situates the creative development area of learning within the expressive arts, with an emphasis on media, materials, imagination as children engage in arts, music, movement, dance and role-play (FDfEE, 2012). This still implies that creativity is restricted in practice to the arts in curriculum policies, indicating that curriculum documentation in early childhood is misrepresenting creativity. This is perhaps due to a lack of research available on creativity with young children as well as the absence of a suitable definition appropriate for early childhood learning environments.

Past research concluded that young children are not creative, due to their inability to produce new products for society (Feldman, 1999; Guilford, 1950; Runco, 2007; Sternberg, 2005). However, current neurological research has revealed that children between the ages of four-to-six years are in a creative window of their growth and development (Doidge, 2007; Eliot, 1999; Goswami, 2004; McCain & Mustard, 1999; Siraj-Blatchford, 2005). Creativity therefore needs to be recognised as a critical element of children’s holistic growth and recognised through pedagogical documentation and practice.

What has not been acknowledged in creativity research is the important role adults have in stimulating and supporting the development of creative thought processes in young children. It was found in this study that creativity was
considered something children developed as they played and was ‘their tool’ for learning. Whilst play is essential for stimulating creative thinking and productivity, responsive engagement of adults is pivotal for supporting and extending children’s thinking and learning. Vygotsky contended that “imagination operates not freely but directed by someone else’s experience” (1930, 2004, p. 17). Relationships that are mediated by joint play and co-participation in creative pursuits are strengthened within the collaborative partnership. As Marjanovic-Shane (1987) observed:

Cultivating creativity in education demands that the education be transformed into an open system of exchange of knowledge and experience between the students and the teachers and between the students themselves (p. 100).

There are many misconceptions surrounding creativity. As Robinson (2001) explains, creativity is not a separate faculty that some people have and others do not, it is a function of intelligence that takes many forms and draws from different capacities. A distinctive feature of “human intelligence is imagination and the power of symbolic thought” (p. 111). Our lives are shaped by the ideas we have; new imaginings and ways of thinking can transform us (Robinson, 2001). Venturelli (2001) explains that a changing reality for societies is the economic shift from infrastructure technologies to developing the capacity of a nation to create content or new forms of “widely distributed expression” (p. 16) in the information society. Central to this is the need to stimulate innovation through intelligent policy initiatives ranging through all social levels.

Venturelli suggests that there is an urgent need to reorder our basic thinking on education. Modern societies need to educate not for a “standardised work force as they did in the industrial economy, but for a highly knowledgeable workforce prepared for a creative economy” (2001, p. 17). The incorporation of advanced intellectual and creative skills that emphasise interdisciplinary and independent thinking should be required within the educational process from preschool to university (Venturelli, 2001). Duderstadt (2000) suggests that universities need to shift their intellectual focus from preservation or transmission of knowledge to the process of creation itself.
What is missing from teaching is a general lack of understanding of intellectual activities associated with creativity. Root-Bernstein and Root-Bernstein (1999) advocate that:

Our foray into the hearts and minds of inventive individuals demonstrates that imagination can be encouraged and trained through the exercise of thinking tools and a desire for synosic understanding (p. 316).

Root-Bernstein and Root-Bernstein refer to ‘synosis’ as the combination of the intellect, the senses and aesthetics (1999). This implies that learning is not just ‘head work’ but ‘heart work’ requiring a holistic approach to the formation and use of knowledge. Developing and supporting dispositions such as curiosity, happiness, perseverance and confidence are necessary attributes of a child’s emotional well-being that lead learning. Nickerson (1999) warns that “we need to take seriously the possibility that children are naturally curious and that they have to learn not to be” (p. 411). The idea that children are naturally curious and that early educational experiences can potentially stultify their curiosity is a disturbing one. Determining to what extent educational practices stifle creativity is an objective that deserves much more attention (Nickerson, 1999). The role of the educator in the development of creative thinking in young children is significant and deserves further research. This research therefore contributes to this enterprise.

INTENTIONAL TEACHING PRACTICES OF EDUCATORS AND CREATIVE THINKING IN CHILDREN
An unexplored area for research is the role of the educator and intentional teaching methods in relation to creative thinking in young children. The belief that creativity is developed alone without teachers, peers and mentors has dominated creativity research since its inception and this is now being refuted. Creativity is not an individual endeavour; it arises out of our interactions with other people. Creativity flourishes when there is a flow of ideas generated between people (Robinson, 2001). The role of the educator is to create a supportive environment and use effective strategies that advance children’s thinking within social situations (Bodrova & Leong, 2007; Csikszentmihalyi & Sawyer, 1995; Epstein,
2007; Gardner, 1988). Placing creativity at the heart of learning and teaching holds implications for all aspects of education including the learning environment, curriculum, choice of content, instruction and assessment (Marjanovic-Shane, Connery, & John-Steiner, 2010). The next section of this chapter will describe and explain the creative thought processes that are a fundamental aspect of young children’s cognitive development.

**CREATIVE THOUGHT PROCESSES**

Creative processes and sound knowledge bases are developed through social interaction and under the guidance of a qualified educator who can direct children’s thinking toward problem identification and creative problem solving. A highly creative mind contains information that is fluid and organised. As Feldhusen (2006) suggests it is:

Fluid and fluent, highly retrievable; it connects information from outside the individual and information within the knowledge base (p.140).

Feldhusen and Goh (1995) after a comprehensive review on theory, research and development on assessing and accessing creativity, concluded that creative thinking involves a complex activity of cognitive skills and abilities, personality factors and motivation, styles, strategies and metacognition skills. Developing sound knowledge bases involves both procedural skills and processes that are learned cognitive structures. Sternberg (2005) also argues that procedural skills, involving analytical, creative, and processing skills, are acquired through active learning experiences. Knowledge is therefore shaped and co-constructed through creative processes involving multidirectional meaning making that occurs within social learning environments.

Creative processes draw from all areas of the mind and human consciousness. Creative insight develops through complex processes involving a vast array of mental processes and structures that combine to produce a new idea. Robinson (2001) explains that creativity is not a purely intellectual process; rather it is enriched by other capacities such as feelings, intuitions and a playful imagination. Children, in particular from four to six years of age, are adventurous, imaginative
and spontaneously ‘creative’. It has been suggested that observing children while in free-choice activities outside, especially through the invention of imaginary worlds or paracosms, should yield evidence for creative behaviour (Milgram, 1990; Root-Bernstein & Root-Bernstein, 2006). This research focuses particular attention on the role of the educator and gathers evidence of creative behaviour in children as they engage in social learning opportunities.

Educators have a special role in protecting spontaneous play and should look for opportunities to promote the invention of imaginary places and people and provide materials that are open-ended. What is recommended are environments that are supportive for children: ones that encourages imaginative play, where time is available, materials provided as requested and protects children’s opportunities for solitary or shared play (Root-Bernstein & Root-Bernstein, 2006).

One misconception that emerged from this study was the role of play in children’s learning. This study challenges the widely held view in society at large that play as ‘aimless’. In addition, this research has contributed a revised definition for play influenced by socio-cultural theories and understandings in order to situate the value of children’s play within early childhood pedagogical approaches. This definition can be found in chapter five on page 137. This research further reveals many misinterpretations and misunderstandings surrounding educators’ roles as intentional teachers and the implications of the strategies they use within different learning environments in support of creative thinking in young children.

While the EYLF has sought to re-instate the role of the educator through the identification of the intentional teacher, it neglects the role of the learner, failing to acknowledge significant cognitive transformations that occur as children play and respond to the world and people around them. A newly introduced definition for an intentional learner as a result of this study is found in chapter seven on page 195.

Being purposeful and setting goals for children’s learning can be problematic if the child is not viewed as agentic or capable of setting his/her own goals for learning. While educators in this study focused their attention on children’s conceptual growth, little attention was attributed to how children creatively draw from knowledge bases to reach higher levels of understanding or ability. Creative thinking for young children is a transformative activity that draws together what is
known with the unknown within the imaginative sphere of play and thinking. For the purpose of this research the creative thought processes of young children will be the focal point for investigation rather than simply the generation of products useful for societies, as is the traditional interpretation of creativity. This study reconceptualises creativity by providing a more useful definition appropriate for early childhood social learning contexts. The following definition is discussed further in chapter nine on page 255 of this thesis:

Creativity for young children involves cognitive processes that develop through social interactions, play and the imagination. Creative thinking is a transformative activity that leads to new ways of thinking and doing that are novel for the child or useful to children's communities.

This study closely examines how specific intentional teaching strategies, used by educators, have the potential to include or exclude children from their own learning as well as stifle or empower children’s creative abilities. The next section of this chapter presents the research problem and research questions that frame the study.

RESEARCH PROBLEM
Understanding what the role of the educator is as an intentional teacher has serious implications for how curriculum is negotiated with children. Curriculum developed by educators has the potential to inhibit powerful contributions children can make towards their own education. Contemporary theorising of the role of the educator now acknowledges the child’s right for active participation. Acknowledging children’s goals for their own learning is an essential part of this research. The educator’s role therefore must change from the provider of knowledge to one that promotes the innate drives for independent learning and creative thinking.

An intentional curriculum involves co-participation where both the teacher and child are valued as equal partners. This research identifies the child as an ‘intentional learner’ providing agency for children in setting their own goals with educators. This identity also acknowledges children’s abilities to develop their own
pathways for learning through creative thinking. Equitable outcomes for learning pathways can only be truly achieved when intentionality represents this relationship. This research argues that recognition of the child as an intentional learner may go some way to resolving misunderstandings about intentionality.

Acknowledging creative thinking as part of children’s development creates an opportunity to provide educators with a better understanding of creativity and pedagogical approaches within curriculum frameworks for young children. How educators teach children to think is now a significant aspect of how teachers teach and how children learn, interpret and use new knowledge. Greater focus than ever is on the processes of thought rather than the products of knowledge.

Overall, the current lack of available research on intentional teaching and creativity in early childhood within Australian contexts provides an opportunity to initiate research that will greatly inform educators’ practice. In this study, the notion of intentional teaching practices will be coupled with creative thinking within early childhood centres. The relationship between the intentional teaching practices of educators and the creative thought processes of children will generate new understandings and emerging theories, on which there is currently little understanding. The following section presents the research questions that frame this study.

**CORE RESEARCH QUESTION:**
*How are intentional teaching strategies being used by educators in the development of creative thought processes of children aged four-to-six-years within Australian early childhood learning centres?*

**Subsidiary questions:**
*What are the educators’ understandings of intentional teaching?*
*What types of intentional teaching strategies do educators use in their practice with young children?*
*What are the educators’ understandings of creativity and creative thinking in children?*
**PURPOSES AND POTENTIAL SIGNIFICANCE OF STUDY**

The purpose of this study is to:

- Increase the understanding of intentional teaching practices and what this means for educators within Australian contexts;
- Broaden the definition and understanding of how intentional teaching is to be incorporated as part of the EYLF;
- Identify the child as an intentional learner and co-contributor in the teaching/learning relationship;
- Increase knowledge and understanding on creativity incorporating a more refined definition of what this means for the developing child;
- Strengthen the definition of play and learning within social-cultural contexts;
- Promote creativity as an essential developmental function that is a cross-domain ability for all children; and
- Understand how intentional teaching strategies used by educators can promote creative thinking abilities in young children.

This research presents an opportunity to examine previously unexplored territory in early childhood studies. This research is therefore significant in that it will be one of the first published areas on the relationship between intentional teaching and creativity in Australia. The number of published qualitative studies on this topic in early childhood contexts is relatively small. Most of the work has been done by researchers in other disciplines, outside of education, with very few studies carried out by researchers whose primary interest is early childhood (Hatch, 1995; Medawar, 1969; Plucker & Renzulli, 1999; Yin, 2011). This provides a significant opportunity for enriching what is known about early childhood settings and educators’ pedagogical practices. Previous research has involved a quantitative measure with efforts directed at measuring creative ability through divergent thinking tasks within the realms of psychology and cognitive sciences.
While most of the creativity research carried out over the past twenty years or so has focused on school aged children, or older, very little has been done with children from early childhood contexts. It was found that a substantial amount of literature on young children and the creative arts were available; however, there was minimal evidence of research identifying the role of the educator in the development of children’s creative thinking. This study therefore is a new area for research on intentional teaching practices of educators from within early childhood educational fields.

One significant implication of this study is its potential to help educators recognise creativity not just in association with creative arts, but to recognise the importance of creative abilities, in particular the thinking skills and processes involved, across all curricula areas as well as for everyday events that all children encounter. This study will add a new dimension to the implementation of the national Early Years Learning Framework (DEEWR, 2009) by providing educators with a comprehensive understanding of creativity and their role in supporting the development of creative thinking in young children.

This research presents a new definition for creativity appropriate for the field of early childhood. It is anticipated that this will provide greater identification of the processes of creative thinking, alleviating fears surrounding the complex nature of a definition and its relevancy to young children. This research grounds thinking in creativity as a quintessential part of children’s development. It dispels some of the myths surrounding creativity, noting that it is not a special mental process; rather creativity involves everyday cognitive processes.

The attitude that creativity develops independently of adults is also challenged through drawing on socio-cultural (Vygotsky, 1930, 2004) and motivational perspectives on assisted learning (Hickey, 1997), presenting the need for mentors and guides who can scaffold creative thinking and abilities. Educators can promote in children the confidence to see things in new ways, to trial and test ideas, challenge, hypothesize and reach higher understandings of the world around them. Research on intentional teaching of educators and the creative thought processes of young children will assist in tightening links between research, providing an evidence-base for policy and practice. Following this study,
it is anticipated that results will be shared with the wider early childhood field, disseminating rich data that strengthens our global position in providing a sound, well-informed, research-based, early childhood curriculum.

The following section in this chapter briefly introduces the theoretical framework for this study. A brief explanation for the suitability of a neo-Vygotskian creativity theory will also be presented. In chapter four, following the methodology and methods chapter, a full explanation of the Vygotskian and neo-Vygotskian theoretical approach to this study will be provided.

THEORETICAL FRAMEWORK
This research draws from Vygotsky’s socio-cultural (1930, 2004) and neo-Vygotskian creative framework (John-Steiner & Moran, 2012) to investigate interactions between educators and children and the development of creative thought processes through children’s play, meaning-making and imagination. Firstly, this theoretical framework was chosen for the consistency that can be provided within the context of a constructivist grounded theory methodology (Charmaz, 2006, 2014) that is dependent on the interpretations and the co-construction of shared meanings of participants. Secondly, Vygotsky is not only useful for understanding children’s development within social and cultural contexts, his theory continues to impact upon practice through the extensive interpretive work of neo-Vygotskian theorists such as Connery, John-Steiner and Marjanovic-Shane (2010). Vygotsky’s ideas on children’s creative and cognitive processes, as well as the related role of the educator are a robust theoretical frame in which to situate this study.

Vygotsky theorised that children first learn to create and manipulate symbols and signs during play. Vygotsky was able to trace the origins of creative imagination to children’s symbolic play (Vygotsky, 1930, 2004, 1976). Development of the creative imagination occurs within what is usually considered creative activity: pretend play, fantasy, and the making of creative products (Moran & John-Steiner, 2003). Children are at their most imaginative stage, often engaging in imaginative play from around two years of age until around nine years (Runco, 2007). Early
childhood is often referred to as the golden age of the imagination and make-believe (Scarlett, Naudeau, Saloinus-Pasternak, & Ponte, 2005; Vygotsky, 1976).

Imagination is a form of playful analogical thinking that draws from prior experience and combines them in unusual ways in order to produce new patterns of meaning (Policastro & Gardner, 1999). Root-Bernstein and Root-Bernstein (2006) felt that children who create make-believe worlds (paracosms) frequently do so in ways that are materially inventive. However, whether children are capable of truly being creative at a young age has been a debatable area for creativity research. A focus on creative processes, rather than products may go some way to change this perspective. The following section provides an overview of the methodology and methods for this study.

**OVERVIEW OF THE RESEARCH METHODOLOGY**

A qualitative interpretivist methodology within a constructivist grounded theory was adopted (Charmaz, 2006; Flick, 2005; Flick, Von Kardoff, & Steinske, 2004) for its potential to generate rich data (Geertz, 1973) on the relationships between the phenomena in this study. A case study approach (Merriam, 1988; Swanborn, 2010; Yin, 2003) with a focus on shared dialogue and collaborative inquiry was used (Ladkin, 2004; Oja & Smulyan, 1989) consistent with the socio-cultural theoretical and methodological underpinnings of this study.

The methodology of this research involved a sociocultural approach for observing interactions that occurred within the child’s learning environment. This qualitative research therefore incorporates constructivist grounded theory (Charmaz, 2006) as a methodology conducive for interpreting and analysing data within a sociocultural framework. This study involved the researcher collating data through: observations (Boudah, 2011), digitally audio recorded interactions between educators and children, field notes (Yin, 2011), researcher memos (Charmaz, 1983; Lempert, 2007), artefacts, photographs and audio recorded focus group sessions. Combined discussions during focus group sessions involving six educators from three early childhood learning centres provided opportunities for participants to share and learn from each other (Charmaz, 2006;
Morgan, 1993). Focus groups provided core data necessary for interpreting educators’ understandings around the phenomena of intentional teaching and creativity. Analysis of focus group information contributed largely to chapters five and six for intentional teaching and chapter eight for creativity.

Educators were required to become involved in two aspects of the research: to record interactions with children during various times of the day; and to participate in discussions during monthly focus group sessions held over a six month period. Participants were also invited to keep personal journals. Artefacts pertaining to children’s work, routines, programming and planning were provided for the purpose of the study by the educators. The decision to select certain artefacts was made by the educators and with regard to acquiring children’s permission as well as adhering to centre policies and guidelines. Most artefacts were copies, as suggested by the researcher, so that children, in particular held ownership of original works.

Children interacted with activities within their normal learning spaces planned by the educators. No child was coerced into participation; however, children were able to respond to invitations or strategies used by the educators to draw interest. Direct conversations between the educator and the children involved in learning opportunities were recorded by the educator and later analysed by the researcher and where possible, with the participants. Analysis of transcribed interactions as well as the collection of photographs and artefacts contributed largely to the interpretation of intentional teaching practice in chapters seven and for creativity in chapter nine.

For the majority of the time, the researcher was present to observe the interactions and listen to the verbal exchanges that took place between children and educators using field notes, memos and coding. Recording did continue on after the researcher had visited at the discretion of the educators. This was to enable participants the decision to record what they felt were significant interactions and contribute further to the research. Field notes and photographs were taken by the researcher in order to map the overall environment, note descriptions of context, time and place, where the researcher was situated within the social environment and other factors not able to be audio recorded. Field
notes were able to provide additional data on which a rich contextual description could be grounded (Geertz, 1973).

Memos were also a tool used by the researcher in order to develop ideas and elaborate the social world of the research sites. Memos are the “narrated records of a theorist’s analytical conversations with him/herself about the research data; as such, they provide particular ways of knowing” (Lempert, 2007, p. 247). Memos served as a flexible tool during which the researcher was fully present, could play with ideas, expand and explore further ideas for conversation with research participants.

This study involved a collaborative approach between the research participants and the researcher in order to elicit rich data. Analysis of the data was useful for interpreting and understanding the beliefs and views of educators as well as what was evident in their daily practice and interactions with children. The analysis chapters of this thesis are set out in a format that responds to the research questions. Firstly, chapter five addresses educator’s understandings of intentional teaching. Chapters six and seven address the structural and process elements of intentional teaching while chapters eight and nine present the educators’ understandings of creativity, as well as the structural and process elements that guide and support children’s creative thinking. The following is an explanation of structural and process elements that pertain to this study.

‘Structural’ components consist of the supporting elements which create the framework for the processes that children experience. They are often aspects of early childhood education and care that can be regulated though may contain variables that cannot be regulated. ‘Process’ elements consist of what children actually experience in their programmes and are thought to have an influence on children’s well-being and development (Litjens & Taguma, 2010; Sylva, 2010).

The final section of this chapter presents an overview for the thesis presenting the aims and purposes of each chapter.
OVERVIEW OF THESIS STRUCTURE

*Chapter two* will provide a comprehensive review of the literature on creativity, intentional teaching and the relationship between intentional teaching practices of educators and the creative thought processes of children. Firstly, definitions and available research on creativity will be presented. Secondly, creativity as it relates to children, play and development will be discussed. Thirdly, intentional teaching will be defined with reference to quality indicators and intrinsic motivation. Lastly, a discussion presenting the relationship between intentional teaching and creativity will create an opening for the significance of this study.

*Chapter three* situates the study within an epistemological and methodological framework, providing justifications for the qualitative methods and approaches used in the design as well as specific research techniques used to analyse data. This chapter explores the socio-cultural theoretical approach and the methodological foundations of constructivist grounded theory (Charmaz, 2006). Grounded theory methods and qualitative data analysis techniques will also be discussed as well as the ethical considerations of the research. Finally, qualitative data analysis techniques in regard to the validity of the research as well as the credibility, dependability and transferability will be presented.

*Chapter four* presents an in-depth discussion and explanation for the selection of Vygotsky’s socio-cultural (1930, 1978) and neo-Vygotskian creativity theory (John-Steiner & Moran, 2012) as the underpinning theoretical framework best suited to the nature of this qualitative research.

*Chapter five* commences data analysis presenting findings to the research question: *What are the educators’ understandings of intentional teaching?* This chapter presents an analysis of data from focus group sessions featuring in-depth discussions on intentional teaching. In addition, observations, transcriptions and researcher memos produced three main themes: 1. the problematic nature of educators defining intentional teaching; 2. the shifting role educators experience as intentional teachers from indoor to outdoor learning environments; and 3. the complexities and challenges of constructing a curriculum framework through acknowledging the child as agent. In this chapter, the idea of play as ‘aimless’ or
‘free’ is challenged, and as a result of investigations a revised socio-cultural definition for play has been provided by this study.

**Chapter six** presents findings from the study in response to the research question: *What types of intentional teaching strategies do educators use in their practice with young children?* This chapter explains and examines the ‘structural’ elements of specific environmental factors informed and supported by research, while chapter seven will address ‘processes’ identified in this study involving the interactions and strategies educators employed as part of their intentional teaching practices. Together, these dimensions of intentionality form the groundwork of curriculum incorporating the totality of experiences that occur within learning environments (DEEWR, 2009; Siraj-Blatchford, 2010; Sylva, 2010). This chapter concludes with a discussion on how curriculum should be co-constructed within a social and democratic pedagogy acknowledging the need for greater identification of the child who is a capable contributor to his or her own learning. Identifying the child as an ‘intentional learner’ is a major contribution from this research providing significant new understandings not only for the role of educators, but the role children play within teaching/learning relationships.

**Chapter seven** investigates the processes between educators and children in order to further answer the research question: *What types of intentional teaching strategies do educators use in their practice with young children?* This chapter will present findings on the identified intentional teaching strategies used by educators in this research, with a particular focus on questioning techniques, learning spaces and grouping patterns. In addition, this chapter will continue to identify the child as an intentional learner and present findings that explore children’s intentional learning as they actively participate and contribute to their own education. As a result, revised definitions for an intentional teacher, an intentional learner and an intentional curriculum have emerged as a result of this study.

**Chapter eight** will analyse data in order to describe and explain: *What are the educators’ understandings of creativity and creative thinking in children?* This chapter presents educators’ understandings of creativity and draws from neo-Vygotskian creativity theory in order to identify key elements of creative development in children. Structural supports relating to physical space, time,
resources, nature and the environment will provide a framework for the process elements of creative development in children. This chapter, as well as the following will draw from these elements in the discussions relating to creativity within early learning environments.

Chapter nine will also address how intentional teaching strategies of educators promote creative thinking in young children in order to respond to the primary research question: How are intentional teaching strategies being used by educators in the development of creative thought processes of children aged four to six years within Australian early childhood learning centres? This chapter will present discussions on the process elements of creativity relating to the role of intentional teachers and the strategies used that promote dispositions, problem solving, meaning-making, imagination and play. In this chapter a revised definition for creativity that is applicable for use within early childhood curriculum, pedagogy and documentation has been developed.

Chapter ten concludes the research by firstly considering the scope, limitations and assumptions of the study. Secondly, this chapter draws together significant themes and discusses the implications of research findings. Thirdly, suggestions for further research are made followed by a conclusion to this study.

SUMMARY
The purpose of this chapter primarily, was to introduce the research problem and questions and to present a preliminary argument for the purpose and significance of the study. Background information for the study, the research problem and research questions were outlined. The purpose and potential significance of the study including the potential contribution to the Australian current national early childhood curriculum framework, the Early Years Learning Framework (EYLF) (DEEWR, 2009), was presented. An overview of the thesis structure was also provided. The next chapter will present the literature review, providing the scope of research available on creativity and intentional teaching practices.
Chapter 2

Literature review

INTRODUCTION
This study investigates the relationship between two phenomena: intentional teaching practices of educators and the creative thought processes of young children. Firstly, this chapter presents a review of literature on creativity research and the relevance of developing creative thinking in children within early childhood contexts. Secondly, the introduction of intentional teaching as part of the new national curriculum framework for Australia, the Early Years Learning Framework (EYLF) (DEEWR, 2009), will also be explored tracing historical roots of its application from educational pedagogical approaches in the USA to Australian contexts. The significant role of educators will further be discussed with reference to socio-cultural theoretical perspectives. Thirdly, the relationship of intentional teaching of educators and the creative thought processes of young children will be investigated identifying gaps in research thus locating the focal point for this study. This chapter will conclude with a reconceptualization of creativity as it applies to young children in the field of early childhood education.

CREATIVITY RESEARCH
Research involving creativity was first generated by Guilford in 1950 who challenged psychologists to pay attention to this important but neglected attribute (Guilford, 1950; Sternberg & Lubart, 1999). In 1950, as part of his Presidential speech for the American Psychological Association, Guilford presented the study of creativity as an important intellectual function necessary for the survival and advancement of the human race (Guilford, 1950; Sternberg & Lubart, 1999). Since then, different disciplines have attempted to research, define and understand the phenomenon that is ‘creativity’. The words ‘innovate’ and ‘prosper’ were recently used more than 60 years on, by the President of the United States of America (USA), echoing the sentiments of Guilford. President Obama gave a speech at the White House on how the USA must innovate to prosper in globalised markets, stating: "We need to out-innovate, out-educate and out-build
the rest of the world....that's how our people will prosper. That's how we'll win the future” (White, 2011). Such speeches have led to a flurry of funding particularly in the USA on creativity research in an effort to advance and prosper as a nation. Ken Robinson is an English born author, now living in the USA, who is a speaker and international advisor on education in the arts to governments, education and arts bodies. In 1998, he led a UK commission on creativity, education and the economy and his report, *All our futures: Creativity, culture and education*, was influential raising important issues for the 21 century. Robinson (2001) claims that:

Raising academic standards alone will not solve the problems we face. To move forward we need a fresh understanding of intelligence, of human capacity and of the nature of creativity (p. 9).

According to Robinson, ‘Creativity’ is now at the forefront of human development as we face a future of rapid social and technological change. Creativity is one of the broadest and largest topics for research. Medawar (1969) stated:

The analysis of creativity in all its forms is beyond the competence of any one accepted discipline. It requires a consortium of talents: psychologists, biologists, philosophers, computer scientists, artists, and poets would all expect to have their say (p. 46).

To this list we could also add intellectual historians, historians of the disciplines, developmental scientists, sociologists, anthropologists and ecologists (Plucker & Renzulli, 1999). It is interesting to note however that educators do not feature on either of these lists. Given that educators are the ones who do the work with children, the question needs to be asked: why are educators not considered as valuable partners in the context of research disciplines? This research therefore highlights the importance of early education and the role educators play in the early development of creativity in children. Part of the complexity of researching creativity is the many facets creativity presents for investigations by varying disciplines. Runco (2004) posed the question ‘what do you mean by creativity?’ Runco suggests that we stop using the noun ‘creativity’ as it is too ambiguous a term for the sciences. Instead, he suggests that we explore and discuss “creative
performance, creative potential, creative behaviour, creative personality, creative products and so on” (p. 384).

In a field that is so diverse, this is a probably the best way to research areas rather than trying to explain the whole ‘creativity’ phenomenon. Researchers to date who have attempted to test for creativity have received criticism from their field for presenting too narrow an approach in seeking an explanation for creative development. In order to fully understand creativity, a concerted effort from many disciplines is required; including, and most importantly, educationalists. As the field of creative research is far too broad to cover every area or discipline approach, the following examples of research trace the development of research on children’s cognitive thinking.

One important study by psychologists Getzels and Jackson in 1962 in Chicago with 449 middle-class adolescent high school children revealed that creativity and intelligence were statistically independent, recognising creativity as an ability for all children, unlike its counterpart, intelligence (Sawyer, 2006). Creativity is often considered parallel to intelligence, however it encompasses much more than mere cognitive functioning (Feldhusen & Goh, 1995). In an era of IQ testing, psychologists had to prove that intelligence and creativity were different traits. In fact, recent research has confirmed that extraordinary intelligence is not necessary for creativity, and in some cases, may be a hindrance (Csikszentmihalyi, 1994; De Bono, 1992; Gardner, 1988). According to Bailin (1994) creativity involves “the excellent use of our ordinary processes of thinking” (p. 85). Urban (2003) considers intelligence and creativity in function as complementary. The interchange of these components is identified through the use of the portmanteau ‘createlligence’.

One of the significant differences found between intelligence and creativity is that intelligence involves coming up with the right answer, while creativity requires ‘divergent thinking’, coming up with many potential answers (Getzels & Jackson, 1962). For this reason, the focus of research turned to measuring divergent thought processes. Guilford’s (1967) structure-of-Intellect model of the personality contained over 120 traits, and 24 of them were components of divergent thinking.
Guilford’s most significant finding was that the intellect consists of five types of mental operations: cognition, memory, convergent thinking, divergent thinking and evaluation. These mental operations form the central theme to his model of creative problem solving (Dacey & Lennon, 1998). Although all five operations are also involved in creative thinking, Guilford believed that of these the most important types of productive thinking were convergent and divergent thinking. As a result, many studies proceeded to measure divergent thinking abilities of children believing it was an indicator for creativity.

Very little research involving children, in particular young children, has been implemented since the inception of testing for divergent thinking requiring sophisticated verbal or written responses. In order to measure creative responses in young children other more concrete approaches were implemented. A cross-validation of two creativity tests designed for preschool children was carried out by Tegano, Moran and Godwin in 1986. Two tests were used to assess ideational fluency through different response modes administered to 24 middle-class preschool children. These tests were the Multi-dimensional Stimulus Fluency Measure (MSFM) requiring verbal and visual-tactile stimuli and the Thinking Creatively in Action and Movement (TCAM) employing kinaesthetic, nonverbal responses (Tegano, Moran, & Godwin, 1986). The MSFM required a child to tell all things for which a box and a paper could be used. The child imagined any type of or size of a box or a paper; thus the task required a degree of abstract and divergent thought (Tegano et al., 1986).

The Thinking Creatively in Action and Movement (TCAM) by Torrance (1974) required children to move about and act out their responses in a non-verbal format; however, verbal responses were accepted as well. According to Torrance the responses called for were “of the type that have been practiced by (young) children....regardless of culture, race, or socio-economic status” (p. 4). The four subtests were: A. How many ways? B. Can you move like? C. What other ways? and D. What might it be? Subtests A, C and D yielded fluency and originality scores whereas B tested imaginativeness. The active tactile manipulation by the children showed that active handling facilitated the generation of more uses. Results indicated that construct validity in the ideational fluency assessed via the
two instruments was not related to IQ. These tests focused on divergent thinking rather than convergent thinking. In addition, Ozhiganova (2001) suggested that the regulated environment commonly used for such creativity tests inhibits creativity and is an inadequate tool for assessment of creative potential.

One of the main problems with measuring divergent thinking was that high scores did not correlate with real-life creative output (Sawyer, 2006). Research carried out by Barron and Harrington (1981) concluded that divergent thinking tests alone could not predict creativity. Although these types of tests provided a brief, easily administered and assessable means for measuring creativity, they were limited in their capacity to capture other aspects of creativity. Through a complex definition of creativity, it seemed far too simplistic that a simple written test or verbal response to an idea could be enough to measure creative processes. In light of developing children’s creative intelligence, it was suggested by Urban (2003) that we use strategies with children that are reliant on metacognition. Shore, Rejskind & Kanevsky (2003) also suggested convincing evidence that metacognitive training, such as getting children to verbalise their thinking, could be effective. Further research sought to combine verbal thinking with creative production.

In 1985/1986, Urban and Jellen developed the Test for Creative Thinking – Drawing Production (TCT-DP) in an attempt to provide a more holistic and gestalt-approach to diagnostics of creativity (Urban, 2004). The TCT-DP offers an approach to creativity tests that goes beyond the original tests devised by Guilford (1950) that assessed divergent and convergent thinking. TCT-DP focused on areas during the shaping, production, and the final ‘gestalt’ as the creative end product, with consideration not only for divergent or quantitative aspects, but aspects of quality, content, composition, elaboration, risk taking, unconventionality, affection and humour (Urban, 2004). Young children often like to tell the story of their drawing so verbal prompts provided valuable insights to the design of thought represented.

One of the findings by Urban and Jellen in 1985/1986 with four groups of seventh graders from different academic levels was that high academic achievers did not necessarily display high creative ability, and low academic achievers did not
necessarily have low creative potential. In fact, some high scores were surprising for teachers of the low performing students (Urban, 2004). Teachers began seeing their students with ‘new eyes’ as well as a new appreciation for behaviours displayed in the classroom (Urban, 2004). While this form of testing revealed some interesting results for teachers on children’s academic and creative abilities, testing through a drawing task is far too simplistic an approach for the holistic nature of creativity, restricting children to a singular form of metacognitive representation. Early childhood experts today draw largely from Malaguzzi’s one hundred languages of children, recognising that children have many ways to represent their thinking (1998). The important insights of educators can make valuable contributions to the consortium of disciplines researching creativity. Contemporary investigations are now considering the need to approach creativity research from various perspectives in order to fully appreciate the complexities surrounding identifying and testing creative ability.

From contemporary research, creativity is viewed as a form of problem solving involving the confluent interplay of personality, dispositions, knowledge, abilities and divergent and convergent thinking skills (Amabile, 1983; Barron & Harrington, 1981; Sawyer, 2006). There is a large body of research providing evidence that cognitive abilities and processes applicable to creativity and problem-solving apply across learning domains (Amabile, 1996; Barron & Harrington, 1981; Carroll, 1993; Dacey & Lennon, 1998; Fasko, 2006; Fink & Neubauer, 2008). This suggests that despite the specificity of domains, the processes within the brain that produce creativity are similar. This has exciting implications for the research of creativity as neurological processes become recognised as non-domain specific. This evidence also presents the need for educators to view creativity in a broad context providing vital connections for cross-curricula development rather than narrowly defining creativity within art education as often happens. Past research with young children has generally centred on artistic domains, involving verbal and visual responses, movement and drawing.

New research also embraces the multidimensional role of creativity including the socio-cultural aspects of the individual, the domain and the field (Amabile, 1996; Gardner, 1988; Sawyer, 2006). These models acknowledge two important
contributors: the product or process must be novel, and it must be appropriate to a particular domain (Amabile, 1983). Creativity is an integrated system involving the individual (the creator), the symbol system (the domain) and the social system (the field) surrounding the individual (Amabile, 1996; Feldman, Csikszentmihalyi, & Gardner, 1994). Chase and Simon (1973) suggested a ten year rule of intense training, mentoring and preparation before superior performance and worthwhile contributions can be made (R. Weisberg, 2006) thus denying the possibility that creativity can occur in young children. These forms of outstanding creative levels, or true genius, are often referred to as big C creativity (Gardner, 1993b) and present individuals who are leaders in their field. Everyday creativity, described as little c, relates to creativity through everyday circumstances. Everyday creativity involves the many problems encountered in daily life – even for children. Finding novel solutions enables individuals to reach higher levels of understanding and abilities that contribute to further creative ability or potential.

The ability to look at problems from other perspectives or to see connections not apparent to the casual observer empowers the individual in recognising his or her own ability and potential within to contribute to the world around them. Therefore, the essence of creativity entails an ability to produce novel ideas or solutions to a problem by leaving what is already known, in order to explore potential new or novel solutions to everyday problems (Runco, 1994). This ability involves cognitive processes that not only draw from prior knowledge, rather, how we use that knowledge in order to go forward in our thinking to new levels of understanding (Gardner, 1988; Miller, Cable, & Goodliff, 2010). Creative processes are developed within an individual whenever disequilibrium is encountered through the process of gaining new skills and understandings (Vygotsky, 1930, 2004). Creative thinking therefore is transformative and integral to an individual’s growth and development. Cognitive scientists researching creativity often viewed creativity as a form of problem solving (Simon, 1986). Whereas problem solving is one aspect of the creativity paradigm, problem solving is only one kind of creativity.
DEFINING CREATIVITY
Plucker and Beghetto (2004) believed that problematic beliefs about creativity stem from a fundamental problem with how creativity is defined. However, as found in this literature review, most researchers involved with creativity agree that two criteria are needed: ‘novelty’ and ‘usefulness’ (Feist, 1998; Gardner, 1988; Guilford, 1950; Lubart, 1994; McKinnon, 1962; Nickerson, 1999; Runco, 2004; Sternberg & Lubart, 1999). Combination of these two elements serves as a keystone for the many discussions and definitions of creativity. A definition of creativity is therefore offered by Plucker and Beghetto (2004) as follows:

Creativity is the interplay between the ability and process by which an individual or group produces an outcome or product that is both novel and useful as defined within some social context (p. 156).

This definition highlights the important interplay between ability and process (including divergent and convergent thinking), thus allowing a more complex conceptualization of creativity. This definition highlights human functions that are observable and unobservable abilities and processes. However, in order for a human to have the ability to produce creative products for society, it must be acknowledged that the development of the processes that generate creative behaviour occur in the young child.

CREATIVITY IN YOUNG CHILDREN
Creativity has been defined as the skills and attitudes needed for generating ideas and products that are novel, of high quality and appropriate to a social group (Amabile, 1983; Csikszentmihalyi, 1994; Feldman, 1999; Feldman et al., 1994; Sawyer, 2006; Sternberg, 2005; R. Weisberg, 2006). For this reason, creativity has not been an area of research with young children due to a lack of any self-evident criterion against which to validate the measures employed. It is thought that children produce neither the introspections or significant contributions to art or science that can be used when identifying creative adults (Ward, 1968). Russ (1996) challenged this belief by acknowledging the processes that are predictive of creativity are the same as those that predict creativity in children. Naturally children have not experienced the ten year rule in order to have the technical skill
or mastery of a knowledge base necessary to produce significant creative works, however, they do have novel ideas and productions that are creative in relation to their age group (Russ, 1996) and within their field of play. Young children are also encountering everyday problems fundamental to growth and development as they transform to new levels of understanding.

Young children are capable of expressing ideas that are original to ‘them’ and engaging in creative acts producing creative works as a result of testing and trialling new ideas. The child is capable of exhibiting genuine creativity and originality as s/he becomes intensely and extensively involved in cognitive activities through searching for answers to life around them (Gardner, 1993a). These products may not be deemed appropriate, useful or novel to the general community, as suggested in the multi-dimensional model proposed by Csikszentmihalyi (1994) and Gardner (1988), however they have the potential to be assessed as novel and useful to and by the children.

In meeting the definition of creativity as generating a novel and useful tool to society, children can be included in the validation of their creative ideas and the production of items for use within their social-cultural context; especially if they are involved in applying criteria for assessing creativity products. Further acknowledgment for the development of creative thinking in young children is necessary in identifying processes that produce foundations for future creative abilities. This research re-focuses on early childhood as a significant period for creative activity, in particular the early years of development.

**Critical periods for creative development**

There is strong evidence suggesting a critical period in the first ten years of life where young children are considered to be in a creative stage of development during the time when the brain is still wiring (Doidge, 2007; Eliot, 1999; Goswami, 2004; McCain & Mustard, 1999; Siraj-Blatchford, 2005). Research suggests artistic creativity peaks during the ages of four through to six years. Gardner developed a U-shaped model, based on the findings of Torrance (1974) and Simonton (1993), in which artistic creativity peaks between four and six years,
diminishes during the ages of seven through eleven years, then increases again in adolescence up to the level set by the four to six year olds (Gardner, 1982). Children appear to become more conventional around the 4th grade where more attention is devoted to peer reactions instead of self-expression (Runco, 1999). There is enough evidence from recent studies to support the belief that children between the ages of five and six years of age are in a critical period for creative thinking forming the foundations for later creative potential.

CHILDREN AND PLAY
Investigators have found that creative children are more playful than their peers (Nickerson, 1999). Intellectual playfulness also appears to be a characteristic of adults who are creative. Playing with ideas allows one to be removed from the obvious and to see things from different perspectives that are often novel or unusual. Csikszentmihalyi (1996) has argued that “the first step toward a more creative life is the cultivation of curiosity and interest” (p. 346). Curiosity is an important determinant of creativity. All children appear to be curious, however, whether they remain curious in nature as they grow depends on several environmental factors. Russ (1999) identified five affective processes of creativity based on theoretical and research literature. These processes are in the early stages of development forming the foundation for mature processes that are integrated into a knowledge base, life experiences, social context, and worldview of the creative adult tackling problems or looking for new answers. Russ states that “adults are not recreating the play experience when they create; they are using processes that they used and developed when they played as children” (1999, p. 57).

Playing stimulates intrinsic motivation and creative imagination (Preiser, 2006). Becoming like a child to understand the universe and eternity is supported by Einstein, who attributed his formulation of theory of relativity to the fact that he kept asking questions as a child would (G. Holton, 1973). Csikszentmihalyi (1996) describes this process as two contradictory sets of instructions we are born with: a “conservative tendency, made up of instincts for self-preservation, self-aggrandizement, and saving energy, and an expansive tendency made up of
instincts for exploring, for enjoying novelty and risk – the curiosity that leads us to creativity” (p. 411). It is children’s curiosity that captures their interests and motivates children to investigate their world.

Nickerson warns that we need to “take seriously the possibility that children are naturally curious and that they have to learn not to be” (1999). If too few opportunities for curiosity are available, with too many obstacles placed in the way, the motivation to engage in creative behaviour is lost. The role of the educator therefore is significant in providing a safe environment where the child can freely explore, trial ideas and take risks in their play. In order for creativity to continue from early childhood into adult life, curiosity needs to be a key ingredient in how we shape children’s learning in the early years, in particular through play-based pedagogical approaches.

One major area of play that holds significance to the development of creativity is pretend play. Liebermann found that spontaneity and joy in play were related to divergent thinking (Lieberman, 1977). Play is necessary for children to test their abilities, to take risks, trial and error, problem solve, to learn perseverance (Cropley, 1977; Gruber, 1988), persistence (Chambers, 1964; Cox, 1983) sensitivity (Greenacre, 1957; McKinnon, 1962) and confidence (Feist, 1998). Russ identified that positive affect (induced by watching comedy or receiving a gift for example) increased a person’s ability to organise ideas in multiple ways as well as access alternative cognitive ideas (1999). Singer and Singer (1990) also found that positive effect related to imaginative play. Results indicate that pretend play that is a positive experience for the child is predictive of creativity where the players themselves are more creative. It has also been suggested that observing children during free-choice activities, especially during imaginative play, should yield evidence of creative behaviour (Milgram, 1990; Root-Bernstein & Root-Bernstein, 2006). The more open play is and the more choices or control afforded to the child, the more likely play will be an enjoyable and creative experience for the child.

Krasnor and Pepler (1980) found that intrinsic motivation is a pleasurable part of pretend play. Through playing with ideas and enacting multiple roles, children
begin to demonstrate areas or domains of interests. What children find appealing or interesting is often repeated in play situations over periods of time. This extension of an interest allows children to gain deeper understandings and to refine skills. Intrinsic interest comes from within the individual forming the motivational spring of passion that ignites learning. Bandura (1997) suggested that strong self-efficacy was an important requirement for creativity. Through play, children learn to believe in their abilities and possess high levels of energy to persist with their ideas. Creativity is the motivation for children to learn by stimulating curiosity, provoking interest and possessing dispositions to trial potential in different ways. Potentials may be identified in early childhood, but can take a lifetime to be realised. Creative development can be described as the fulfilment of creative potentials.

Through imaginative play, children are able to freely engage in roles that are reflective of the community and life around them or re-enacted from fantasy worlds inspired by stories and movies. Fein (1987) viewed pretend play as a natural form of creativity. Children are able to playfully treat an object as if it was something else entwined with a range of feelings. As Russ (1999) states: “in this safe arena children can call up a variety of pretend mood scales, memories and fantasies, and primary process themes” (p. 67). The ability to engage in symbolic play represents an ability to diverge in thought processes where a box could become any number of things. From this research we can gain fresh insight for creativity by acknowledging the role of imagination playing a significant part in the development of young children’s creative thought processes.

**DEVELOPMENT OF CREATIVE PROCESSES**

Creativity can be considered as a form of problem solving that involves flexible thought and the practical application of skills (Moran, 1988). Both thinking and acting are required for creativity to be demonstrated. Problem association with divergent thinking requires ideational fluency. This ability is generally considered to be a critical feature of the creative process (Moran, 1988). Therefore it is suggested by Moran that the focus of creativity should be on the ‘process’, rather than the ‘product’. As children develop the skills required to evaluate, issues of
quality and products become more important (1988). Children may be able to produce a number of ideas but lack the skills to implement them in a practical manner; or products may be churned out with little attention to the process or thinking involved. Evaluation is often associated with the end product and its usefulness for society, often little attention is given to the thought processes invested and the significance for development.

Divergent thought processes are an important aspect in the development of creative thinking in children allowing for the identification of potentials in those who may not yet have the skills to be productive. The most significant operation for creativity has been recognised as divergent production involving a broad search for information and the generation of numerous novel answers or ideas (Sternberg & Lubart, 1999). The generation of novel ideas is usually a consequence of disequilibrium where a solution to a problem is required. Problem solving is an important facet of the creative process – and of development. Overcoming problems through the practical application of novel ideas advances the individual from one level to another. These creative processes are fundamental for all domains of learning and skill acquisition.

The most important characteristic of creative people is their ability to recognise a good problem in their domain. Beyer (2000) set forth a model involving five steps in the process of problem solving: recognising a problem, representing the problem, delivering or choosing a solution plan, executing the plan, and evaluating the solution (Van Tassel-Baska, 2006). Guilford (1975) identified a number of factors involved in creative problem solving including sensitivity to problems, fluency, flexibility and originality.

For young children, the identification of a problem may need the guidance of an educator who is sensitive to children’s independent learning. Through problem solving, children engage all the major cognitive learning processes, in visualising solutions, checking for errors, and through collaboration, talking and reflecting as well as metacognition involving the evaluation of strategies and solutions (Gifford, 2010). Problem solving also involves important emotional and social learning; successful problem solving can enhance self-esteem and help forge relationships.
Adults have a key role in fostering a supportive climate for successful problem solving within social learning contexts.

**COLLABORATIVE PROBLEM SOLVING WITH YOUNG CHILDREN**

Vygotsky (1930, 1978) emphasised collaborative problem solving as a major vehicle for learning. Through overcoming difficulties, problem solving helps children make new connections with existing knowledge and provide motivation for learning (Miller et al., 2010). Problem solving involves all cognitive learning processes through visualising solutions, checking for errors and communication skills within a collaborative context. Higher levels of thinking are stimulated through the analysis of problems, synthesis of relevant ideas and creativity when unusual solutions are found (Miller et al., 2010). Research by Deloache and Brown (1987) reviewing problem solving strategies by young children found that two to three year olds and four to seven year olds followed the same sequence of approaches. These included: brute force (forcing bits to fit), local correction (adjusting a part, often creating a new problem), dismantling (starting all over again) or taking a holistic view (considering multiple relations or seeing the solution considering the problem as a whole). Three year olds were found to use planning by rehearsing verbally, looking repeatedly and systematic strategies (Deloache & Brown, 1987), while four year olds were found to start solving problems immediately (Askew & Wiliam, 1995). Although these studies focused on problem solving strategies, they did not relate the potential for creative development. Problem solving, particularly during open-ended problems that allow divergent thinking, have significant potential for developing creative thought processes and abilities in young children.

Successful problem solving involves the child developing strategies that involve thinking and reflection. Metacognition involves children mindfully approaching a problem with the employment of procedural knowledge such as tactics and strategies (Runco, 2007). The role of the educator is significant in modelling strategies such as planning and preparation, predicting outcomes, monitoring progress, being systematic, trying new possibilities or alternative approaches as well as evaluating strategies and improving solutions (Miller et al., 2010). In order
to feel confident in trying new ideas and exercising flexibility in tackling problems, children need to feel emotionally safe. Familiar contexts that are culturally familiar to the child and link to the home environment, allow children to perform at their best. Important emotional and social learning is involved through successful problem solving, enhancing self-esteem, however collaborative problem solving requires social skills such as gaining entry, giving and taking advice, and resolving disagreement (Broadhead, 2004). Adults, therefore have an important role during collaborative problem solving by providing a supportive climate for the emotional well-being and security of children while communicating and representing ideas.

Having a purpose for the problem is also important for children and is usually sustained by problems the children have generated themselves. Ownership of the problem and a shared understanding of the goal, allows children to take control over the outcome, rather than seeking an answer to please the educator (Carr, Peters, & Young-Loveridge, 1994). Scaffolding is an important role of the educator in assisting children to develop strategies as well as positive dispositions for successful problem solving activities. The role of the educator is therefore an essential link in the guidance and support for children’s developing thought processes. This is dependent on well-informed strategies that the educator implements in order to enhance learning and development. The next section of this review will turn the focus to the educator who under the new national curriculum framework for Australia, the Early Years Learning Framework (EYLF) (DEEWR, 2009) has a new identity as an intentional teacher. The following section presents research supporting the role of the educator as a significant means for assisting children’s creative development.

**INTENTIONAL TEACHING**

Intentional teaching means that teachers act with specific outcomes or goals in mind for children, requiring wide-ranging knowledge about how children develop and learn. Intentionality refers to how teachers interact with children. Pianta (2003) defines intentionality as “directed, designed interactions between children and teachers in which teachers purposefully challenge, scaffold, and extend children’s skills” (p. 5). Berliner (1992) summarises research on the relationship
between the teacher and the learning environment through good intentional teaching that is characterised by: high expectations (children are viewed as capable and teachers expect children to learn with deliberate instructional activities that enhance knowledge and skills), planning and management (teachers guide learning through concrete plans but are open to pursuing related topics that arise), learning-oriented classroom (children and teachers value the classroom as a place where learning occurs), engaging activities (teachers understand how children learn and how activities connect to children’s own experiences and knowledge), thoughtful questioning (teachers pose questions that stimulate thought processes) and feedback (Epstein, 2007). Teachers present information, make comments, ask questions and pose ‘what if’ challenges to promote further learning. The EYLF has adopted the term ‘intentional teacher’ in order to re-define the role of the educator (DEEWR, 2009). However, this newly introduced term creates tensions between what was intended for the American High/Scope approach and the more contemporary goals of the Australian early childhood curriculum framework, the EYLF.

Ann Epstein (2007), author of *The intentional teacher: Choosing the best strategies for young children’s learning*, is director of early childhood at the High Scope Educational Research Foundation in Ypsilanti, Michigan (High/Scope). Epstein (2007) draws on the theories and work of Pianta (2003) and Berliner (1992) defining an intentional teacher as “one who acts with knowledge and purpose to ensure that young children acquire the knowledge and skills (content) necessary for success in school and in life” (p. 1). This definition is problematic for contemporary Australian early learning environments. What is lacking is an interpretation that supports the practices and outcomes of the Australian Early Years Learning Framework (EYLF). As part of ‘belonging, being and becoming’ (DEEWR, 2009) educators are encouraged to recognise the significance of the “‘here and now’ in children’s lives and to see early childhood years as not ‘solely preparation for the future but also about the present” (DEEWR, 2009, p. 7). The goal of preparing children for school by equipping them with knowledge and content under the American definition of an intentional teacher requires further considerations for the purposes of Australian educators as part of the EYLF.
High/Scope also has specific goals in mind for children’s learning and places strong expectations on the role of the educator to ‘teach’ curriculum content according to specific outcomes for learning domains. According to Epstein, Intentional teaching “does not happen by chance; it is planful, thoughtful, and purposeful. Intentional teachers use their knowledge, judgment, and expertise to organise learning experiences for children; when the unexpected arises, they can recognise a teaching opportunity and are able to take advantage of it” (2007, p. 1). According to Epstein, an intentional teacher aims at clearly defined learning objectives and employs strategies in order to help children achieve the objectives.

Through applying six key principles of ‘best practices’ under the National Association for the Education of Young Children (NAEYC, 2005), intentional teachers are required to plan the curriculum, structure the environment, schedule the program day, interact with children, build relationships with families and assess children’s development (Epstein, 2007). Whereas High/Scope has specific outcomes for children and educators are expected to plan the curriculum, the EYLF outcomes are broad allowing children to contribute to their own pathway for learning. In contrast to High/Scope, the EYLF is a contemporary early childhood curriculum framework that draws content from the children in order to co-construct and shape curriculum. The notion of ‘curriculum’ and how content is constructed differs greatly between the High/Scope approach and the EYLF.

As part of the NAEYC best practices, curriculum involves content with specific goals for learning through areas of language and literacy, mathematics and scientific inquiry, social skills and understanding, physical movement and the visual arts (Epstein, 2007). The EYLF recognises the importance of communication and literacy and social and emotional development through play-based learning. Curriculum is not restricted to content areas or domains, rather encompasses “all the interactions, experiences, activities, routines and events, planned and unplanned, that occur in an environment designed to foster children’s learning and development” (DEEWR, 2009, p. 9). This study therefore addresses the need to re-define the role of an intentional teacher so that aligns with the principles and practices of the Australian EYLF.
This study aims to provide a better understanding of what the role of an intentional teacher means for educators within Australian early childhood contexts as they negotiate terminology adopted from other approaches into learning outcomes for children under the EYLF. The role of the educator as a co- constructor of knowledge where curriculum content is negotiated throughout the day with children is underpinned in this research by the theoretical framework of Vygotsky (1930, 1978). Vygotsky acknowledges the role children play in the co-construction of knowledge.

The role of the educator is to create a supportive environment and use effective strategies that advance children’s thinking to the next level (Epstein, 2007). Lev Vygotsky first put forward a socio-constructivist idea through his zone of proximal development (1930, 1978). Through scaffolding, the adult guides and supports the child in reaching higher levels of abilities between the most difficult task unassisted to the most difficult task with assistance (Ahola & Kovacik, 2007). The EYLF supports this approach through the principle of high expectations. Educators are encouraged to view children as capable of achieving meaningful goals and expect children to learn through intentional teaching practices. Intentional teaching acknowledges that learning occurs throughout the day, not just at set routine times for group experiences. Educators are therefore constantly recording and monitoring in order to seek opportunities for sustaining children’s engagement and hence further their understanding.

**Research on quality indicators for intentional teaching practices**

In May 1976 twelve Flemish pre-school teachers, assisted by two educational consultants, started a series of sessions using an ‘experiential’ approach with the intention to reflect critically upon their practice as well as the moment to moment experiences of children within educational settings. Through careful observation and ‘reconstruction’ of children’s experiences they found that too many opportunities to sustain children’s interest remained unused. Experiential Education (EXE) grew further to become one of the most influential educational models in the area of elementary education in Flanders and the Netherlands (Laevers, 1994). The most important contribution from the EXE project was
identifying indicators for quality, in particular the gap between what we are doing (the context) and where it is leading (the outcome). The most conclusive component for assessing quality within an early childhood setting was found to be the level of emotional well-being and the level of involvement.

Indicators of emotional well-being include: how each child feels at ease; acts spontaneously; shows vitality and self-confidence as well as ensuring that their physical needs for affection, safety, social recognition, competence and the need for meaning in life are satisfied. Involvement means that there is intense mental activity where the child is performing at their very limits or capabilities, with an energy that comes from intrinsic motivation (Laevers, 1994). Deep learning is a result of involvement between the educator and the child in a safe, supportive environment.

Involvement is an important aspect of the dynamic relationship between an educator and child or group of children where strategies are developed to sustain engagement and scaffold toward goals for learning through social collaboration. Research involving the Leuven Involvement Scale for Young Children (LIS-YC) developed by Professor Ferre Laevers for the EXE project, Leuven, Belgium (often referred to as the Child Involvement Scale) has shown that the levels of involvement within a setting tend to be more or less stable (Laevers, 1994) and are the result of the interactions between the context (including the way teachers handle their group) and the characteristics of the children. Involvement is an important aspect of the dynamic relationship between an educator and child or group of children where strategies are developed to sustain engagement and scaffold toward goals for learning through social collaboration.

Involvement is a dimension of human activity which can be recognised by a child’s concentration and persistence. It is characterised by motivation, fascination, openness to stimuli and an intensity of experience both at the physical and cognitive level, and a deep satisfaction with a strong flow of energy. Involvement is determined by the ‘exploratory’ drive and the child’s individual developmental need. As a result of involvement there is evidence to suggest that development occurs (Laevers, 1993; Pascal & Bertram, 1995). The most important
characteristic of involvement is motivation. Assisting children in developing good dispositions toward learning involves not only sustaining children’s interest but allowing their natural curiosity to guide their thinking in problem solving situations.

**INTRINSIC MOTIVATION**

Csikszentmihalyi (1996) has argued that “the first step toward a more creative life is the cultivation of curiosity and interest” (p. 346). Curiosity is an important determinant of creativity. Csikszentmihalyi’s (1999) work on problem solving led him to believe that the identification of problems that hold the potential for creative solutions is driven by an intense interest or curiosity in the situation. Crutchfield explains that the person is driven by the intrinsic value in the attaining of the creative solution itself (1962). He believed that greater creativity would result when a person was primarily intrinsically motivated to do a task, without regard for the possible rewards for the accomplishment. Intrinsic motivation is defined as the motivation to engage in an activity primarily for its own sake, because the individual finds the activity or task as interesting, involving, satisfying, or personally challenging. The focus is on the challenge and enjoyment of the work (Amabile, 1983; Crutchfield, 1962; Csikszentmihalyi, 1996; Sternberg & Lubart, 1991). Educators have an important role in providing meaningful learning experiences that engage children’s curiosity, challenge children’s thinking and sustain their engagement.

One of the most significant characteristics of involvement refers to what Csikszentmihalyi refers to as the ‘state of flow’ (1990). An involved child concentrates, using his/her attention with the combination of strong motivation, fascination and total implication: there is no distance between person and activity (Laevers, 1994). Furthermore, there is openness to stimuli and cognitive functioning has intensity for optimal opportunity. Evidence suggests that an involved child is gaining deep, motivated, intense and long term learning experience (Pascal & Bertram, 1995). This immense feeling of satisfaction and positive energy is ‘the state of flow’. This state can be related to the stage in creative thinking referred to as incubation. Creative thought processes involve preparation, incubation, insight and verification (Hadamard, 1949; Sawyer, 2006;
Wallas, 1926). Educators need to provide children with environments that support creative development as well as provide opportunities for social interactions and guidance and support from the educator. More research is needed to demonstrate how this can be done by investigating how learning environments support and promote teacher-child interactions.

**PREPARED LEARNING ENVIRONMENT**

Preparation involves the educator attending to the structural elements of the learning environment. Definitions of quality have often been based on common indicators for predicting children’s learning including elements such as the physical environment, tangible resources, learning experiences, interactions and relationships, staffing, planning and assessment procedures (Sylva, 2010). Quality measures have been found to include: structural elements (such as the facilities) and process elements (for example, the relationships children develop through every-day experiences and interactions with educators) (Litjens & Taguma, 2010; Sylva, 2010). A well prepared learning environment has the potential to engage children’s curiosity, enabling them to make choices, collaborate with others, and discover new ways to use materials, play with ideas or take up a particular challenge.

Part of an intentional teacher’s role is to prepare the learning environment so that it is aesthetically pleasing, provokes children’s interests and invites them to learning contexts. Invitations for learning, often called ‘provocations’, are designed with a purpose in order to capture children’s interest (Curtis, 2004; Edwards, Gandini, & Forman, 1998). Children are naturally attracted to opportunities where they can express their abilities and skills. In the preparation stage, the child is developing domain knowledge; that is the child is learning about the world and developing foundational knowledge in different areas. An important part of the creative process is for the child to become familiar with prior work, internalising the symbols and conventions of the domain (Sawyer, 2006). Creativity results when the individual combines existing elements and generates new combinations.
Chapter 2: Literature review

CREATIVE PROCESS: INCUBATION
The incubation stage is often below the surface of consciousness (Sawyer, 2006) and is the least understood stage of the creative process. The unconscious mind is capable of incubating many ideas at once, unlike the conscious mind which can only focus on one thing at a time (Csikszentmihalyi & Sawyer, 1995; Sawyer, 2006). William James (1880), a famous American psychologist once wrote “we seem suddenly introduced into a seething cauldron of ideas, where everything is fizzling and bobbing about in a state of bewildering activity” (p. 456). In his passage, James describes the highest order of minds; the elevated performance that results from creativity. Incubation is referred to the creative process where ideas are bubbling away and where thoughts combine in undirected ways. During incubation children make connections between what they know, with what is imagined, in order to find solutions for encounters with everyday problems.

During incubation, mental elements combine and insight occurs through combinations that emerge into consciousness (Sawyer, 2006) The moment of illumination, where an idea is formed (within one’s mind’s eye) is also referred to as the ‘a-ha’ moment, or moment of revelation or ‘insight’. It is not known why some emerge over others. The existing ideas that form the mental structures are not new; they are familiar ideas already formed in the domain (Sawyer, 2006). The existing mental structures combine to create a new idea; however, a creative insight is not always original. What makes an insight novel is the way that these existing ideas are put together through a process of selective encoding (Sawyer, 2006; Sternberg & Lubart, 1991). Creative insights emerge from complex underlying cognitive processes involving a vast array of different processes and regions. These processes emerge during the organism’s development through a complex and long-term process of genetic expression that is heavily influenced by the environment (Pfenninger & Shubik, 2001). For insight to occur the child needs time to incubate, play with ideas and think freely; unhindered.

After insight emerges into consciousness, the creator has to evaluate whether it really is a good idea and whether or not to apply it. We use fully conscious thought to evaluate the validity of the idea (Sawyer, 2006). Many creators have lots of ideas and eliminate the bad ones. This is referred to as productivity theory.
Chapter 2: Literature review

(Simonton, 1988). Often we write many books or paint many paintings before one is noted. The role of the educator would be to involve the child in the validation process by allowing time for playing, testing and trialling of ideas. For young children the availability of time, resources, careful structuring of the environment and curriculum are dependent upon an educator who is sensitive and supportive of the overall creative process.

**INTENTIONAL TEACHING AND CREATIVITY: DEVELOPING THE RELATIONSHIP**

Creative processes and sound knowledge bases are developed through social interaction with peers and under the guidance of an educator who can direct children’s thinking toward problem identification and creative problem solving (Diaz, Neal, & Amaya-Williams, 1990; Runco & Okuda, 1988). Through collaboration and sustained shared thinking, the creative process is made visible. The role of the intentional teacher is to model interactions and to provoke children’s sustained shared thinking. Evidence from the Effective Pre-school and Primary Education (EPPE) project (Siraj-Blatchford, 2010) found that excellent settings encouraged sustained-shared thinking practices. Sustained shared thinking is strongly associated with high-quality teaching and learning for young children. Siraj-Blatchford defines it as “an episode in which two or more individuals work together in an intellectual way to solve a problem, clarify a concept, evaluate activities or extend a narrative” (Sylva, Melhuish, Sammons, Siraj-Blatchford, & Taggart, 2010, p. 157). Through close engagement between educators and children the identification of intentional teaching processes can be identified.

Processes refer to the interactions and conversations children experience with staff every day. The EPPE project has been instrumental in establishing links between quality educational and care processes and children’s developmental outcomes (Sylva et al., 2010). It is expected that qualified educators will have more key strategies for developing children’s learning with pedagogical practice grounded in contemporary theoretical approaches for understanding children’s growth and development. High quality learning is driven by skilled teachers who have the knowledge and training to create high levels of participation in early
childhood learning environments. Research findings informing the Early Years Foundation Stage found that trained teachers were most effective in their interactions with children using the most sustained shared thinking interactions (Sylva et al., 2010). The importance of educators extending child-initiated interactions was clearly identified (Sylva et al., 2010). The evidence also suggested that adult ‘modelling’ and ‘open-ended’ questioning were also associated with better cognitive achievement.

The role of the educator assisting children in becoming involved learners requires engaging dialogue and thoughtful questioning techniques. In a study by Sommer, Pramling Samuelsson, & Hundeide, (2010) on participation and learning in the early childhood context, three to six year old children were videoed in small group discussions with their teacher. The analysis was based on three questions: open-ended, time and opportunities for children to ask questions and participate and invitations by the teacher to children to share thoughts and experiences. The results showed that teachers asked mostly ‘what’ questions instead of ‘how’ or ‘why’, which gives children the opportunity to explain or justify their thoughts. Direct invitations and questions that invited children to share their thoughts were rare. Conclusions found that early childhood teachers require extensive knowledge of different ways of asking open-ended questions and ways to invite children to share and participate.

While research has focused on the role of educators, the connection to young children’s cognitive growth, in particular creative thought processes has not been previously considered. As intentional teaching is now part of the EYLF, teacher training that explains this role as well as identifies the strategies educators use as part of their pedagogical practice is needed. Research on intentional teaching strategies, and in particular the relation to young children’s creative thinking, should therefore become an essential contribution for pre-service education.

**SUMMARY**
Past research on creativity has generally involved older children in adolescent years, rather than young pre-school aged children. Researchers often selected
older children for their ability to provide verbal and written responses enabling the researcher to evaluate products against the criteria of ‘novelty’ and ‘usefulness’. Early childhood has in general, not been an area for creativity research due to the belief that young children are not yet capable of producing items that are novel or useful to society. Available research has largely focused on the artistic domains, rather than exploring the potential for creative ideas across domain areas for learning. It is the valuable cognitive processes that develop during this significant part in a child’s neurological development that appears to have been overlooked in past research. There is abundant evidence available today to support the idea that early childhood is a critical period for the development of creative thinking in children. Creative insights emerge from complex underlying cognitive processes involving a vast array of different processes and mental structures that combine to produce a new idea. For the developing child, this involves connecting what is known to the unknown in order to seek solutions to everyday problems that project learning and understanding to higher levels of thought and ability.

Through creativity children learn to hypothesise, make and solve new problems, experiment with ways to represent their new knowledge and to analyse and critique this knowledge in order to make sense of their world. Through the development of divergent and convergent thinking, children encounter the skills to problem solve throughout life. However, this does not occur in isolation; learning occurs in social contexts with the appropriate guidance and support of a sensitive early childhood educator. Research to date has not recognised the significant role that educators play in the development of creative thinking. In particular, the intentional teaching strategies used by educators in order to support children as they generate ideas, hypothesise, theorise and trial solutions in their play and learning.

In order to assist educators in becoming aware of their role for intentionally sustaining and engaging children in deep meaningful experiences that support creative thinking in young children, further research is needed. Global research has assisted in the formation of Australia’s first National Early Years Learning Framework enabling educators to better define their role in implementing quality care and education for young children. However, the current interpretation of an
intentional teacher needs to be challenged and redefined in order to align with the EYLF principles and practices. To address established gaps in the research to date, this study sets out to examine and interpret the structural elements of environment factors and the processes involving close interactions and strategies educators use in their intentional teaching practices. Greater identification for the significance of the role of educators in the development of creative thinking in children will present new understandings and emerging theories on the application of creativity within early childhood pedagogical frameworks. The next chapter will address the methodological framework and justify the chosen methods providing a rationale for this qualitative study.
INTRODUCTION

This research draws on constructivist grounded theory within context dependent case study analysis as a methodology to elicit rich data (Charmaz, 2006, 2014; Strauss & Corbin, 1998) on the intentional teaching methods of educators providing provocations for creative thinking in four-to-six year old children within Australian early childhood learning environments. A qualitative research design exploring the theoretical groundwork of a socio-cultural, constructivist approach has been selected for its suitability to the nature of the research problem. Three early childhood centres involving six early childhood educators and fifty-seven children aged four-to-six years agreed to participate in this study.

This research utilises a constructivist methodological approach providing consistency for the ontological and epistemological beliefs and overall integrity of the research paradigm. Charmaz’s (2014) constructivist grounded theory and Lincoln and Guba’s (2000) constructivist/naturalistic inquiry are the methodologies selected that guide this study (Crotty, 1998). The aim of constructivist inquiry is to interpret participants’ meanings and produce a substantive theory (Charmaz, 2006) or working hypotheses (Lincoln & Guba, 1985). The aim of this research is for the educators to generate new theories and further their understandings on intentional teaching methods of educators and the creative thought processes of young children.

This chapter situates the study within an epistemological and methodological framework, providing justifications for the methods and approaches used in the design as well as specific research techniques used to analyse data gathered. Firstly, the underlying research paradigm exploring the theoretical groundwork of a socio-cultural, constructivist approach will be presented. This is followed by a rationale for pursuing a qualitative approach with an explanation for ontological and epistemological beliefs. Next, the methodological foundations of naturalistic inquiry (Lincoln & Guba, 1985, 2000) and constructivist grounded theory
(Charmaz, 2006, 2014) will be presented with further discussion on specific ontological and epistemological factors. Constructivist grounded theory methods involving case studies in the generation and development of new theory is also outlined including the ethical considerations of this research. Finally, qualitative data analysis techniques will be discussed in regard to the validity of the research as well as the credibility, dependability and transferability.

RESEARCH PARADIGM
The notion of scientific research paradigms was generated by Thomas Kuhn (1970). Different paradigms are used in order to reveal sets of assumptions that distinguish fundamental belief systems concerning how the world is ordered. Guba and Lincoln (1994) use the term ‘research paradigm’ to refer to paradigms of inquiry such as positivism, post-positivism, critical theory, participatory research, constructivism and their related ontologies, epistemologies and methodologies. Based on Kuhn’s notion, Hatch (2002) developed different research paradigms that set out to answer the ontological (nature of reality), epistemological (what can be known; relationship of the knower and known), methodological questions (how knowledge is gained) and the products (the forms of knowledge produced). In applying this model to the research, the researcher needs to consider what beliefs about reality (ontology) and what knowledge (epistemologies) might inform an investigation into early childhood phenomena. Following on from this are considerations for approaches (research paradigm/s), and interpretations (methodologies) including what specific techniques or strategies will be employed (methods) to construct a coherent research design. For this reason I have initiated the research process by first considering what ontological beliefs I hold as a researcher as well as the epistemological factors that will further guide and direct the study. The following diagram explains the relationship between these layers and is useful to signal the integrity and pattern of this research’s design.
It was important that from an ontological viewpoint the design acknowledged my beliefs as a researcher who has a background in early childhood education and a commitment to the highest ethical standards when research involves educators and young children as participants. Early childhood educators have long recognised the cognisance of the very young. This is reflected in the Early Years Learning Framework (EYLF) (DEEWR, 2009) which eschews the deficit theorising of the past, most often cited in the works of age and stage advocates (Erikson, 1950; Freud, 1966; Piaget, 1971). Rather, this study situates very young children as capable, competent and holders of rights with regard to their own learning. Although contemporary views of children appear to be a natural progression, it is in actuality a radical shift from past thinking that has influenced early childhood pedagogy for nearly a century. It foregrounds an ontological understanding through the EYLF’s recognition of ‘being, becoming and belonging’ (DEEWR, 2009). I embrace the view of children as competent and capable. This is a constant voice that echoes throughout this thesis consistent with post-modern contemporary thinking (Dahlberg, Moss, & Pence, 2007; Edwards et al., 1998; Mac Naughton & Williams, 2009; MacNaughton, 2003; Nutbrown, 1996;
Woodrow, 1999). Providing spaces for children’s agency disrupted the previous taken-for-granted assumption about the primacy of adult wisdom or knowledge over children’s. As a researcher, it was important that I maintained a view of competent children as they interacted within naturalistic environments and that the research was ethical, respectful of the rights of children and viewed children’s growth and development within current socio-cultural contexts.

From an epistemological standpoint, this research is informed by constructivist theories and contemporary beliefs on how children develop and learn within socio-cultural learning environments. I therefore sought an approach where the co-constitution of knowledge and shared participation was a consideration. Constructivist theorists acknowledge the importance of active involvement in learning. Although other social-cultural theorists such as Bronfenbrenner (1979), Lave and Wegner (1991), Rogoff (1990), Tomasello (1999), and Wertsch (1991) provide valuable theoretical viewpoints, for the purpose of this study I decided to return to the father of socio-cultural theories, Lev Vygotsky (1930, 1978). As an early childhood educator for over 20 years, it was the work of Vygotsky that had the greatest impact on my teaching and the role I had in mediating, guiding and supporting children’s learning.

The underpinning theoretical framework of this study is grounded in the socio-cultural approach of Vygotsky (1930, 1978) who believed that cognitive construction was always socially mediated (Bodrova & Leong, 2007). Vygotsky’s theoretical framework is not only robust and remains influential for contemporary research, there are many elements of his framework that suit the very nature for interpreting phenomena under a grounded theory methodology. Firstly, Vygotsky’s research on how children solve problems through mediation provided by an adult supports the investigation of intentional teaching methods of educators in stimulating the creative thought processes of children in this study. Secondly, Vygotsky acknowledged the microgenetic processes of thought that are exchanged and elevated through social mediation, better known as working within the Zone of Proximal Development (ZPD). Vygotsky proposed that transformations occur within the ZPD awakening a variety of internal developmental processes (1930, 1978). This study focuses on creativity as a
cognitive process that is developed through interactions within social environments.

Vygotsky (1930, 2004) attributed the child’s use of the imagination as a psychological function that is located at the core of learning and development. The child’s use of the imagination within the pre-school age is a significant part of development and through this research forms an essential criteria for developing creative thinking in young children. Thirdly, Vygotsky’s interest in the arts highlighted the developmental processes that lead to the construction of the new: play, fantasy, conceptual understanding, and creative imagination are embedded within the cultural and social practices that make human life possible (John-Steiner, Connery, & Marjanovic-Shane, 2010). Vygotsky’s theory not only addresses the role of adults in developing children’s thinking, it acknowledges creativity as an essential aspect of children’s development within social contexts – a good match for this study. The next chapter will present an in-depth presentation of the theoretical framework for this study.

In order to maintain integrity with the research design I sought an approach where the co-construction of knowledge and shared participation was a consideration. This research presents as a constructivist paradigm emphasising description, analysis and the co-construction of interpretations together with participants (Hatch, 2002). Laying foundations for equality and trust provides participants with opportunities to share their experiences and personal beliefs. This approach suits the process of constructing understandings around the phenomena under investigation where educators can share their understandings and develop emerging themes and theories situated within a specific historical point in time.

The products of a constructivist paradigm are the production of knowledge presented in the form of case studies and rich narratives that describe the interpretations constructed as part of the research process. Through a constructivist paradigm, the researcher and research participants were able to draw together multiple understandings and interpretations about their intentional teaching practices and creative thinking in young children in order to come to know more about these phenomena. In the next section, I will justify why
qualitative inquiry was chosen as a suitable framework and the ontological and epistemological assumptions of a constructivist paradigm.

QUALITATIVE RESEARCH
There are two reasons why I chose qualitative research: personal epistemological beliefs and commitments, and the nature of the research problem (Strauss & Corbin, 1998). Firstly, because of my professional background, I felt I had in-depth, prior knowledge of the inner mechanisms of the participants’ worlds including how to relate with and respect colleagues, children and families. Being in early childhood centres and relating to participants during the study was second-nature for me; even though I was assuming the role of a researcher. In this role however, I was also aware of my researcher-as-outsider role. While an ‘outsider’ of the centre, the researcher is considered an ‘expert’ member of the research community (Sumsion, 2003). However, there was clearly an insider/outside relationship that I needed to consider before entering research sites. Illustrations of my insider role included discussions with children as they engaged in play as well as requests from children for assistance. General discussions relating to the role of the teacher were held with educators as they engaged in everyday practice. My outsider role was demonstrated through shaping and guiding dialogue with educators in order to collate data for the study.

Thinking through and describing the anticipated relationships between myself as a researcher and participants was an important step in designing a qualitative study (Hatch, 2002). Having prior professional experience as a Director in early childhood services created an initial bond where shared knowledge and expectations toward ethical considerations with children and families as well as being sensitive to the busy lives of educators was common ground. Participants were also aware that my role as a researcher would be very different to my previous role as trained early childhood educator.

Conversations regarding roles and general expectations were developed during the first focus group session and it was found in subsequent sessions that participants would make statements such as ‘you know what it’s like Nicole’
indicating that they were aware of my background as ‘one of them’. Conversations involving shared respect for children as capable contributors to both their learning and the research made the role of the researcher visible. Shared values also reflected the complementary expertise and contributions to the research (Sumsion, 2003) creating a sense of community. As a researcher part of my reciprocity was to give back something of substance (Hatch, 2002). It is anticipated that some of these relationships will be ongoing and that the sharing of results from this study will further inform practice through workshops and seminars.

Secondly, one of the aims of the study was to understand the meaning or nature of phenomena, by finding out what people are doing and thinking. Qualitative methods are useful for exploring areas about which little is known to gain new understandings (Charmaz, 2006; Stern, 1980; A. Strauss & Corbin, 1998). The emerging phenomena of intentional teaching and creativity in early childhood are deserving of research because current pedagogical practices and curriculum documentation reflect a general lack of understanding in these areas. Investigations of these phenomena allowed participants an opportunity to reflect on what is known as well as construct new ideas according to what was revealed through the data. Transformations in knowledge and application are an important aspect of qualitative research. In order to assume the role of a qualitative researcher, it was necessary to understand these and other characteristics of qualitative research.

According to Flick, Von Kardoff & Steinske (2004) within qualitative research there are: strong orientations of everyday events and/or knowledge of those under investigation; interpretive procedures bound to the notion of contextuality; data collected in their natural context; attention paid to the diversity of perspectives from participants; and include reflective capabilities of the researcher. The epistemological principle of qualitative research is the understanding of complex relationships rather than an explanation of single relationships such as cause and effect. Understanding is demonstrated methodically through an understanding of ‘otherness’.
Throughout this thesis developing theories and emerging concepts relating to phenomena will be compared and discussed alongside available research. Through a qualitative framework, the basic ontological assumption of constructivism involves human sense-making, rendering it comprehensible, understandable and explainable (Guba & Lincoln, 1989; Lincoln & Guba, 1985). From this form of inquiry, realities present as multiple mental constructions, socially and experientially based, local and specific in nature, dependant on content from individuals or groups holding the constructions.

The understanding of constructivism adopted here draws on the notion of “transactional subjectivism” (Guba & Lincoln, 1994, p.110) where assertions about reality and truth depend solely on the meaning sets, or information, and degree of sophistication available to the individuals engaged in forming those assertions. As a researcher bringing extensive early childhood practitioner experience alongside access to the most recent theorising about children this study I have a high degree of procedural knowledge. In addition, the research participants are all qualified early childhood teachers with varying degrees of experience and as will become clear during the analysis, display varying degrees of understanding of creativity and the emerging practice of intentional teaching. Disparities in views, understandings and practice involving intentional teaching and creativity provided opportunities for in-depth discussions during focus group sessions where through reflective practice new constructions and emerging theories around phenomena arose.

My epistemological view is that the researcher and participants co-construct the subjective reality that is under investigation (Hatch, 2002). The epistemology is transactional and subjectivist where the investigator (inquirer) and the object of investigation (phenomena) are interactively linked. This ensures that the findings are created as the investigation proceeds (Guba & Lincoln, 1994). Knowledge therefore becomes a product of social constructions characteristic of an extended epistemology that includes different ways of knowing (Heron, 1992). Through collaboration, this study therefore aims to create a wider community of inquiry between people. The role of the knowledgeable researcher is also a valuable aspect of negotiating contributions from participants. Whilst attention was paid to
the diversity of perspectives presented, the reflective capabilities of the researcher about these views as well as observations in the field of investigation were taken as an essential part of discovery (Flick et al., 2004).

Qualitative research is often characterised by the belief that researchers, being concerned with the individual’s point of view, are able to get closer to the actor’s perspective through detailed interviewing and observation (Denzin & Lincoln, 2000). Qualitative research claims to describe life-worlds from the inside out and from the point of view of the participant (Charmaz, 2006; Denzin & Lincoln, 2000; Flick, 2005; Flick et al., 2004; Tesch, 1990). In doing so, it seeks to better understand the social realities providing an insight through multiple lenses.

Qualitative research is a particular tradition within social science that fundamentally depends on watching people in their own territory and interacting with them in their own language (Kirk & Miller, 1986). Further to this, Schmidt (1981) describes qualitative research as the study of an empirical world from the viewpoint of the person/s under study. She identified two underlying principles: firstly, that behaviour is influenced by the physical, socio-cultural, and psychological environment; and secondly, that behaviour goes beyond what is observed by the investigator. These principles of qualitative research form the basis for naturalistic inquiry.

**Naturalistic inquiry**

In order to substantiate the goodness of the research paradigm, ontological authenticity was achieved through naturalistic inquiry. Naturalistic inquiry, coined ‘constructivist inquiry’ (Lincoln & Guba, 2000), involves interpretive research aimed at understanding how people in everyday settings create meaning and interpret events in their world. Specific assumptions of interpretive research include: reality is subjective and exists only in relation to the observer; and humans are different from each other, and explanations about phenomena should strive for depth over breadth. This is what Geertz called ‘thick descriptions’ (1973). When studying the culture of people or of a place, the researcher’s descriptions
become second or third-order interpretations as they represent the researcher’s constructions of participants’ constructions (Geertz, 1973; Hatch, 2002).

Interpretive research is influenced by the belief that the phenomena under investigation should be studied in its natural context. The field researcher or inquirer in this process becomes the main research instrument in the collection of data. Within this study, the researcher’s role involved close observation of educators in their natural settings in an effort to reconstruct the constructions participants used when engaging in intentional teaching practices as well as the natural responses of children through play-based learning opportunities. The role of educators in assisting with this research collaboratively, was an important element in utilising the knowledge and skills of experts in their field (Dreyfus & Dreyfus, 1986) as well as in maintaining a naturalistic environment. The following diagram is a summary of my ontological, epistemological, methodological approach for this study. The next section will address the methodology of this study presenting constructivist grounded theory as the selected form of inquiry.
Chapter 3: Research design and methodology

**Figure 3:2** The ontological, epistemological and methodological approach of the researcher

**Methodology**
The basic methodological assumption of constructivism is hermeneutic-dialecticism, involving a process by which constructions entertained by several individuals and groups (stakeholders) are uncovered, confronted, compared and contrasted (Guba & Lincoln, 1989; Lincoln & Guba, 1985). Reason and Rowan (1981) explain the principles of hermeneutics in the ‘hermeneutic circle’ where in order to understand the whole, one has to understand the constituent parts; and if one is to understand the constituent parts, one has to understand the whole.
Grounded theory (Strauss & Glaser, 1967), in particular constructivist grounded theory (Charmaz, 2006, 2014) has been selected as the best form of methodological inquiry within a constructivist paradigm essentially as it is consistent with the ontological and epistemological beliefs that knowledge is socially constructed and constantly emerging from the data. In this section, background information on Glaser and Strauss’s (1967) grounded theory is provided with a further exploration of why Charmaz’s (2014) constructivist grounded theory has been chosen as a suitable methodology for this research.

**BACKGROUND: GROUNDED THEORY**

The processual understanding of grounded theory allows for the character of discovery within qualitative research as the ultimate foundation for the development of theory. Developing a theory that is built upon classification, researchers can then use the theory to predict what they will observe when they go out and observe more phenomena under various conditions (Christensen & Sundahl, 2001). Glaser and Strauss’s (1967) work on the development of grounded theory actually refers more to classification than theory. Their use of the word ‘grounded’ reflects their insight that unless a statement of cause and effect is built upon the foundation of a robust classification system, it cannot be useful (Christensen & Sundahl, 2001). Grounded theory within qualitative research has the potential to contribute new information about something that was previously little known (Yin, 2011), combined with concepts and insights that have implications for broader interpretations within the social world.

Grounded theory uses an atypical non-linear research process (Bowers, 1989) wherein data collection, analysis, literature review, hypothesis and theory generation occur together with the data analysis directing the researcher’s questions and artefact collection. For this reason, grounded theory is a suitable model for investigating phenomena such as intentional teaching and creativity, where theory is generated from the data (Charmaz, 2006; Stern, 1985, 1994; A. Strauss & Corbin, 1990). Grounded theory is in itself a creative process, where the product or theory is relatively unknown, but evolves along the way, being shaped and formed out of the interrelationships of conditions, meaning and
actions. This process acknowledges the active role people play in shaping their worlds and the evolving nature of experience and is characterised by the simultaneous collection and analysis of data (Strauss & Corbin, 1990). There is a rational organisation of facts, knowledge and relationships that explains and predicts phenomena sourced from the data.

Grounded theory is considered by Stern (1980) as the best methodology to investigate “uncharted waters” (p. 20). This research brings forth new understandings of phenomena where little has been understood. What intentional teaching and creativity means for educators within Australian early childhood contexts is an unexplored area; this research may be the first of this kind. Intentional teaching has its roots in American soil established as part of the NAEYC’s recommendations for best practice, represented in the High/Scope approach to early education and care. Adopting this term or transplanting it to Australian soil, now needs research investigations that will firmly place it within our cultural landscape. Constructivist grounded theory involves the piecing together of data from multiple viewpoints in order to construct a picture of what intentional teaching ‘looks like’ for educators within their socio-cultural context.

Likewise, creativity in the wider sense of the term that refers to creative thought processes has rarely been an area of research with children from early childhood learning environments. A more contemporary investigation of the development of creative thought processes within social learning environments is now needed. In particular, past research was largely quantitatively based, involving tests where the individual child responded to a set of tasks (Guilford, 1975; Moran, 1988; Sternberg & Lubart, 1999; Torrance, 1974; Urban, 2004). Researchers now know that creativity is a quintessential part of a child’s development that occurs through social interactions with adults and peers in learning environments. This study focuses on the interactions between educators and young children and the intentional teaching strategies that stimulate creative thinking. The relationship of intentionally teaching young children is emerging (Epstein, 2007; Mac Naughton & Williams, 2009; MacNaughton, 2003), therefore the relationship between intentionality and creativity is a ripe area for study; one that requires conversations around what is currently understood about these phenomena.
**CONSTRUCTIVIST GROUNDED THEORY**

The ontological and epistemological stance adopted through constructivist research differs from the more realist ontology and objectivist view of popular grounded theory. Within the traditional regimes of grounded theory, the investigator’s role is to discover the truth that lies within an object of investigation, with reality existing independently of any consciousness (Charmaz, 2006; Crotty, 1998). The methodological procedures of Charmaz’s (2006) constructivist grounded theory are based primarily on Glaser and Strauss’s (1967) grounded theory. Her approach is consistent with a constructivist epistemology and ontology “placing priority on the phenomena of study and seeing both data and analysis as created from shared experiences and relationships with participants and other sources” (Charmaz, 2006, p. 330).

Constructivist grounded theory lies in an interpretive tradition where the resulting theory is an interpretation (Bernard & Ryan, 2010; Charmaz, 2000, 2002). This research paradigm presents an overall socio-cultural theoretical base where, through naturalistic inquiry, interpretations and new theories can emerge from interactions with participants. The phenomena of intentional teaching and creativity in this study were explored within social groups in order to unearth the mental constructions that are experientially based, local and specific (Guba & Lincoln, 1994). For this reason, I have chosen to incorporate Charmaz’s (2006) constructivist approach to grounded theory in maintaining consistency with the overall research design.

Charmaz (1990) advocated a social constructivist grounded theory where the observer (inquirer) is “alive and influential” (p. 1164). In applying this approach the role of the researcher is not minimised; the researcher brings values, experiences, and priorities that direct decisions throughout the process (Charmaz, 1990; Creswell, 2008). As a constructivist, the inquirer’s voice is that of a ‘passionate participant’ (Lincoln, 1991). However, as a constructivist inquirer, any theorising is dependent upon the researcher’s views and cannot stand outside of them (Charmaz, 2006). Therefore, any theories or developing hypotheses developed should ‘emerge’ in the sense that they are ‘grounded’ on data generated from the research process (Charmaz, 2006; Lincoln & Guba, 1985).
This approach fosters, as Charmaz (2006) further explains, “researchers’ reflexivity about their own interpretation as well as those of the research participants” (p. 131). Reflexivity acknowledges that “all knowledge is affected by the social conditions under which it is produced and that it is grounded in both the social biography of the observer and the observed” (Mann & Kelley, 1997, p. 392). The researcher, or inquirer, in this process therefore needs to take into account how their assumptions and views have impacted on the research process. Reflexive practice aligns well with naturalistic inquiry in that it addresses the hermeneutics of research practice. As Ruby (1980) explains: “being reflexive in doing research is part of being honest and ethically mature in research practice” (p. 154). Reflexivity for the inquirer should be practiced by the researcher during all stages of the research and at all levels.

**RESEARCHER POSITIONALITY**

Originally, a grounded theory researcher, as a research instrument, was considered to be the neutral knower (Strauss & Corbin, 1990, 1998; Strauss & Glaser, 1967). As a constructivist grounded theorist, my approach places priority on the phenomena of study and I see both data and analysis as created from shared experiences and relationships with participants (Charmaz, 1990, 2000, 2006, 2014). A constructivist approach not only theorises the interpretive work of research participants, but acknowledges that the resulting theory is an interpretation (Bryant, 2002; Charmaz, 2000) that is inclusive of the voice and interpretations of participants.

The epistemological distinction of qualitative inquiry is based on personal knowledge where interpretations are intended to promote general understanding (Stake, 2010). Through qualitative research, the researcher is able to report a few situational experiences and select activities that provide opportunities for understanding part of how things work. As a researcher, I am then able to seek ways for describing to others what is found. According to qualitative researcher Frederick Erickson (1986), the primary characteristic of qualitative research is the priority given to interpretation. He said that findings are not just findings but ‘assertions’. Assertions are the best-developed meanings we give to the most
important things (Erickson, 1986). As a researcher my role is to take descriptions from the data and make them more complex by drawing on conceptual relationships. These assertions are presented to participants for verification and elaboration.

Constructivist theorists take a reflective stance toward the research process in considering how theories evolve. This includes both the researcher and participants interpreting meaning and actions together (Bryant, 2002; Charmaz, 2000). Constructivism fosters researchers’ reflexivity about their own interpretations as well as those of their research participants (Charmaz, 2006). How I interpret and make sense of data is to a degree influenced by how personal experience, intuition, and scepticism work together in refining theories. As Stake (2010) explains “by qualitative we mean that it relies primarily on human perception and understanding” (p. 11). Research is both a science and a personal interpretation.

An essential quality of constructivist grounded theory is that it is derived from social situations, is about real people and the developed theory comes from data rather than a pre-existing framework. By utilising an ‘everything-is-data’ characteristic, all that is seen, heard, known and felt is recorded creating a theory that is real and developed from many voices. This allows for “indeterminacy rather than seeking causality” and gives “priority to showing patterns and connections rather than linear reasoning” (Charmaz, 2006, p. 126); or what Lincoln and Guba (1985) refer to as mutual simultaneous shaping, where “everything influences everything else in the here and now” (p. 151). The next section presents an initial scope of the study and provides an explanation for how centres were selected for the case study.

**SCOPE OF STUDY**

This study involved three early childhood centres, with six early childhood educators and fifty-seven children aged four-to-six-years as research participants. Various collection tools were used to compile rich data from the three participating centres as part of a case study (Flyvbjerg, 2001). This study draws on three
centres as a case study presenting varying realities from the views of six participating educators.

CASE STUDIES
Case studies present the opportunity to focus on social interactions and the developing meanings that participants in the system attach to each other, as well as how they interpret actions (Swanborn, 2010). Within this case study design, three centres involving six educators created an effective forum for participation. Participants had the opportunity to improve their understanding of intentional teaching practices as well as the outcomes for the development of creative thinking in young children both across centres in focus groups, and within centres as the research progressed. Case study is an effective means when ‘how’ and ‘why’ questions are posed, when the researcher has little control over events, and when the focus is on a contemporary phenomenon within real-life context (Flyvbjerg, 2001; Hatch, 2002; Yin, 2003).

For this reason, case study was an appropriate method for gaining understanding on a contextualised contemporary phenomenon within specific boundaries. Merriam (1988) offers examples of such bounded phenomena in education as “a program, an event, a person, an institution, or a social group” (p. 13). According to Patton (1990) identifying the focus for analysis means deciding what it is that the researcher wants to be able to say about something at the end of the study. For this purpose using case study as an effective means for focusing on the phenomena within contemporary contexts allowed me as an inquirer to provide answers to the research questions as presented in this study.

To an extent, purposive sampling (Denzin & Lincoln, 2000) was used allowing the researcher to select centres also on the grounds that they were implementing the Early Years Learning Framework (DEEWR, 2009) at a time when not all centres yet were. Invitations were sent to approximately eight centres within a five-kilometre radius of each other. This was for pragmatic reasons in order to ensure that participants and the researcher were able to meet for focus group sessions each month as well as accessibility for the researcher (Swanborn, 2010). Of the
eight centres three responded to the study. It was decided by the researcher that this would be an effective number to work with as too many centres would risk silencing voices and defeat the purpose of constructing theories through social participation (Charmaz, 2006; Hatch, 2002). Participants were also invited on the grounds that they worked in a room with four-to-six year old children. The following section will provide a brief description of the three centres, and then the six early childhood adult research participants will be profiled. Finally, there will be a description of the role fifty-seven children played in the study.

The early childhood sites
Of the three participating centres, two were privately owned long day care centres (LDC) and the third was a not for profit community-based centre. All centres were in residential areas and within a five kilometre radius of each other. Table 1:1 provides information on the participating case studies for this research.

<table>
<thead>
<tr>
<th>Centre</th>
<th>Centre 1</th>
<th>Centre 2</th>
<th>Centre 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type of centre</td>
<td>Privately owned Long Day Care</td>
<td>Privately owned Long Day Care</td>
<td>Not-for-profit Community-based centre</td>
</tr>
<tr>
<td>Educators</td>
<td>Carl</td>
<td>Rita, Sally, Molly</td>
<td>Joan and Nelly</td>
</tr>
<tr>
<td>Number of children 4-6yrs</td>
<td>18</td>
<td>20</td>
<td>19</td>
</tr>
</tbody>
</table>

Centre one: is a privately-owned long day care centre. The centre is licensed for fifty-nine children a day and has three rooms: two to three years, three to four years and four to six years. The centre has a large population of Anglo/Celtic families. This centre was previously owned by a large corporate chain and has a large outdoor play area where the natural environment has been replaced with Astro turf (artificial grass) and removable play equipment. Included in the play area is a sandpit, an amphitheatre and bike track. A natural garden area is bordered off from the children’s play area, and children are not permitted access.
The centre is due to undertake quality rating in the national accreditation system in the near future.

Centre two: is also a privately-owned long day care centre situated in a residential area. Most families attending are from Anglo/Celtic backgrounds. The centre is licensed for forty-six children a day and has three rooms: six weeks to two years, two years to three years and four years to six years. This centre has a large two-level outdoor play area that is also covered in Astro turf. There is a sandpit on the lower level with an area for the children to run. On the upper level there are often small group areas planned for children such as a water trough, painting easels, dolls and blocks. The centre has been accredited with ‘Working Towards’ the National Quality Standards.

Centre three: is a not-for-profit community-based centre that promotes a play-based learning program. This centre is situated in a residential area and is open from 7:00am until 6:00pm Monday to Friday. The centre is licensed for fifty-nine children and offers a preschool or long day care service for families. This centre was rated ‘Exceeding’ the National Quality Standard. The learning environments at this centre, indoors and outdoors, provided children with high quality learning opportunities where educators paid particular attention and care to the design and presentation of all learning experiences and resources. The outdoor area contains a large natural landscape with vegetable gardens, a worm farm, plants, scarecrows and sand pit where children can freely engage and interact.

The adult research participants
In this study one male and five female early childhood educators with varying levels of experience and qualifications agreed to be involved. Table 1:2 provides the relevant background information on the research participants in this study including nationality, years of experience, employment status, age and qualifications. This table is followed by individual profiles of each of the research participants.
Table 1:2 Background information of research participants

<table>
<thead>
<tr>
<th>Name: (pseudonym)</th>
<th>Age bracket</th>
<th>Centre type</th>
<th>Country of birth</th>
<th>Employment status</th>
<th>Qualifications</th>
<th>Years of teaching experience</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carl</td>
<td>30-35</td>
<td>Private LDC</td>
<td>Australia</td>
<td>Part-time</td>
<td>Bachelor of Teaching (Early Childhood/Primary)</td>
<td>3</td>
</tr>
<tr>
<td>Centre 1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Molly</td>
<td>35-40</td>
<td>Private LDC</td>
<td>Australia</td>
<td>Full-time</td>
<td>Bachelor of Teaching (Early Childhood)</td>
<td>18</td>
</tr>
<tr>
<td>Centre 2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rita</td>
<td>30-35</td>
<td>Private LDC</td>
<td>Australia</td>
<td>Full-time</td>
<td>Bachelor of Teaching (Early Childhood)</td>
<td>15</td>
</tr>
<tr>
<td>Centre 2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sally</td>
<td>20-25</td>
<td>Private LDC</td>
<td>Australia</td>
<td>Full-time</td>
<td>Diploma in Children’s Services</td>
<td>3</td>
</tr>
<tr>
<td>Centre 2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Joan</td>
<td>55-65</td>
<td>Not for Profit ELC</td>
<td>Australia</td>
<td>Full-time</td>
<td>Bachelor of Teaching (Early Childhood)</td>
<td>25</td>
</tr>
<tr>
<td>Centre 3</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nelly</td>
<td>45-55</td>
<td>Not for Profit ELC</td>
<td>Gaza</td>
<td>Full-time</td>
<td>Diploma of Children’s Services</td>
<td>10</td>
</tr>
<tr>
<td>Centre 3</td>
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Centre one: Carl
Carl is the qualified early childhood educator and room leader of the four-to-six-year-old room at a privately-owned Long Day Care centre. This centre is located within a local residential area on the Central Coast of NSW. In Carl’s room there are twenty children and two educators. Only Carl agreed to participate in the study from this centre. Weekly visits to this centre were carried out on Fridays with eighteen children who had permission from parents and agreed to participate in the study.

Centre two: Rita, Sally and Molly
Molly is the non-teaching Director at her privately-owned Long Day Care centre, also on the Central Coast of NSW. Rita is the qualified early childhood educator and room leader of the four-to-six-year-old room and Sally is the assistant. Rita
and Sally have twenty children in their room on Tuesdays when the weekly visits to this centre occurred.

**Centre three: Joan and Nelly**
Joan is the Director of a not-for-profit centre in the Central Coast of NSW. Nelly has a Diploma in Children’s Services and is the room leader of the four-to-six-year-old. At this centre, nineteen children were given permission to participate in this study. Visits to this centre occurred on Thursdays each week for the six month study period.

All three centres were within a five kilometre radius of each other. The next section introduces the child participants who took part in this study as well as their role in the research.

**Child participants**
Included in this study were fifty-seven children within the three participating centres (see Table 1:1). The children were between the ages of four-to-six-years-old and were grouped in rooms of no more than twenty. The children were not required to do anything out of their normal routine at their centres. While the focus was on the role of the intentional teacher, recordings of interactions with children provided data for analysis. The children were not required to be identified individually for the purposes of this study, given the focus of the research was on intentional teaching and more broadly on the relationship of intentional teaching to children’s creativity. The next section of this chapter presents the qualitative research methods including the ethical considerations as part of constructivist grounded theory.

**Qualitative research methods**
In this section the method framework for this thesis will be explained. First research as qualitative research is described. The ethical process is discussed, with a particular focus on the ethics of research upon children. Finally the role of the research participants and the various forms of data collection are discussed.
Qualitative researchers seek to understand social phenomena (Tesch, 1990) while drawing from their own knowledge and experiences during data collection and analysis (Strauss & Corbin, 1990). The three major elements of qualitative research are data, procedures for organising and interpreting data and written and verbal responses (Strauss & Corbin, 1990) emphasising development rather than the testing of theory. Qualitative researchers are interested in exploring participant’s worlds and often ask for a considerable amount of time and the sharing of intimate details (Hatch, 2002). Researching within education contexts has specific ethical responsibilities especially when the participants in the study are children and educators.

**ETHICS AND HUMAN SUBJECTS ISSUES**

Ethics is an intrinsic aspect of the research paradigm because of the inclusion of participant values in the inquiry process. Ethical considerations are an important aspect of qualitative research where careful consideration is required before, during and after fieldwork (Sikes, 2006). Therefore, respecting fellow professionals within early childhood settings required careful consideration and negotiation. Ethical principles of voluntary participation, informed consent/assent and sensitivity toward minimising harm within socio-cultural contexts were considered by providing information statements outlining requirements of the study as well as participant’s rights including confidentiality and withdrawal. The study was approved by the University of Newcastle, Human Research Ethics Committee, reference number H-2011-0330, dated 12th December, 2011. Following are some of the ethical principles and procedures adhered to in this research.

Throughout the process of gathering data, ethical issues such as reciprocity, assessment of risk, confidentiality, protecting children’s rights, informed consent, and data access and ownership needed consideration (Hatch, 2002). The information statement included all necessary information: alternatives to participation, how the research was to be monitored, contact details of principal researchers, how privacy and confidentiality would be protected, their rights to withdraw for participation as well as withdrawal of data contributed, any financial
interest, payments or funding, the likelihood and form of dissemination of research results, including publications, benefits to the wider community and their right to remain anonymous. Participants were ensured that all data were used responsibly and respectfully and that the privacy of participants was safeguarded. All data collated was non-identifiable, using codes or pseudonyms in place of names. Participants were also notified that data collated was specific to the planned project and would be destroyed in line with the university’s policy on ethical conduct in human research.

In order for data collection to be ethical, respect for individuals and sites was demonstrated by obtaining permission and informed consent (Newman & Pollnitz, 2002). Participants were informed that their identity would be kept anonymous by using pseudonyms for the educators’ names and numbers for individual children and returned instruments. Permission forms and information statements were formulated for the centre manager, educators, parents and child participants, informing each specifically of what was required of them as part of the study prior to signing permission (the assent of children will be discussed later in this chapter). Data obtained from participants were also viewed as confidential and not shared with anyone outside of the study.

Prior to the commencement of the study, I contacted each centre to discuss with the participants a suitable venue for the monthly focus group sessions. It was decided by the six research participants that focus group sessions would be held at an educational facility as a neutral meeting place for educators. At the initial focus group session, I did not record conversations, instead, afternoon tea was provided and we simply shared background information and got to know each other, informally. As a researcher I was aware of the ethical implications of the inherent power differentials between my role as a researcher and the participants. This initial session allowed me to acknowledge the participants as ‘experts’ in their field (Dreyfus & Dreyfus, 1986) and to promote the importance of their contributions to this study. This provided the participants with an opportunity to form a partnership with the researcher from the commencement of the research.

Notes were made by the researcher in view of participants as important information pertaining to participant’s experience and qualifications were essential
factors for the study. During this focus group educators were again informed of their role in the study, what the researcher’s role was and what was expected of the children. The researcher also discussed the need for confidentiality issues. Negotiation of access times to each centre, access to documentation and other artefacts was also discussed. Participant’s rights to withdraw from the research at any time or to delete recorded information were also mentioned.

As the research progressed and Christmas approached, not all could be in attendance on every occasion. It was decided by the researcher to go ahead with the scheduled focus groups and to make the most of those who could attend rather than re-scheduling at such a busy time of year. There was a dedicated presence of three educators who became deeply involved with the research. This was demonstrated by the level of engagement in focus group sessions and the high quality of the reflective conversations that took place. As is the nature of social worlds, unexpected events occurred, for example the death of an educator within one of the participating centres. This resulted in some participants understandably waning from participating in the research. The researcher showed sensitivity by allowing participants to respond to final focus group questions via an email response should they still wish to contribute. The researcher was well aware of the disruptions potentially made to each site and was able to minimise this by seeking alternative methods of data collection as necessary that suited individual members at different sites.

In order to minimise harm and maintain sensitivity the teaching and learning environment was not altered for the research, as is usual for naturalistic inquiry. However, heightened attention to teacher-child interactions was made due to my presence as well as the use of digital voice recorders. In order to create a naturalist recording environment, the researcher introduced the digital recorders to each participating group by allowing children to hold them, ask questions and to have a test run by recording themselves singing a favourite song. Once children became familiar with the devices and educators had time to test run them and know how to use them effectively, recording interactions became a normal part of the day. In fact, children often reminded educators to switch them on. During some recordings, educators forgot to turn them off, indicating that they had
become comfortable in their use. Educators were also trained in how to delete any part of a recording they did not want used.

There is a moral obligation with qualitative research to protect participants from harm and to give back in ways that build and support them in their role (Hatch, 2002; Strauss & Corbin, 1994). When a researcher steps inside a centre, he/she is entrusted with what goes on behind the scenes as well as intimate details of their life worlds (Hatch, 2002; Silverman, 2005). Reciprocity is an ethical issue in research where participants share sensitive information. Through investigating and analysing data during the research stage, as a researcher, I was able to share some significant findings. For example, early findings in the research were shared during focus group sessions based on data collected from previous visits. This provided huge satisfaction for participants in knowing what was happening as a result of their interactions. In addition, knowing how their contributions were being utilised significantly increased participation and engagement in discussions. Showing respect for educators as research participants who are professionals in their own right, created a collaborative approach during data collection. As is commonly found in qualitative research, the role of the researcher is to support participants to act on findings.

The purpose of constructivist grounded theory research is to generate theory through a collaborative approach where data are collated, analysed and re-interpreted (Charmaz, 2006; Strauss & Corbin, 1994). By developing a rapport with educators and collaborating together in understanding their shared worlds, constructivist grounded theory allowed the group to begin to discover and develop theories and themes as they emerged from the data (Charmaz, 2011). The researcher was also careful not to point out misunderstandings of educators but respected the voice of each participant and their right to contribute.

Planning to leave the research sites was also a careful consideration (Hatch, 2002). In discussion with the participants at each site, it was decided that after fourteen weeks, it was a good time to exit the study. At this stage in the study, I felt I had reached saturation point (Glaser, 1998). The children and educators were brought together so I could thank them for having me. Each centre was left with a gift voucher for purchasing resources at a local garden centre. In order to
maintain relationships, my contact details were also provided. Final discussions at each site conveyed how participants benefited from their focus on and engagement in professional reflection on the meanings and practices of intentional teaching and creativity. Participants found the opportunity to voice their perspectives, compare and contrast them with other professionals and clarify and enhance their views a very worthy exercise.

Participants agreed that the main benefit to their centre will be the report generated from the findings of the research project. Overall, it was reported back to me that participants believed they were part of a worthwhile process and were thankful for the opportunity to be involved. Through their interaction in the research, as well as the opportunity to gain more understanding through investigating aspects of the new national early childhood curriculum, educators felt they had developed their skills and extended their knowledge, ultimately building on their professional practice. Soon after the research period, I was invited to present at an early childhood leader’s breakfast. This enabled me to disseminate some early findings from the research to approximately fifty early childhood educators. In addition, a journal article on early findings from this study was published in the Australasian Journal of Early Childhood (AJEC) in 2013. As a researcher, I came away from the field study on a very positive note, feeling I had already made a worthy contribution to a profession I am very passionate about.

ASSENT OF CHILDREN

In the case of young children, the ability to provide consent to participate in research is problematic (Alderson, 2005). A distinction between consent and assent was considered when children become participants in the research. As children were too young to understand the notion of consent (Hatch, 1995), parents provided permission for their child to participate in the research. Any child whose parent did not provide permission was excluded from any recordings (deleting conversations from the transcripts), but not the activity, should the child wish to be involved. It was understood that children are especially vulnerable to
exploitation because of their age and positioning as a captive audience (Hatch, 2002; Kellett, 2010; Seidman, 2006).

It was also questionable as to whether or not children fully understood what was going on through their participation. Although children were provided with an opportunity to give assent to becoming involved with the research through verbal discussions with educators and parents, it cannot be guaranteed that they really understood (Hatch, 2002; Kellett, 2010). Therefore, the researcher decided to show respect for the rights of the children by keeping their learning environment as normal as possible, to be available to them if they need assistance and to answer any questions they may have about my being there. As an experienced educator, I felt confident in answering questions pertaining to the research in a way that children could comprehend and with the respect they deserved.

The assent of children’s involvement was sought prior to the study and individual children were asked for permission to use any copies of their work for the purpose of this research by educators. A primary consideration for this study was that the researcher and participants made decisions and acted in ways that promoted and protected the rights of children, who are generally considered to be voiceless in contemporary society (Nutbrown, 1996; Rodd, 1994; Spriggs & Gillam, 2008). As part of my own reflexive practice, I ensured that I considered particular ethical and moral issues when working with children, rather than on children. Such questions as “why am I doing the research?”, “what is my relationship to the participants?”, “who benefits from the study?”, and “who may be at risk in the contexts I am studying? (Hatch, 1995, p. 221) were critical reflections for justification of the research. Asking these questions was a critical part of assessing the ethical soundness of my research ensuring that my positionality and intentions were consistent with ethical research and conduct.

All participants in this study were advised that they could withdraw their consent and involvement in the research at any time. As a researcher, I was also sensitive towards the relationship between myself and the educators. Full disclosure of the research intentions with a clear message of voluntary participation provided a means for genuine consent and assent of all involved. Respecting educators as research participants and building a rapport were central considerations to this
study. The next section describes for the role of the research participants, including the researcher, and the research methods used in the collection of data.

**ROLE OF RESEARCH PARTICIPANTS**

My role as a researcher involved the collection of data through observations (Boudah, 2011), researcher memos (Charmaz, 2006; Lempert, 2007), field notes (Yin, 2011), photographs and the collection of artefacts. With regards to the adult participants these included focus groups meeting over a five-month period, keeping journals and recording interactions with children.

The six early childhood educators met five times for monthly focus group interviews (Charmaz, 2006; Morgan, 1993) where emerging themes formed the basis for on-going discussion (Charmaz, 2006; Morgan, 1993). The educators involved reflected on their own practices by keeping journals and diaries that they could draw upon at each of the focus group sessions (McNiff & Whitehead, 2006; Schön, 1983). The idea that educators should be ‘reflective practitioners’ or be involved in ‘reflective practice’ was promoted by Schön (1983) who believed that practitioners should engage in the study of their own practice and develop theories derived from their own practice. Educators were encouraged to record their thoughts about the research as well as their own experiences.

Each focus group interview had a leading topic supplied by the researcher as it emerged from an analysis of the data. Questions were thoughtfully prepared in advanced in order to address specific topics in relation to the phenomena under investigation, however, when discussions arose, I felt it necessary to ask spontaneous questions in response to the contributions of participants. As new ideas or connections were made participants responded not only to questions but to the cues offered by other participants. As is the nature of constructivist grounded theory, these sessions were “open-ended, yet directed, shaped yet emergent, and paced yet unrestricted” (Charmaz, 2014, p. 85). All planned focus group questions are included in appendix five of this thesis.

Focus group sessions were useful for interpreting educators’ understandings of intentional teaching and creativity. Researcher observations, memos, field notes,
photographs, artefacts and transcribed recordings of educator-child interactions provided additional data for interpreting and describing how educators’ understandings were evident in their everyday practice. The six adult research participants assisted the researcher in the data collection by participating in focus group sessions, where semi-formal questioning techniques were used by the researcher, audio-recording their interactions with children throughout the day and recording notes in their journals. The following section explains in full the purpose of these methods as part of constructivist grounded theory research.

**FOCUS GROUPS**

Focus groups involve sets of individuals who have shared experiences and who sit down with a moderator to discuss a topic (Hatch, 2002). Group discussions provide insights that are not generated from individual interviews as participants are able to share experiences and knowledge with each other. Qualitative interviews explore participants’ experiences, interpretations, and uncover the meaning structures used to organise their worlds; often hidden from direct observation (Hatch, 2002). Educators were encouraged to create conversations allowing participants to explore a topic in depth. As Morgan (1993) describes, focus groups have the capacity to produce “concentrated data on precisely the topic of interest” (p. 13). Through dialogue teachers can identify similar problems and begin to generate workable solutions. In this study, educators became empowered as they took ownership of concerns and began to work together (Hatch, 1995). Collaboration with educators is considered to “enhance professional learning and to foster reflective practice” (Rodd, 1994, p. 144).

Semi-structured interview techniques were used within focus group sessions in order to guide in-depth conversations around the research topic. The researcher lead the interviews using guiding questions as well as being open to following the leads of participants and extending into areas that arose during the interview interactions (Charmaz, 2011, 2014; Hatch, 2002). Focus groups were recorded using a digital voice recorder and later transcribed and used for analysing responses in order to answer specific research questions. Understanding human behaviour means to understand the use of language (Seidman, 2006).
Transcriptions therefore allowed attention to detail in conversations with and between participants. Further, focus groups followed up on observations providing an effective strategy for the triangulation of data.

**QUESTIONING**

In each of the focus sessions, two to three questions were asked around a topic relating to the research questions while also leaving room for digressions. Follow-up questions based on responses were used in order to further explore and generate responses around the phenomena of intentionality and creativity (Seidman, 2006). Building flexibility into the interview created interactive contexts where a shared responsibility between the researcher and participants was encouraged (Charmaz, 2014; Hatch, 2002). A final focus group provided an opportunity for member-checking to find out if participants agreed with the analysis.

During group discussions, a topic area with one or two broad-based questions was introduced to the group. Participants were then encouraged to talk about the topic or create a conversation around the questions. As Van Manen (1990) explains, the emphasis is on getting the informants’ perspectives without imposing the researcher’s perspectives. As a researcher, I entered the interviews with guiding questions and was then prepared to follow the leads generated by participants within the informal context. It was also anticipated that I would ask spontaneous questions during the course of the interview to promote further exploration around the phenomenon under investigation. At the commencement of focus group sessions, I stressed that there were no right or wrong answers in order to avoid participants seeking to answer correctly (Hatch, 2002). Questions were constructed in order to invite participants to talk from their own perspectives and experiences.

Four types of questioning were used based on Berg’s (1998) and Seidman’s (2006) guidelines: essential, extra, throw-away (background) and probing (exploration) questions. Throw away questions such as information about educator’s backgrounds and experience, are generally used at the beginning of
the interview in order to put participants at ease. This occurred in the initial focus group prior to the formulation of questions. Developing quality ‘essential’ questions was necessary for the data collection purpose of the interview and needed to be designed in order to investigate the phenomenon (Hatch, 2002). ‘Extra’ questions were carefully planned in order to encourage participants to be reflective without being repetitive. These were often spontaneous type questions in response to aspects of discussions. Rather than using the term ‘probing’, Seidman suggests that ‘exploring’ with a participant is far more compatible and respectful. Seidman (2006) explains that probing “conveys a sense of the powerful interviewer treating the participant as an object” (p. 83). Extra questions and exploring further what participants had to say through active listening added richness and depth to the focus group session. This type of questioning is also supported by Charmaz (2002) where in-depth interviewing through open-ended questions are used to “explore not to interrogate” (p. 679).

Questions were framed in ways that respected participants and generated the kinds of responses that made good data. Open-questions allowed participants opportunities to share perspectives in their own words. Language used was familiar to the participants, clear and remained neutral (Hatch, 2002; Lincoln & Guba, 1985; S. Strauss, Ziv, & Stein, 2002). Questions respected participants and presumed they already had valuable knowledge. Within the context of each interview, avenues for addressing research questions ensured that participants’ time was not wasted. At focus group sessions, participants were told how long the session would run for and what particular aspect of the research we would be focusing on. Firstly, questions were broad in order to stimulate conversation, and then further questions were asked to explore concepts. For example at one focus group session educators were asked: Are children creative? This was followed up with, Can you think of a time when the children were being creative? The first question raised a general consensus that children were creative. From their experience in observing and interacting children, educators were then able to tell stories of how they interpreted children’s creativity.

The role of the researcher as a moderator within focus group sessions is important for establishing relational and inclusive values within a social world
(McNiff & Whitehead, 2006). It is also an opportunity for the researcher to explain what inspires participants to do the things they do and what they hope to achieve. This transformative capacity enabled me to gain the insights of others and transform them together as new theories of practice were created. The underpinning ethic of inclusion of ‘other’ allows all participants to recognise the uniqueness of the other, even when different, and to let this attitude inform their practices (Foucault, 1994; McNiff & Whitehead, 2006).

**AUDIO-RECORDING**

Educators were asked to use a digital recorder in order to record their interactions with children. These devices were easy to use and could be placed in a pocket or in close proximity without intruding too much on children’s learning. The positive aspects of audio-recordings were that the educators had control over recording interactions and also had the power to delete information when reviewing recordings. At first, educators felt they were ‘performing’ for the recorders and it took a bit of practice before they felt comfortable and could ‘act naturally’ while they were turned on. Erickson and Wilson (1982) recommend that allowing time for participants to get used to recordings is an important adjustment period. Actual data collection takes second place in helping educators to become used to being recorded. Recordings were limited to what was absolutely necessary for the research questions.

Mastering recording devices was of importance to ensure participant confidence. Making time to train educators and to trial/practice using devices before the study commenced avoided possible embarrassment and helped maintain rapport and confidence in the researcher (Yin, 2011). In addition, successful recordings helped increase the precision of the fieldwork; therefore it was essential that high quality recording devices were resourced that could record the interactions between the educator and the child/ren. Olympus WS-812 digital recorders were used for the purpose of this research. This technique also freed the researcher to participate as requested by children and to take memos, field notes and other forms of observations.
PARTICIPANT JOURNALING
Participant journaling was used as an additional form of data. As the research began, educators were given the option to keep some kind of written record of their experiences and reflections during the study. Participants were encouraged to share, when they wanted to, their recordings with the researcher and other participants, forming an additional method of unobtrusive data. These journals served as an individual record of teacher change and on many occasions prompted participants to contribute how the research was impacting their own professional development. The keeping of journals or diaries by educators is part of usual professional practice and encourages educators to process and reflect on their experiences. Journaling encourages individuals to reflect on experiences in different ways than thinking about or discussing them (Hatch, 2002). The most obvious strength of participant journaling therefore, is that journals can provide a direct path into the insights of participants as the information flows directly to the page, rather than through the researcher. Journaling was also a flexible tool that allowed participants to make entries at their leisure. Sensitive information can also help the researcher make adjustments in order to make participants feel more at ease.

It was found that educators had many other documents to complete so some were not inclined to include more paperwork in their routine. Another consideration was that some participants were better at putting their ideas and feelings into words; others were not, so the quality varied from writer to writer (Hatch, 2002). Educators were by no means pressured into writing in their journals or sharing sensitive information. This was an optional tool for collating data. Two educators did volunteer to share their thoughts and notes they had made in between focus group sessions. However, it was found overall that participants preferred to participate in the focus groups and benefited more from shared conversations rather than writing in journals. The next section explains my role as a researcher and the grounded theory methods selected for data collection.
RESEARCHER MEMOS
As Schwartz and Jacobs (1978) suggest, the goal of observation is to understand the culture, setting, and the social phenomenon being studied from the perspectives of the educators. This approach assisted me as a researcher to consider the world through the eyes of the educators and to understand points of view that motivated participants to respond in particular ways at a point in time. As a researcher, I observed the interactions and listened to the verbal exchanges that took place between children and educators using field notes, observations and memos. Memos were used as a tool for developing ideas and elaborating the social worlds of the research sites. As Charmaz (2006) explains, memos are the “narrated records of a theorist’s analytical conversations with him/herself about the research data; as such, they provide particular ways of knowing” (p. 247). Memos served as a flexible tool whereby I could play with ideas, expand and explore further ideas for conversation with others and provide fundamental links between data and emerging theories about phenomena.

OBSERVATION
Observations within constructivist grounded theory methodology gave priority to the studied phenomenon or process, rather than a description of a setting (Charmaz, 2011). A major strength of constructivist grounded theory is that it prompts the researcher to take a fresh look in order to create novel categories and concepts. When observing, a constructivist grounded theory strategy provokes the researcher to seek data, describe observed events, answer fundamental questions about what is happening and then develop categories in order to understand it (Charmaz, 2011). This approach addresses weaknesses by supporting other methods of data collection.

In order to maintain a naturalistic learning environment for the children, as a researcher, who was not an educator, I assumed the role of a nonparticipant observer. As the focal point of this research was on the interactions between educators and children, I did not believe that my role was to assume the position of an educator. I was there to research the intentional teaching strategies of educators and the creative thinking responses of children. Within this role I
positioned myself on the periphery in order to watch and record the phenomena under investigation. Observations were made of the general broader context, including other aspects of intentionality, such as room set-up and resources as well as closer examination of interactions between educators and children while audio-recordings were occurring. My role was made clear to participants, prior to the study as well as in response to children’s questions regarding why I would be attending their centre.

As a qualitative inquirer and a trained educator, I was aware of the need to enter each setting in a way that was informal, creating the least amount of disruption as possible. On entering each setting, I signed-in, greeted other educators and said ‘hello’ to children who approached me. As I visited each week, the children became expectant of my visits and I was concerned that by forming a close relationship with them, exiting the setting and research may cause undue stress and concern. I was careful to remind children that I was only there for a little while to research, that I was not a teacher while there, and that I was eager to see what they were doing at their centre. I always said goodbye, without making a grand exit, and causing the least disruption as possible to the momentum of the learning environment.

**FIELD NOTES**

Field notes are the words recorded during observations (Creswell, 2008). I was able to use field notes to map the overall environment, note descriptions of context, time and place, where I was situated within the social environment and other factors not able to be audio recorded. Field notes provided additional data on which a rich contextual description could be grounded (Creswell, 2008).

I also used a research journal in order to keep track of the personal side of the research, recording “experiences, ideas, fears, mistakes, confusions, breakthroughs, and problems that arose during fieldwork” (Spradley, 1979, p. 71). This journal allowed a place for personal reflection and a place to ‘talk to myself’. A research log was also included as an official running record of exactly what was
done, including the exact time spent in the field and where an observation took place.

**ARTEFACTS**

Unobtrusive data is a unique form of artefact providing insight into the social phenomena under investigation without interfering with the social context. Gathering artefacts used by participants in everyday activities can provide avenues for understanding the ways people think and operate within their setting (Hodder, 1994). Artefact data involves the collection of the intended and unintended residues of human activity such as notes, drawings, paintings or memos in an unobtrusive manner (Hodder, 1994). Additional data in the form of learning stories generated by the educators (recorded anecdotes of children’s engagement in the learning environment that tell a story of what happened) (Carr, 2001), copies of educator’s plans, photographs and samples of children’s work or products generated from learning experiences were collated as data for the purpose of this study. Documents are powerful indicators of value systems and the institutional processes held within a service (Hatch, 2002). It was understood that these artefacts may not be easily obtained, and that copies were available at the discretion of the participants.

The collection of artefacts is an authentic way of acknowledging the response of children and their inclusion in the research project in a natural and sensitive manner. Unobtrusive data are useful for triangulation processes as they provide alternative perspectives to the phenomena being studied. Unobtrusive data may also provide stimulation for conversation during focus group sessions by prompting participants to share information. The triangulation of unobtrusive data with data from other sources assists with improving confidence in reporting findings. In maintaining my ontological belief of respecting the rights of young children, this research did not demand anything from the children other than their permission to be audio-recorded as they interacted with educators during their play and throughout their normal day as well as their permission to collect artefacts such as photographs or copies of their work. The next section discusses how the collection of data involved children.
COLLECTING DATA INVOLVING CHILDREN

Over the six month period, educators recorded a total of 117 interactions which were transcribed by the researcher and analysed using NVivo 9 software. Fieldwork took place over a six-month period (July-December, 2012) without any changes made to the teaching-learning environment and routines, as consistent with naturalistic inquiry (Lincoln & Guba, 1985). Visits were approximately one to two hours, during which time I was able to record observations of interactions between educators and children as well as write field notes, researcher memos, collect artefacts where appropriate and take photographic evidence. Educators were encouraged to continue using their digital recorders when they felt they wanted to capture an intentional teaching moment in the absence of the researcher. This additional data were collected at subsequent visits. Data were entered into NVivo and the coding process commenced immediately.

Audio-recording, observations, field notes, memos, focus group interviews, participant journaling and unobtrusive artefacts including photographs provided useful strategies for collecting rich data, with each one possessing its own special strengths and weaknesses. The basis of using each approach was weighed against its suitability in producing information that helped the researcher answer the research questions within the qualitative research framework.

The triangulation of information gathered between the researcher and educators increased the authenticity of the research. The validity of answers to research questions enhanced the quality and structure of the research. With regard to Lincoln’s (1995) philosophical criteria, this standard of enquiry allows for the development of theories with participants who have a voice in shaping the direction of the research. The dynamics of case study research incorporating three centres created an opportunity for developing community strength and social transformation (Creswell, 2008). The quality of this research study is as Furlong and Oancea (2008) explain:

Its contribution to the collective and personal growth of practitioners and policy makers; changing them as people through establishing forms of collaboration and partnership, increasing their receptiveness, reflexivity, virtuousness, and morality. This we call capacity building and value for
people in terms of the development of tacit knowledge and of the ethical, interactional and critical dimensions of practice (p. 10).

This research has the potential to build on what is known and contribute to it by providing a wider theoretical coverage and enhancing the conceptual clarity in the field (Furlong & Oancea, 2008). Reciprocity exists between the researcher and the educators as the researcher was once an educator within the same community. Respect for professional values and equality in relationships is reciprocal as participants collaborated within the study. The opportunity to share knowledge, expertise and skills for the empowerment and enhancement of professional practice was viewed as a privilege by the researcher. Both the researcher and the participants shared in the rewards.

The inclusion of many voices and the provision for interpretation provided a very real life experience that could be generalised to the wider audience (Creswell, 2008). This research proved informative and effective in understanding key phenomena as part of contemporary principles for pedagogical practice within Australian early childhood settings. In the next section of this chapter, I will discuss how the data retrieved from the various qualitative methods were analysed within constructivist grounded theory methodology by the researcher.

**DATA ANALYSIS**
Analysis is the interplay between researchers and data (Strauss & Corbin, 1990). The aim of constructivist grounded theory is to discover theories through causal explanations, grounded in empirical data about how things work (Bernard & Ryan, 2010). Classic grounded theory is described by Stern (1985) as "a research method to search out and relate factors" (p. 150) emphasising the credibility of grounded theory arising from its inherent reliability, validity and predictability. Corbin and Strauss (1990) also argued that thorough grounded theory is highly rigorous, stressing the importance of following the procedures of grounded theory.

These procedures outlined by Corbin and Strauss (1990) involve interrelated data collection and analysis; concepts as units of analysis; the development of categories and their relationships; analysis based on continual comparisons;
accounting for patterns and variations; the process must be built into theory; that theoretical memos were integral to analysis; the development of hypotheses during the research process; and the necessity to consider broader structural conditions. Strauss and Corbin (1990) also emphasised coding as the “fundamental analytic process” (p. 12). Whereas these procedures aim to provide rigor to the process, they were not designed to be followed dogmatically; and as found in this study, were used creatively and flexibly by the researcher as deemed appropriate. The purpose of coding procedures is to:

1. Build rather than test theory;
2. Provide researchers with analytic tools for handling masses of raw data;
3. Help analysts to consider alternative meanings of phenomena;
4. Be systematic and creative simultaneously;
5. Identify, develop, and relate the concepts that are the building blocks of theory (Strauss & Corbin, 1990, p. 13).

From a constructivist epistemological viewpoint, once the data is collected the following steps are applied:

1. Coding text and theorising;
2. Memoing and theorising;
3. Integrating, refining and writing up theories (Charmaz, 2014).

Theorising was part of all three steps, identifying grounded theory as a supremely iterative process whereby the researcher, with participants, constructed theories all the way through to the end of the project (Bernard & Ryan, 2010; Charmaz, 2014). The involvement of technology in this process was debateable considering the human element necessary for coding and interpretation. It is generally agreed, that computers are good at storing information and providing workable avenues
for coding and categorising data, however, are incapable of replacing the intimacy that exists between qualitative researchers and their data (Hesse-Biber, 2007). In this research, NVivo software was used in order to support qualitative data analysis, however as a researcher I was aware that no program could be developed to do the ‘mind-work’ (Wolcott, 1995) necessary for interpreting and analysing data. For this reason, I often drew from my observations, field notes and researcher memos as additional data for interpretation.

Computer-assisted qualitative data analysis software (NVivo) was used by the researcher to store data and transcriptions. However, as a researcher I was also mindful of the creative component in the science and art of data collection. I found that if used wisely, computer software can serve as an effective tool for a variety of reasons. Blank (2004) suggests that the speed and ease computers bring to the research process is worth considering and that “good qualitative software makes good research easier. Software supports structure by helping researchers organise their research. Flexible software makes the organisation easy to change, thereby promoting flexibility and creativity” (p. 189).

**CODING AND THEORISING**

At the commencement of the study, all data were entered into NVivo and coding commenced immediately, focusing on text, line by line. Key phrases and words were coded and concepts arising from the data were categorised. Focusing on sections of text in order to name concepts, and repeating the process, is what Strauss and Corbin (1998) call open coding and Charmaz (2002) calls initial coding. The human input to sorting data in a computer program involved the creation of codes by defining what was found in the data. Overall, this is a process of fragmenting data into conceptual components (Bernard & Ryan, 2010). Initially, coding was random and varied, however as I reflected on emerging themes and the development of emerging theories, some concepts merged into larger groups, or ‘families’ of coding. This process allowed me to take note of what to look for when returning to the research sites as well as frame open-ended interview questions for focus group sessions. Line-by-line coding also forced me to verify and saturate categories as well as ensuring the relevance of emerging theory by
enabling me to see which direction to take. The result is a rich, dense theory, with
the feeling that nothing has been left out; in fact, by the end of the study period, I
felt I had reached saturation point in the collection of data (Bernard & Ryan,
2010).

Constant comparison technique is a data analysis technique common to
naturalistic inquiry (Lincoln & Guba, 1985) and constructivist grounded theory
(Charmaz, 2006, 2014). Through the process of constant comparisons while
coding texts, I was able to search for and isolate themes, refine them and
stimulate the production of further themes (Bernard & Ryan, 2010). Reflecting on
new understandings often entailed revisiting and re-coding previous data. Coding
data in grounded theory generates the bones of the analysis. Theoretical
integration arranges the bones into a skeleton (Charmaz, 2006), thus coding
shapes an analytic frame from which I built the analysis for this research.

**Memoing and theorising**
Memoing involved keeping running notes about each of the concepts including
hypotheses about how the concepts may be related (Bernard & Ryan, 2010;
notes about concepts I was able to write down my observations, hunches, and
insights. “Memo writing”, says Charmaz, is the “intermediate step between coding
and the first draft of the completed analysis” (2000, p. 517). When writing memos,
I was able to stop and analyse my ideas about codes that occurred in the moment
(Charmaz, 2006), allowing time to capture comparisons, make connections and
crystallize questions and directions for the research. It was during this time of
reflexivity I was able to gain insights and new ideas.

**Building and refining theories**
As coding categories emerged, the next step involved linking them together in
theoretical models around a central category that held everything together
(Strauss & Corbin, 1998). Constant comparison allowed looking for units that did
not conform to my model. This process involved looking for similarities and
differences and reducing the number of codes, or combining codes into a larger
category. This point in the analysis involved selective coding in order to learn in-depth as much as the data could reveal. The next stage according to Lincoln and Guba (1985) involved member checks. In the final stages, this involved taking the research back to the participants in order to ask if the model rang true. As the research concluded, some aspects of the model were presented to the participants during focus groups, however, the final report as discussed, was available for all participants on the conclusions of the research. Generating grounded theory takes time. Understanding this aspect required patience on the behalf of the researcher. This is what Glaser (1998) refers to as personal pacing. As Holton (2007) describes “rushing or forcing the process shuts down creativity and conceptual ability, leaving the theory thin and incomplete” (p. 286). Significant theoretical realisations come with growth and maturity in the data – and the researcher!

VALIDITY IN QUALITATIVE RESEARCH
Validity relates to the trustworthiness and credibility of the researcher in carrying out research. My credibility as a researcher was based on my years of experience in the early childhood and academic profession, where ethical conduct was an essential part of quality education and leadership. Credibility was developed through discussions and by developing a rapport with research participants. As a researcher, I saw this as an important aspect of trustworthiness in demonstrating my capabilities in carrying out ethical research. Researchers are encouraged to be as transparent as possible in their use of methods and their engagement with participants (Ladkin, 2004). Transparency meant being as truthful as possible, without giving away my own privacy (Ladkin, 2004). Instead of striving for complete transparency, providing feedback from the research was subject to releasing information that would contribute to the formation of understandings and emerging theories. This was useful for seeking feedback and gaining perspectives of other points of views when discussing findings from the research.

Historically, qualitative research drew from natural and experimental sciences for direction in judging the soundness of a study addressing the reliability, validity, objectivity and generalisability as criteria (Patton, 1990). Post-modern directions
have challenged the very notion of criteria and new ways for conceptualising soundness have since emerged. Lincoln and Guba (1985) put forward alternative constructs: credibility, dependability, confirmability and transferability. For validity/credibility, qualitative researchers are encouraged to undertake prolonged engagement with each setting, engage in member checks with participants and discuss emergent findings through peer debriefing (Guba & Lincoln, 1989; Lincoln & Guba, 1985; Marshall & Rossman, 2011). Post-modern theories on validity continue to question regulatory demands implied by considerations of validity and truth. However, in relation to grounded theory methodology these constructs present an effective measure for assessing validity. The methods used in this research therefore meet the criteria presented by Lincoln and Guba (1985). As a researcher, I visited each centre weekly for a period of one to two hours over fourteen weeks. A comprehensive overview for how the research was carried out over this six month period can be found in appendix six.

Trustworthiness was achieved through the development of a sound rapport with all participants over time spent at each setting, the sharing and interpretation of data with research participants and the use of multiple sources of data ensuring the rigor and usefulness of this study. Prolonged engagement provided the researcher time to become familiar with each setting as well as time for participants to become comfortable with the presence of a researcher so that observations and recordings were not obtrusive and did not cause the participants to change their behaviour. It is debatable however what is considered ‘prolonged engagement’ and what constitutes an appropriate amount of time for a researcher to spend in an educational facility, in order to meet the criteria presented by Lincoln and Guba (1985) while at the same time, be sensitive to the needs of the centre. Whereas it is important to take the time to become familiar and develop good relationships with participants, the nature of the research site as an educational facility required sensitivity and respect. The timing and length of my research was in consideration not only for the collection of sufficient data, but for the children and educators of each centre.

Cho and Trent (2006) have revisited the work of Lincoln and Guba offering a more useful way of organising validity. They formulated the notions of ‘transactional
validity’ and ‘transformative validity’ to capture essential themes. This approach assumes that the credibility of qualitative research can be determined through the inclusion of certain techniques, methods and strategies in the conduct of the inquiry. Through the involvement of participants in the research, a transactional approach validates themes, interpretations and findings. Cho and Trent’s (2006) approach to validity empowers participants, claiming that it better captures the quality of a constructivist approach. They propose four types of validity: firstly, that the research should consider the ontological authenticity of the research conducted, ensuring that over time, everyone formulates informed, sophisticated constructions. Secondly, that the research should have educative authenticity and all participants should become more tolerant and understanding of each other’s perceptions. Thirdly, that the research should have catalytic authenticity that sufficiently motivates participants to act; and finally feeling motivated enough to act lacks tactical authenticity if the participants are not empowered to act. This approach increased the involvement of participants in the research process. I found that this made it easier to decide when to exit the research sites as participants were aware not only of where the research was heading, but were able to communicate and assist in concluding the time at their centres.

A central tenet of both interpretivist and constructivist grounded theory is that the research must have credibility. The credibility of the study starts with the data. Rich and sufficient data provide depth and scope for investigation. It is believed that the researcher reached saturation point, where there was nothing new to collect and staying on would threaten the quality of the research by over-staying the welcome. Processes of saturation are essential in qualitative research ensuring reliability and validation of the data (Morse, 2007). Rich descriptions of contexts, participants, actions and interactions were gathered in the study through the range of data generating techniques employed. Dependability refers to the stability of data across a range of settings, time periods and participants. Stability is increased where two or more data gathering techniques are used and open to audit by others (Denscombe, 2003; Guba, 1981). This study used several data gathering techniques, was subject to member checking by research participants and was supervised by academics.
In addition, Charmaz (2006) stressed that the usefulness of the research also depends on the originality of its outcomes. To achieve this, the inquirer must have familiarity with the setting and topic. For Charmaz, a researcher should address the credibility and originality of the research by asking questions such as “has your research achieved intimate familiarity with the setting or topic?” and “what is the social and theoretical significance of the research?” Charmaz also requires that the researcher addresses the resonance of the study by asking “have you revealed both luminal and unstable taken-for-granted meanings?” (Charmaz, 2006, p. 182). In conclusion, the usefulness of the study should identify whether your analysis can spark further research in other substantive areas.

Triangulation is another way of increasing value (Boudah, 2011). Triangulation involved a combination of different methods, settings, and theoretical perspectives in dealing with phenomena. Denzin (1989) identified four types of triangulation: data, investigator, theory and methodological. Through a constructivist grounded theory approach, where all is data (Charmaz, 2011; Glaser & Strauss, 1967), the triangulation of data was achieved through various sources. Involving research participants through member checking also allowed for multiple perspectives during the gathering of data and in the convergence of interpretation (Flick, 2005). Approaching data with multiple perspectives and various theoretical points of view extended the possibility of producing knowledge. Triangulation also occurred within the various methods used in the study. Denzin (1989) emphasizes that triangulation of method, investigator, theory and data remains the soundest strategy for the construction of theory.

Transferability refers to the context-based nature of the study (Guba, 1981). The goal of the researcher was not to generalise to other contexts, but to provide enough descriptive detail through a case study approach, about the research findings in order to have the potential for transferability to other contexts. Through using the procedures for developing constructivist grounded theory (Charmaz, 2006), in naturalistic qualitative inquiry research (Lincoln & Guba, 1985), the gradual transference of findings from case studies and their context to the more general relations could be achieved; although the degree of generalisation needs
consideration with regard to how far different theoretical and methodological perspectives have been triangulated.

**SUMMARY**

The purpose of this chapter was to outline and rationalise the research design as a reliable method for developing new or emerging theory/ies or further interpretations of current theorising. The methods outlined link directly to socio-cultural theoretical foundations (Vygotsky, 1930, 1978, 2004), constructive grounded theory (Charmaz, 2006) methodology and naturalistic inquiry (Lincoln & Guba, 1985) techniques in order to present a good match for investigating the phenomena central to the research. The selection of a case study for investigation, the role of participants within research and the role of the researcher were also explained within the methodological paradigm of constructivist grounded theory (Charmaz, 2006). Ethical considerations were discussed with respect to the rights of children and post-modern theoretical understandings involving children in research. Using multiple sites for the purpose of this study increased the rigour and veracity of its findings. Whereas the researcher does not claim that the data analysis of this study can be necessarily generalised to other contexts, it is believed that the theoretical analysis of the study’s findings provides many opportunities for transferability of concepts and theories that have broad implications for early childhood curriculum and pedagogical directions.

The next chapter will present an in-depth discussion and explanation for the selection of Vygotsky’s socio-cultural (1930, 1978) and neo-Vygotskian creativity theory (John-Steiner & Moran, 2012; Vygotsky, 1930, 2004) as the underpinning theoretical framework best suited to the nature of this research.
Chapter 4
Theoretical framework

INTRODUCTION
A coherent theoretical framework provides a critical lens for interpreting and facilitating the inquiry process (Wolcott, 1995). Theory is a way of asking, or inquiring that is guided by a reasonable answer. Given the nature of interactions between educators and children, I decided that socio-cultural theories were required in order to interpret causal relationships of the phenomena as demonstrated by educators and children. By applying a socio-cultural approach, I was able to deconstruct the transactions between educators and children as they interacted within socio-cultural contexts (Vygotsky, 1986). In this study, Vygotsky’s (1930, 1978) socio-cultural approach provided a useful theory for underpinning and supporting a constructivist grounded theory methodology where participants co-constructed meaning together with the researcher (Charmaz, 2006). In addition, neo-Vygotskian creativity theory (John-Steiner & Moran, 2012; Vygotsky, 1930, 2004) provided a contemporary framework supporting the social nature of creative development in young children.

Firstly, this chapter presents an investigation of Vygotsky’s zone of proximal development (ZPD) and the development of creative thought processes through children’s play, meaning-making and imagination. Neo-Vygotskian perspectives through cultural and social processes such as play, fantasy, conceptual understanding, and creative imagination through social life are further presented (John-Steiner & Moran, 2012; Vygotsky, 1930, 2004). Secondly, socio-cultural motivational theorists and assisted learning techniques relevant to intentional teaching practices will be discussed. Inspired by Vygotsky’s socio-cultural theoretical framework and neo-Vygotskian creativity theory as part of young children’s growth and development, I believed this was the best theoretical fit for my study.

Creativity today is represented in the fast developing products of our culture ranging from movies, medical advancements, the arts, social media tools and
computer software (Sawyer, 2006). All are the outcomes of joint adventures made from organised groups of highly skilled people, who work together in producing a final creative product useful to society. Most of our culture’s products are too complex to be the accomplishment of an individual; they require the distribution of cognition that bring together all the pieces of a product in a highly complex, specialised and integrated way. Working alongside others or team members, on a joint problem or project involves the highest order of minds; elevating the performance that results in creativity. Reaching higher levels of understanding, abilities and cognitive achievement through social engagement is defined by Vygotsky (1930, 1978) as working within the ‘zone of proximal development’. Vygotsky wrote:

We propose that an essential feature of learning is that it creates the zone of proximal development; that is, learning awakens a variety of internal developmental processes that are able to operate when the child is interacting with people in his environment and in cooperation with his peers. Once these processes are internalised, they become part of the child’s independent achievement (1930, 1978, p. 90).

ZPD is a relational process embracing the unity of social interactions in which new cognitive functions are realised. Inside the social relations of ZPD meaning-making occurs and is processed through the individual’s “perezhivanie”; meaning “lived emotional experience” (John-Steiner et al., 2010, p.6). The early meaning-making of young children and novices involves internal and external states or conceptual tools (memory, decoding symbols and language) inherited from past generations (John-Steiner et al., 2010). The ZPD bridges access between a variety of learning resources, forms and manners both in the present and what is historically generated. Young children are socialised into communities where cultural knowledge and social practices are internalised through social exchanges and joint activities.

ZPD plays a key role in Vygotsky’s argument for how learning and development are fundamentally social. Joint activity and collaboration in children’s lives is expressed as:
The distance between the actual developmental level as determined by independent problem solving, and the level of potential development through problem solving under guidance or in collaboration with more capable peers (Vygotsky, 1930, 1978, p. 86).

Vygotsky also emphasised that socialness in learning is collective and not exclusive to dyadic relationships. Learning occurs through a variety of internal developmental processes that operate when the child is interacting with people in the environment and in cooperation with peers (Vygotsky, 1930, 1978). A child comes to know about the world not through absorbing, but through transformation. This includes the information received from others’ speech (as one form of cultural tool) and actions of which the child must reconstruct knowledge based in those experiences (John-Steiner & Moran, 2012).

The view of creativity through social life is presented by Vygotsky through cultural and social processes such as play, fantasy, conceptual understanding, and creative imagination (John-Steiner et al., 2010). In *The Psychology of Art*, Vygotsky formulated the principle that creative work is profoundly social:

> Art is the social within us, and even if its action is performed by a single individual it does not mean that its essence is individual...art is the social technique of emotion, a tool for society which brings the most intimate and personal aspects of our being into the circle of social life...it would be more correct to say that emotion becomes personal when every one of us experiences a work of art; it becomes personal without ceasing to be social (1925, 1971, p. 249).

Through Vygotsky’s socio-cultural historical framework, creativity in all its manifestations is woven together with learning, teaching, discovery and transformational change (John-Steiner et al., 2010). Through a highly contextualised worldview, Vygotsky focused on knowledge in terms of events, culture, and history. Therefore a ‘knowledgeable’ individual participates successfully in culturally defined rituals and through the use of socially defined tools in order to overcome the limits of a solitary mind. Knowledge does not originate through the individual’s interaction with the objective world; rather knowledge originates through interaction of social and material worlds and resides
in socially defined tools and ways of interacting (Hickey & Zuiker, 2005; Lave & Wenger, 1991).

A key aspect of ZPD is the internalisation process of socially defined knowledge. Wertsch (1985) describes internalisation as “a process involved in the transformation of social phenomena into psychological phenomena” (p. 63). Internalisation is the ongoing participation in the creation, maintenance, and propagation of knowledge through direct and indirect social interaction.

How knowledge is internalised and transformed into new knowledge through social and cultural collaborations provides a sound theoretical base for understanding creativity within early childhood contexts. Vygotsky was a creative spirit whose framework also encouraged us to consider a cultural-historical understanding of play, meaning-making and creativity. In his first publication *The Psychology of Art*, Vygotsky (1925, 1971) argued that:

> Art introduces the effects of passion, violates inner equilibrium, changes will in a new sense, and stirs feelings, emotions, passions and vices without which society would remain in an inert and emotionless state (p. 249).

Whereas creativity traditionally focused on individual processes as a result of predisposition, talent and apprenticeship, Vygotsky noted the dialectical relationship between the individual and his/her world. In 1930, Vygotsky wrote a paper focusing directly on the development of creative ability: *Imagination and Creativity in Childhood*.

In his essay he wrote:

> Every inventor, even a genius, is also a product of his time and his environment...creation is a historical, cumulative process where every succeeding manifestation was determined by the preceding one (p. 30).

Vygotsky was also a product of ‘his’ environment; a man of his country and time. Many of the main concepts such as mediation and the development of higher psychological processes, were adapted from ideas previously held by Marx and Engels (2004). The next section extends Vygotsky’s conceptual framework
presenting a contemporary cultural-historical understanding of imagination, play and meaning-making.

**IMAGINATION**

Smolucha (1992) summarising this work asserts that creative imagination is a goal-directed, culturally mediated psychological system that emerges from the internalisation of children's play and the functional interweaving of fantasy and thinking in concepts (John-Steiner & Moran, 2012). Vygotsky (1930, 2004) theorised the relationship between creativity and the imagination. He wrote that the imagination serves as an imperative impetus of all human creative activity. Vygotsky also believed that human creative behaviour “makes the human being a creature oriented toward the future, creating the future and thus altering his own present” (p.9). As a result Vygotsky (1930, 2004) claimed that the use of the imagination is “a function essential to life” (p. 13).

Imagination is fuelled by the richness and wideness of an individual’s experiences as the “imagination always builds using materials supplied by reality” (Vygotsky, 1930, 2004, p. 14). Smolucha (1992) stated that:

> creativity exists not only where it creates great historical works, but also everywhere human imagination combines, changes, and creates anything new (p. 53).

Smolucha and Smolucha (1986) summarise Vygotsky’s theory of creativity presenting four key components:

1. Imagination is the internalisation of children’s play.

2. Imagination is a higher mental function and is a consciously directed thought process.

3. Creative thinking involves the collaboration of imagination and thinking in concepts, which occurs first in adolescence but matures in adulthood.
4. Both artistic and scientific creativity require the collaboration of imagination and thinking in concepts.

This research also draws from contemporary research on creativity acknowledging the social dimensions of shared cognition and collaborative problem solving. It is anticipated that Vygotsky’s creativity theory will assist in the development of new understandings on how creative thought processes are developed by children as they face everyday problems within various social contexts for learning. However, this research also challenges Vygotsky’s belief that creative thinking first occurs in adolescents, claiming recent evidence from neuroscience for the early years as a critical window in children’s creative development. From the theoretical framework presented by Vygotsky, this research will investigate central themes in relation to the development of creative thought processes in children: children’s play, meaning-making (through shared interactions with educators and peers) and the role of the imagination in developing creative thought processes.

**Play**

Vygotsky’s ideas regarding play are of vital importance to the preschool years. He believed that play is the leading source of development promoting cognitive, emotional, and social development (Bodrova & Leong, 2007; Vygotsky, 1930, 2004, 1976). However, Vygotsky limited the definition of play to the dramatic or make-believe play of pre-schoolers (Bodrova & Leong, 2007). In early childhood, play appears as the motives of the child shift toward the realisation of personal desires. As these desires are unobtainable in reality, the child realises them through the imagination (John-Steiner et al., 2010).

Real play according to Vygotsky involves three components: children create an imaginary situation, take on roles and act out roles, and follow a set of rules determined by specific roles. According to Vygotsky, play is not totally spontaneous, rather, a contingent set of rules are organised for participation in the play. Imaginary situations require the child to engage in self-restraint. Instead of
producing spontaneous behaviour, the child has to adhere to actions required by their role (Bodrova & Leong, 2007). Explicit roles found in imaginary situations contain implicit sets of rules that surface naturally as children interact. These hidden rules or expected behaviours associated with roles in play are socially and culturally transmitted. The core of imagination consists of the child using mental (cognitive) tools to develop mental representations of what is not present. Imagination therefore develops prospection, or imaginings about possible futures. Young children are capable of desiring something; therefore they have the cognitive tools to imagine future things they do not have.

Play simultaneously requires complex symbolic constructions, behaviour mastery, collaboration protocols, emotional arousal and control, and the production of cultural lore (John-Steiner et al., 2010). Through role-play children are socialised into the cultural norms of society. Sociocultural approaches to creativity consider how cultural changes always involve creativity. This approach emphasises the creation of practices rather than products. In his research of the Florentine Renaissance of the 1400s, Csikszentmihalyi explained that creativity required knowledge of historical, social, and economic factors (Sawyer, 2006). Csikszentmihalyi (1994) realised that creativity was not the property of the individual, rather, property of societies, cultures, and historical periods. Creativity researchers furthered his idea developing the sociocultural model of creativity. This model contains the person, domain and field (Sawyer, 2006). The person is the source of innovation; the domain is the area of interest and expertise where products are created, and the field involves experts who determine whether the product meets the criteria of novelty and usefulness.

Through play, children need to be able to evaluate events based on their relevant values, rules and expectations as well as use their imagination in response to physical stimuli. Vygotsky claimed that play therefore represents a specialised form of the zone of proximal development asserting:

> Action in the imaginative sphere, in an imaginary situation, the creation of voluntary intentions and the formation of real-life plans and volitional motives – all appear in play and make it the highest level of pre-school development (Vygotsky, 1976, p. 552).
Social play provides opportunities for children to learn more about the world. Vygotsky believed that play itself, mediates the learning of children (Goodman & Goodman, 1990). Collaborative learning with peers and adults activates the zone of proximal development. Collaboration with another person, adult or peer, in the zone of proximal development thus leads development in culturally appropriate ways.

The link between play and creativity exists because play facilitates a number of different processes important in creativity (Russ, 1999). In addition to the cultural and social factors of role play, pretend play involves pretending, the use of fantasy and make-believe and the use of symbolism. Fein (1987) stated that pretend play is a symbolic behaviour in which “one thing is playfully treated as if it were something else” (p. 282). Fein viewed pretend play as a natural form of creativity.

Cognitive processes such as divergent thinking and affective processes such as affect-laden fantasy are expressed and developed through play experiences (Russ, 1999). Positive affect or mood induced research has found that spontaneity and joy in play is related to divergent thinking (Krasnor & Pepler, 1980; Lieberman, 1977; Singer & Singer, 1990). Play situations offer children a safe place to develop both positive and negative modes of expression that can be worked through with free associations and divergent thinking. Through play, children develop combinatory imagination, that is, the ability to combine elements of experience into new situations; they make meaning of what is happening around them.

MEANING-MAKING
Meaning-making is the construction of knowledge into understanding with others across a variety of contexts and codes (Vygotsky, 1986). Often referred to as learning, understanding or comprehending, meaning-making develops from our need to organise life experiences as individuals and communities. Vygotsky viewed meaning-making as a complex synthesis of interdependent processes that occur within the social relationship of ZPD. Within the ZPD internal constructions of thought are integrating new knowledge with existing knowledge in order to
generate new ideas. Vygotsky acknowledged children as active agents in the educational process who internally elaborate pedagogical activity (Blanck, 1990). The polemic relationship between learning and development was defined by Vygotsky through the concept of ZPD. Vygotsky (1930, 1978) examined the social world of the child explaining that cognition and linguistic abilities appear:

Twice, or in two planes. First it appears on the social plane, and then on the psychological plane. First it appears between people as an interspsychological category, and then within the child as an intrapsychological category (p. 163).

Insightful educators observe what children are doing and what they are capable of doing and involve learners in activities that assist them in reaching higher abilities. Assisted performance is a neo-Vygotskian idea of which broad literature in the area of psychology in this century has focused on the means or strategies of educators in mediating performance. Contemporary theorising of socio-cultural mediation is referred to as socio-cultural motivation theories.

Socio-cultural motivational theories
Socio-cultural motivational approaches involve ‘assisted learning’ techniques where the educator uses forms of modelling, coaching, and fading, which together scaffold activity that supports children’s learning. Modelling involves having an expert or more capable peer carry out the task for the learner to observe, whereas during coaching the educator offers highly interactive and situated hints and feedback to the task at hand, bringing the learner closer to the expert level. Fading involves gradually reducing the amount of coaching as students internalise functions (Hickey, 1997). Assisted learning techniques are used to motivate the individual learner within social contexts. Motivation, conceptualised as social in nature, is internalised to become an individual process (Walker, 2011). Theorists describe assisted learning as moving from the plane of inter-psychological functioning to intra-psychological functioning resulting in a shared perception of socio-cultural elements as tasks, values, and norms (Sivan, 1986). This is achieved through a process of semiotic mediation (Wertsch, 1984) where communication patterns used by the educator assist the student to move closer to
a more mature understanding based on the students' terms of understanding, not the teachers.

A great deal of motivation research considers the need for intrinsic motivation that drives the development of knowledge rather than extrinsic motivation that focuses on the content to be learned. The notion of intentional learning captures the distinction made between learning through problem solving and a more desirable learning as problem solving (Hickey, 1997). Rather than students being motivated by a problematic goal where learning is incidental in the reaching of the goal, learning is the problem and student activity is motivated by the goal of learning. Instructional approaches from educators support intentional learners by assisting them in achieving task-mastery goals and personal knowledge-building goals (Hickey, 1997). In a study by Ng and Bereitzer (1991) on students learning to program computers, students who demonstrated knowledge-building goals were able to relate new questions to prior knowledge, pose and solve problems and learned more than others.

Cognitive structuring as a means of assisted performance refers to the provision of a structure for thinking and acting. The educator uses different types of cognitive structures that assist in the child’s understanding. Responsiveness to the child’s zones of proximal development requires individualisation according to the exigencies of the moment (Gallimore & Tharp, 1990). According to Gallimore and Tharp (1990) teaching can be said to occur when assistance is offered at points in the ZPD at which performance requires assistance. This definition of teaching implies the unfolding of potential through the reciprocal influence of child and social environment. Higher mental functions form part of the social and cultural heritage of the child as s/he moves from the social to the psychological, from the intermental to the intramental, from the socially regulated to the self-regulated. The child through the mediation of others is able to engage in independent action and speech.

Scaffolding within the ZPD enables the individual to perform at a higher level. Rather than simply modelling, the educator must create a level of intersubjectivity (Wertsch, 1984) where the child redefines the problem in terms of the adult perspective. The educator provides support for the child and then gradually
Chapter 4: Theoretical framework

decreases the level of assistance as the learner takes more responsibility for performance of the task (Diaz et al., 1990; Bruner, 1985; Rogoff & Gardner, 1984; Wertsch, McNamee, McLane, & Budwig, 1980; Vygotsky, 1930, 1978).

What the educator does when providing scaffolding varies. An effective educator will enlist the child’s interest and then employ strategies for sustaining the child’s interest on the task. Through scaffolding the educator is actively involved in co-constructing the child’s unfolding understanding through questions, provocations and actions.

Questions are used to assist performance by calling for an active linguistic and cognitive response. However, not all questions assist performance. There needs to be a clear distinction made between questions that ‘assist’ from those that ‘assess’ (Gallimore & Tharp, 1990). Assessment questions are used by educators in order to inquire into the level of the child’s ability and performance without assistance. Assistance questions inquire to produce a mental operation that the child would not normally produce alone. Assisted questioning is the prompting of that mental operation. Assessment type questions are often characterised by closed question types that aim at producing a single answer response such as ‘what’ type questions. Assisted type questions are more open style questions that aim to find out what children know in order to scaffold their understanding further. Open style questions often involve ‘why’ or ‘how’. Open style questions have the potential to promote divergent thinking in young children whereas closed style questions limit responses, calling for convergent thinking. Divergent thinking is an important characteristic of creativity and for young children the ability to think widely is often developed through their imagination.

Vygotsky stated that “no accurate cognition of reality is possible without a certain element of imagination, a certain flight from the immediate, concrete, solitary impressions in which this reality is presented…” (1987, p. 349). While play assists in the construction of the new, basic to creative processes, Vygotsky also emphasised the role of someone else’s instructions. In this manner, imagination becomes:

The means by which a person’s experience is broadened, because [sic] can imagine what [sic] has not seen, can conceptualise something from another
person's narration and description of what [sic] [sic] has never directly experienced (Vygotsky, 1930, 2004, p. 17).

Imagination is a psychological function located within the core of learning and development, originating from social interactions as part of the child's cultural-historical moment in development (John-Steiner et al., 2010). Through play, preschool children problem-solve and problem find, test hypotheses, and draw upon their imaginations and creativity to find and make meaning in their world. Many researchers agree that the most valuable learning occurs when people are engaged creatively in activities that allow them to use their imaginations through intellectual, social, artistic and cultural ways (Egan, 2005; Eisner, 1999; Greene, 1988; Lobman, 2010; Vygotsky, 1930, 1978). The dialectical relationship between creativity and learning presents learning as:

Inseparable from the activity of creating the environment for learning. From this perspective creativity does not reside in the products of learning, but in the dialectical relationship between the process of creating the environment for learning and what is created (Lobman, 2010, p. 202).

Magno (2009) stated “creativity is a product of an executed imagination” (p. 10). Vygotsky's socio-cultural and historical framework illustrates the innovative, integrated nature of thought and emotion as well as the multimodal meaning making and learning that occurs through play, imaginative processes and the arts. Creativity is fundamental to learning and development. The role of the educator is pivotal in assisting children in the development of innovative solutions and ideas within social learning contexts. The ZPD is a multidirectional, collaborative construction that simultaneously coordinates conditions for meaning making, building new knowledge and facilitating the child's advancement through social transformations.

This study is framed by Vygotsky's socio-cultural theory, conceptualised by the idea that reciprocal relationships with theory building occur through practice involving many stakeholders. These theoretical origins provide opportunities for new theories and new practices to evolve through the dynamic interrelatedness of participants within social situations. Mediation provides a conceptual link between the subjects (participants), setting/context (mediation means) and the changing
socio-cultural tools (objects/motives/understandings). This study allows for new understandings and theories to emerge from social interactions within a specific historical point in time. Socio-cultural-historical participation and creative thinking on the part of all participants involved in this study illustrates how mediated practices develop a systematic connection of phenomena specific to this investigation.

**SUMMARY**

The purpose of this chapter was to provide an examination of the socio-cultural and creativity theories of Vygotsky (John-Steiner & Moran, 2012) which have been used to frame this research. The theoretical foundation of Vygotsky’s work on children’s development within socio-cultural and historical contexts was considered a good fit for this study that explores the relationship and connections of socially mediated knowledge and cultural tools. Vygotsky’s theory on creativity was also a natural fit for this research that not only focuses on the creative development of children through play, meaning-making and imagination, but the development of new understandings and theories as a creative process. For me, this study has been a creative process that has required time for incubation, to draw from prior knowledge in order to gain new insight into areas about which there is very little understandings. From insight shared between participants, illumination has brought about some significant new findings contributing further understandings of socio-cultural theories and advancing pedagogical practices of educators situated within a specific socio-cultural and historical time. The next chapter will present and analyse findings in relation to educators’ understandings of intentional teaching in response to the research question: *What are educators’ understandings of intentional teaching?*
Chapter 5
Understandings of intentional teaching

The purpose of this chapter is to present and analyse findings in relation to the research question: **What are the educators’ understandings of intentional teaching?**

The analysis of this component of the study elicits rich analysis of data forming a grounded theory on educators’ understandings of intentional teaching practices.

**INTRODUCTION**

This chapter presents an analysis of data from focus group sessions featuring in-depth discussions on intentional teaching as well as observations, transcriptions of interactions between educators and children and researcher memos. This analysis produced three main themes: 1. the problematic nature educators experienced in defining intentional teaching; 2. the shifting role educators experienced as intentional teachers from indoor to outdoor learning environments; and 3. the complexities and challenges of constructing a curriculum through acknowledging the child as agent. It concludes with a revised definition of play that connects the notions of creativity with the intentional teaching and intentional learning nexus.

Tensions between different interpretations of intentional teaching will be provided in this chapter as educators grappled with this newly adopted term as part of the Early Years Learning Framework (EYLF) (DEEWR, 2009) implementation. A range of understandings about intentional teaching by educators will be presented based on participants’ responses when asked to define intentional teaching. An exploration of the relation of intentional teaching to documentation will also be provided. Data revealing how the role of the educator shifts from intentional teacher to supervisor from indoor to outdoor learning environments will be described and discussed. Further, explanations of how views and beliefs about play impact the role of the intentional teacher will be presented. A discussion on the contemporary image of the child as agent will then present new information for
the role children play in their own learning. Finally, this chapter will conclude revealing some important misunderstandings for the role of the educator as a result of apparent complexities in the adoption of the term ‘intentional teaching’ from the High/Scope approach (High/Scope) in the United States of America (USA).

The purpose of grounded theory is to create a product (coherent grounded theory) through the process of developing abstract concepts and specifying the relations between them (Bryant & Charmaz, 2007). In this chapter, theoretical concepts result from iterative processes of going between data to form categories for further analysis. Theoretical categories are supported throughout using available research content drawing on existing stocks of my theoretical knowledge in order to understand, describe, and explain observed phenomena (Kelle, 2007; Strauss & Corbin, 1990). Themes arising from the data will be strengthened and supported in their construction through the use of available research and current, relevant literature. Through constant and comparative interaction between data, research sites, participants, and available research on intentional teaching and creativity, meaning was derived and framed as interpretive constructions of reality (Charmaz, 2006).

This study included the voices of all participants who agreed to be involved. Monthly focus group sessions where all educators were invited to attend, allowed time away from children for more in-depth and reflective conversations about the research topics. During focus groups, data revealed educators’ understandings, experiences and perceptions of intentional teaching. From a constructivist grounded theory approach, interpretive theory was used emphasising understanding of the studied phenomenon (Charmaz, 2006). This theory assumes “emergent, multiple realities; interdeterminacy; facts and values as inextricably linked; truth as provisional; and social life as processual” (Charmaz, 2006, p. 126). In this study, participants’ meanings and actions were interpreted through the social construction of multiple realities in the development of new or emerging theories on their role as intentional teachers.
**INTENTIONAL TEACHING: COMPARING HIGH/SCOPE WITH THE AUSTRALIAN EARLY YEARS FRAMEWORK**

Intentional teaching is a term developed by Epstein as part of the High/Scope approach (Epstein, 2007; Schweinhart, 2003). It is not clear whether the same intention for curriculum applies in Australia. Epstein (2007) suggests that educators need to rethink what to teach young children by debating on content and subject matter that forms appropriate early curriculum. What is deemed ‘appropriate’ in the USA is derived from the recommendations of the National Association for the Education of Young Children (NAEYC). Bredekamp and Rosegrant (1992) emphasise that:

> Good early childhood programs are, of necessity, highly organised and structured environments that teachers have carefully prepared and in which teachers are in control. The difference is children are also actively involved and assume some responsibility for their own learning (p. 5).

From this statement there appears to be emphasis placed on teacher control over children’s input to their own learning. NAEYC stressed the importance of setting learning goals and does not believe curriculum should emerge solely from the children’s interests. Educators need to know what experiences and instruction children need in order to learn to read and write, as well as skills and knowledge in other learning domains (Epstein, 2007). Educators act with specific outcomes in mind for children’s learning in domains that are ‘academic’ (literacy, mathematics, and science) and ‘traditional’ (social and emotional, cognitive, physical and creative). There is a high focus placed on ‘content’ with the intentional teacher considering what type of learning experience is likely to be most effective in which content areas (Epstein, 2007). Epstein’s representation of the intentional teacher was born out of a particular place and time in history. Epstein’s work and the High/Scope approach was highly influenced by the work of Piaget (1971) who brought forth the theory that development was linear and sequential for all children. Curriculum was therefore linear and sequential, featuring domain specific content for children’s learning.

The EYLF which was developed years after Epstein’s work is a contemporary approach also describing educators being “deliberate, purposeful and thoughtful
in their decisions and actions” (DEEWR, 2009, p. 45). However, influenced by contemporary theorists, the EYLF promotes children’s learning within social contexts, rather than a child-centred approach as is a feature of the High/Scope approach. The EYLF promotes children actively constructing their own understandings respecting the value of children’s agency and capacity to lead learning (DEEWR, 2009). Children are challenged through experiences that foster high level thinking and that build knowledge around their interests (DEEWR, 2009). Children’s learning is dynamic, complex and holistic incorporating physical, social, emotional, personal, spiritual, creative, cognitive and linguistic aspects of learning. Educators’ pedagogical approaches under the EYLF are therefore holistic in nature and inclusive of children and families in the construction of curriculum. There is an intentional balance between educators and children in the co-construction of curriculum.

The differing approaches of the EYLF and High/Scope born from beliefs and theories contextually related to culture, place and time create contrasting goals for children’s learning. According to the EYLF, a learning outcome is “a skill, knowledge or disposition that educators can actively promote in early childhood settings, in collaboration with children and families” (DEEWR, 2009, p. 8). The Framework provides broad direction for early childhood educators to facilitate children’s learning. The outcomes of the EYLF differ to that of High/Scope in that it only states goals for children to strive for, but not necessarily achieve. Each child “progresses toward outcomes in different and equally meaningful ways” (DEEWR, 2009, p. 19).

The High/Scope approach sets specific standards as recommended by specialised organisations in an effort to specify what children need to know and be able to do. NAEYC’s professional standards have created a list of expectations for teachers for each domain of learning where educators are expected to fit the learning experience to each learning objective (Epstein, 2007). Content areas form the curriculum which therefore is developed in a different way to the EYLF which is far more holistic and emergent in constructing curriculum with the child’s interests in mind. It is evident that as the term ‘intentional teacher’ becomes part of Australian educators’ pedagogical practices, a new definition is needed in order
to navigate a more contemporary approach to early childhood educational programs. It is therefore reasonable to suggest that educators in Australia are struggling with understanding and adopting new terminology and the implications for their role. This research exposes limited understandings and misinterpretations for the pedagogical application of intentionality, as revealed in the following conversations of the educators in this study.

**DEFINITION OF THE INTENTIONAL TEACHER: PARTICIPANTS’ UNDERSTANDINGS**

The EYLF defines intentional teaching as:

Educators being deliberate, purposeful and thoughtful in their decisions and actions. Intentional teaching is the opposite of teaching by rote or continuing with traditions simply because things have always been done that way (DEEWR, 2009, p. 15).

This definition challenges the previous notion of the intentional teacher presented by Epstein (2007). Educators under the contemporary Australian curriculum framework are encouraged to challenge previously held beliefs, theories and practices that impact on their role as educators. One aim of the research was to find out if educators within Australian contexts understood their capacity to critique what is considered ‘their role’, given this term has added emphasis in early childhood practices only since 2009. Through the data, answers to research questions relating to intentional teaching were collated at two main levels: observing everyday practice and transcribing interactions between educators and children; and presenting questions to educators during focus group sessions on the topic of investigation. The next section of this chapter will present emerging theories of educators’ understandings on intentional teaching and provide evidence of how this impacts their role as intentional teachers.

During the third focus group session, participants were asked: *What is your understanding of intentional teaching? What does it mean to be an intentional teacher?* Following these questions there was a big pause. It became evident to the facilitator that this pause indicated difficulty in participants articulating a definition. Carl started the conversation by stating:
I think for myself, if I’ve got some intentional teaching I want to do, I do it in the morning group, like with the interest of pirates…..

Carl’s response avoids a direct definition and perhaps was offered in order to break the silence and generate a discussion. On the other hand, Rita’s understanding of intentional teaching seemed more closely connected to the EYLF definition:

I think it’s similar to us, like not specific to any one project or subject but it’s more about teaching with a purpose I guess and that higher level of thinking and I don’t know if outcomes are the right answer but having an idea of what I want them to learn and then looking at how can I scaffold it…

Rita demonstrated some knowledge pertaining to the definition of intentional teaching offered under the EYLF using words such as: ‘purpose’, ‘higher levels of thinking’ and ‘having an idea’ (or goal) for what she wants children learn, however she appeared to be unsure in her thoughts as demonstrated by her use of the words: ‘I think’, ‘I guess’ and ‘I don’t know if’. Noticing this, as well as the hesitation from other participants, further questions were asked in order to generate discussions. Within an interpretive tradition of constructivist grounded theory, the inquirer is alive and influential (Charmaz, 2006). This fluidity in my role as a researcher allowed the development of analysis to emerge contextually, situated in time, place and culture (Charmaz, 1990, 2006; Lincoln, 1991).

Following essential questions (Hatch, 2002; Seidman, 2006) other techniques involving exploratory questions were used in order to generate further discussions through connecting more on a personal or practical level with participants (Seidman, 2006). Explorative questions allowed participants to connect to personal practice, when essential questions around the phenomena were not fully answered or understood (Charmaz, 2002; Hatch, 2002; Seidman, 2006). By using this form of questioning, the response to the question: When are you more likely to be intentional and why? was immediate:

Sally responded with: I would say projects.
Rita added: group times.
Sally further suggested: *When you are sitting down in an activity.*

Carl contributed stating: *I think so too….if you have a goal to focus on in the project, you start to ask some questions to calm them down.*

Rita concluded: *Yep, behaviour management!*

From this conversation we can see a definite change in understanding on intentionality. What participants related and knew about intentional teaching as connected to their practice raised three areas for concern: that educators were identifying with their role as teachers who have the responsibility to ‘teach’ and have goals for children’s learning. Secondly, it appears that intentional teaching moments are being restricted to an indoor area, because this is a space where group times and project work routinely take place. Thirdly, educators viewed intentional teaching opportunities at times where they could manage children’s behaviour. A greater focus on the position of the educator as ‘teacher’ creates power imbalances between the one who knows and the one who doesn’t know (Pramling Samuelsson & Asplund Carlsson, 2008), that runs counter to a range of practices advocated in the EYLF. This aspect of the teaching/learning nexus will be discussed later in the chapter through a discussion involving the child as agent.

Restricting intentional teaching to planned group time experiences or during project work prevents other opportunities from arising during the scope of the whole day as is the intention in the EYLF. Within the EYLF, curriculum is described as:

> All the interactions, experiences, activities, planned and unplanned, that occur in an environment designed to foster children’s learning and development (DEEWR, 2009, p. 9).

The emphasis in the Framework is on the planned or intentional aspects of the curriculum. What is included or excluded from the curriculum affects how children learn and develop. Intentional teaching therefore, should occur throughout the day, not just at designated learning times.
From conversations with participants it was evident that intentional teaching was easier for educators when a group of children could be managed. Having a controlled environment where educators felt they could then ‘teach’ children with a goal in mind often became restricted to indoor planned group experiences. This belief ignores the role of the child in actively participating and contributing to learning through guided experiences.

In order to explore this idea further the participants were asked: \textit{So behaviour management; is that part of your intentional teaching strategies?}

Carl and Rita both answered: \textit{Yep! I think so, definitely!}

This understanding becomes problematic because intentional teaching is being viewed very narrowly by educators, limiting the potential of other possibilities within learning environments. This appears to be a misrepresentation of ‘intentional teaching’ so it was important to find out why intentional teaching was appearing to be limited to indoor group times, when the broader understanding as described in the EYLF is that intentional teaching occurs throughout the whole curriculum. The next section of this chapter will provide further evidence from the data revealing how these emerging understandings of intentional teaching are represented through conversations with educators about their pedagogical practice. Analysis of the following data will explain why, in the view of educators in this study, there was a major shift in the role of the educator from ‘teacher’ to ‘supervisor’ as they moved from indoors to outdoors.

\textbf{INDOOR TO OUTDOOR LEARNING ENVIRONMENTS}

At the third focus group session educators were asked: \textit{How much do supervision responsibilities impact on your ability to intentionally teach children while outdoors?} Educators indicated a major shift in their opinions about their pedagogical role. Responses to the question of supervisory roles outdoors raised tensions with the expectations of intentionally teaching children. Rita obviously felt the pressure from this expectation raising the question:
Where intentional teaching sounds lovely, how do you interact meaningfully with a small group when supervising a large group? You can’t just leave a whole group of children to intentionally engage with just one or two children.

Sally suggested a reason for this:  
It comes back to everyone being outside at the same time. You might be having some lovely interactions with the older children, and then the babies come along and you have to be with them as well.

Joan agreed with Sally, empathising that:  
Sharing the outdoors with another room is difficult; the whole dynamics of play changes completely, so those moments of intentionality are not there so much when there are 40 children in the yard.

After re-considering this, Rita added:  
This concerns me because we are outdoors for a big chunk of the day…it comes down to staffing and routine times.

These responses created concern for the participants as well as the researcher as the ideal of intentional teaching in the practices of teachers seemed to becoming more and more restricted to the indoor environment. If indeed for some centres children are outside for large parts of the day and intentional teaching does not feature as part of their practice, this creates a dilemma in terms of responding to the requirements of the EYLF.

Emerging from the data was a significant difference between indoor and outdoor interactions between educators and children. As is the nature of grounded theory, theories were starting to emerge organically through conversations with participants as they reflected on their practice (Dick, 2007; Lincoln & Guba, 1985; A. Strauss & Corbin, 1998). For example, Rita’s response indicated personal reflection on her practice through raising questions in relation to routines. Constraints associated with routines began to surface that perhaps were previously taken-for-granted. It became necessary to interrogate this further, establishing with educators whether or not intentional teaching was considered part of the role of the educator when outdoors. Further discussions were
necessary to then theorise whether indoors were viewed as learning spaces as opposed to ‘free-play’ experiences outdoors. During the third focus group session educators were asked: *What do you feel are the major constraints preventing you from intentionally teaching outdoors?* One reason presented by Rita was the need to cater for routine times such as staff morning teas and children’s progressive morning teas. Rita explained that:

*Ratios play the biggest part in effecting our ability to be intentional in teaching. All the things you need to do, cleaning beds, doing nappies… there is a lot that needs to happen and free-play is an opportunity where (I will say) you do the nappy changes and I’ll cover supervision….it’s a traditional thing.*

From this data it was evident that there was a definite shift in the role of educator from teacher to supervisor when moving from indoor to outdoor learning environments. This finding is similar to a study carried by Little, Wyver and Gibson (2011) where it was found that both parents and practitioners spent the majority of time supervising children’s play. Adult interaction during observed play episodes at centres and playgrounds found that 86.87 percent of interactions were spent in a supervisory role (Little et al., 2011). It is interesting that Rita mentions it being a ‘traditional thing’. This statement highlights the need for educators as intentional teachers to challenge their practice or ‘continuing with traditions simply because things have always been done that way’ (DEEWR, 2009, p. 15). The EYLF also defines curriculum as all the interactions, experiences, activities, routines and events throughout the day. Challenging traditional roles entails viewing opportunities for intentional teaching throughout the day, even during routine times such as nappy changes.

From the data participants were also starting to re-consider their role as intentional teachers during outdoor play through reflecting on traditional beliefs and practices, perhaps awakened through participating in discussions from this research. In confirming the emerging theory of ‘free-play’, I suggested that perhaps the outdoors was where you needed to, as Rita described, ‘supervise’ everyone. Following further reflection, Rita responded:
I think there are lots of excuses, but I completely agree (with the need to supervise).

Sally mentioned that:
The outdoor environment changes the way you interact.

Carl agreed mentioning that:
It really annoys me when staff don’t interact, staff are always sitting down or going inside.

In order to explore further, participants were asked: What impact do you think the environment has on your role as an educator? Does it change? If so, why?

Through participant’s conversations, educators sought to further explain the shift in role from intentional teacher to supervisor by examining the dynamics of play between the two main learning areas:

Carl suggested:
I think it changes a lot because in the indoor environment, you have that bit more control and sometimes you need to direct children to do the activities you have set out. Whereas outdoors children are more happy to freely go about and do their own thing so you sort of take that onlooker, and wait for that open opportunity from a child, or signal where you could step in.

Rita also suggests that:
I know at our centre they know outside is lots of running and climbing…whereas inside it is calmer and you have a lot more small groups.

Carl and Rita’s responses further support the idea that indoor environments provide educators with more control over the learning environment. These comments also indicate the lack of acknowledgement towards physical activity, such as running and climbing, being important aspects or goals of intentional teaching. As participants thought more deeply about this practice and its relation to intentional teaching, some emerging theories about their role began to surface. Carl mentioned he was continually frustrated that while he tried to be intentional
outdoors, he felt that other educators viewed the outdoors as an opportunity to relax and let the children play.

Carl believes that:

*You have to make the most of every opportunity with the kids through playing and talking with them.*

Carl has noticed that a lot of staff view this time as an opportunity to catch up with the person from the other room.

In response to Carl’s remark, Joan added:

*I see the potential of the outdoor area; I see it as an extension of their play, some staff think, ‘thank God we are outside’ but it’s still part of their day, there is so much potential there.*

Through these conversations a conflict between emerging understandings of intentional teaching and perceived constraints preventing this from occurring informed by the physical environment were becoming more evident. Joan’s comment indicated her understanding that while some children and educators may sense the freedom of being in the outdoors, she acknowledged that intentional teaching occurs throughout the curriculum, even as children are climbing and exploring. In comparison to other participants, Carl and Joan were aware of their role to intentionally seek out teaching opportunities. Carl further explained the difficulty of teaching outdoors, noting that knowing when to step in to children’s play was often difficult to judge:

*Sometimes we need to step back and just let them go…you don’t want to intrude, you want to encourage them to do something, but sometimes when I do jump in, they look at me like they don’t really want me there.*

Research on children’s play by Fleer and Richardson (2004) found that educators spoke about the importance of not interfering in children’s play, describing their role as facilitating and extending children’s play, echoing past theorising of a Piagetian approach (Piaget, 1971). Educators supported the concept of ‘self-learning’ where programming was closely related to the interests of children. In a more recent study by Ridgway and Quinones (2012) how pre-service students
understand play-based curriculum has also shown misunderstandings involving their role when outdoors. In this study, early childhood practices of observing children’s play but not engaging in play are being challenged (Fleer, 2010; Ridgway & Quinones, 2012). Ridgway and Quinones believe that educators’ understanding and awareness of the pedagogical role in sustaining children’s thinking is vitally important for implementing a play-based curriculum.

The EYLF suggests that educator guidance and engagement in sustaining play is essential for learning and development within quality early childhood services. Ridgway and Quinones’ (2012) research found that it was not only important to consider the “child playing, but to pay close attention to the complex interactions between the child and the educator” (p. 53). Fleer (2010) suggests that “what is needed is a new model for teaching and a different way of thinking about the role of the teacher” (p. 41). In this study the role of the educator will be explored as part of Australian pedagogical practices under the EYLF signifying new understandings as an intentional teacher.

During focus group sessions participants were able to reflect and challenge personal beliefs and traditions (DEEWR, 2009) in order to develop new understandings regarding their roles. This research also addresses the complex nature of adult interactions with children during play and the evolving inquiry educators take into their own practice. Educators expressed concern about their role changing during the outdoor environment where more vigilant supervision of the whole area was necessary.

These comments provided evidence that educators were growing professionally through critical reflection on their practice; a direct result of the conversations during focus groups and an example of the way research can inform practice and vice versa (Charmaz, 2006; Hickey & Zuiker, 2005; Ladkin, 2004; Lincoln & Guba, 1985). The general acceptance of the outdoors being a place to relax meant that teachable moments were often missed or overlooked due to the need to supervise a large group of children. This left much less time for meaningful interactions that could be constituted as intentional teaching moments. This runs counter to the
EYLF which suggests that intentional teaching should occur frequently throughout the entire day (DEEWR, 2009; Leggett & Ford, 2013).

From data it has become obvious that one reason for this shift in the role of the educator when transferring from one learning space to another was linked to safety concerns and the need to supervise children. Safety concerns during outdoor play are more prevalent due to the nature of gross motor activities and environmental factors. In a study by Munroe and McLellan-Mansell (2013) educators were asked to describe the barriers of outdoor play. Almost all educators expressed concerns about safety. Part of this belief comes from the need to adhere to the requirements of the National Law, the Education and Care Services National Regulations (2013a) and the National Quality Standards. Part 4.3 Physical environment, Division 2.115 of the National Regulations states that:

The approved provider of a centre-based service must ensure that the education and care service premises (including toilets and nappy change facilities) are designed and maintained in a way that facilitates supervision of children at all times that they are being educated and cared for by the service, having regard to the need to maintain the rights and dignity of the children.

Emphasis on supervision is also stated in the National Quality Standards (NQS) Standard 2.3:

Each child is protected also requires that children are adequately supervised at all times (Element 2.3.1).

Supervision is also legislated in the Children (Education and Care Services National Law Application) Act 2010:

The approved provider (and nominated supervisor) of an education and care service must ensure that all children being educated and cared for by the service are adequately supervised at all times that the children are in the care of that service. Penalty: $10,000 in the case of an individual and $50,000, in any other case (ACECQA, 2010, p. 52).
Playground safety is an area for concern of educators and their need to supervise children. Kidsafe (2014a) provides services with workshops and inspection services to provide services in their obligations in identifying hazards and non-conformances against the relevant Australian and New Zealand playground standards (AS/NZS ISO 31000, AS/NZS 4486.1) as well as meeting regulatory requirements. An assessment usually identifies things like hard surfaces under equipment, inadequate fall zones, lack of maintenance, possible entrapments, sharp edges, protrusions, trip hazards, overcrowded areas, contamination and high platforms with no barriers (Kidsafe, 2014b). Kidsafe also provide a design service in order to assist centres in incorporating natural elements as required by the NQS offering a balance between safety and challenge.

The NQS (Quality area 2: Children’s health and safety) protects children from harm encompassing physical activity. However, the EYLF notes “Australian play spaces...invite open-ended interactions, risk-taking, exploration, discovery and connection with nature” (DEEWR, 2009, pp. 15-16). The difficulty for many educators is how to balance children’s health and safety requirements while providing genuine opportunities to explore, investigate, feel challenged and take risks in order to meet the educational intent also evident in these policies.

Overall, educators are feeling fearful and taking the regulatory requirements seriously as conversations regarding the outdoor areas often led to a decision to supervise ‘all children’ at ‘all times’. Rita mentioned that her staff fenced off an area for children outdoors due to supervision requirements when outdoors. I asked Rita if the area could be an extension of the indoor play area for children to move from indoors to outdoors. Rita responded:

Yeah, we used to leave it open, it’s sight and sound....I think taking a group out there is good.

There was hesitation in this response to a suggestion that children should have greater flexibility in their use of indoor and outdoor areas and unused areas. From my researcher memos I sensed fear imposed from regulatory requirements was greatly impacting on Rita from taking a pedagogical leadership role in her centre. Other challenges in allowing children outdoors were further raised by Carl. Carl
mentioned that the outdoors was a very busy time. Rita added to the conversation that there were ‘more distractions’. Carl further explained:

*Well you go into a different role altogether. Like you were saying, there are a lot more things you have to think about: the other staff, other rooms, the actual running of the centre, making sure everyone’s observing the right spots, supervision.*

Australian researchers have found that educators are concerned with litigation in the event of an accident occurring outdoors. A collective responsibility is therefore lost with a reduction in challenging activities outdoors in response is to reduce risk in fear of individual blame (Durrant, 2006; Waller, Sandseter, Wyver, Arlemalm-Hagser, & Maynard, 2010). This belief runs counter to the EYLF where planning, documenting and evaluating children’s learning involves families, children and other professionals in partnership as they communicate ideas for children’s learning and progress (DEEWR, 2009). Lack of engagement with particular children creates tensions between curricula requirements and apparent practices. In contrast to the observed practice, the EYLF advocates for a strong relationship with all children so meaningful teaching moments can occur.

Part of the credibility of grounded research is to reflect back to educators their thoughts and developing understandings (Bryant, 2002; Charmaz, 2006; Clarke & Friese, 2007; Schön, 1983). Interpreting participants’ conceptions through reflecting on these ideas assisted in explaining local, specific phenomena. These interpretive frames allowed viewpoints for realities to emerge (Charmaz, 2006). Reflexivity also demonstrated the researcher’s own scrutiny of the research experience by allowing visibility of the analysis procedure with educators. Involving participants in the analysis provided variety and protection against the researcher’s own preconceptions (Creswell, 2008; Dick, 2007). Eliciting theories from participants in this way allowed a general consensus on themes before the research proceeded further (Dick, 2007). At this point in the conversation educators were asked if they thought that the larger mixed-aged group outdoors changed their role where they felt more distant from the children. Educators were asked if they were suggesting that smaller groups, or staging play outdoors for
different rooms, would allow greater engagement with children. All participants agreed. Carl stated his frustration with this idea:

*We’ve been trying to get time for our room to play outdoors alone but I don’t know if it’s going to get there.*

It is evident that educators felt an obligation to ‘their group’ of children and wanted more time for documenting and recording events that directed programs in their rooms. The next section of this chapter will explore further educator’s understandings of documentation, in particular how misunderstandings of their role as intentional teachers in the outdoor environment is causing a missing link in curriculum development.

**INTENTIONAL TEACHING LINKED TO DOCUMENTATION**

One aspect of the lack of engagement between educators and children during outdoor learning opportunities was the connection between requirements for documentation and programming. Educators interacted more when they felt there was an opportunity to document or record interesting events that could further inform the program. This analysis of data related to documenting revealed that educators became selective in their engagement with specific children. This emerging understanding was a result of further discussions on why educators’ capacities to be intentional were limited to a supervisory role when outdoors. From the data it appeared that the dynamics of mixed outdoor groups had resulted in the perception of these educators that this time presented limited opportunities for meaningful interactions between educators and children.

As Sally explained, having a mixed group of children outdoors prevented educators from intentionally teaching children that were ‘not their own’ (belonged in their room or age group). First, this statement suggests a misreading of intentionality. Second, according to the research participants the quality of relationships shifts dramatically within a large group when children were not the direct responsibility of a staff member in terms of programming and planning. Third, intentionality is closely related to documentation and it is less likely that educators would create teachable moments with children they do not have direct
responsibility for (Leggett & Ford, 2013). This belief has significant cultural implications that relate directly to teacher practice.

Durrant (2006) contrasted the approach of Sweden to Canada and New Zealand. It was found that a significant feature of the Swedish approach was the collective responsibility of all citizens to care for and support children. This is in contrast to other countries where individual adult responsibility is emphasized (Waller et al., 2010). A major point of distinction between countries is taking a collectivist or individualistic approach to responsibilities for children. Participants in this study indicated an individualistic approach. Rather than belonging to a team united in their responsibility for all children in the program, educators indicated a feeling of responsibility and accountability for ‘their own’ group of children and therefore, only engaged when there were opportunities to document learning. Another factor is the emerging idea of play meaning different things in different spaces. Recognising opportunities for engaging with children during outdoor time also appeared to be connected to how educators viewed and understood different forms of play, and their position in that play. From research, we understand that children learn through play (Fleer & Pramling-Samuelsson, 2010; Krasnor & Pepler, 1980; Sylva et al., 2010; Thomas, Warren, & de Vries, 2011; Vygotsky, 1976), therefore our role in sustaining children’s engagement becomes a significant one.

The EYLF advocates a play-based pedagogy explaining that play provides opportunities for children to expand their thinking, “enhancing their desire to know and learn” (DEEWR, 2009, p. 15). The EYLF states that educators “take on many roles in play with children and use a range of strategies to support learning. Educators are encouraged to recognise spontaneous teaching moments as they occur and use them to build on children’s learning” (DEEWR, 2009, p. 15). Within Australian contexts, outdoor play spaces are a major feature of Australian learning environments. The outdoors offer an array of possibilities not found indoors. As stated in the EYLF, outdoor spaces invite “open-ended interactions, spontaneity, risk-taking, exploration, discovery and connection with nature” (DEEWR, 2009, p. 16). From the data there appeared to be a connection between the role of educators and various interpretations of play. Further explorations into what play
meant to educators in their role as intentional teachers now became a necessary focal point in this research. The next section of this chapter will discuss how educators perceived play and the connection to their role while children were in outdoor spaces.

**PLAY-BASED LEARNING: EXPLORING INDOOR TO OUTDOOR ENVIRONMENTS**

Perceptions of the outdoor environment were more often associated with an ideal of ‘free-play’ because of the amount of time spent outside. Most educators agreed that the outdoors produced a sense of freedom to explore without the invasion of educators asking questions or getting in their way. Educators expressed the belief that play became open, free and less controlled as they felt released from their obligation to ‘teach’. Educators’ perceptions of play as being ‘free’ in some ways undermines the value it presents for children as a leading source of development (Vygotsky, 1976). Vygotsky (1976) emphasised play as an intensely absorbing activity, serving as a powerful matrix for learning and development. However, on the other hand, this could be construed as educators valuing children’s play by not interfering. What is needed is a balance between when to teach and when to allow children freedom to explore and learn from each other. Emerging from this study was the need for a revised socio-cultural definition for play that reinstates the value of play-based learning for children. This developing definition as a result of this study will be re-addressed in the following chapters after further considerations for the interconnectedness of play and creativity are explored.

The view of free-play of educators also meant that there was less attention to planning outdoors. From close observations of the three early childhood sites it was evident in two of the centres that far more effort went into setting up learning areas indoors than outdoors with an average of ten small group learning areas indoors compared to five large group areas outdoors. These outdoor areas consisted mainly of the sandpit, large building blocks, books and a rug, tables with activities and a sand trough/water play area. This suggested that the outdoor environment in and of itself provided the stimulus with more space to run and engage with nature. During a focus group session, participants were presented with data on the amount of activities set up indoors as compared to what centres
were doing outdoors. This provoked further thinking and conversations around intentionality and teaching. Nellie believed that:

*It’s very important that as soon as a child arrives at a centre, they look around….straight away they want to be there….it needs to be inviting, interesting to them and very comfortable.*

Joan agreed stating that:

*Yes, it’s invitations for learning, you look at it from the child’s point of view and there’s so many interesting things in this environment and I really want to be here and I really want to have a go.*

During my visits to the centres, I noted that at Nellie and Joan’s centre, the outdoors had the same attention to planning as did their indoor environment, creating smaller groups of children in settled activity areas, with less running spaces. In comparison, the centres of Rita, Sally, Molly and Carl had less activity choice outside and more free running areas available to the children. As was found in Joan and Nelly’s centre, the more prepared the outdoor learning environment, the more opportunities were presented for educators to engage with children; hence intentional teaching opportunities. These pedagogical practices appeared to be linked to teacher beliefs around free-play as indicated by their previous theorising on the outdoor environment.

One aspect of grounded theorising is the importance of providing feedback to research participants (Charmaz, 2006; Strauss & Corbin, 1998). Field notes and observations demonstrated high quality indoor environments and this was conveyed back to educators. From observations this careful consideration of the indoor environment allowed far more interactions with individual and small groups of children over a longer period of time. Two centres involved in this study have indicated that less attention was often paid to the outdoor environment and the potential for providing quality learning for children was undervalued. The EYLF (DEEWR, 2009) states that:

*The outdoor space is of equal importance as the indoor space in providing engaging experiences for children. Outdoor learning spaces are a feature of*
Australian learning environments, and offer a vast array of possibilities not available indoors (p. 15).

It is a requirement of the National Quality Standards (NQS) that equal attention is paid to both learning environments as valuable areas for promoting children’s learning. Quality area 3.1.3 of the NQS, Physical environment states:

Facilities are designed or adapted to ensure access and participation by every child in the service and to allow flexible use, and interaction between indoor and outdoor space (ACECQA, 2013b) and that outdoor and indoor spaces are designed and organised to engage every child in quality experiences in both built and natural environments (element 3.2.1).

Designing quality learning environments in both built and natural areas involves the educator intentionally planning and considering how the environment impacts and supports children’s learning. The EYLF describes environments that support learning as vibrant and flexible, responsive to the interests and abilities of the children, catering for different learning styles and inviting children and families to contribute (DEEWR, 2009). In thinking about her outdoor environment, Rita mentioned that:

_We as a staff, our outdoors is something that we are constantly struggling with and a lot of it has to do with how we feel about having the mixed ages, like the little ones...we were really energetic about doing gardening with the children...and it was disheartening how the little ones were tipping things out and pulling them out....I think we got so flat with our outdoor environment._

Here participants were making an effort to engage children in meaningful learning opportunities following a workshop on sustainability. This type of professional development appears to be an important driver for educator’s changing practices. There is currently widespread agreement that the training and professional development of early educators is a key component for ensuring good outcomes for early childhood education programs (Bogard & Takanishi, 2005; Pianta, Mashburn, Downer, Hamre, & Justice, 2008; Zaslow & Martinez-Beck, 2005). Ghazvini and Mullis (2002) found that the best predictor of higher-quality care and
sensitive teacher-child interactions involved specialised training of caregivers. An educator’s professional development has been found to play an important role in how children are educated, the types of learning environments provided and better outcomes for children (Bowman, Donovan, & Burns, 2000; O. Saracho & Spodek, 2007; Sylva et al., 2010).

Other professional development workshops involving participants outside of this study included the ‘Munch and Move’ training program (a NSW Health initiative with support from the NSW Department of Human Services (Community Services and Local Health Districts) where educators became more aware of children’s fundamental movement skills. These educators made a concerted effort to set up more activities for children that promoted movement however noted their frustration with team members who did not participate in training. Rita mentioned:

_You go to these trainings and inservices and you are so motivated, but when you are not doing it as a whole staff it is so hard._

Carl added:  _It’s like hitting a brick wall._

Rita mentioned: _It is hard; you lose heart, don’t you._

Carl supported Rita commenting:

_I think not everyone has the same passion that you guys do, and training._

Sally commented:

_I think everyone needs a refresher that outside time is also a time for learning and engaging._

There is a breakthrough evident in these comments whereby participants are becoming more aware of the need to engage with children outdoors and the effect of quality training programs on their pedagogical practice. Participants also mentioned that they were going back to their centres and raising issues they felt were important as a result from their involvement in ‘this’ study. Rita mentioned:

_I actually started typing up all of the notes we’d talked about, just words people had used, like respect and like the outdoor environment. Joan was talking about_
Chapter 5: Understandings of intentional teaching

how they use their outdoor environment as an extension of different areas and we have a lot of, I don’t want to use aimless, but free running and playing, so I actually brought that up at our staff meeting and asked the staff if they felt we used the outdoors too much for free-play and if we should be bringing some of the indoors outside. It created a huge discussion. We had two staff saying ‘No, I love that they might drag those gross motor things over to turn into something else, I quite like it how it is’. We had others saying ‘no I think we need more table type activities and let’s get an outdoor project happening.’ So that was good! It was thought provoking and that all came out of the last focus group discussion we had.

Within an interpretive tradition this style of social process shapes participants’ actions and understandings within their settings (Charmaz, 2006). This promotes what Schön (1983) refers to as reflective practitioners inquiring into their own practice and realising things could be better (Stake, 1995). Participants were asked what they thought would improve their outdoor environment. The conversation then turned to nature. Participants in private centres found that their owners opted to remove natural resources in favour of safer options such as artificial grass areas and static climbing equipment. I asked participants how they were able to balance natural and artificial areas in their outdoors in response to the EYLF practices requiring “natural environments, including plants, trees, edible gardens, sand, rocks, mud, water and other elements from nature” (DEEWR, 2009, p. 16). Joan contributed her ideas for how she has made her outdoor area more engaging for the children:

Well, we did it gradually, because it was all artificial grass, we gradually were digging up bits and pieces…..and we put gardens in.

Rita mentioned that in her outdoor area children were walking around with baskets and searching, but that ‘the yard doesn’t have that many interesting natural resources they can find’.

From data, thoughts on what types of learning activities should be provided outdoors also surfaced from conversations between participants. Joan shared her belief that:
The outdoors should have things in the outdoor area available to them that you would normally do in the outdoor area, like taking the kitchen and putting it in the sandpit; they are things that should normally be done inside.

Carl also mentioned that:
I don’t know why they put books outside, in the sun, there are no kids there, they are ripped apart…I think kids aren’t going to use them properly.

Once again, careful reflection on practice has challenged traditional ways of approaching the outdoor learning environment through intentional teaching. Joan’s belief represents contemporary approaches where authentic learning opportunities and real life experiences are part of children’s everyday learning. Part of this belief is driven by contemporary theories where children are viewed as active participants who learn through real-life experiences under the guidance of adults (DEEWR, 2009; Rogoff, 1990; Rogoff & Gardner, 1984; Vygotsky, 1962). What children should be doing or learning in the outdoors is still a contentious issue for educators presenting varied opinions on what constitutes outdoor play. This emerging theme from data has wider implications for early childhood contexts in Australia as contemporary beliefs are becoming more incorporated into practice.

Play in itself is a phenomenon that is difficult to explain well. Play means different things to different people based on personal experiences contextually relevant to culture, place and time (Goncu, Jain, & Tuemer, 2007). The next section of this chapter looks more closely at how educators define, understand and represent play within Australian early childhood outdoor learning environments.

**Play and Learning: Defining Play in Outdoor Learning Environments**

It appears participants have struggled to agree on how play and learning should be defined and managed outdoors. Some agree that freedom and open-ended play was necessary, while others believed that structure and design for learning was as much a part of intentional teaching practices outdoors as was demonstrated indoors. What has emerged is a misrepresentation of play as learning in both environments. Carl expressed his observations of outdoor play:
Watching the two to three’s I think, well, a big chunk of their day where it is just aimless!

At the fourth focus group session, in order to find out more what was intended by ‘aimless’ play, the question was asked: *Do you think the outdoors promotes aimless play?*

Joan agreed, stating:
*I’m just thinking when the children are outside, not aimless play, being connected, I don’t like aimless play outside, they should actually be doing something, not just wandering around. There is freedom in it….how would you put it…just wandering… there has to be a purpose to it……but wandering…..you need to pre-empt that and break it up.*

The notion of aimless play outdoors was re-visited by participants in the following monthly focus group session indicating continual practitioner reflective practice (Schön, 1983). Rita contributed in response to Joan’s earlier comments:

*Joan mentioned before about aimless play….is that something to encourage? We quite like using our bottom playground for that – free running and collecting gumnuts and they do interesting things down there.*

Carl agreed stating:
*It’s time for them to get that boisterous energy out so they can focus when they get back in. He questioned: *Is that necessarily a bad thing?*

These discussions indicated individual interpretations on play and how they thought it should be represented in the outdoor environment. There appeared to me a misunderstanding on play being ‘aimless’; children have the aim of running and exploring. For the educators, the notion of releasing energy so that children can then focus indoors, only reaffirms the idea of intentional teaching taking place indoors. Participants felt that the indoors provided a more conducive learning environment where educators could engage more with children and organise times where they could teach the children through planned group time experiences or project work. The outdoor environment presented many issues
ranging from mixed-aged grouping of children, educators taking breaks, routines for changing nappies and morning teas, sun safe policies and regulatory requirements involving the need to supervise the children. All impacted greatly upon their role as an educator where a shift from teacher to supervisor was noted.

The role of the educator should not shift from pedagogue to supervisor determined by space and place, thus revealing some interesting misunderstandings of intentional teaching from the data in this study. Further provocations of the data in order to determine the underlying tensions for the divide between indoor and outdoor learning environments revealed misinterpretations on the purpose of children’s play. It appears that while the EYLF advocates a play-based curriculum (DEEWR, 2009), play within the context of different learning environments had different definitions derived from educator beliefs, views and understandings. In order to explore this idea further, participants were asked: *What does play mean? Should it be structured or free? How do you view play?*

Carl contributed his personal thoughts stating:

*I never used to like physical activity, but when I went to uni and I was doing a lot of thinking, I needed some way to process it. I joined a gym and I started doing a lot more jogging and things like that. So I think maybe there’s a need for that cathartic play to help the brain process things.*

Molly suggested:

*Away from the service, some families’ lives are very structured with additional activities taking time away from play where they might be involved in sport or dance. Sometimes it’s just nice to play with no particular outcome.*

Rita contributed her observations:

*We went camping with our families on the weekend and we didn’t really do anything…the children were just playing. I mean, it’s not really our role when we’re camping with our families anyway…usually something would happen, but the children just played and played and played.*
These comments suggested a common belief that play is associated with freedom and relaxation as once generated by classical theorists. Play has been defined and theorised in many ways. This is not a contemporary challenge, rather something that has been with the profession for a long time (Fleer & Pramling-Samuelsson, 2010). Historically, classical theories developed to explain children’s activities. Mitchell and Mason (1948) suggest play was a way to ‘blow off steam’ as part of recreational, surplus energy or relaxation theories (Mellou, 2006). Regulation 108 of the National Regulations (2013) suggests providers might consider that the outdoor environment should be a place not only for children to release energy and engage in physical activity, but also for exploration, problem solving and creative expression. Contemporary theories involve recognising the duality in the process of play in terms of social and cognitive learning, however the strongest link is in the area of creativity (Mellou, 2006). A clinical report circulated by the American Academy of Paediatrics on the importance of play states that play allows children to be creative and that free unstructured play uses unlimited creativity fostering problem-solving skills (Milteer & Ginsburg, 2011). This aspect of play will be included in the revised definition offered later by this study.

This study is supported by the theoretical framework of Vygotsky who noted that play is the leading source of development in preschool years (1976). Vygotsky distinguishes play from other activities based on two essential criteria: first children create imaginary situations in play, and secondly, play is always based on rules (Connery et al., 2010; Vygotsky, 1976). These differing theories have serious implications for the role of the educator. One creates a more passive role for educators within a supervisory role, while the other promotes engagement and interaction with children with purpose-driven activities.

A Vygotskian standpoint challenges the notion of ‘free-play’ expressing that children are continually learning as they engage with others as part of their social and cultural contexts, thus dispelling the myths of play as ‘aimless’. The next section of this chapter will further discuss the role of the intentional teacher and children’s learning through play as part of the EYLF.

The EYLF recognises the complexities of play and the involvement of educators. Within the Educators’ Guide play involves different types including “sensory, explorative, physical, creative, symbolic, projective, role, and dramatic play and games with rules” (DEEWR, 2010, p. 30). From a contemporary perspective, play provides children with opportunities to be supported to learn to make play “safe, fair, just and equitable for all participants” (DEEWR, 2010, p. 30). Educators are expected to “create learning environments that encourage children to explore, solve problems, create and construct” (DEEWR, 2009, p. 15). They are to use routines and play experiences and recognise spontaneous teachable moments as they occur (DEEWR, 2009). Reflecting on the types of play children engage in outdoors requires careful considerations for educators in knowing when and how to be part of that play. Carl commented on being sensitive to the children wanting you in their play. He mentioned that experience had a lot to do with staff knowing when to ask children questions, when to just listen and when to create provocations:

*I think it’s dependant on the staff that you have and their experience with being able to read the children well. I’ve noticed the younger staff coming through, they’re still studying …they don’t really understand how to gauge that.*

Reflections from participants in this study appeared to be challenging thinking on their role while outdoors. Two emerging theories have surfaced from the data: the belief that play is free but should not be aimless in nature, and that educators do have a role in being sensitive to how they enter and engage in children’s play, thus reinstating the role of the intentional teacher. Epstein (2007) advocates that while the outdoor play area should have adequate space to move freely, teachers must have space to move with children, join their play and take advantage of learning opportunities as they arise. Epstein also suggests that both the indoor and outdoor areas should address all aspects of children’s development and allow for groups of various sizes. Throughout the EYLF educators are expected to be involved with the children and to participate where possible. The EYLF guides highly relational pedagogy, reflecting socio-cultural perspectives of co-
constructing knowledge alongside and with children (DEEWR, 2009). Responding to play thoughtfully enables educators to respectfully enter children’s play in order to enrich their learning (DEEWR, 2009). This is a skill that is often acquired from training and experience.

The EYLF also explains that educators take on many roles in play with children and use a variety of strategies to support learning. The EYLF outcomes for educators suggest how educators can support children’s learning. For example, teachers are encouraged to: support children’s efforts, assisting and encouraging as appropriate; initiate one-to-one interactions (Outcome one); engage in interactions and discussions with children (Outcome two); challenge and support children to engage in and persevere at tasks and play; plan for and participate in energetic physical activity with children (Outcome three); listen carefully to children’s ideas; encourage children to explore, experiment and take appropriate risks (Outcome four); engage in enjoyable interactions and sustained communication; join in children’s play; co-construct materials and encourage collaborative learning (Outcome five). From the evidence provided in both Epstein’s definition of an intentional teacher as well as the outcomes for educators as outlined in the EYLF, it is clear that the role of the educator is not one of supervisor, but a highly interactive, relational and supportive co-learner in children’s play environments – inside and outside.

This study has revealed some serious implications for the role of the intentional teacher, particularly in considering the outdoor space. How play is viewed, along with educators shifting roles between indoor to outdoor learning environments has revealed limited understandings not only on defining and understanding intentional teaching, but how play and learning are always synonymous for the child. There is no such thing as ‘aimless play’; children are always experiencing something, and it is the role of the educator to seek ways of supporting children in their explorations and investigations (DEEWR, 2009). Opportunities to teach children were becoming limited to indoor learning environments. This focus on the teacher has neglected to understand the role of children as active co-contributors in the process of their own learning. The final section of this chapter discusses how contemporary images of the child as agent is an important aspect of the
teaching/learning nexus providing a new identification for the child who is equally involved in the learning process.

**CONTEMPORARY IMAGES – CHILD AS AGENT**
Throughout the study, focus has largely been placed on the role of the intentional teacher who has the responsibility within the EYLF to ‘teach’ children. While the EYLF retains a play-based model within its framework, and thus acknowledges children’s agency, the introduction of intentional teaching, without the commensurate discussion about intentional learning, leaves the implementation of the EYLF open to emphasising one aspect of the teaching/learning nexus to the detriment of another (Leggett & Ford, 2013). Educators’ limited understandings on intentional teaching presented through the data has not only revealed a narrow perspective of the role of the teacher, but a perception of the need for unequal power relations between educators and children in the curriculum construction process. During focus group sessions educators expressed their belief that designated group times presented more opportunities to teach something that they had in mind for the children, presenting as a teacher-centric view of curriculum development. This view does not account for contemporary understandings of the child who is capable and competent in taking ownership of their own learning.

Differing views of the child’s position in education reflect teacher beliefs derived from teacher education and experience. Recent contemporary views of the child as ‘agentic’ popularised by the Reggio Emilia approach, challenge old images of the child as innocent and powerless (Edwards et al., 1998; Gandini, 1993; Rinaldi, 2006; Sorin, 2005). Childhood is considered an important period of being; a time when children make sense of their world through their active engagement with it (Corsaro, 1997; Sorin, 2005). Curriculum for the agentic child is co-constructed through collaboration between the adult and the child (Sorin, 2005). Adults guide the learning process, based on their own learning, life experiences and resources, augmenting understandings of issues important to children (Sorin, 2005; Woodrow, 1999).
Chapter 5: Understandings of intentional teaching

Viewing children as agentic involves planning that is based on recordings of children’s language, ideas, interests, knowledge, dispositions and abilities. Contemporary views and inclusion of children in the co-construction of the curriculum challenged participants who were more focused on their teacher practice. For example, in the third focus group session in response to discussions around intentionally teaching children during group times, Rita seemed to have a dilemma about how to fulfil outcomes and how to balance this against activities driven by the children’s interest. Rita described her approach this way:

_We obviously go into a moment of teaching with our idea of what we want that outcome to be, especially with our project work, we are so focused on getting that answer, instead of seeing what they do with the information._

Rita was grappling with the fine balance between teacher-directed and child-guided learning experiences, positioning the educator as provider of knowledge, but she is also conceding the children have a role to play. Another educator discussed a project driven by children’s interests and the way it evolved. Nellie explained:

_Lots of boys were interested in a space-suit they were wearing so, umm, the helmet and what they carry on their back; the oxygen. They need to breathe. That’s how we got into the gases and the air, so it’s, yeah, it all just came out of discussions. Their brains are just amazing! They are powerful really!_

Nellie has embraced more contemporary understandings of the competent child. She shows surprise at the ability of the children, but recognises the value of children actively participating in the construction of their own learning, thus affirming the principles underlying the EYLF (DEEWR, 2010). Who decides on the content to be taught is a contentious issue raising important considerations between learning outcomes, or goals teachers hold for children, while maintaining the child’s agency and rights to determine his or her own learning trajectory (Leggett & Ford, 2013). Epstein (2007) uses the term ‘child-guided’ to refer to experiences that proceed from children’s interests and actions and ‘adult-guided’ for experiences that proceed from teacher’s intended goals, as shaped by children’s active engagement. Data from the research has revealed tensions
Chapter 5: Understandings of intentional teaching

between what adults want children to learn while at the same time incorporating children’s interests. Sally describes this tension in her response:

*If you were to say to me ‘do a discussion on turtles’ I would go in there thinking okay I’m going to talk about this and this and this….but watching them in the last couple of weeks (and during this research) they already know so much. I guess you don’t realise, ‘cause you think they are four or five, they don’t know.*

Sally’s response is perhaps indicative of her level of training and experience. She appears surprised at the capabilities of children and is still ‘testing the waters’ for how she approaches her own teaching. In comparison, the following responses by Carl and Rita show more maturity and confidence in their teaching ability. Further discussions around the need for educators to ‘let go’ at times to see what children know, challenged even the more experienced educators. Rita mentioned:

*…and allowing yourself to let it go in a completely different direction…..I think it’s (about) not limiting them at all or putting your ideas in.*

Carl also confirmed:

*I sometimes think it goes in a richer way for the children if you do let it go.*

This was a turning point in discussions during focus groups causing participants to deeply reflect on their practice, supporting the emerging theory of the child as an ‘intentional learner’. This was an exciting point in the research as new understandings and shared meanings of intentional teaching were beginning to surface. This approach suited the nature of constructing understandings around the phenomena under investigation where educators were able to share their understandings and develop emerging themes and theories situated within a specific historical point in time (Charmaz, 2006; Tharp & Gallimore, 1988). Constructivist grounded theory entails the “practical activity of engaging the world and of constructing abstract understandings about and within it” (Charmaz, 2006, p. 128). A constructivist approach not only theorises the interpretive work the participants do, but acknowledges the resulting theory as an interpretation (Charmaz, 2000, 2002).
Findings from this research have identified a gap in the relationship between teachers and learners in how and by whom curriculum is developed. Accommodating the child’s own learning trajectories required educators to re-think their role as the one who teaches to a co-constructor who negotiates goals and decisions for curriculum alongside and with the child. This research has brought forth a new identity for the role of the child as an intentional learner. Acknowledging the intentional learner together with the intentional teacher will create equal relationships in the co-construction of the curriculum as children and educators pursue learning toward unified outcomes and goals.

These findings were a result of collaboration and inquiry between participants reflecting the epistemological view as new theories about intentional teaching unfolded as the investigation proceeded (Guba & Lincoln, 1994; Hatch, 2002). In addition, emerging from this research was the need for a socio-cultural definition of play, reflecting the values presented by Vygotsky (1976) as well as research evidence provided on the connection between play and children’s creativity. Providing a stronger definition will enable educators to view play as a powerful driver for children’s learning and creative development. From the data presented in this study as well as reflections on theoretical and research evidence, the following definition on play has emerged and developed:

Play encompasses the integration of thought and emotion. Multidirectional meaning making and learning occurs through complex symbolic constructions and desires as children participate in play. This duality in the process of play in terms of social and cognitive learning provides strong links to creativity. Play fosters unlimited potential for problem-solving skills through creative thought processes as children develop imaginings about possible futures.

It is hoped that this definition for play in early childhood learning contexts will contribute further not only to educators understandings, but contribute further to the pedagogical practices of the EYLF.
SUMMARY
This chapter has presented an analysis of data in response to research questions pertaining to educators’ understandings of intentional teaching. From the data it was found that educators had difficulty articulating a definition. Reasons for this were explained as emerging theories from teaching practices and beliefs became evident. This inadvertently impacted on the role of educators as they encountered constraints and limitations, in particular, with the outdoor learning environment. A direct focus on the role of the educator to ‘teach’ young children has also created imbalances in the construction of curriculum, often overlooking the competent role children play as co-contributors in the learning process. What is missing from the EYLF documentation is the identification of the child as an intentional learner, thus providing agency for children in setting their own goals with educators. An intentional curriculum involves co-participation where both the teacher and child are valued as equal partners within the teaching–learning nexus. Equitable outcomes for learning pathways can only be truly achieved when intentionality represents this relationship. Constructions around the intentional learner are a result of knowledge as socially constructed and emerging from the data (Charmaz, 2006; Strauss & Glaser, 1967). As is the nature of grounded theory, research on intentional teaching has contributed new information that has implications for the wider social world.

The next chapter will present an analysis of intentional teaching strategies as demonstrated by participants in this study. From the analysis of transcribed interactions and observations, researcher memos and photographic evidence from field visits, data has been gathered in response to the research question: *What types of intentional teaching strategies do educators use in their practice with young children?* In addition, an in-depth investigation of the child as an intentional learner provides significant new understandings not only for the role of educators, but the role children play within teaching/learning relationships.
Chapter 6

Structural elements of intentional teaching

The purpose of chapter six is to present findings from the study in response to the research question: *What types of intentional teaching strategies do educators use in their practice with young children?*

In Chapter 5, it was found that educators experienced difficulty articulating a definition for intentional teaching. This created some serious implications for pedagogical practice involving their role, particularly when outdoors with children. Limited understandings on the role of an intentional teacher found educators restricting teaching opportunities to the indoor learning environment. Educators shift in role from teacher to supervisor during outdoors identified constraints linked to documentation and regulatory requirements preventing quality engagement with individual children. In addition, including children in the construction of a curriculum that embraces children’s agency has created an emerging new identity for the child as an intentional learner. However this side of the teaching/learning equation has neither been fully developed within the EYLF nor additional teaching guide materials (DEEWR, 2010) contributing to the incomplete understanding of intentionality as it applies to early childhood sites.

**INTRODUCTION**

The underlying theoretical framework of this study draws from Vygotsky (1930, 1978) who suggested that a child comes to know about the world through a complex synthesis of interdependent processes that occur within the social relationship of the zone of proximal development (ZPD) (1930, 1978). Responsiveness to children’s ZPD requires individualisation and assistance in structuring the learning environment in order to support and guide children. Preparation involves attending to the structural elements of the learning
environment so that it provokes children’s interests, inviting them to learning contexts (Curtis, 2004; Edwards et al., 1998; Sylva, 2010; Vygotsky, 1930, 1978).

In recent literature, objective definitions of quality have often been based on common indicators for predicting children’s learning. These may include elements such as the physical environment, tangible resources, learning experiences, interactions and relationships, staffing, planning and assessment procedures (Litjens & Taguma, 2010; Sylva, 2010). Quality measures have been found to include: structural elements (such as the facilities) and process elements (for example, the relationships children develop through every-day experiences and interactions with educators) (Litjens & Taguma, 2010; Sylva, 2010).

In this study, key areas of intentional teaching practices have been categorised into two broad dimensions: structural elements (the physical learning environment, routines and regulations and co-constructing a curriculum framework) and process elements (sustained shared thinking, intentional teaching strategies, questioning techniques, grouping patterns and children’s questioning and intentional learning strategies).

This chapter examines the structural elements of specific environmental factors informed and supported by research, while the following chapter will address process elements identified in this study involving the interactions and strategies educators employ as part of their intentional teaching practices. Together, these dimensions of intentionality form the groundwork of curriculum incorporating the totality of experiences that occur within learning environments (DEEWR, 2009; Siraj-Blatchford, 2010; Sylva, 2010). This chapter concludes with a discussion on how curriculum should be co-constructed within a social and democratic pedagogy acknowledging the need for greater identification of the child who is a capable contributor to his or her own learning. Identifying the child as an intentional learner is a major contribution from this research providing significant new understandings not only for the role of educators, but the role children play within teaching/learning relationships.
STRUCTURAL ELEMENTS OF INTENTIONAL TEACHING
This chapter describes and explains how educators are using intentional teaching practices in relation to structural elements of children’s learning opportunities. Previously it was found that educators had difficulty articulating a definition for intentional teaching, however in this chapter, emergent understandings became more evident through educators’ everyday practice and interactions with children. This chapter presents analysis of identified structural elements through data including transcribed interactions between educators and children, researcher observations, field notes and memos, photographic data and transcribed discussions from focus group sessions.

The epistemological standpoint of this constructivist paradigm is informed by Vygotsky’s socio-cultural approach believing that cognitive construction is always socially mediated (Bodrova & Leong, 2007). This approach encourages participants to continually reflect on their principles and practices as new understandings emerge around the phenomena under investigation. The products of a constructivist paradigm emphasise descriptive analysis of the interpretations together with participants (Hatch, 2002). Research and theory are inextricably linked; therefore a knowledge base derived from available research is provided to ground misconceptions surrounding interpretations of participants and new emerging theories. This chapter draws from research on intentional teaching practices by Berliner (1992), Epstein (2007) and more recent findings from the Effective Pre-School and Primary Education (EPPE) project in the UK (Siraj-Blatchford, 2010). These findings suggest the best strategies for intentional teachers to use in reference to elements of the curriculum designed to enhance children’s growth and development.

‘Intentionality’ as described by Berliner (1992) emphasises interactions between educators and children. He summarised research about this relationship characteristic of intentional teaching, through the use of six elements: high expectations, planning and management, learning-oriented classroom, engaging activities, thoughtful questioning and feedback. Further to this, in her research, Epstein (2007) identified that intentional teachers apply best practices in six key areas: planning curriculum, structuring the physical learning environment,
scheduling the program day, interacting with children, building relationships with families and assessing children’s development.

These elements were also reflected later in the Effective Pre-School and Primary Education (EPPE) project where dimensions of quality were observed and analysed (Siraj-Blatchford, 2010). The most common indicators of quality shown to enhance children’s learning included: the physical environment, tangible resources, curriculum/learning experiences, teaching strategies, staff planning, assessment and record keeping, relationships and interactions, parental and community partnership and management. This chapter draws from current and available research on selected structural elements foregrounding intentional teaching processes. In this study, structural elements were identified under three broad areas: 1. The physical learning environment (a major structural element needed for supporting children’s learning as well as educator’s practices); 2. Routines and regulations (specific constraints impacting the role of the intentional teacher); and 3. Co-constructing a curriculum framework (utilising a social and democratic policy). Figure 6:1 is a new model created from this research which illustrates how structural elements positioned by educators support intentional teaching strategies as they engage with children within learning environments.

Figure 6:1 Structural supports for intentional teaching processes within early childhood learning environments
The following section presents an analysis on how each of the three structural elements is evident in the practice of participants in this study; the first presenting how the physical environment impacts the role of the intentional teacher and children’s learning opportunities.

**THE PHYSICAL LEARNING ENVIRONMENT**

According to the EYLF, learning environments are “welcoming spaces when they enrich the lives and identities of children and families participating in the setting and respond to their interests and needs” (DEEWR, 2009, p. 15). Environments that support learning are further described as vibrant and flexible spaces that invite conversations between children, families and communities (DEEWR, 2009). Physical learning environments are designed to support meaningful interactions through sustained shared thinking (Siraj-Blatchford, 2005) and collaborative learning. At the third focus group session participants were asked how they thought the environment supported their intentional teaching practice.

Rita responded:

*I think a lot of respect in setting it up, so they can be challenged.*

Carl commented:

*The children are more inspired to go and play and do more creative play.*

Rita concluded:

*The environment supports what we are doing.*

Nellie further explained that when the environment was set up well, she could then:

*Engage in active conversations and spend time with them finding what they wanted to learn.*

Structuring the learning environment in a way that supports the educator’s role is often referred to as the ‘third teacher’ consistently referenced in the pedagogical practices of Reggio Emilia (Edwards et al., 1998; Gandini, 1993; Rinaldi, 2006). In
order to act as an ‘educator’, the environment needs to be flexible and remain up-to-date and responsive to the needs of children. The environment is respected as a protagonist in the construction of knowledge. In the words of Loris Malaguzzi:

> We value space because of its power to organize, promote pleasant relationships between people of different ages, create a handsome environment, provide changes, promote choices and activity, and its potential for sparking all kinds of social, affective and cognitive learning. All of this contributes to a sense of well-being and security in children. We also think that space has to be a sort of aquarium that mirrors the ideas, values, attitudes, and cultures of the people that live within it (Edwards et al., 1998, pp. 148-149).

Educators therefore must respect the physical environment for the contributions it can make in assisting and supporting children’s learning. Structuring the environment takes care and consideration and impacts largely on how children will interact and engage with activities and each other. Joan explained this stating:

> I think they (children) see the educators respect the environment. We respect the environment and we want the children to have quality things to play with; we want it to be an environment where it does look like the educators have taken the time to do something special for the children. So they come in where there are all these invitations to go and play and I think the children see that, their families see that as well. From the youngest right through, they are taught that level of caring for the environment, caring for the resources.

The following photo demonstrates how respect is modelled for children within the learning environment at centre three.
In this picture it is clear to see that the educators at this centre have guided the children in respectful play where they feel safe to leave their constructions in order to return later to them. The simple placing of a name card that the children access themselves, allows other children to see who is building there and to be respectful by not dismantling it. Children were also shown respect by the educators through the provisions of additional special resources such as the small coloured glass rocks and a fragile construction of the Eiffel Tower on display.

Joan mentioned that they collected interesting resources from places like the Smith Family and second hand shops. At this centre, beautiful wooden tables were provided for activities and novel objects were placed in areas to provoke children’s interest. As a researcher, I made note of how the educators at Joan’s centre deliberately included authentic resources in their learning environments. Outdoors included the use of real shovels, spades and natural resources, while indoors incorporated real paraphernalia acquired from local restaurants, hair salons and airports. These resources were collated and sorted into boxes for children to use during play experiences. Joan’s reasons for this were that:
You should have real resources, not pretend ones. If you are going to have a Hospital, don’t have plastic hospital sets.

This belief echoes past theorising by Montessori where children are encouraged to interact within carefully prepared environments with authentic resources and child-sized equipment (Pope Edwards, 2002). At Joan’s centre it was important that educators demonstrated respect toward resources and the children’s physical environments as part of their high expectations for children’s learning. Care was taken in how resources were stored and placed in the learning environment. Joan explained that:

It’s important to get your resources together, over the years we have ended up getting our resource boxes (together) so that you know they’re there when you need to use them and get to them straight away.

This belief represents the need for educators to be able to respond to children’s ideas and play, which forms an important aspect of curriculum decision-making (DEEWR, 2009). As recommended in the practices of the EYLF educators make use of “spontaneous teachable moments to scaffold children’s learning” (DEEWR, 2009, p. 15). Responsiveness enables educators to “respectfully enter children’s play and ongoing projects, stimulate their thinking and enrich their learning” (DEEWR, 2009, p. 15).

From field notes and photographic data it was evident that Nellie and Joan spent a lot of time organising the environment in ways that provoked children’s interests. It is interesting to note that at their recent accreditation, this centre was awarded as ‘Exceeding’ the National Quality Standards with specific comments from the assessors noting the high level of respect and care for the children’s learning environments. Following are a series of ten photos that demonstrate the high level of attention afforded to the physical learning environment by the educators at Joan and Nelly’s centre (centre three).
Figure 6.3 Intentionally designed learning environments (ten photos)
Nellie explained her reason why so much attention was placed on structuring the physical environment at her centre:

*I think it’s very important that as soon as a child arrives at a centre that they look around…I’d like them to come in and have a look in an area and straight away they want to be there; it needs to be inviting, interesting for them and very comfortable.*

Joan confirmed this stating:

*Yes, it’s invitations for learning, you look at it from a child’s point of view and there are so many interesting things in this environment and I really want to be here and I really want to have a go!*

Curtis (2004) refers to collections of interesting and carefully combined materials as ‘invitations’; invitations to respond to and enhance emerging interests, invitations to help children learn new skills and multiple uses for materials, invitations to offer activities and experiences with particular content knowledge,
and invitations to introduce children to new concepts and events. Carter and Curtis (2003) pose the question:

If we embrace the idea of the environment as a significant educator in our early childhood programs, we must expand our thinking beyond the notion of room arrangements. We must ask ourselves what values we want to communicate through learning environments, and how we want children to experience their time in our programs. From the physical to the social and emotional environment, how are we demonstrating that we respect and treasure childhood and the identity of particular children and their families? (p. 5).

This quote reflects the emerging theme of ‘respect’ for physical environments situated within data from this study. When learning environments are treated with care and intent, children respect resources and value their place of learning. How learning environments were structured, became an emerging theme for conversations during the second focus group session. Once again, the outdoor physical environment became the main concern for discussion. Educators from other centres voiced their frustrations with taking equipment outdoors. Participants from Carl’s centre (centre one), as well as Rita, Molly and Sam’s centre (centre two), admitted that they actually tell children not to take things outside as they end up in all sorts of places and then they cannot be found when you need them.

Molly explained:

The type of resources that can be outside and be contained is sometimes really tricky because we’ve got a couple of easement drains and things with little pieces end up down the drain. Then sometimes the weather is against you, things you can’t control but you can control inside.

Participants from other centres noticed that children showed very little respect for resources when outdoors. Rita explained it as:

It’s embedded into their practice. I know at our centre, they know outside is lots of running and climbing, whereas indoors it is calmer.

Carl added:
Even if you put blocks outside, we usually find the blocks get kicked and scattered.

Rita also mentioned:

*We had dress ups out this week and they absolutely love them, but they just get thrown in the general direction of the dress-up trolley when they've finished wearing them.*

These participants have noticed a drastic change in respect toward resources between the indoor and outdoor learning environments. As a researcher, I observed planned activities outdoors that were left unattended and in disarray at centre one and centre two. Educators at these centres struggled in their role to engage with children in these activities as other constraints such as supervision and routines impacted upon their ability to do so (previously discussed in chapter 5). Four main themes were emerging from the data in relation to the outdoor physical learning space: 1. The number of activity areas planned and set up for children; 2. The types of resources provided for children; 3. The belief that play should be structured or free; and 4. Child protection and the provisions of safe learning environments.

At Nellie and Joan’s centre (centre three) it was observed that equal amounts of planned activity areas were available for children indoors and outdoors. On average, there were ten to twelve small group areas that were well set up with careful consideration for the types of resources provided. Joan had previously indicated that her belief was that children should have real resources, not pretend ones and that the outdoors should have things in the outdoor area that you would normally do in the outdoor area.

From observations and photo data taken at centre three, activities incorporated the use of natural play: vegetable gardens, sand pit, dirt patch, plants, flowers, scarecrows, worm farms, painting easels, water play, and a permanently set up clay table with natural materials sourced from the play environment. In addition, resources such as baskets, spades, tubes, recyclable materials, branches and tree stumps were provided. Special attention and care was attributed to the aesthetics with beautiful archways and frames made from large sticks and timber.
It was obvious at this centre that equal attention was attributed to the outdoors as was the indoor learning environment. The latest additions were two scarecrows made by the children placed in the centre of a garden (see figure 6:4 below). Nelly stood beside two children stating:

*Aren’t they beautiful? We have made them a lovely garden, but we need to respect the butterflies by watching them carefully.*

![Scarecrows in the garden](image)

This intentional teaching practice supports the aims of the EYLF encouraging educators to take holistic approaches to teaching and learning focusing on connections to the natural world. This provides children with opportunities to understand and respect the natural environment and the interdependence between people, plants, animals and the land (DEEWR, 2009). At Joan and Nellie’s centre the high number of carefully planned activity areas in the outdoors restricted the amount of free running and promoted smaller groups of children at activities. The structure of this outdoor environment therefore allowed more time for educators to engage with children.
Educators play a vital role in determining how the physical and social environments contribute to children’s learning. When making decisions, educators need to take into account the local conditions, unique features and capacities of the setting, the ages of the children and the availability of resources. These decisions reflect educator’s beliefs and values as well as the philosophy of the centre (DEEWR, 2010; Siraj-Blatchford & Sylva, 2004). Tensions relating to the outdoor environment were raised at the second focus group session echoing further teacher beliefs, values and philosophies on play. Considerations for the amount of planned activities outdoors raised concern for how play should be experienced by children. Educators once again defended the idea of ‘free-play’, whereby children should have time to release energy running and roaming through nature outdoors. Some participants believed that freedom in play was becoming lost through the structuring of play. Rita observed how homes and neighbourhoods were losing that sense of free-play for children:

*It’s a concern, because lots of people are putting into their homes these ‘Jamie Durie’ succulents and plants that look great, but are very sterile, no flowers to pick.*

Molly also added:

*They have beautiful backyards. So you can’t kick a ball if the whole area’s paved and has beautiful expensive plants and pots.*

Participants in this study are theorising about play within their cultural settings and the impact of this on children’s growth and development. For example, Carl commented:

*People don’t let their kids play out on the street like they did when I was younger because it’s all built up now. You don’t know who your neighbours are anymore.*

Sally also noticed that:

*Even parks are very different sorts of places, there are very prescribed things, so you don’t have open spaces.*
These conversations present an emerging theme around an interpretation of structured play. Participants feel that within the broader community, the ‘freeness’ associated with play is becoming restricted, ultimately impacting on children’s physical development. Research has found that during the last century an overwhelming change in the nature of play in Western countries has resulted in a significant decline in opportunities for outdoor play (Clements, 2004; Francis & Lorenzo, 2006; Waller et al., 2010). Karsten (2005) argues that the loss of outdoor spaces for children as a result of urbanisation for example has led to a new type of childhood where children spend less time than ever before outdoors. As Ward (2013) explains, the natural world as a space for investigating children’s lived experiences has become less prevalent, while the built environment has become the dominant early childhood setting for where children spend their time.

It appears that some educators are advocating for free-play in response to the amount of structured play environments they encounter in a contemporary world. These findings are causing educators to re-evaluate their approaches to outdoor play. Carl further reflected on the importance of outdoor play and the impact on children’s physical development. At a recent staff meeting he attended, the educators at the Primary School mentioned how there were a lot of recent studies reporting findings that children don’t have fundamental movement skills anymore.

In support of Carl’s point, recent research reports on children’s limited opportunities to develop fundamental movement skills (FMS). According to a report by Barnett, Hardy, Lubans, Cliff, Okely, Hills, and Morgan (2013) on behalf of the Physical Activity and Sedentary Behaviour Stream of the Australian Child and Adolescent Obesity Research Network (ACAORN) preschools and schools were found to be limiting children’s opportunities to learn and develop proficiency in FMS. Acquisitions of FMS are developmentally sequenced, built upon multiple internal and external factors (biological, psychological, social, motivational, cognitive etc.). The process of acquisition occurs through a range of play experiences and structured programs (Hardy, King, Farrell, Macniven, & Howlett, 2010). It is suggested that ideally children “should develop FMS proficiency during early childhood and primary school through a range of opportunities including unstructured active play” (Barnett et al., 2013, p. 82), yet many children
are entering secondary school lacking FMS. From the study it was found that two-thirds of Year 6 children in NSW were not proficient at loco motor skills (running, jumping, hopping etc.) and two-thirds of girls and one-quarter of boys had low object control (ball handling skills such as throwing and kicking). Overall, 85 percent of Australian adolescents did not meet the National Physical Activity Recommendations of at least 60 minutes of physical activity per day (Barnett et al., 2013). Findings indicated the importance of mastery in basic FMS and the promotion of healthy lifestyles need to be part of public health, education and early childhood policy. Recommendations for early childhood programs included children engaging in unstructured active play as well as structured programs (Barnett et al., 2013; Hardy et al., 2010).

In response to recent findings many educators have participated in training programs in an effort to address these trending concerns. Molly mentioned that their staff attended a ‘Munch and Move’ program organised through NSW Health, the NSW Department of Human Services (Community Services) and the Local Health Districts. Training was provided in order to incorporate fundamental movements into the children’s learning activities. Other structured activities observed in centres where educators had participated in the Munch and Move program involved activities where children were encouraged to complete a set of basic skills. These ranged from obstacle courses to circle games within large group experiences. For example, before children transitioned from the outdoor to the indoor environment, Rita asked the children to complete a small obstacle course she had set up outdoors involving climbing, hopping, balancing and going through a tunnel. Children were encouraged to complete the course three times.

It was interesting that educators were now implementing structured activities in order to cater for children’s physical development, whereas in the earlier section, they were advocating for more free-play. It is worth suggesting here that if educators attended more to the types of resources provided outside and engaged in more intentional teaching opportunities with the children during free-play opportunities, then the need to structure play would not be an issue. Planned activities such as the obstacle course run the risk of play becoming a chore for children, rather than development occurring as a result of free engagement with
the natural world. What was missing from free-play environments were intentional teaching strategies of educators in facilitating children’s growth and development, particularly outdoors, where previously the role of the educator had been found to shift to a supervisory role. This further confirms the evolving practice of intentional teaching as it relates to structured, organised activities led by the educator.

On another occasion, Rita was observed talking to the whole group of children about their bodies and what food they need to make their bones grow strong and healthy. Recognising this as an intentional teaching moment, educators were asked at a following focus group session why they felt they needed to structure children’s play rather than allow children the freedom to explore movement through unstructured active play. Reasons for structured play centred on safety issues as found in the following conversations. Rita recalls:

*We have lots of boulders dividing. For a long time, I’m not sure why we used to say no-one was allowed on the boulders, but now we let them go in there. Two years ago they weren’t allowed, and they are just the most beautiful thing in the yard (see photo below).*

**Figure 6:5 Boulders in the garden**
Safety also appeared to become the main subject of concern for educators at this centre when considering incorporating natural aspects of the environment in children’s play. Rita described her feelings on this:

_We have a couple of trees. So there’s one tree, it’s only about this high (indicates height of about a metre) and my little girl said ‘can I climb that tree?’ and I said ‘no not today’ and then I thought to myself ‘why not?’ So I asked another educator to come over and I got a crate and I said ‘okay let’s work this out’. I then had a line of about fifteen children wanting to climb the tree and I was only letting them go to the first fork; but there were about three other staff there who were so stressed about me doing it - but the families loved it._

Carl agreed that when he lets children climb a tree at his centre, he is often frowned upon. Carl described this as a learning opportunity:

_We have a big tree too. They found a stick insect. It was because I let them climb that tree that they found it. If someone else was there it would have been a whole different experience._

Rita continued to explain how this event had caused staff at a meeting to say how they were really uncomfortable with her letting children climb the tree. Safety concerns associated with the risks such play may entail have led to a growing trend in risk management or risk minimisation measures, limiting children’s opportunities for positive risk-taking that fosters development (Jambor, 1995; Little, 2008; Little et al., 2011). Research on risk-taking has revealed there may be cultural influences tied to how educators carry out supervision outdoors (Guldberg, 2009; Little, 2008). Guldberg (2009) found Norwegians had a special love of the outdoors and were reluctant to restrict children’s freedom. In similar research, Norwegian, Swedish, Danish and Italian preschool educators also had fewer concerns about children’s risk-taking than American educators (New, Mardell, & Robinson, 2005; Sandseter, 2009).

Australia’s response to an identified need for protecting children has resulted in many legal requirements governing playground safety standards (Kidsafe, 2014a). For example, in relation to the equipment provided at a centre, the Education and Care Services National Regulation 2013 states under code C1 103:
The approved provider of an education and care service must ensure that the education and care service premises and all equipment and furniture used in providing the education and care service are safe, clean and in good repair.

Australian Standards for playground safety (AS 374) and risks assessed using the Australian and New Zealand playground standards (AS/NZS ISO 31000) are often referred to as what constitutes a safe environment for children. Restricting children’s play in order to protect them is linked to past images of the child as weak, innocent and in need of protection (Sorin, 2005; Woodrow, 1999). The educator’s role therefore is to provide a safe and secure play environment. Contemporary views of the child as ‘competent and capable’ (Millikan, 2003; Rinaldi, 2006; Woodrow, 1999) are challenging old views of children presenting the child’s need for confident risk taking in order to extend their abilities.

With more and more children attending early childhood services for long periods each day, it is becoming vitally important that services provide facilitative environments where children can safely take risks that extend their abilities (Greenfield, 2003; Milteer & Ginsburg, 2011). Environments that support risk-taking behaviours allow children to demonstrate they are capable, resourceful constructors of their own learning (Stonehouse, 2001; Tovey, 2007). A significant factor influencing children’s engagement in risky play is the attitude of the educators. Educators who had an interest in physical play and who enjoyed being outdoors were more likely to support children in risky play (Stephenson, 2003). Tovey (2007) found that while some educators expressed fear of litigation as the reason, others openly encouraged risky play.

It appears that Rita’s participation in this study as well as other recent workshops has caused her to reflect deeply on her pedagogical practice and to embrace more contemporary views of children as expressed by Sorin (2005) and Woodrow (1999). This has created discord amongst older staff who perhaps embraced more traditional values of child protection and safety and views of children in need of protection. Educators who attended workshops or engaged in research opportunities such as this study, were more likely to feel inspired to challenge their practice and take a leading role in implementing change. These workshops
may light a spark for change but can be difficult to maintain if there is not sufficient fuel to keep the fire burning. In Rita’s situation, not all educators had attended the same workshops that she did, or were involved in this study, making it difficult for her to implement and justify her changes. Educator’s beliefs have a significant impact on teaching practice and the types of environments, learning and play opportunities provided for children (Davies, 1997; Sandseter, 2007; Stephenson, 2003). Studies have found that even qualified educators have struggled with the notion of play without being able to develop clear understandings finding it difficult to synthesise beliefs about play with their teaching practices (N. Bennett, Wood, & Rogers, 1997; Jordan, 2003). Teacher beliefs are influenced by training and knowledge regarding child development and learning. It is apparent different theories inform approaches that develop into practice relating to how educators view children. It appears in this study that the more experienced and qualified educators, Joan, Rita and Carl, were more confident in challenging and changing their practice.

The EYLF draws from socio-cultural theories and contemporary approaches to early childhood education and care, challenging traditional ways of seeing children, teaching and learning. The EYLF encourages educators to investigate why they act in the ways they do and to discuss and debate theories, recognising how theories are used to make sense of what they do, as well as limit their actions and thoughts (DEEWR, 2009). The EYLF defines intentional teaching as being the “opposite of teaching by rote or continuing with traditions simply because things have always been done that way” (DEEWR, 2009, p. 15). Although it hasn’t been easy for Rita as she reflected deeply on her practice, there has been evidence of personal growth through this study, challenging personal beliefs causing dramatic changes to her pedagogical approach. When asked what has caused the changes, Rita explained:

This research has motivated me….it’s like any extra thing you do as an educator, like the sustainability workshop, it causes you to reflect, it changes the way you teach and the way you interact with the staff and the way you view your resources.
From data in this research, it has become evident that structuring of outdoor ‘learning experiences’ as opposed to a time for ‘free-play’ is becoming a frequent focal point for reflection and discussion among participants. Play and learning are natural components of children’s everyday lives. Play is often considered to be a practice initiated by children, while learning is seen as a result of practice initiated by adults (Samuelsson & Asplund Carlsson, 2008). In the context of early childhood curriculum, play and learning are often separated through the allocation of time. For example, group time, craft time, circle time, and free-play time outdoors are elements of what constitutes a normal routine day. From a child’s perspective however, play and learning are not separate practices. Children create knowledge as they play (Dau, 1999; Samuelsson & Asplund Carlsson, 2008). As Vygotsky emphasised, young children’s play is not frivolous; it is an intensely absorbing activity that serves as a powerful matrix for children’s learning and development (Bodrova & Leong, 2007; Nicolopoulou, 1993, 2010). Children’s playing and learning is always focused on something; therefore, the notion of a ‘free or aimless play’ environment may be considered a myth (Siraj-Blatchford, 2010). The next section of this chapter addresses how planning and management of the day impacts on educators and their intentional teaching strategies.

**Routines and Regulations**

Epstein (2007) suggests that the goal for intentional teachers is to offer a rich and varied mix of learning within a supportive framework. This involves consistent, yet flexible routines; a variety of types of activities; a variety of groupings, and allowing enough time for activities. In the three centres studied, data from chapter five has revealed how constraints involving routines and policies involving sun safety, impact on the quality of children’s learning and wellbeing. It has been identified that educators were struggling with decisions and practices about play in the outdoor environment largely due to teacher beliefs and philosophies on play and learning in the management of grouping and scheduling patterns of the day. Through the EYLF principle of ‘ongoing learning and reflective practice’, educators are encouraged to examine and review current practices and reflect on possible
changes. Such considerations may include issues relating to curriculum quality, equity and children’s wellbeing (DEEWR, 2009).

From the data educators revealed how mixed-aged grouping outdoors presented issues for them as educators. In addition to this however, are issues surrounding fair play, equity, quality of learning and children’s wellbeing. As mentioned, management of the physical learning environment and the types of resources impact children’s play and opportunities for quality engagement with educators. Educators were asked what they thought were the major constraints preventing them from interacting more with the children when outdoors. The following responses were found:

Sally: *It comes back to everyone being outside at the same time.*

As mentioned previously in terms of their role outdoors, educators felt that when all children were outside together their opportunities to engage with children diminished. Rita mentioned:

*It comes down to staffing and other things; you know what it’s like. Ratios play the biggest part in affecting our ability to be intentional in teaching. All the things you need to do, cleaning beds, doing nappies. I think it’s just the outdoors, because we are out there for such a long time.*

Carl also confirmed this stating that:

*From the last meeting, talking about how we should try and get learning centres and things happening in the outside environment; but it’s really hard because of the way staff are staggered throughout their shifts. Also, the way families drop their children off is very staggered.*

Rita also mentioned that the children’s wellbeing was a concern outdoors especially with regard to sun safety policies. Molly supported this mentioning that:

*You need to observe your UV index. The policies ask us to use sun protection methods; you’ve got your UV monitor like where you look on the Bureau of Meteorology and you can see where it’s at its absolute highest peak.*
These conversations highlight how management of the day and routines directly impact the role of the teacher; however consideration also needs to be directed to how these factors affect the quality of children’s learning and wellbeing. The role of outdoor play needs to be challenged not only for the benefits of connecting to natural spaces, but as healthy spaces for children to grow and develop. Australia’s concern for weather conditions impacting upon children’s well-being dominates how and when children can play outdoors. In comparison, Scandinavian countries promote children experiencing various weather conditions, and exploring the national landscape is widely encouraged, providing a more liberal approach to elements of risk in children’s activities (New et al., 2005; Sandseter, 2009; Waller et al., 2010).

In a recent report by Munns, Zacharin, Rodda, Batch, Morley, Cranswick, Craig, Cutfield, Hofman, Taylor, Grover, Pasco, Burgner and Cowell (2006) it was found that vitamin D deficiency and nutritional rickets are again emerging as major paediatric health issues in Australia and New Zealand. The major source of vitamin D is exposure to sunlight; however sun exposure is also responsible for non-melanoma skin cancers and melanoma in Australia. Thus a balance needs to be struck between children obtaining sufficient sun exposure to maintain adequate vitamin D levels and minimising the risk of skin cancer. Finding flexibility within regulatory requirements depends on educators who can negotiate the balance between managing risks and providing healthy opportunities for children.

Regulatory requirements for playground safety have previously been identified as having a detrimental impact on the quality of play and the benefits of risky play and its provision. In a study by Little, Wyver and Gibson (2011) regulations were identified as a key factor associated with practitioners’ inability to provide challenging experiences for children outdoors. Educators felt that regulations supported and constrained their practice, were inflexible and limited the types of experiences and equipment they could provide for the children. Childhood is viewed as a time for increasing independence and autonomy through learning to manage risks. Lester and Russell (2008) warn that an “increasing preoccupation with risk and fear has served to diminish the quality of play provision” (p. 152). Risky play such as providing experiences that offer extension and challenges for
Chapter 6: Structural elements of intentional teaching

the older group were often reconsidered due to safety concerns for younger children as indicated in the following discussions.

Sally explains:

You feel restricted for some activities. You can’t put the balance beams up that high because the babies are there.

Rita also mentioned that:

You find that the pre-schoolers outside can pretty much take care of themselves so you might be more focussed on the little ones that bite.

Rita described how different the outdoors was for the little children when they come outside before the older children:

Sometimes our babies room come out first and they just must love being out there with no big ones getting in the way; they have a lovely time.

Carl mentioned: And not worrying about getting squashed!

Molly agreed: Yeah, not get knocked over by a giant!

Rita mentioned that:

Sometimes they stay out after we’ve all come inside and they might just be in the sandpit, so they’re under the shade.

Such considerations relate to curriculum quality, equity and children’s wellbeing (DEEWR, 2009). It is at this point educators were beginning to consider the quality of learning for the children instead of just focusing on their role. Previously, it was discussed how philosophies of teaching were linked to the requirements of documentation where educators were concerned with ‘their own’ group of children. This approach overlooks the value of children in different stages in their development playing alongside each other. In reference to children’s zone of proximal development (ZPD), Vygotsky believed that the child can begin to perform at a higher level of ZPD through any type of social interaction including interaction with peers or children at other developmental levels (Bodrova & Leong, 2007).
The assistance of peers in children’s play promotes children’s cognitive, emotional and social development. Rogoff (1998) claimed that peer relationships enable children to explore ideas in a more equal relationship than with adults due to the power differential between adults and children that impinges on reciprocity. Children often were found to be more expert than adults in guiding participation in culturally-valued activity (Rogoff, 1998). In this example, play presents a perfect opportunity for educators to allow children to interact and to intentionally teach older children about caring for the younger ones. From the data it was evident that nobody had considered their role of intentionally supporting peer interactions and the value of learning that occurs through peer interactions.

Being flexible with routines is an aspect of intentionally managing the learning environment in order to enhance children’s experiences. The physical features of the environment have an important role in affording quality play opportunities for all children. Tovey (2007) argues that safe environments are not those that ensure safety from all harm, but rather are environments that are safe for children to explore, experiment, try things out and take risks. Finding flexibility within the constraints of regulations and the need to accommodate quality time for all children outdoors created tensions for participants. Educators appeared to struggle with taking a leadership role in changing aspects of the routine in order to accommodate the needs of children, whilst still remaining within the boundaries of regulatory requirements.

Research suggests that early childhood educators do not readily identify themselves as ‘leaders’. Many educators of the early childhood field have been noted for their reluctance to identify with the concept of leadership as part of their professional role (Rodd, 1994; Siraj-Blatchford, 2010; Siraj-Blatchford & Manni, 2006; Waniganayake, Morda, & Kapsalakis, 2000). Balancing requirements from a management perspective with leadership through pedagogical practice is a key responsibility of early childhood educators. With the ever increasing demands of accountability, these two roles are often in conflict creating tension between the leader’s commitment to managerial and leadership tasks (Jeffrey & Troman, 2004; Webb, 2005).
Part of taking a leadership role involves critical reflection of what could be done better and through their role as an educator, many know what changes need to be made. Yet Waniganayake, Morda and Kapsalakis (2000) found that many educators in positions of leadership identified the role of working with and managing adults difficult. Educators felt confident in their pedagogical leadership with children and families, but not when dealing with other adults or those in management roles. Participants in this research recognised that time for smaller group interaction outdoors would provide them with more meaningful interactions with children as well as time for each room to enjoy the benefits of the playground without the invasion of other or older children. Carl considered this but was quick to retract his opinion in light of what management would think:

*They don’t have time to play alone, I mentioned we might have to talk about it, but I think we’ve brought it up before but because of the sun safety and all the political stuff, I don’t know if they’d like it.*

Further in the conversation Carl also added:

*I think I’ve just given up trying. I used to push a lot and never got very far so I just do what I can in the room.*

Carl is expressing his frustration in feeling alone in his battle to improve the provisions for children in his care. The success of a setting in accommodating change is largely dependent upon the level of dedication, commitment and effort of the people within it. This commitment requires both the pedagogical leadership of the educator who has high expectations and is able to recognise the current, as well as the positional strengths of all those educators, families and children working within the setting (N. Bennett, Wise, Woods, & Harvey, 2003). Many challenges arise from attempts to encourage collaboration between different adults in different roles with a diversity of qualifications, ages, levels of experience (Siraj-Blatchford & Manni, 2006). It is interesting to note that Carl left this service soon after the research concluded.

What the educators in this study were wanting was greater flexibility for routines providing more variety in grouping children while still maintaining safe practices. Educators identified that there is a need to allow children time to play within small
groups promoting equity between ages ensuring that all children are able to interact fairly with materials, each other and their environment. While consistent routines have been found to assist in the emotional wellbeing of the child (Laevers & Moons, 1997; Siraj-Blatchford & Manni, 2006), too many constraints may create barriers for learning. The EYLF promotes a flexible framework where educators can recognise and respond to barriers so children can achieve learning outcomes. In response, educators are urged to challenge current practices that contribute to inequities and make curriculum decisions that promote inclusion and participation for all children (DEEWR, 2009). The next section draws from data supporting how educators were engaging children and their families in their role in intentional teaching as they develop ongoing learning for children.

**CO-CONSTRUCTING A CURRICULUM FRAMEWORK**
The EYLF provides a broad direction for educators to facilitate children’s learning, guiding them in their curriculum decision-making. The framework supports a model of curriculum as an on-going cycle (DEEWR, 2009). From this perspective, the EYLF provides the structural support for which curriculum develops within it. Curriculum under the Framework is not prescribed; rather it emerges as educators work in partnership with children and families. Contemporary approaches to curriculum promote theoretical stances that value and recognise curricula as complex, contested, contextual and culturally-bound (Cannella, 1997; Dahlberg, Moss, & Pence, 1999; MacNaughton, 2003; Ross, 2000). According to Grundy (1994) curriculum is identified as a series of phenomena that are constructed and reconstructed on a moment-to-moment basis during pedagogical relationships. Educators therefore have a key role as curriculum decision-makers (Connelly & Clandinin, 1988).

Within the EYLF, educators are encouraged to provide children with a wide-range of experiences acknowledging that children learn in a variety of ways. In order to engage children actively in learning, educators: “identify children’s strengths and interests, choose appropriate teaching strategies and design the learning environment” (DEEWR, 2009, p. 9). Outcomes are intentionally broad, designed to capture the integrated and complex nature of learning and development, in
particular, individual children’s pathways for learning. The EYLF supports educators scaffolding children’s learning within a model of curriculum decision-making that is an ongoing cycle (DEEWR, 2009). This shift from an outcome-based learning model (as intended in the High/Scope approach) toward broad goals for learning based on children’s interests is what defines the EYLF as a contemporary approach to early education and care.

Sociocultural approaches involve participation in activities that include the individual’s contributions as well as those of other people. Vygotsky (1930, 1978) presents the social process of learning and teaching where children’s cognitive activity occurs primarily through social interactions. Bennett (2004) identified this process through a ‘social pedagogy’ approach, whereby curriculum is developed at a centre level. Rather than prescribing a curriculum by specifying any pre-defined knowledge, skills or attitudes that children would require to achieve in everyday life, the central aim of social pedagogy is to empower children as active citizens so they can act to change their own lives (Siraj-Blatchford, 2010). This approach has been particularly influential in recent years throughout Europe, Sweden and Italy. The EYLF has drawn largely from social pedagogy with regard to curriculum decision-making, highlighting the importance of building relationships with children and families in order to work together in the construction of the curriculum and learning experiences (DEEWR, 2009).

According to the EYLF, pedagogy involves “early childhood educators’ professional practice, especially those aspects that involve building and nurturing relationships, curriculum decision-making, teaching and learning” (DEEWR, 2009, p. 9). Siraj-Blatchford (2010) also refers to pedagogy as “the full set of instructional techniques and strategies that enabled learning to take place in early childhood that provide opportunities for the acquisition of knowledge, skills and attitudes and dispositions” (p. 149). These definitions are broad enough to also encourage the involvement of parents and community. The next section will describe and explain how educators engage children in activities and respond to individual children’s learning pathways as well as use strategies to include families in the building of the curriculum.
Responsiveness to children’s strengths, abilities and interests encourages children’s motivation and involvement in learning (DEEWR, 2010; Fleer, 2010; Gandini, 1993; Hickey, 1997; Laevers & Moons, 1997; Moll, Amanti, Neff, & Gonzalez, 1992). Involvement means that the child experiences intense mental activity, functioning at the very limits of his or her capabilities, with an energy that comes from intrinsic sources (Laevers & Moons, 1997). Csikszentmihalyi (1996) speaks of this feeling of satisfaction and stream of energy as the ‘state of flow’. Involvement for children operating within this state where the activity matches their capabilities can also be referred to as being in the zone of proximal development (Vygotsky, 1930, 1978). For young children, this state, or operating within one’s zone, usually occurs through spontaneous play and daily interactions with others.

Vygotsky believed that children’s informal daily interactions provide a foundation for future scientific and conceptual knowledge (1930, 1978). From engagement with social and cultural activities, learning is internalised by children and later represented or re-created within their environments. For children, the development of knowledge occurs through play. According to the EYLF, a play-based curriculum is “a context for learning through which children organise and make sense of their social worlds, as they engage actively with people, objects and representations” (DEEWR, 2009, p. 46). From a socio-cultural perspective it is important for educators to examine closely children’s interests as they consider an inquiry-based approach to curriculum and pedagogical practices. In addition, further investigation of cultural practices and consideration for which members of their families and communities might influence these interests, should contribute to educators curriculum decision making.

Educators respond to opportunities for spontaneous learning by providing stimulating interventions that support children’s autonomy and scaffold learning (Laevers & Moons, 1997). According to the EYLF, scaffolding involves the educator making decisions and taking actions that build on children’s existing knowledge and skills to enhance their learning (DEEWR, 2009). Carl described how he responded to the interests of children with the aim of extending their knowledge further:
They were drawing pictures of under the sea creatures, so I found a book called ‘Under the deck of the wreck’ and so that sparked an interest. I was then talking about what sort of animals we have and found some national geographic books. We’ve got heaps of those in our room. I got the children to look through to see if they could find any sea creatures. Using post-it notes we stuck them in and had a look at what they wanted to learn about. They were able to share what they knew about them. We are now building up an area with the information.

Carl also mentioned how the flow on of interest reaches the home:

They’ve brought in lots of resources. He went shopping with his Mum and every week he comes in and says ‘I found this, we could make this’ and he sort of leads the program.

It’s interesting because Carl then pauses and asks the question:

But that’s not really intentional teaching though?

This example provided by Carl is indicative that even though there appeared to be a narrow understanding of intentional teaching, Carl was demonstrating the broader definition of intentionality in his practice through the involvement of families in his program. Other participants commented on how they were including families and children in important curriculum decisions. It was interesting at this point of the research that as participants were reflecting on their practice, confusion of the relevance to intentional teaching had surfaced. As found previously, intentional teaching has been viewed by participants as the role of the teacher to ‘teach’ the children. In this example, educators were now considering how curriculum is shared and negotiated with other key stakeholders. Previously held notions of intentional teaching were now being challenged with what educators were now experiencing as they explained their everyday practice.

Epstein (2007) noted that a significant aspect of intentional teaching is how educators communicate with families about the “balance between adult-guided and child-guided experience, as well as encouraging families to also be intentional in providing their children with both kinds of experiences outside of the classroom” (p. 10). Rita and Carl continued the conversation of family involvement:
Rita: *That’s right and supporting their ideas. I think it’s definitely helping when we have families that are involved.*

Carl: *Yeah! Yeah the families are getting into it.*

Rita: *Families are definitely getting more involved. I think it’s the projects that are helping (yeah). I think having the displays of the projects. We send home the documentation we have. It goes home in their folder with a form that says ‘have you enjoyed reading our project so far? What would you like to see next?’ I think it’s helping us to be more inclusive.*

What is interesting from this conversation is that whereas educators have the desire and aim to be inclusive of families, they were not directly involving families in curriculum decisions or encouraging caregivers in their role outside of the centre. A more constructive approach for family inclusion would be to ask families if they could contribute to children’s learning either at the centre or in the home environment, or indeed lead learning by contributing funds of knowledge (Moll et al., 1992).

The EPPE report in the UK found a clear link between family involvement and outcomes for children indicating that excellent centres were found to have ‘strong parental involvement, especially in terms of shared educational aims with parents’ (Siraj-Blatchford, 2010, p. 161). Case studies of effective practice by Siraj-Blatchford (2010) indicated that where special relationships in terms of shared educational aims had been developed with parents, and pedagogical efforts were made by parents in the home, sound learning took place. Excellent settings in the study were indicative of shared child-related information between parents and educators. Parents were often involved in decision making about their child’s learning program. Efforts were made to share curriculum, pedagogical strategies and educational aims with parents and advice was offered on how parents could complement this in the home. The idea that learning occurs as people participate in shared endeavours with others, with all playing an active role in sociocultural activity is often referred to as a ‘community of learners’ (Rogoff, 2010).

The term ‘community of learners’ has been used extensively to represent a sense of belonging and shared purpose among a group of people (Grossman, Wineburg,
& Woolworth, 2001; Lave & Wenger, 1991; Rogoff, 1998; Rogoff, Matusov, & White, 1996). Children and adults together are active in structuring shared endeavours, with adults responsible for guiding the overall learning process as children learn to participate in the management of their own learning and involvement (Dewey, 1990/1902; Rogoff, 2010; Tharp & Gallimore, 1988; Wells, 2001). Further, the concept of a community of inquiry advocates the way educators respond to children’s real questions (Wells, 2002). The focus is on intent participation and involves inquiry-based interests. It also emphasises the role of children’s prior knowledge and views children as capable and competent agents in their own learning (Wells, 2001). A community of inquiry enables a collaborative approach toward the co-construction of curriculum involving reciprocal and responsive pedagogical relationships.

The EYLF encourages a holistic approach to teaching and learning recognising the connections between children, families and communities in partnership for learning (DEEWR, 2010). Educators are encouraged to create welcoming environments where children and families are respected and actively encouraged to collaborate with educators about curriculum decisions in order to ensure meaningful learning experiences (DEEWR, 2009). Patterson and Fleet (2003) suggest that the notion of curriculum emerging from children’s spontaneous interest as well as adult-initiated ideas forms the basis of a curriculum. Malaguzzi (1998) explains that “what children learn does not follow as an automatic result from what is taught. Rather, it is in large part due to the children’s own doing as a consequence of their own activities and our resources” (p. 59).

Children take an active role in the construction and acquisition of learning and understanding. Children and adults are viewed as co-creators (Patterson & Fleet, 2003). In this study, finding a balance between adult-guided and child-initiated experiences proved challenging for educators. When involving children, educators mentioned how through their own excitement for projects they would come up with many ideas for activities, however, had to stop sometimes and listen to the direction children wanted to take. Rita described how:

*You have to allow yourself to let it go in a completely different direction. These things you think are going to be amazing. My Aunty donated an overhead*
projector, it was really old, but they had fun, I mean I had fun; it was amazing, thinking we’d probably have it for a little while, maybe add some glass things and shapes, but they just wanted the overhead with their hands on it. I think it’s not limiting them at all or putting your ideas in.

Whereas Rita is stating her excitement for spontaneous learning opportunities for the children, there is no mention of how this relates to her intentional teaching practice. As educators monitor and document children’s learning, they are also encouraged to plan opportunities for intentional teaching and knowledge building (DEEWR, 2009). The EYLF suggests that intentional teachers recognise that “learning occurs in social contexts and that interactions and conversations are vitally important for learning” (DEEWR, 2009). Responding to teachable moments as they occur is an important aspect of including children in curriculum decision-making. Not being afraid to allow children to participate in the program was also demonstrated in practice with Carl stating:

You don’t have to be thinking of what to put into the program all the time because the kids know what they want to do.

Carl’s reflection on conversations and his own practice has caused him to reconsider the child as a co-contributor to curriculum choices. Carl mentioned:

It’s making me think more about making it open-ended to the children, like when starting the day. Asking the children or reflecting on what we did in the past couple of days and then inviting the children to expand on it, share their understandings and then work out where to go from there. Having the children direct it; which is something I’ve always wanted to do in other centres. So it’s good having this study as a kind of excuse to do that.

Carl’s pedagogical practice is starting to reflect more contemporary theories, viewing the child as a capable contributor and decision maker (Wells, 2002) however his approach still echoes traits of child-centred pedagogy within a democratic learning space. Langford (2010) proposes that a democratic pedagogy places children and adults at the centre so they can commit to something and share dialogue in order to share meanings. Providing a democratic centre, where everyone comes together in the common enterprise of teaching and learning
addresses concerns of the separation of children and adults in a child-centred approach. This also allows for the opportunity for intentional teaching and intentional learning to co-exist.

Learning that takes place within a democratic centre involves a process whereby ‘children, peers, teachers and families are actively, authentically and meaningfully engaged in the social and co-construction of knowledge and skills’ (Langford, 2010, p. 121).

Carl is acknowledging that children have rights as citizens in the democratic centre of early education pedagogy and is keen to allow children more control over directing the program; however he is unsure how to go about this in practice, drawing from this research a reason to do so. Like the example with Rita above, Carl also is not making the connection between children’s contributions to learning and his role as an intentional teacher.

Pedagogical relationships as part of socio-cultural ideas are participatory, mediational and allow for flexibility in changing roles of participants as teachers and learners. Co-construction views development and learning as occurring through dynamic, complex exchanges between children and their everyday interactions (Valisner, 1993). Negotiating a curriculum accommodates the prior experiences and prior knowledge of children and their families, characteristic of social and democratic pedagogy. The process of co-construction is potentially empowering encouraging both educators and children and their families to have an active role in the teaching and learning experiences. The importance of this, as continually emerging from this study, is a developing awareness of the child as an intentional learner as part of the intentional teaching/learning nexus through the negotiation of curriculum.

SUMMARY
An analysis of structural elements identified from the data has revealed emerging themes that have impacted on the intentional teaching practices of educators. In addition, considerations for how various constraints affecting not only the educator, but the learning capacities of the child have also surfaced. How
educators intentionally structure the physical learning environment, has raised issues relating to child safety and regulatory requirements, greatly impacting intentional teaching opportunities for engagement between children and adults. To be licensed, a centre must comply with applicable standards and this primary concern and responsibility of educators is very apparent in the structuring and management of the program.

Continual reflection on practice and confidence to take a leadership role in decision making appeared to be a critical enabler of intentional teaching practice whilst encountering many constraints. Another important finding from this chapter has been acknowledgement of the learner in the construction of the curriculum as well as what it means for family participation as part of social pedagogy. Finding a balance between adult-guided and child-guided learning opportunities requires further understanding for the teachers’ developing identity of the child as an intentional learner. There is further scope to extend the identity of an intentional teacher to the intentional adult or relevant caregiver in the child’s home environment. This chapter has presented analysis of data on elements of quality pedagogical practices and curriculum decision making as part of structures supporting intentional teaching.

The next chapter presents analysis of the data in relation to the processes that occur within structural elements of learning environments, presenting a much closer representation of the types of strategies used by educators as intentional teachers. These process elements will be examined in order to respond to the research question: *What types of intentional teaching strategies do educators use in their practice with young children?* Emerging strategies will be compared to what is defined as intentional teaching practice, as described by Epstein (2007) as well as articulated in the EYLF. Close interpretations of new and emerging themes of strategies used by educators during everyday practice were analysed through the coding and classification process of transcribed observations and recorded interactions using NVivo data analysis software. In addition, further analysis will present new data identifying the intentional learning strategies of the child.
Chapter 7

Processes elements of intentional teaching

Chapter seven will investigate closely the processes between educators and children in order to answer the research question: *What types of intentional teaching strategies do educators use in their practice with young children?*

The previous chapter examined the structural elements of specific environmental factors relating to the physical learning environment, routines and regulations and co-construction of the curriculum. These elements were found to provide the structural support for the role of the educator. Preparation of ‘structural elements’ of the learning environment supports the development of ‘process elements’ relating to the relationships children develop through every-day experiences with educators. In this chapter process elements of intentional teaching will be examined. ‘Process’ quality consists of what children actually experience in their programmes and are thought to have an influence on children’s well-being and development (Litjens & Taguma, 2010; Sylva, 2010). These processes are what Vygotsky (1978) refers to as the complex synthesis of interdependent processes that occur within the social relationship of the zone of proximal development (ZPD).

**INTRODUCTION**

This chapter extends on the work of Berliner (1992), Epstein (2007) and Siraj-Blatchford (2010). What was revealed through a micro-analysis of observations involving six educators at three early childhood centres was a more comprehensive set of intentional teaching strategies than previously identified in the literature. Whereas previous lists of strategies identified by Berliner (1992), Epstein (2007) and Siraj-Blatchford (2010) were constructed from cultural and social contexts within the UK and the USA, they provided a foundational point for creating strategies within the Australian context. The use of any tool, such as a list
of strategies, carries with it remnants from its origins. Given our broadly similar cultures it was not surprising that many strategies were the same.

It is interesting to note that whilst educators in this study struggled to define intentional teaching, they were actually enacting many strategies characteristic of intentional teaching in their everyday practice. This chapter identifies the intentional teaching strategies through observations and transcripts made of educators as they interacted with children at their centres. Firstly, the importance of sustained shared thinking (Sylva et al., 2010) will be presented. Secondly, the identification of intentional teaching strategies that emerged from the data as participants engaged in everyday practice is identified. Thirdly, how educators incorporated intentional teaching strategies differently in the outdoor and indoor learning environment will be discussed. Finally, this chapter describes and explains questioning techniques used by participants as well as how questions are used in relation to grouping patterns with children. In addition, this chapter will continue to identify children as intentional learners and present further findings exploring the intentional learning strategies of children as they actively participate and contribute to their own education.

As a result of this study, this chapter includes a revised definition for an intentional teacher as well as provides new definitions for the intentional learner and intentional curriculum in order to extend the current understandings of intentionality as it applies within an early childhood curriculum framework. This chapter focuses specifically on the process elements of everyday interactions between educators and children. The following diagram outlines the previously identified structural elements: the physical learning environment, routines and regulations and the co-construction of a curriculum framework as well as introduces the process elements identified as part of the intentional teaching strategies of educators and the intentional learning strategies of children that will be explored and discussed in this chapter.
Interactions between children, educators and peers can determine, more than any other element, what they learn and how they feel about learning (Pianta, 2003). In early years education, learning is largely a social process where responding and connecting with young children means recognising that relationships form the foundation for learning. Vygotsky (1930, 1978) claimed that the social context of learning constitutes a critical component of the way learning may be understood. In particular, Vygotsky identified the important role educators play in mediating and supporting children’s learning within social contexts. In contemporary approaches to early education Malaguzzi (1998) believes that relationships and learning coincide within an active process of education. He states “they come together through the expectations and skills of children, the professional competence of adults, and more generally, the educational process” (p. 59).

Through everyday interactions with children, educators use a number of key strategies that not only enhance relationships but support the process of learning and challenge children’s thinking.

Epstein (2007) identified eight core strategies by which intentional teachers establish an environment that is interactive and conducive to children’s learning and development. These strategies involve educators: meeting basic needs of

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**Figure 7.1 Process elements of intentional teaching within structural support**

- **Process elements:**
  - Sustained shared thinking
  - Intentional teaching strategies:
    - explicit/mediating
    - Indoor and outdoor spaces
    - Questioning techniques: Open/closed
    - Grouping patterns
    - Children’s questions
    - Intentional learning strategies
children; creating a warm and caring atmosphere; encouraging and supporting language and communication; encouraging initiative; introducing information and modelling skills; acknowledging children’s activities and accomplishments; supporting peer interactions; and encouraging independent problem solving. The aim of this chapter is to look deeper at what types of strategies one group of educators were using as part of their intentional teaching within Australian contexts. While it was helpful to have Epstein’s eight core strategies for consideration, it was expected that this list would not be definitive.

Observations and transcripts of interactions between educators and children at participating centres allowed instant coding and categorisation of themes as they emerged from the data. Coding allowed me as a researcher to conceptualise the underlying pattern of a set of empirical indicators within the data as a theory that explained what was happening in the data (J. Holton, 2007). This information was then presented to participants at focus group sessions for discussions that allowed collective interpretations to be gained. Within interpretivist traditions of constructivist grounded theory (Charmaz, 2006; Lowenberg, 1993) coding a range of data and using researcher memos for describing what was happening during interactions allowed participants opportunities for reflection on personal practice. Triangulation of data with participants not only promoted the credibility of the research but was useful in the generation of theoretical categories creating conditions for this co-constructed grounded theory methodology.

Analysis of a total 117 digitally recorded and transcribed interactions from three participating centres as well as observations and photographic data has identified a wide range of strategies used by participants in this study. From previous chapters it was found that educators struggled to explain or define intentional teaching. In this chapter analysis of participants’ everyday interactions with children revealed strategies indicative of intentional teaching that they had not previously articulated. Implicit in educators’ actions were notions of the teaching/learning nexus. This study allowed participants to recognise actions as intentional teaching without previously naming them as such. Theoretical sampling was useful for elaborating and refining key categories (Charmaz, 2006) as these strategies were presented and discussed at focus group sessions.
Categorising themes with participants into key strategies relating to their intentional teaching practice allowed the researcher to check out hunches and refine ideas from memos.

Lincoln and Guba (1985) suggest that trustworthiness, credibility, dependability, transferability and confirmability are criteria for qualitative research. Persistent observation in the field with participants, peer debriefing and member checks have been useful tools for ensuring the dependability of this research. Participants appeared to be delighted in being part of the research process and were eager to hear some of the initial findings and emerging themes from the data relating to their practice. As Charmaz (2006) explains, reciprocities are important in developing trust and ongoing relationships. At the second focus group session the researcher said: *It’s interesting to share with you from the data just how many intentional teaching strategies you actually use.*

This was responded by Rita with a big ‘Woo hoo!’

The researcher then stated: *I don’t think you are actually aware of all the strategies you use. In this focus group we have talked about eight strategies already, however, in your everyday practice there are already about 24.*

Participants responded again with:

*Woo hoo! Excellent!* and lots of laughter.

I assumed that the laughter was a sign of relief that perhaps revealed hidden tensions around expectations of their practice under a newly introduced pedagogical expectation. In reflecting back to participants the researcher stated:

*The strategies I have coded as well as some that you have mentioned so far include: scaffolding, co-constructing, giving directions, questioning, listening to their ideas, finding out what they already know, being spontaneous to ideas and supporting. Is this right? Have I missed any?*

Participants agreed with this list and had no other contributions. When asked what the purpose was of using these strategies discussions centred on the need for sustaining children’s interest and to keep them focused on learning. Intentional
teaching strategies have been identified as the processes of interactions that sustain interactions between educators and children and between children themselves. The EPPE report found that in ‘excellent’ centres, educators encouraged ‘sustained shared thinking’ a concept defined as “an episode in which two or more individuals work together in an intellectual way to solve a problem, clarify a concept, evaluate activities, extend a narrative etc.” (Siraj-Blatchford, 2010, p. 157). When this occurred it was found to extend children’s thinking and was noted as a feature of practice in centres rated as excellent.

**SUSTAINED SHARED THINKING**
Sustained shared thinking involves interactions between children or children and adults as they engage in conversations that extend thinking. Siraj-Blatchford (2005) identified some strategies educators could use when engaging children in sustained conversations. These include: tuning in, showing genuine interest, respecting children’s own decisions and choices by inviting children to elaborate, re-capping, offering the adult’s own experience, clarifying ideas, suggesting, reminding, using encouragement to further thinking, offering an alternative viewpoint, speculating, reciprocating, asking open-ended questions, modelling thinking, and using positive questions (what would happen if..) and making-sense words (I think, I agree, I wonder, I don’t like). The identified strategies from Siraj-Blatchford’s research in addition to Epstein’s (2007) eight core strategies provided useful tools for further reflection and identification of other strategies participants may be using in their practice.

At the second focus group session the researcher noted with participants that the most frequently used strategies demonstrated in their everyday interactions were: explaining, instructing, giving positive feedback, extending knowledge, showing interest in children’s ideas as well asking questions. Sharing this data was useful for generating conversations around practice helping participants to make vital links to their everyday practice. Continual reflection with participants as well as the refining of data allowed categorisation of intentional teaching strategies to emerge into themes.
IDENTIFICATION OF INTENTIONAL TEACHING STRATEGIES

Intentional teaching strategies are not limited to what was found in this study and it is anticipated that as educators continued to reflect on their practice other strategies will be added. As previously discussed, this study builds on the already identified strategies of Berliner (1992), Epstein (2007) and Siraj-Blatchford (2005, 2010) providing further evidence of a much broader range of strategies as experienced by the participants in this study in Australia. This research explains and describes what strategies participants from three participating centres were found to be using over a six month period.

Table 7:1 lists 42 intentional teaching strategies used by educators in this study and the number of occurrences in the data collected from 117 recorded and transcribed interactions between educators and children. For ease of access, these strategies are presented alphabetically. Further analysis of these strategies will follow later in this chapter, specifically in relation to how strategies are organised as explicit or mediating teaching strategies.
Table 7.1 Intentional teaching strategies of educators

<table>
<thead>
<tr>
<th>Intentional teaching strategies</th>
<th>Number of occurrences</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ask children to describe their</td>
<td>Modelling thinking</td>
</tr>
<tr>
<td>efforts/ideas/products</td>
<td>52</td>
</tr>
<tr>
<td>Challenge</td>
<td>Negotiate</td>
</tr>
<tr>
<td>Clarify</td>
<td>Offer alternative viewpoint</td>
</tr>
<tr>
<td>Co-construct (knowledge)</td>
<td>Offer assistance</td>
</tr>
<tr>
<td>Collaborate – include families</td>
<td>Offer educators’ own experience</td>
</tr>
<tr>
<td>Co-problem solve</td>
<td>Plan</td>
</tr>
<tr>
<td>Describe</td>
<td>Provide choice</td>
</tr>
<tr>
<td>Encourage independent problem solving</td>
<td>Provide clues</td>
</tr>
<tr>
<td>Encourage initiative</td>
<td>Provide positive feedback</td>
</tr>
<tr>
<td>Encourage further thinking</td>
<td>Provide resources</td>
</tr>
<tr>
<td>Explain</td>
<td>Provoke/Stimulate</td>
</tr>
<tr>
<td>Extend thinking: introduce new information and new interesting words</td>
<td>Reassure</td>
</tr>
<tr>
<td>Facilitate</td>
<td>Re-cap, revise, reflect</td>
</tr>
<tr>
<td>Imagine</td>
<td>Remind</td>
</tr>
<tr>
<td>Instruct</td>
<td>Research</td>
</tr>
<tr>
<td>Involve or invite children</td>
<td>Respecting children’s ideas and choices</td>
</tr>
<tr>
<td>Make connections</td>
<td>Scaffold (skills)</td>
</tr>
<tr>
<td>Manage group or individual behaviour</td>
<td>Show interest</td>
</tr>
<tr>
<td>Model –skills, demonstrates</td>
<td>Speculate</td>
</tr>
<tr>
<td>Show concern (such as for safety)</td>
<td>Suggest ideas</td>
</tr>
<tr>
<td>Use of humour</td>
<td>Support peer relations</td>
</tr>
</tbody>
</table>

What this table demonstrates is that educators are using a wide range of strategies in their practice. In comparison to the eight key strategies identified by Epstein, and the sixteen examples provided by Siraj-Blatchford, this research has provided a much more extensive and detailed list. The EYLF encourages educators to draw from a repertoire of strategies to “extend children’s thinking” (DEEWR, 2009, p. 15). This table of strategies provides a useful tool for educators to draw from in their daily interactions with children as they interpret meaning for intentional practice. These findings have the potential to reconceptualise the role of the intentional teacher providing educators with a robust list of informative strategies derived from Australian contexts.
Epstein’s (2007) research on the intentional teacher was written for the National Association for the Education of Young Children (NAEYC) in the USA at a time when curriculum was developed for domains of learning such as literacy, mathematics and science (Schweinhart, 2003). Epstein’s book: *The Intentional Teacher: Choosing the best strategies for young children's learning*, is also reflective of NAEYC’s recommendations for best practices that underlie developmentally based programs (Epstein, 2007). In comparison, the EYLF is a contemporary curriculum framework that is not restricted to domains. Rather it encompasses all the interactions, experiences, routines and events that occur in the learning environment (DEEWR, 2009). Findings from this research reflect an holistic approach to teaching and learning identifying a broad range of strategies applicable to many aspects of the daily curriculum.

According to Epstein, an effective early childhood program combines both child-guided and adult-guided experiences. Adults play intentional roles in child-guided experience, and children have active roles in adult-guided experience (2007). Epstein suggests that ‘adult-guided’ learning involves educators taking a more active role in children’s play, ranging from mediating learning to more explicit methods of instruction. Mediating strategies refer to strategies such as scaffolding, whereas explicit teaching methods involve the educator demonstrating and directing (Arthur, Beecher, Death, Dockett, & Farmer, 2012; Bredekamp & Rosegrant, 1992; Mac Naughton & Williams, 2009). Cultural constraints impede on practice, in particular, how educators respond to and interact with children. The role of adults within the USA model proposed by Epstein (2007) is reflective of the philosophical and developmental theoretical underpinnings present at the time.

Evidence from this study indicated that different strategies were implemented for the purpose of promoting the involvement of children. This means that educators had to draw from explicit and mediating strategies in order to sustain children’s interest in their learning. These strategies were similar to Siraj-Blatchford’s strategies as this research had similar goals for sustained engagement through social practices. From the data, the most frequently used strategies found were: explaining, respecting children’s ideas and choices; clarifying; asking children to
describe or explain their efforts, ideas or products; extending children’s thinking by introducing new information and new interesting words; and suggesting ideas. Overall, educators were found to use many different strategies to extend children’s thinking. As the EYLF suggests, educators “move flexibly in and out of different roles and draw on different strategies as the context changes” (DEEWR, 2009, p. 15). Table 7:2 identifies strategies from this study into groups of explicit teaching and mediating strategies.

**Table 7:2 Explicit and mediating intentional teaching strategies**

<table>
<thead>
<tr>
<th>Explicit strategies:</th>
<th>Number of occurrences</th>
<th>Mediating strategies:</th>
<th>Number of occurrences</th>
</tr>
</thead>
<tbody>
<tr>
<td>Challenge</td>
<td>15</td>
<td>Ask children to describe their efforts/ideas/products</td>
<td>52</td>
</tr>
<tr>
<td>Clarify</td>
<td>52</td>
<td>Co-construct</td>
<td>42</td>
</tr>
<tr>
<td>Explain</td>
<td>58</td>
<td>Collaborate</td>
<td>11</td>
</tr>
<tr>
<td>Extend thinking: introduce new information</td>
<td>50</td>
<td>Co-problem solve</td>
<td>26</td>
</tr>
<tr>
<td>Instruct</td>
<td>29</td>
<td>Describe</td>
<td>10</td>
</tr>
<tr>
<td>Manage group or individual behaviour</td>
<td>19</td>
<td>Encourage independent problem solving</td>
<td>5</td>
</tr>
<tr>
<td>Model –skills, demonstrates</td>
<td>11</td>
<td>Encourage initiative</td>
<td>33</td>
</tr>
<tr>
<td>Model thinking</td>
<td>24</td>
<td>Encourage further thinking</td>
<td>25</td>
</tr>
<tr>
<td>Offer an alternative viewpoint</td>
<td>9</td>
<td>Facilitate</td>
<td>6</td>
</tr>
<tr>
<td>Offer assistance</td>
<td>11</td>
<td>Imagine</td>
<td>7</td>
</tr>
<tr>
<td>Offer educators’ own experience</td>
<td>11</td>
<td>Involve/invite children</td>
<td>29</td>
</tr>
<tr>
<td>Plan</td>
<td>14</td>
<td>Make connections</td>
<td>20</td>
</tr>
<tr>
<td>Provide positive feedback</td>
<td>41</td>
<td>Negotiate</td>
<td>5</td>
</tr>
<tr>
<td>Reassure</td>
<td>3</td>
<td>Provide choice</td>
<td>6</td>
</tr>
<tr>
<td>Re-cap, revise, reflect</td>
<td>23</td>
<td>Provide clues</td>
<td>20</td>
</tr>
<tr>
<td>Research</td>
<td>14</td>
<td>Provide resources</td>
<td>3</td>
</tr>
<tr>
<td>Show concern</td>
<td>7</td>
<td>Provoke/stimulate</td>
<td>19</td>
</tr>
<tr>
<td>Suggest ideas</td>
<td>45</td>
<td>Remind</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Respect children’s ideas/choices</td>
<td>55</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Scaffold</td>
<td>36</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Show interest</td>
<td>52</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Speculate</td>
<td>11</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Support peer interactions</td>
<td>41</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Use of humour with children</td>
<td>16</td>
</tr>
</tbody>
</table>
Although there are more strategies listed that promote mediation between educators and children in learning experiences, there is an extensive list, and arguably higher occurrence, of the use of explicit strategies indicating that the role of the teacher does have significance in leading children’s thinking. This also aligns with the principles of the co-constructivist approach of Vygotsky (1930, 1978) whose social interactionist theory argues that the greatest learning occurs within the Zone of Proximal Development (ZPD) (Arthur et al., 2012). The role of the educator involves switching between explicit and mediating roles in order to lead or scaffold children’s learning. Effective educators draw on a repertoire of pedagogical strategies selecting the most appropriate strategies when planning learning environments, responding to spontaneous learning opportunities and interacting during routines and transitions. Educators make professional decisions about when to guide a learning experience and when to allow children to take the lead. As Laevers (1995) describes, there is a subtle but intentional ‘dance’ between the child and the educator.

An emerging theme from this data was a focus on building children’s cognitive abilities through the co-construction of knowledge and use of explicit strategies by the educators including explaining, clarifying and extending children’s thinking. There was much more emphasis being placed on the role of the teacher as one who provides knowledge, rather than finding out what children already may know. There was lesser evidence for strategies that support children’s creative thinking within problem identification or problem solving opportunities. Showing interest, respecting children’s ideas/choices, and asking children to describe their efforts hovers around what children are doing, but does not engage meaningfully or deeply enough with what children know or are theorising about.

It was interesting to note that encouraging children to solve problems independently was only noted in five sources from the 117 transcriptions. This indicates that a much deeper level of mediation between the educators and children is needed if children are to develop the problem solving capacities necessary for their creative development. Further analysis of questions will be provided later in this chapter, while more intensive investigations for the connection between questioning techniques and creativity will be explored in
chapters eight and nine. The next section of this chapter describes how intentional teaching strategies relate to indoor and outdoor learning environments.

**INDOOR AND OUTDOOR LEARNING ENVIRONMENTS: IDENTIFICATION OF INTENTIONAL TEACHING STRATEGIES**

Previous findings in this study identified educators using intentional teaching strategies indoors more than outdoors. An initial question of the data now was to find out whether or not educators used different intentional teaching strategies when in different learning environments. Also described in the previous chapter, structural elements of intentionally planning for learning to occur within the physical learning spaces indoors and outdoors was an important aspect for allowing children the freedom to explore physically without restraint. Quality pedagogical practices involve the ability of practitioners to structure environments that promote optimum engagement for children. Educator’s abilities to structure holistic play-based environments are key indicators of quality (Elliott, 2006; Mould, 1998; Pramling, 1996).

As mentioned in chapter five, what children do when adults allow them to play freely is often referred to as ‘free-play’. Free-play is not frivolous, but an opportunity for children to take the lead in their play that is supported by adult guidance without smothering children’s own engagement and initiative (Nicolopoulou, 2010). This study supports the polemic relationship between play and learning through the revised definition:

Play encompasses the integration of thought and emotion. Multidirectional meaning making and learning occurs through complex symbolic constructions and desires as children participate in play. This duality in the process of play in terms of social and cognitive learning provides strong links to creativity. Play fosters unlimited potential for problem-solving skills through creative thought processes as children developimaginings about possible futures.
Although the notion of play may be interpreted differently by the participants in this study, this definition will represent what is intended when children’s play is discussed by the researcher.

Figure 7:2 was generated using NVivo 9 in order to code five most frequently used strategies as they related to the categories of indoor and outdoor planned group experiences.

**Figure 7:2 Indoor and outdoor planned group experiences**

This graph provides further evidence for how intentional teaching is dominating planned indoor group learning experiences. Educators were intentionally using large or whole group experiences indoors as a platform for teaching children curriculum content. Intentional teaching requires educators having strong content knowledge so they are able to “weave content information” (Schiller, 2009, p. 57) into learning opportunities and play experiences (Arthur et al., 2012; Epstein, 2007). Practitioner knowledge and understanding of particular curriculum areas has been identified as a vital component of pedagogy. Having a grasp of ‘pedagogical content knowledge’ was found to be an important aspect of education (Siraj-Blatchford, 2010). In this study educators were found to draw
from explicit strategies in order to lead children’s thinking at planned indoor group times much more often than through informal play opportunities.

The following example from an indoor group experiences demonstrates the educator’s use of explicit teaching strategies to shape and direct children’s thinking:

Educator: ___ you have your hand up you’ve been waiting beautifully what would you like to tell us? (manage behaviour of group).

Child: Ummm well….it moves…..and then you shake ….and then there’s a noise like that.

E: Really, you shake it? (clarify) Let’s listen again so we can hear what might be inside? Can you shake it again? What makes that sound? (closed questions, recap, instruct).

C: Rice!

E: Maybe when we’ve made ours we could get those ones out and see if they sound any different (music cupboard) (suggest idea) One might go chook chook chook the other might go chink chink chink. Let’s play yours and one of ours - do they sound the same? (suggest, instruct).

C: Noooo

E: What’s different about it? (challenge).

E: We don’t want to break it though…you know what though, I had a friend that lived in Matcham, I don’t think she’s there anymore, but she used to make maracas she had a special tree called a Gourd tree and it would grow these big fruits and she’d pick the fruits off and put them in a special room and dry them out for months….. So, when it dries all the meat dries away and all the seeds stay in there like a rattle (shakes maraca). (explain, demonstrate, introduce new and interesting words and information, offer educators’ own experience).

This large group activity is an adult-initiated and directed experience where the educator had a goal in mind for children’s learning. This type of guidance was useful for introducing new concepts and for developing systems of knowledge that extended children’s thinking around project work. Most project work was observed
occurring indoors, incorporating explicit teaching centred on building content knowledge. During a focus group session, participants were asked if they did any project work outdoors. The following responses were recorded.

Rita stated:

A lot of our intentional teaching moments are related to our projects indoors, our projects outside are very wide…

Molly added:

Free, interest based rather than having a goal in mind to achieve.

Figure 7:3 represents five frequently used strategies by educators during free-play experiences. As indicated, very few planned group experiences or opportunities to extend project work were implemented outdoors.

**Figure 7:3 Indoor and outdoor free-play experiences**

This graph contrasts significantly with the previous one finding that four of the five strategies were mediating strategies. The explicit strategy of extending children’s thinking was used to provide knowledge and introduce new ideas. This graph provides compelling evidence of intentional teaching practice occurring more
frequently within the indoor free-play learning environment as compared to outdoor areas.

There is a significant increase in interactions involving mediating strategies during free-play times as compared to planned group experiences. It is interesting to note the significant decrease in need for managing behaviours during free-play learning opportunities as opposed to large or whole group planned experiences. From observations this appeared to be reflective of social interactions between peers reducing the pressure on the teacher to lead or ‘teach’. In support of this emerging theory, there was also a high occurrence of educators supporting peer interactions during free-play rather than managing group behaviours as found during planned indoor group experiences. The following example from an interaction between the educator and a small group of children demonstrates how the educator used mediating strategies in order to scaffold and support children’s thinking:

**Educator:** So what's happening, with your drawing? (show interest, open question).

**Child:** I'm drawing...fairyland.

**e:** Fairyland. Wow what's happening in your Fairyland? (open question, asking children to describe their ideas).

**c:** A fairy is flying around and around and around and around and around and around and around and around and around and around and around and around.

**e:** Oh okay (positive response).

**c:** She's flying [around] her house [although] she doesn't know it's [her house], but she's trying to see which house is hers.

**e:** Okay, and how do you think she'll find that out? (extend thinking, open question).

**c:** I do not know.

**e:** I love how the fairy looks like. What's the fairy got on her? (positive response, asking children to describe, closed question).

**c:** A dress.
This example demonstrates how the educator used mediating strategies in order to scaffold children’s thinking through their play. This potential for sharing of knowledge is a Vygotskian inspired concept where the view of the child is a co-constructor of development within a culturally scaffolded context (Rogoff, 1990; Vygotsky, 1930, 1978). The next section of this chapter will discuss questioning techniques of educators as part of their intentional teaching practice.

**QUESTIONING TECHNIQUES**

Analysis of interactions formed two main categories: the amount of questions educators asked (as opposed to children’s questions); and the types of questions asked by educators with relation to different grouping patterns of children.

From the 117 transcribed interactions between educators and children, 116 contained questions asked by the educator. This implies that questioning is an essential aspect of educators intentional teaching practices. From the data it was found that educator’s questions formed a significant part of their pedagogical practice. Questioning was used as a means to bridge or sustain children’s interests (Siraj-Blatchford, 2010; Sylva et al., 2010). Evidence provided from the EPPE report found that adult modelling combined with sustained periods of shared thinking and open-ended questioning was associated with better cognitive outcomes (Siraj-Blatchford, 2010; Siraj-Blatchford & Sylva, 2004). According to Berliner (1992) educators pose questions to gain insight into what children are thinking and to stimulate their thought processes. Thoughtful questioning is part of intentional teaching and requires the educator to really think about the types of questions worth asking children. The next section of this chapter examines how questions are used by educators as part of their intentional teaching practice.

**AMOUNT OF QUESTIONS USED BY EDUCATORS**

From the 117 transcribed interactions in this study, educators were found to have asked children 1916 questions. This equates to an average of sixteen questions asked per four minute transcript. Although it was expected educators would use questions as a means for engaging children as they recorded dialogue, the actual
number of questions was surprisingly high. When presented to participants at the second focus group session this result was quite startling to them also. This prompted discussions on what strategies educators could use in order to find out what children wanted to know; what questions they might have. This implies that perhaps educators were becoming more aware of their ‘un-intentional’ practice. When educators were provided with their personal transcripts of recorded interactions, they were astounded by the amount of questions they were asking.

Rita stated:

*What I think we are getting out of this is how much you lead and how many questions we ask before allowing the children to give that answer.*

The other participants all agreed with her.

Rita responded: *Definitely! Yup!*

Sally commented:

*For me, when you said the amount of times we ask a question into the ratio that the children do…I thought about that a lot…*I feel like I’m asking, asking, asking, and not giving them a chance to answer back.*

Rita also commented:

*Definitely, we’ve spoken about that particular part…how we obviously go into a moment of teaching with our idea of what we want that outcome to be especially during our project work…we are so focused on getting that answer instead of just seeing what they do with the information.*

Carl mentioned:

*I thought the same thing, but I found by stepping back, the project seemed to go in all sorts of areas…..*

Rita reflected more stating that:

*It was the amount of questions…you know how you are asking a question of us now and you are giving us time and we’re thinking as adults…..*
Rita further commented:

We’ve been thinking about the types of questions that we’ve been asking and been really conscious of that…that was really an eye opener for me, that discussion group… I wanted them to learn the names of the planets and I wanted them to learn the order of them….I was so focussed on this….I talk about this now all the time…. Also when I read back on my transcriptions (I thought) you didn’t give them a chance to answer because they didn’t know the answer straight away. You’ve got to let them think about it.

These reflections are characteristic of intentional teachers. Epstein (2007) states that: “along with a spirit of inquiry and dedication to children’s well-being, intentional teachers engage in reflection and self-evaluation. They ask themselves what kinds of teachers they want to be” (p. 21). Malaguzzi (1998) suggested that teachers need to understand that professional growth not only comes through individual effort, but in a much richer way through discussions with colleagues and experts.

For the educators in this study it was nothing short of revelatory as they were asking so many questions. As a result all commented in subsequent focus group sessions how aware they now were and attempted to change this behaviour. There has been growing recognition of the powerful role of teachers as researchers within the wider international education community (Darling-Hammond, 1999; Gore & Morrison, 2000; J. Gray & Campbell-Evans, 2002; Kemmis, 2001). Involvement of educators in this research helps the institutions and the people who work in them raise questions regarding their own goals and everyday practice (Bauman, 1996). Focus groups in this study allowed educators time to reflect on their professional practice and to question what they know in order to search for greater understandings on how children learn and build their own theories of their practice.

The above statements further demonstrated educators’ use of explicit strategies when interacting with children in order to ‘take the lead’ in guiding children’s thinking and learning. Questioning children in order to lead their thinking toward a pre-determined goal set by the educator has become a powerful tool within
intentional teaching practices. Epstein’s definition of intentional teaching involves educators acting with “specific outcomes or goals in mind for children’s development and learning” (2007, p. 1). In comparison, the Australian EYLF has no ‘specific’ goals, curriculum content or specific outcomes for children’s learning. The outcomes of the EYLF are “broad and observable. Educators acknowledge that children learn in a variety of ways and vary in their capabilities and pace of learning” (DEEWR, 2009, p. 19). Differences in how content is constructed in the High/Scope approach and the EYLF may be attributing to some of the misinterpretations by educators in their intentional teaching.

In order to negotiate the transference of terminology from High/Scope to the Australian EYLF, this research suggests that a revised definition for an intentional teacher and intentional learner within the goals for an intentional curriculum should be considered. The following definition for an intentional curriculum, intentional teacher and intentional learner were developed from evidence in this study, building on Epstein’s definition as well as what is stated in the EYLF:

Intentional curriculum:

Is a co-constructed curriculum that supports the teacher-child interactions that occur throughout the day within social learning environments that are designed to support children’s learning, growth and development.

Intentional teacher:

Intentional teaching involves educators using specific strategies that support children’s progress toward broad outcomes for learning and development. Educators are deliberate, thoughtful and purposeful in decisions and actions involving planned and spontaneous teaching opportunities that arise throughout the day.
The following definition for an intentional learner is a new definition as a result of this study with the aim of acknowledging the children’s capacity to contribute to their own process of learning as co-constructors of curriculum:

Intentional learning involves children using specific strategies that enable them to progress toward their own goals for learning as well as broad outcomes for learning as supported by the educator. Children actively participate as co-constructors in the planning of curriculum and are involved in everyday decisions that impact upon their growth and development.

Ongoing critical reflection and analysis of taken-for-granted pedagogical practices is an essential aspect of intentional teaching within the EYLF (DEEWR, 2009). Reflective practice was also part of the methods used in this research. Participants were provided with a personal journal for jotting down their thoughts and ideas forming discussion points with each other at focus group sessions. Constructivist theories acknowledge the importance of active learning (Hatch, 2002) as well as the practices and actions of participants that included the interpretation of reality from multiple of perspectives (Charmaz, 2006). Discussions held during focus groups were invaluable for grounded theory development as they focused on the testing of theory and exploring categories which the participants developed as part of their own experience (Glaser & Strauss, 1967; Kitzinger, 1994).

When colleagues come together, they share meanings and behaviours and modify personal theories. As educators reflected on their transcripts and discussed together how they could improve their practice they began to identify other aspects of how they were using questions with children. Closer examination of transcribed interactions with children revealed how educators often re-phrased or re-asked the question without allowing children enough time to respond. The following four examples demonstrate how educators used a run of questions:

1. *That’s floating isn’t it? What happens when they sink? So what happened to it? Will this float or sink?*

2. *You like Rapunzel do you? What’s going to happen to Rapunzel in your story I wonder? Do you know what’s going to happen? A prince helps Rapunzel, how*
cool is that? So what happens to Rapunzel? How are we going to draw a picture of Rapunzel? But what happens to Rapunzel in the story? The prince comes to help, but why does the prince need to rescue Rapunzel? I’ll ask that big question again, why does the prince need to rescue Rapunzel?

3. What are you making? You don’t know? What are you using? What are these things?

4. Do you know what voting is? Who has an idea what voting is? What it means? What did we do? Can you remember what we had to do? What did we put in here?

From observations in the field the researcher noted that when the educator asked an initial question without waiting for a response (as found in the above examples), s/he often proceeded to ask more questions of a similar nature. Other questions were rote in nature, where the educator’s goal was to find out what the child knew. For example, when testing knowledge of colours:

What colour is this one? And what’s that one? And what’s the last one? What picture are you making?

Using questions in order to test children’s knowledge is a form of explicit teaching that narrows children’s thinking toward a desired outcome pre-determined by the educator. Rote questions (Siraj-Blatchford, 2010) often involving one word responses by children are a form of testing that is not a recommended element of high quality early childhood practice (Elliott, 2006; Siraj-Blatchford, 2010; Walsh & Sattes, 2005). Gallimore and Tharp (1990) state that there needs to be a clear distinction made between questions that ‘assist’ and those that ‘assess’. Assessment type questions are usually characterised by closed question types in order for an educator to inquire into the level of the child’s ability and performance without assistance. Assistance questions are open style questions that inquire to prompt a mental operation that the child could not normally achieve alone (Gallimore & Tharp, 1990).

Many researchers including Siraj-Blatchford (2005), Rogoff (1990), Rinaldi (2006) and Jordan (2003) emphasise the importance of sustained shared thinking (SST)
where children engage in meaningful conversations with educators. Nutbrown (2011) suggests that educators must be “tuned in to young children’s thinking, open to their ideas and responsive to ever active minds” (p. 149). Siraj-Blatchford and Smith (2010) also highlight the importance of adults showing interest in conversations led by the children and developing conversations without resorting to personal agendas. Testing of children undermines the quality of interactions and opportunity to seek the knowledge of children through genuine dialogue and discussion (Walsh & Sattes, 2005). Children may come to believe that educators’ questions are the clues about what is important to learn. The next section will present analysis on the types of questions used by educators.

**TYPES OF QUESTIONS USED BY EDUCATORS**

In addition to the amount of questions asked, discussions were held on the types of questions with data revealing a significant amount of ‘what’ questions as opposed to ‘why’ or ‘how’ questions. In a study by Sommer, Pramling Samuelsson and Hundeide (2010) on participation and learning in the early childhood context, three to six year old children were videoed in small group discussions with their teacher. The analysis was based on three questions: open-ended, time and opportunities for children to ask questions and participate and invitations by the teacher for children to share thoughts and experiences. The results showed that teachers asked mostly ‘what’ questions instead of ‘how’ or ‘why’, which provide children with an opportunity to explain or justify their thoughts or theories. Direct invitations and questions that invited children to share their thoughts were rare. Conclusions found that early childhood teachers require extensive knowledge of different ways of asking open-ended questions and ways to invite children to share and participate (Sommer et al., 2010).

Data from this study confirmed the findings of Sommer et al. (2010). Analysis of the 1916 questions asked by educators demonstrated that 711 were ‘what’, 107 were ‘how’ and 67 were ‘why’ type questions. ‘What’ questions accounted for 43.97 percent of educators questions. Table 7:3 presents an overview of the total amount of questions posed by educators followed by the categorisation of these
questions into closed questions (what, where), open questions (why, how) and rhetorical (not requiring a response) as found in this study.

Table 7:3 Coding and categorisation of educators’ questions

<table>
<thead>
<tr>
<th>NVivo 9 coding and categorisation of questions</th>
<th>Number of occurrences in data</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transcribed interactions from 3 centres</td>
<td>117</td>
<td></td>
</tr>
<tr>
<td>Questions posed by educators</td>
<td>1916</td>
<td></td>
</tr>
<tr>
<td>Closed questions</td>
<td>1382</td>
<td>72%</td>
</tr>
<tr>
<td>Open questions</td>
<td>433</td>
<td>23%</td>
</tr>
<tr>
<td>Rhetorical questions</td>
<td>101</td>
<td>5.5%</td>
</tr>
</tbody>
</table>

These results indicate that 72 percent of questions were closed, 23 percent were open whilst 5.5 percent were rhetorical in nature. This is similar to the findings from the EPPE report where analysis indicated that out of a “total of 5,808 questions recorded, only 5.5 percent were open-ended questions” (Siraj-Blatchford, 2010, p. 157). It appears that at least for the educators in this study there were significant increases of open-ended questions.

Questioning techniques are often viewed as one aspect of quality pedagogical interactions. Bruner (1986) argues that children and teachers are in asymmetrical states where the educator knows more than the child, therefore teachers need to take the time to understand what the child already knows in order to scaffold learning to the next level. Questions are central to this process. Goncu and Rogoff (1998) argue “the particular balance of responsibility may have been less important than the active and guided thinking of the learner” (p. 346). The strategies teachers use to guide children’s thinking include questions as a vital tool for stimulating learning. Siraj-Blatchford (2005) recommends that limiting question-use by the educator is a significant aspect of quality interactions. Well-thought out questions are an essential characteristic of intentional teachers who are planful and purposeful in their approach. Figure 7:4 indicates the occurrence of open, closed and rhetorical questions within indoor and outdoor learning environments.
Figure 7.4 The number of occurrences of open, closed and rhetorical question types used by educators within indoor and outdoor learning environments

This graph provides significant data on how the majority of questions posed by the educator to children were found indoors as compared to when outdoors. Analysis reveals that 75 percent of total transcribed interactions were from the indoor learning environment with only 25 percent recorded outdoors. This finding confirms earlier discussions in previous chapters where a shift in roles from intentional teacher to supervisor was experienced between indoor and outdoor environments.

Table 7.4 presents findings of open and closed question use within indoor and outdoor learning environments as percentages.

Table 7.4 Percentage of open and closed question use by educators in indoor and outdoor learning environments

<table>
<thead>
<tr>
<th>NVivo 9 data analysis: Categorisation of closed and open question</th>
<th>Findings:</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Percentage of closed questions:</strong></td>
<td></td>
</tr>
<tr>
<td>Indoors</td>
<td>73.90%</td>
</tr>
<tr>
<td>Outdoors</td>
<td>18.30%</td>
</tr>
<tr>
<td><strong>Percentage of open question:</strong></td>
<td></td>
</tr>
<tr>
<td>Indoors</td>
<td>73.90%</td>
</tr>
<tr>
<td>Outdoors</td>
<td>22.86%</td>
</tr>
</tbody>
</table>
The following two pie-charts at figure 7:5 indicate the percentages for how open and closed questions were used within indoor and outdoor learning spaces.

**Figure 7:5 Open and closed question use by educators within various learning environments**

**Open question use**

- **Indoor freeplay**: 33%
- **Outdoor freeplay**: 21%
- **Small group indoors**: 11%
- **Small group outdoors**: 0%
- **Large group outdoors**: 24%
- **Large group indoors**: 11%

**Closed question use**

- **Indoor freeplay**: 39%
- **Outdoor freeplay**: 15%
- **Small group outdoor**: 1%
- **Small group indoor**: 19%
- **Large group indoor**: 24%
- **Large group outdoor**: 2%
Analysis of data involving types of questions and the relation to grouping patterns of children revealed some surprising results. Open style questions featured more within free-play times (indoors and outdoors), while closed questions occurred during indoor times. The significant amount of closed questions featured indoors further confirms the findings generated by this study that intentional teaching is largely being restricted to planned indoor group experiences. Furthermore it confirms that intentional teaching is associated with a particular didactic notion of teaching, given closed questions are designed to elicit a specific right or wrong answer. It is being interpreted as content driven, rather than process driven.

This analysis provides further evidence for how educators are misinterpreting intentional teaching as part of the EYLF. Most educators would agree that the outdoors produces a sense of freedom to explore without the invasion of educators asking questions. For some educators in this study, the outdoors was viewed as an opportunity for children to run free and therefore the emphasis on intentional teaching was diminished. The next section of this chapter will describe how educators used questioning techniques for varying grouping patterns of children as part of their intentional teaching practice.

**GROUPING PATTERNS OF CHILDREN**
From the data it is interesting to note that planned and spontaneous small group opportunities where educators intentionally interacted in learning with children appeared to be largely absent from the outdoor learning environment. Small groups of two or three children did occur during informal interactions during free-play, however these only accounted for 15 per cent of total interactions. As found from the data presented, intentional teaching is becoming restricted to planned indoor learning experiences with large groups of children. This runs contrary to suggestions that small group experiences are considered more valuable for children than large group experiences (Malaguzzi, 1998).

Group size is an important factor influencing the role of the educator. Malaguzzi (1998) has considered carefully what aspects of children’s learning are affected by group size. He suggests that the problem with working with a group of twenty
children is that “we can have moments when we can interact with twenty children altogether, but these moments, I would say, are among the most difficult and risky because in some ways they tie children down to a situation which, for different reasons, they do not always accept” (Rankin, 2004, p. 82). Malaguzzi explains that a group of two children produces extraordinarily rich dynamics in both cognitive and social aspects and that the younger the child, the more beneficial this becomes allowing both children and adults to take advantage of its benefits (Rinaldi, 1994). In order to maximise cognitive learning processes it is suggested that group size should be limited to five (Malaguzzi, 1998; Rankin, 2004) as beyond this number, group dynamics become too complex for each child to evaluate and transform his or her knowledge and identity through the constant changing of others’ knowledge and identities (Rinaldi, 1994).

In order to access deep understanding of children’s thinking and questions, educators need to develop a personal relationship with each child as this will form the foundations for group work. Malaguzzi also points out that in accord with Vygotsky’s social constructivist theory, it is not so much that we need to think of the child who “develops [sic] by [sic] but rather of a child who develops [sic] interacting and developing with others” (Rankin, 2004, p. 82). The following examples from the data demonstrate how group sizing impacts on the role of the educator, intentional teaching strategies and educators use of questions.

At the third focus group session participants were asked: “When the group becomes bigger, do your questions change?” Participants paused and thought about this. It appeared that this was something they had not considered before. After a while I suggested that perhaps there were more opportunities for open-ended questions when educators were with one or two children in free-play times as they have more time to listen to their ideas within a relaxed environment. Participants agreed with this but appeared to be just thinking intently on what was being suggested to them. Examples from practice were reflected on in order to generate further discussions around this question. The following example outlines how questions were used when the educator had a specific goal in mind for the children.
Rita’s group time was viewed as an opportunity to intentionally teach the children about the solar system as she handed out pictures of planets:

Educator:  *Putting up your hand, tell me a name of a planet* (manage group behaviour, instruct).

Child 1:  *Venus!*

E:  *Put your hand up, then I’m going to call out to you* (manage group behaviour, instruct).

Child 2:  *Jupiter!*

E:  *That’s one* (clarify).

Child 3:  *Earth!*

E:  *That’s two* (clarify).

C3:  *Mars!*

E:  *Good that’s three* (clarify).

C4:  *Pluto!*

E:  *Pluto, they used to say was a planet, now they say that it’s just a very big star, so they are now saying we only have eight planets* (explain, provide new information).

C3:  *Venus!*

E:  *Venus, good there’s another one* (clarify).

C5:  *What about Venus?*

E:  *We’ve had Venus, what about the one that’s closest to the Sun? Can you remember the name?* (remind).

C5:  *No*

C3:  *Mercury!*

E:  *Good, mercury is the closest to the Sun.* (offer praise for action).

The goal here was for the children to learn the names and order of planets in the solar system. What is questionable though is whether the children wanted to know this information or if it was something the educator decided as important knowledge for the children. These questions present constraints for thinking with children encouraged to come up with the right answers as the educator led the learning experience. The idea of providing content knowledge as a goal for learning impacted greatly upon the questioning techniques of educators,
particularly during large group experiences. There is a strong focus placed on developing children’s convergent thinking rather than developing their divergent thinking skills. This type of experience is content-driven and didactic is counter to the EYLF intention that encourages educators to build learning around the interests of children (DEEWR, 2009).

However, when educators were observed interacting with children in small group experiences, knowledge appeared to be co-constructed with more time allocated for finding out what children knew and could contribute. The following recorded interaction was during indoor free-play with two children building the Eiffel Tower:

Child 1:  *This is my Eiffel Tower!*
Child 2:  *And my Eiffel Tower too*

Educator:  *Do you know where the Eiffel Tower is? What country?* (provoke, stimulate thinking).

  *c1:*  *Umm not sure…*
  *c2:*  *Ummm in a different country…*
  *c1:*  *In Japan there’s a tower too!*
  *e:*  *There is, there are towers all over the world in different countries* (positive response to children, provide information).

  *c1:*  *I know I saw a tower in Japan too, I forgot what the name of it.*
  *c2:*  *The Eiffel Tower!*
  *c1:*  *No it’s not called the Eiffel Tower, there are other towers….other names of that….*
  *e:*  *We’ll have to investigate and have a look on the internet what sorts of some names of some towers in Japan. Well, I’m going to remind you that the Eiffel Tower is from Paris! France! Remember?* (research, provide knowledge).

  *c1:*  *Yeah*
  *c2:*  *Yeah*
  *c1:*  *I know that, I know, I look at Japan.*
  *e:*  *Maybe when you are in Japan when you see some towers you could take some pictures and bring it in to our class and we might see it and*
talk about it and maybe get some information about what they call them in Japan. (suggest ideas, encourage to further thinking).

c2: She could bring it in for news! Bring it in for my news. I have to tell that to my Mummy.

e: Okay, you have to ask Mummy if that’s okay. I’m sure she’ll say yes. Just ask her and we’ll see what you can show us about Japan. (collaborate with families, respond positively to children’s ideas).

c1: I can take lots of photos!

This scenario exemplifies how small group learning and the sharing of knowledge and ideas between peers and educators empowers the child to take a leading role in learning opportunities and project work. A key tenet of contemporary learning environments acknowledges that children are not passive receptors of teacher-generated knowledge but active participants in the construction of knowledge based on their experiences and interactions with others (Malaguzzi, 1998; Rinaldi, 1994).

There is an obvious shift in roles between adult-guided and child-guided experiences. Mediating strategies allowed for the co-construction of knowledge and sharing of ideas in the learning process for the child under the guidance and support of the educator (Vygotsky, 1930, 1978). What differed between these scenarios was the size of the group, the types of questions and the time allocated. When educators were intentionally teaching a large group, or whole group of up to twenty children, their questions became more closed and didactic requiring a predetermined answer or response. Educators were also aware of how much time they had to implement their group as part of the overall indoor routine.

Learning within social and cultural community contexts allows children to form a sense of identity, to feel confident and develop a sense of belonging where they feel the desire to participate. Participation in social contexts creates opportunities for children to be active members within communities. While intentional teaching practices have largely focused on the construction of knowledge and skill development, consideration is needed for other significant benefits as children and educators share meaningful interactions within social and cultural learning
environments. The next section addresses the importance of situating children within communities of learners.

Sociocultural philosophies necessitate a participation-approach, examining issues of access and equity, acceptance and belonging, responsiveness and negotiability, engagement, performance and productivity (Macmillan, 2001, 2009). This has seen a shift in focus from ‘child-centred’ to ‘child centred within communities’ (Langford, 2010). Sociocultural perspectives value the social dimensions of learning, examining what is going on between people as they find ways to relate and make sense of what other people do; that is, what they do socially and culturally (Macmillan, 2009). The notion of shared contexts for learning positions the educator as a collaborator, mediator, guide and facilitator. ‘Situated learning’ is a concept developed by Lave and Wegner, explaining that learning takes place within social contexts through language and participation (Lave & Wenger, 1991; Macmillan, 2009). Situated learning has a strong focus on the relationships between identity and belonging and the ways social and cultural contexts include or exclude the learner as participant (Macmillan, 2009). Relationships are essential for belonging, and there is a valuable place for the position of the child within the large group.

Children’s connectedness and ways of belonging with people and communities help them learn ways of being, which reflect values, traditions and practices of their families and communities (DEEWR, 2009). How this is then represented in learning environments requires careful considerations for the grouping patterns and experiences children encounter as part of the larger social and cultural dimensions of their worlds. In the following scenario, children’s interests were sparked after two scarecrows were constructed for the outdoor area. The children called out various names for the scarecrows, so to make it fair and equitable the educator suggested the group come together to work out a system for choosing the names, thus a large group formed. Subsequent to the vote, the educators were able to discuss what being part of a democratic society felt like:

Educator:   *Who was here on Monday when we did the voting for the names for the scarecrow? So some of you were and some weren’t. Well on*
Monday we did what’s called voting, do you know what voting is?  
...What did we put in here?  
Child: Names!  
e: The names and everybody had a turn to say what name they thought the scarecrow should be called. Because that's fair isn’t it? voting makes things fair so everybody gets a say, so the outcome has thought about everybody’s views, what everybody wants. So what we did was we sat everybody down and we wrote, or somebody wrote it for them, and then at the end we pulled all of the names out and we read them out and the name that came out the most was the name we gave the scarecrow! and guess what the name was?  
c: Rosie  
e: Rosie! But don't worry; even though you weren’t here, today, you get to vote on the baby scarecrow’s name. You fold that piece of paper there, then you put it in there, and then we pull them all out and read them and we see what we’re going to call the baby. This is what a real ballot paper looks like see this is where you actually need to be over 18 to vote and it looks like this.  
e: You put in order who you’d like to vote for, that’s how big they are, they’re much bigger than the little ones we’re doing but it’s the same idea and these are the pictures, so we’ve set up the table with the voting.  
e2: That’s great isn’t it! Democracy in action.  

What was different in this exchange as compared to the previous one on planets was that the educator’s goals were for creating a democratic learning space, rather than the educator’s goal for children’s cognitive learning. Children experienced what it is like to be part of a larger community when all come together and the roles they play as active citizens within a democratic society. The educator intentionally developed a learning community characterised as a ‘democratic, inclusive, collaborative environment where the focus was on learning’ (Bartel, 2005, p. 151). Outcome two of the EYLF states a goal for children ‘to become connected with and contribute to their world’ (DEEWR, 2009, p. 26). One
way educators can promote this is through developing a sense of community and to plan for children to participate in meaningful ways in group discussions and shared decision-making (DEEWR, 2009). This provided an opportunity to learn about democracy in a rich task that had meaning for the children.

Experiencing a shared sense of belonging within learning communities provides each child with membership, participation and acceptance within a democratic, inclusive environment (J. Bennett, 2004; Dewey, 1990/1902; Siraj-Blatchford, 2010). Children develop the ability to express individuality, voice their identities and empower their sense of agency (Corsaro, 1985; Fernie, Kantor, & Whaley, 1995) as a result of experiencing social interactions with peers, as well as with significant others including parents, and educators.

Rogoff (1990) defines community as consisting of many things, including different people, customs, language, beliefs and ways of interacting. Sociocultural theorists suggest that children’s learning is related as much to their life experiences as it is to what they might learn in the classroom (Macmillan, 2009). What is learned is gained through participation, and transformation of participation is central to the idea that learning and development occur as people participate in the sociocultural practices of their community transforming their understanding, roles, and responsibilities as they participate (Rogoff et al., 1996). One aspect of the learning process is helping children to see and understand how different practices and values shape communities. It is this experiential learning that generates other ‘hidden’ areas of the curriculum, for example, values, shared understandings, appreciation for diversity, equity and fair play. In the example above, the educator explicitly addressed democracy through her conversation with the children with the statement: *voting makes things fair so everybody gets a say, so the outcome has thought about everybody’s views, what everybody wants.*

Lave and Wenger (1991) through their theory of situated learning explain how community building creates a responsive and collaborative culture. In contrast to small group experiences that focus on content knowledge and skills, participation in whole or large group experiences has the potential to offer the child a different experience. Belonging to a larger community of learners evokes sentiments/values of citizenry not found in other grouping patterns. Creating an
intentional learning community involves democracy, inclusiveness, and a collaborative learning environment. Collaboration requires consideration for the participation rights of all members in a larger group and shared space involving negotiation, turn-taking and listening, within a democratic community. The following discussions will present findings from this study as well as research evidence on group size and participation of the child within the supports of a co-constructed curriculum.

Analysis of data in this study revealed a connection between group size, intentional teaching and curriculum. In large group experiences, the onus was on the teacher as driver of curriculum decisions, whereas in smaller group interactions, the children were found to have more control and influence over their own learning. Children acquire skills and knowledge through their own interaction and exploration; however they also learn other skills and content from adult-guided experiences. Epstein (2007) explains that adults play “intentional roles in child-guided experience; and children have significant active roles in adult-guided experience” (p. 3). Finding a balance between child-guided and adult-guided experiences involves interactions between educators and children that respect children’s modes of learning.

The theory of social constructivism and interaction addresses the role of the learner and the educator, with recognition given to the children’s own questions and theories (Rinaldi, 1994). The teacher’s role therefore involves listening to children and providing support for children in respecting other points of view. These relationships are dependent on communication and interactions within active education and group socialisation. In order to acknowledge the child as co-contributor to the co-construction of knowledge and agent in their own learning, it was important to turn the lens on the child and analyse data that focuses on the questions children ask and identify the emerging strategies children use as intentional learners. The next section of this chapter aims at revealing new information pertaining to the developing identity of the intentional learner, by acknowledging how children learn and contribute to their own learning.
CHILDREN’S QUESTIONS
In comparison to questions posed by the educator, a total of 162 questions from 57 sources were asked by children. Previously it was found that educators were asking an average of sixteen questions per four minute transcript. In comparison children were found to be asking approximately three questions per four minute transcript. Of these only eight questions were asked that represented children’s theories, individual thinking and questions they had regarding the world around them. Examples of these questions were: ‘why?’ ‘Will a real bird come here?’ ‘Why does the chalk keep going?’ and ‘I wonder how much eggs turtles lay?’

Analysis of children’s questions in this study resulted in little evidence of children being encouraged or allowed time to ask questions they may have. Young children’s questions play an important role in cognitive development. When they encounter a problem with their current knowledge state (gap, ambiguity, inconsistencies) asking questions allows them to get the information they need to resolve these issues. This information comes as a result of their own disequilibrium and is an essential aspect in the development of children’s creative thought processes; which is addressed further in chapter nine. The role of children’s questions in their cognitive development has been largely overlooked. Table 7:5 categorises the types of questions children used.

Table 7:5  Categorisation of children’s questions as observed in this study

<table>
<thead>
<tr>
<th>Type of question</th>
<th>Number of occurrences</th>
<th>Example from data</th>
</tr>
</thead>
<tbody>
<tr>
<td>Seeking approval/confirmation</td>
<td>23</td>
<td>Red? The fish?</td>
</tr>
<tr>
<td>Suggesting</td>
<td>24</td>
<td>Can we pick the flowers?</td>
</tr>
<tr>
<td>Asking permission/Requesting</td>
<td>38</td>
<td>Can I have a turn? Can I play?</td>
</tr>
<tr>
<td>Theorising/ I wonder…</td>
<td>8</td>
<td>Will a real bird come here? Why?</td>
</tr>
<tr>
<td>Finding out</td>
<td>72</td>
<td>Where are you going? What happens if they eat it? Where? What’s that?</td>
</tr>
</tbody>
</table>

This table indicates a high occurrence of questions by children in order to find out information. However nineteen of these were in response to teacher-directed group time experiences where children were asked if they could ‘think of a question’. It was noted in the researcher’s journal that this strategy became a
common occurrence in centres following the second focus group session where educators discussed with the researcher early results revealing a high amount of questions teachers asked as opposed to children’s questions. Rather than waiting for children to ask spontaneous questions, this technique more or less forced children to ‘think of a question’ on demand.

What has been found is that educators in this study depended on asking children questions as a main aspect of their intentional teaching practice. This focus on the role of the educator and the questions they have for children inadvertently silences the voices of children. Social learning, reflective of social constructivist theories of development (Vygotsky, 1930, 1978) involves children engaging in dialogue with others. Conversations with young children should not only involve the educator’s questions, but through attentive listening and discussions, young children should actively ask questions as they engage in learning both with each other and the educator. Rinaldi (2006) describes attentive listening as being characterised by: a supportive listening context where children feel empowered to express their ideas and theories; a desire to understand and have an interest in exchanging ideas with children; openness to ideas and respect for other points of view; and encouraging an active process of listening as listening generates questions. What has been evident in this study is that educators are taking the lead rather than standing back and listening.

Analysis of the 163 questions revealed patterns for the types of questions children used for different purposes. These were: When asking permission: question often started with ‘can I’, ‘could I’, ‘could you’, ‘do you or’ and ‘are we’. When theorising: ‘why’, ‘will’ and ‘I wonder if’. When finding out: ‘where is’, ‘what’, ‘does’, ‘did’ or ‘do’ and suggesting: ‘what about’, ‘how’, ‘when’ or ‘would’. Figure 7:6 shows the percentages for the types of questions used in children’s interactions with educators.
This pie-chart indicates the large amount of ‘what’, ‘can’, ‘why’, ‘do/did’ and ‘where’ questions children used in order to find out information, suggest ideas, seek approval, gain or request permission. ‘Why’ and ‘how’ questions were the essential questions that revealed children’s theorising and what their ‘big questions’ were about the world around them. These questions evolved from the children’s thoughts and their inner desire to know more, rather than in response to teacher-led learning. As previously mentioned, Rinaldi (2006) described the need for attentive listening on the part of the educator as children engage in learning. Questions that arise from the children’s intrinsic desire to ‘know’ are characteristic of the intentional learner.

An emerging theme in this study has been the identification of the intentional learner and the contributions the child makes to his or her own learning. The next
section of this chapter will address the emerging intentional learning strategies of the children observed in this study. This presents new findings relating to how children use strategies as a means for sharing and co-construction knowledge together and seeking answers to questions and learning opportunities around them. The following section discusses strategies of the intentional learner and provides further evidence for how children are using questions within the transcribed interactions with educators.

**Emerging strategies of the intentional learner**

Intentional learning is referred to by Bereiter and Scardamalia (1989) as strategic thinking “processes that have learning as a goal rather than an incidental outcome” (p. 363). Intentional learning involves three aspects: the decision to engage, commit and persist with learning; the ability to apply and manage strategic cognitive efforts in achieving goals; and the extent to which the learner takes responsibility for developing as an autonomous learner (AAC&U, 2002).

All experiences for children can involve incidental learning opportunities, however intentional learning is likely to occur when situational and intrinsic factors create learning goals and opportunities for the child. Ormrod (2006) explains that “as children grow, they increasingly engage in intentional, explicit learning: they actively think about, interpret, and reconfigure what they see and hear in their environment” (p. 119). Hiemstra (1994) suggests that taking personal responsibility and control in education refers to individual children assuming ownership for their own thoughts and actions. From the data taken from 117 transcribed recordings between educators and children, 22 intentional learning strategies of children as they engaged in independent learning were recorded and presented in Table 7:6.
Table 7.6 Intentional learning strategies of children identified in this study

<table>
<thead>
<tr>
<th>Intentional learning strategies</th>
<th>Number of occurrences found in the data</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asking questions</td>
<td>163</td>
</tr>
<tr>
<td>Being independent, making own choices</td>
<td>36</td>
</tr>
<tr>
<td>Children co-constructing knowledge together</td>
<td>14</td>
</tr>
<tr>
<td>Clues from the environment</td>
<td>4</td>
</tr>
<tr>
<td>Demonstrating</td>
<td>7</td>
</tr>
<tr>
<td>Describing</td>
<td>80</td>
</tr>
<tr>
<td>Explaining</td>
<td>112</td>
</tr>
<tr>
<td>Imagining</td>
<td>24</td>
</tr>
<tr>
<td>Inviting others</td>
<td>12</td>
</tr>
<tr>
<td>Making connections to home</td>
<td>24</td>
</tr>
<tr>
<td>Making connections to prior learning</td>
<td>35</td>
</tr>
<tr>
<td>Making requests</td>
<td>28</td>
</tr>
<tr>
<td>Modelling</td>
<td>4</td>
</tr>
<tr>
<td>Personifying</td>
<td>4</td>
</tr>
<tr>
<td>Pretend play</td>
<td>15</td>
</tr>
<tr>
<td>Problem solving</td>
<td>15</td>
</tr>
<tr>
<td>Recalling</td>
<td>43</td>
</tr>
<tr>
<td>Requesting assistance</td>
<td>4</td>
</tr>
<tr>
<td>Suggesting ideas</td>
<td>67</td>
</tr>
<tr>
<td>Use of rules</td>
<td>15</td>
</tr>
<tr>
<td>Using Humour</td>
<td>9</td>
</tr>
<tr>
<td>Using or seeking technology</td>
<td>6</td>
</tr>
</tbody>
</table>

‘Describing’ and ‘explaining’ featured high on the intentional learner’s list with 80 occurrences of children describing and 112 occurrences of children explaining. These strategies were used in response to educator’s questions with the intention of explaining to the educator what they were doing. Being independent, making requests, making connections to prior learning and suggesting ideas, represent the agentic child. In some circumstances, children learn to negotiate and intentionally exert their agency through resistance and conflict that often arise through social situations. These intrinsic strategies are powerful tools on which children draw in order to gain control over the direction of their learning and need to be supported by the educator. The corresponding strategies of educators for promoting agency and developing children’s intrinsic motivation toward their own learning would therefore involve: showing interest, respecting children’s choices and ideas, scaffolding, supporting peer interactions and providing positive feedback.
The intrinsic nature of young children is a sense of wonder often characterised by asking questions. Children’s questions, that were intrinsic in nature, or those the child really wondered about and wanted to know were found during free-play times such as the following example. Here a child is looking at flags with an educator. Joan points out the Australian flag mentioning that it was the same flag they saw the other day. The child then becomes curious in the other flags and asks questions such as: *What’s that one?*

When the Joan replied: *That’s South America and that country there is Brazil.*
The child replied: *South America! I was wondering if there was a South America in the world.*

Joan responded: *You wondered where it was did you?*
The child said: *Yeah! .......that one down there, that’s the coldest one isn’t it?*

Acknowledging both the intentional teacher and the intentional learner requires sensitivity in balancing adult-guided and child-guided learning opportunities. From the data it was evident that these moments where intentional teaching and intentional learning emerged together through reciprocal relationships occurred more frequently during free-play opportunities. As previously discussed the role of the educator in assisting children’s thinking included the use of open-ended questioning strategies. From my observations I also noted that educators appeared far more relaxed as they engaged with children during free-play times and were more likely to sustain interactions and develop closer relationships with individual children. The following observation demonstrates how an educator responded to the ideas of a child and then provided assistance in helping him/her achieve his/her goal.

After noticing that a shelving unit was empty within the room, the educator, Carl asked a small group of children what they thought might be able to go on the shelves:

*c: I know! Maybe we could make some books to put on there!*

Carl responded to this idea by providing the children with textas, paper, sticky tape and staplers. The children responded immediately by drawing pictures,
writing texts and discussing with each other and the educator what their ‘story’ was about. The following documentation provided from the educator tells a story of how this learning experience emerged. Learning stories are a familiar tool for sharing with families the visible trace of children’s learning (Carr, 2001).

The empty shelf:

Next we began our book making production line. Carl could not help the children make their books quick enough. Almost everyone had an interest in our spontaneously sparked idea. Everyone who participated really focused and saw the activity through to completion. It really goes to show how one little creative interest, with the right encouragement and questioning can turn into a daylong learning experience.

Figure 7.7 Children’s contributions to an empty shelf

This learning experience demonstrates the role of the educator providing assistance for the children in helping their ideas come to fruition. From the data on children’s learning strategies, suggesting ideas such as this occurred 67 times
from the 117 transcribed recordings. This indicates that young children, as intentional learners, have many ideas and are keen to contribute to their own learning. The role of the educator as an intentional teacher is to respond to children’s suggestions and assist them in achieving their goals. Some of the strategies mentioned in this example by Carl are that all he needed to do was provide the right encouragement and questioning. This observation clearly demonstrates the child’s own capacities to contribute to their own learning as competent, capable and agentic co-constructors. In this way, children are free to explore ideas and develop potentials within a democratic, social learning environment.

SUMMARY
This chapter has presented a detailed analysis of the intentional teaching strategies presented by participants as found in this study. Educators and children have been identified as co-participants in the construction of knowledge within social and cultural communities. A major finding in this chapter is the use of questioning by educators and the need for more authentic interactions and relationships to develop thinking within everyday interactions. Intentional teaching strategies of educators as well as the intentional learning strategies of children assist in the development of meaningful learning opportunities where joint investment produces learning trajectories through the development of a co-constructed curriculum.

Significant new findings on the identification of the intentional learner and the intentional learning strategies used by children in conjunction with the intentional teaching strategies of educators has provided significant new understandings for early childhood practitioners in consideration for their pedagogical practice. The identification of processes used by educators and children as they engaged in sustained interactions has provided a more comprehensive interpretation for the role of educators within the Early Years Learning Framework. As a result, a more viable definition of the intentional teacher as well as the inclusion of the newly identified intentional learner has contributed further understandings for pedagogical practice that represents the goals of the Australian early childhood
national curriculum. The next chapter will address how intentional teaching strategies of educators promote creative thinking in young children in response to the research question: *What are the educators’ understandings of creativity and creative thinking in children?* Chapter eight will present interpretations of educators on what creative thought processes are and their role in stimulating and supporting creative thinking and problem solving abilities in children.
Chapter 8
Creativity and creative thinking in young children

This chapter describes and explains educators’ understandings of creativity and examines children’s creative thinking and creative development within learning environments. This chapter addresses the following research question: **What are the educators’ understandings of creativity and creative thinking in children?**

**INTRODUCTION**

In previous chapters educators were found to use open questions when children were engaged in free-play opportunities. With regard to creativity, open questions are an important strategy for promoting divergent thinking; a necessary characteristic for problem solving (Fasko, 2006; Feldman, 1994; Guilford, 1968; Kaufmann, 1988; Nickerson, 1999; Sawyer, 2006; Sternberg & Lubart, 1999). The data have shown that opportunities for free-play times provided children with more choice as they interacted within learning environments. It has been suggested that researchers should examine children’s interactions in free-choice activities as an indicator of creative behaviour (Milgram, 1990; M. Root-Bernstein & R. Root-Bernstein, 2006). An essential component for the development of creative thinking in children is the recognition of the educator’s role to provide support and guidance for creative thinking during play and learning opportunities. This chapter further describes how educators in this study are responding to children’s creative thinking within social contexts. The following chapter nine will investigate more closely the intentional teaching strategies demonstrated by educators in the development of children’s creative thinking.

In this chapter analysis of data from observations, photos, field notes, artefacts, focus group sessions and recorded interactions between participants and children will provide evidence on educators’ understandings of creativity and the
development of children’s creative thought processes. Within a neo-Vygotskian framework (Connery et al., 2010), creativity is a process that includes children’s play, imagination and fantasy; it is a transformative activity where meaning-making involves the “construction of the new” (Connery et al., 2010, p. 13). This chapter draws from the neo-Vygotskian perspective on creativity and investigates children’s creative development within social learning environments.

Firstly, this chapter aims to explore educators’ understandings and beliefs surrounding children’s creativity. From discussions with educators during focus group sessions, key indicators for creative thinking in children are foregrounded. Secondly, it explores the role of structural elements of space, environments, time and resources in supporting creative development as identified in this study. While this chapter mainly focuses on the structural elements supporting creative development, the following chapter will present in-depth discussions on the process elements of creative thinking of children and the role intentional teachers have in promoting dispositions, problem solving, meaning-making, imagination and play. Figure 8:1 demonstrates the four major structural supports for creative thinking of children presented in this chapter. The Creative process elements outlined will be addressed in chapter nine.

Figure 8:1 Structural and process elements for creative development in children

- **Physical space**
  - **CREATIVE PROCESS ELEMENTS**
    - **Dispositions:** Curiosity, intrinsic motivation, interest.
    - **Problem solving:** collaborative, divergent and convergent thinking, novel ideas.
    - **Meaning making:** assisted performance, cognitive structuring, questioning techniques, modelling, imagining.
    - **Imagination:** knowledge
    - **Play:** Questioning, state of flow, pretend play, improvisational creativity.

- **Resources**
- **Time**
- **Environment/nature**
EDUCATORS’ UNDERSTANDINGS OF CREATIVITY

Educators’ understandings of creativity ultimately impacts upon the type of learning environments, resources and interactions provided for children. Educators implicit theories about children’s creativity are extremely important as they relate directly to expectations which are powerful influences on children (Rosenthal, 1991; Runco, 2007). It was found that discussions during focus group sessions became limited when questions were initially asked about creativity, indicating a general lack of knowledge of this phenomenon. In order to find out educators’ understandings, participants were asked: How do you define creativity? Due to the highly complex nature of defining creativity, it was not unusual that participants struggled to articulate a definition. Through further questioning it was found that educators were more likely to describe how children were being creative through their observations and everyday interactions. Qualitative research encourages participants to describe life-worlds from their perspective, presenting insight through multiple lenses on the interpretation of phenomena (Charmaz, 2006; Denzin & Lincoln, 2000; Flick, 2005; Flick et al., 2004; Tesch, 1990).

The beginning discussions about creativity were similar to early discussions on intentional teaching, where educators struggled to articulate a meaning, but were able to describe strategies demonstrated through everyday practice. In order to move the conversation forward, a further exploratory question, was presented to educators in order to discover their understanding through practice (Seidman, 2006). Participants were asked: Can you recognise when a child is being creative? The following responses were transcribed.

Rita suggested:

For me, it’s when they are just thinking outside of the square, I don’t think it has to be anything concrete; using their imagination, just creating!

Carl’s response was:

It’s like seeing that look on their face when they’ve achieved something at the end and they say to you ‘look what I’ve done’ and you can see they are really into it
and they want to share it with a friend or carer; you can tell they have got something out of it. It’s like enlightenment!

*Sally:* And we need to play with things to be creative and to come up with new ideas.

*Carl:* I think their minds are creative, because they are so open to trying different things.

These responses indicated that although educators did not try to define creativity, they were able to demonstrate an understanding of key characteristics relating to creativity from their everyday interactions with children. Rita’s comment describes an awareness of the processes needed, in particular, use of the imagination in order to come up with new ideas, rather than a product. Carl also recognised the value of providing children with opportunities to access intrinsic motivators that allow children individual success in problem solving or for producing something original or novel and Joan mentioned how children need ‘play’ to be creative. From these discussions, the following key indicators of creative thought processes in young children have been identified by educators: processes, intrinsic motivation, problem solving, meaning-making, imagination and play. These elements are what are also described in creativity research as key factors that lead to the development of original or novel ideas or products (Anderson, 1994; Csikszentmihalyi, 2003; John-Steiner & Moran, 2012).

While participants in this study recognised children’s creative abilities, empirical research on creativity does not suggest children of this age have the capacity to be ‘creative’. The next section of this chapter explores teacher beliefs surrounding children’s creativity and compares them to broader research.

**CHILDREN’S CREATIVITY**

According to experts in the field, children are not considered creative due to a lack of any self-evident criterion against which to validate the measures employed (Csikszentmihalyi, 2003; Feldman, 1999; Sawyer et al., 2003; Sternberg, 2005). It is thought that children produce neither the introspections or significant contributions to art or science that can be used when identifying creative adults.
In order to find out whether participants in this study held the same view, the question was asked: *Do you think children are creative?*

Participants’ responses were:

Carl: *Hell yeah!*

Rita and Sally: *Yes!*

Joan and Nelly: *Of course they are!*

Molly: *Every day!*

When asked how or when children were creative the following responses were recorded:

Carl believed that:

*Children are creative all the time. Creativity is their tool for exploring and understanding new concepts. Children are likely to show creativity during free-play and we can nurture it as a co-learner.*

Sally noticed that:

*It is amazing how creative they are; like things you would set out and you have an idea of how it will go, they take it so many different ways!*

Joan suggested that:

*Children often incorporate new ideas in their play that are gleaned from the environment and people that surround them. This may occur from a momentous occurrence such as the recent floods where many of the children created block constructions, paintings and drawings featuring flooding.*

Molly suggested that:

*There is so much pressure for things to be perfect all the time and life is so rush, rush, rush! Sometimes time is not taken to be creative or just to play.*
Rita: *Even when they are three and they are on their own, just sitting quietly, and have a little thing of Lego and they are creating something, or over at the drawing table, there is no one asking them questions, or there’s no expectations over them.*

As a researcher I wanted to find out more about the elements that supported children’s creativity and if the participants were considering ‘their’ role in supporting children’s creative thinking. The following responses of participants were recorded when asked: *How do you encourage children to be creative?*

Rita: *Giving them time. Giving them the resources.*

Nelly: *They are more creative with the natural resources outside, they were taking the time to build with the rocks over here and then they would add a bit of sand. Yeah, it was lovely.*

Carl: *Letting them build what they want, just go with that child and let them grow with what they want to do.*

From the data five important beliefs of educators toward creative development in children can be ascertained: 1. That their role is to provide structural supports pertaining to the physical learning environment; 2. The resources provide children with opportunities to create; 3. Creativity is the children’s tool for learning; 4. creativity occurs within the outdoor environment and with nature; and 5. That children require time to be creative.

It is evident from the data that educators hold idiosyncratic views about creativity (Runco, 1990). These beliefs as well as the key elements of creative thinking in young children identified by educators in this study will form the groundwork for discussions on creative development. These implicit theories held by educators are best understood when contrasted with explicit theories held by scientists or researchers (Rosenthal, 1991; Runco, 2007). The next section of this chapter addresses the structural supports that promote creativity and draws from available research to explain how the elements of physical space, resources, the outdoor environment, including nature, and time influence the development of children’s creative thought processes.
SUPPORTING CHILDREN’S CREATIVE DEVELOPMENT
Providing suitable physical environments demonstrates an understanding and recognition for children’s creativity as an important aspect of their learning and development. Preiser (2006), suggests that environmental conditions may either “discourage, inhibit, and suppress or nurture, stimulate, inspire, and cultivate creative processes” (p. 188). Environmental frames influence children’s creative development and creative processes as well as the appreciation for creative products (Sternberg & Lubart, 1999; Urban, 2003). From other research it has been found that the creative atmosphere in schools and kindergartens parallels with the creativity and originality of children’s ideas and handicrafts (Preiser, 2006). Positive learning environments were found to affect children’s creativity in significant ways. The next section of this chapter will discuss the physical space, in particular, how positive environments affect creative thinking.

PHYSICAL SPACE
It was evident that educators in this study understood the fundamental requirements for children’s creativity by providing affective creative experiences (Russ, 1999). Affective creative experiences involve educators providing structural elements that set the scene for positive affects to influence dispositions toward creative behaviours (DEEWR, 2009; Isen, Daubman, & Nowicki, 1987; Russ, 1999). As Russ (1993) explains, positive affect relates to educators providing environments that stimulate happy states in children. Maslow (1962) details peak experiences as “moments of highest happiness and fulfilment” that are often achieved by a nature experience and other experiences such as creative and intellectual insight (p. 40). Studies on contextual factors indicate that positive affects promote cognitive flexibility and improved creative problem solving abilities (Isen et al., 1987). Positive affect has been found to increase a person’s ability to organise ideas in multiple ways and access alternative cognitive perspectives.

According to Nickerson (1999) children need to be able to engage in creative expression without fear of ridicule or reprimand. This does not imply that in the interest of not stifling creativity, educators should let children do whatever they wish. Rather, Nickerson suggests that “the need for structure, discipline, self-
restraint, and respect for tradition and convention is as real and important as the need for freedom, spontaneity, innovativeness, and risk taking” (p. 418). Although creativity can be stifled by repressive environments, it is not necessarily fostered through total lack of constraint (Marjoram, 1988). Too little structure can also be as inhibiting of creativity as too much (Runco & Okuda, 1993). As part of an intentional curriculum that supports creative development in children, a careful balance between providing structure and freedom is necessary.

The manner in which educational spaces are divided and resourced sends specific messages to children regarding their learning. Wallach and Kogan (1965) suggested that test-like classrooms do not allow much divergent and original thinking, whereas game-like and permissive environments support divergent and original thinking. Root-Berstein, Bernstein and Garnier (1993) concluded that the general tendency of modern society to undervalue play within educational settings is a cause of concern that creative facilities and our children are being short-changed. Spaces that promote creativity include open-ended activities and resources that encourage divergent thinking (Wallach & Kogan, 1965). Creativity flourishes in an atmosphere where original thinking and innovation are supported. It is natural then to consider that the open space of the outdoor environment would therefore be more conducive to children’s creative development. However, creativity and innovation should not be confined to particular processes (or learning areas) rather; creativity should be seen as a function of all areas of activity.

From this research, indoor spaces were considered the main areas for intentional learning with more thought given to design and planning through the intentional teaching practices of educators. In contrast, the outdoor space was considered an area for children to run freely and explore their world. The following photos from the participating centres provide evidence of how space was used within the differing learning environments for children. The first two photos are from the private Long Day Care centres (centre one and centre two) in this study. In chapter five, participants from these centres voiced their dissatisfaction with their outdoor learning environments. These educators felt they were restricted with what they could do and provide for children due to constraints ranging from
routines, supervision stations, mixed-aged grouping and lack of interest from the private owners to invest in any changes to the design of the play area. Educators from these two centres also believed that the outdoor space should be an area for children to run free.

**Figure 8.2** Use of outdoor space at Carl’s and Rita and Sally’s centres
In contrast to these photos, Joan and Nelly’s centre (centre three) prided themselves in creating an outdoor learning environment that was just as valuable for children’s learning as their indoor environment. At the second focus group session when participants were discussing outdoor areas, Joan commented:

*I see the potential of the outdoor area. We want more though, we are trying to divide it up even more so there are little areas for children to go to, because the more areas the more focus on what they want to do in those areas.*

At a visit to Joan and Nelly’s centre I remarked on the number of activities they had planned outside for the children and how engaged the children appeared to be. In comparison to other centres who had an average of five planned areas, this centre had a daily average of twelve planned learning areas for children. I asked Nelly her thoughts on the outdoors providing more freedom for the children. Nelly mentioned:

*The children don’t have a lot of space to run around, we need to take them to a nearby park for that.*

The following photograph provides some evidence (although it is difficult to show the whole layout from one photograph) for the thoughtful planning and design of learning areas at this centre.

**Figure 8:3: Use of outdoor space at Joan and Nelly’s centre**
It was clear that in centres one and two that far more scope to intentionally plan and arrange space was found indoors. The following photos feature the indoor spaces from each of the participating centres. The first photo is from Carl's centre (centre one), the second is from Joan and Nelly’s centre (centre three) and the last two are from Sally and Rita’s centre (centre two).

Figure 8:4 Indoor arrangement of space at Carl's centre

![Image of Carl's centre](image)

Figure 8:5 Indoor arrangement of space at Joan and Nelly's centre

![Image of Joan and Nelly's centre](image)
The arrangement of learning experiences and the provision of resources in these examples facilitated more learning indoors. Outdoors was considered by the educators of two centres as a place to release energy. This intentional division of space also indicates that curricula areas are being segregated rather than addressed holistically as is the intention under the EYLF (DEEWR, 2009). At this point in the research I wanted to know in what learning context educators were supporting children’s creative development and thinking. While the role of the educator appeared to transition to one of a supervisor outdoors, what was also evident in the photos was that far more engagement with children was occurring indoors. Therefore I was interested to see if educators were supporting children’s creative thinking indoors, even though this contradicts their initial statements of creativity occurring outdoors. The next section of this chapter discusses creativity as a cross-domain ability, not restricted to designated areas such as arts and craft and explores how educators are making connections from their intentional teaching practice to children’s creative thinking.
CREATIVITY: A CROSS-DOMAIN ABILITY

Creativity is often associated with the creative arts and the generation of creative products by children during indoor art and craft experiences. It is not surprising that many adults and educators have conceived of creativity as associated with the ‘arts’ as these have been given low priority within the National Curriculum and early childhood curriculum and inevitably, children’s creativity has become restricted. Kaufman and Baer (2004) in their study involving 117 college students found that students closely associated creativity with the arts and crafts and found very little association of creativity with math and science. Likewise Feist (1999), Sternberg (1985) and Runco (1990) reported implicit theories of domain related creative ability. Educators’ beliefs and theories on creativity matter because they influence deeply how creativity is thought about within educational environments.

From this study only on four occasions, educators mentioned to children that they were being ‘creative’, captured through audio-recording. All four of these related to creative arts during indoor free-play time. Creativity research agrees that creativity involves originality or novelty (Feist, 1998; Gardner, 1988; Guilford, 1950; Lubart, 1994; McKinnon, 1962; Nickerson, 1999; Runco, 2004; Sternberg & Lubart, 1999). In order to be creative children require time and flexibility for self-expression, problem finding and problem solving (Beyer, 2000; Gifford, 2010; Van Tassel-Baska 2006). These characteristics can therefore occur in any domain of learning.

Evidence suggests that cognitive abilities and processes applicable to creativity and problem-solving apply across domains (Amabile, 1996; Barron & Harrington, 1981; Carroll, 1993; Dacey & Lennon, 1998; Fasko, 2006; Fink & Neubauer, 2008). Educators therefore need to view creativity in a much broader context. Creativity has the potential to provide vital connections for cross-curricula development rather than narrowly defining it within art education. At the final focus group session with educators, participants were asked: In concluding our study together, what are your thoughts on creativity in young children? How are they creative? Or when are they more likely to be creative showing new ideas in their play? What impacts on creativity?
Joan wrote a reply to this question via email. Joan through her reflection in participating in this research found that:

*Impacts on children’s creativity may occur due to educators’ restricted attitudes of what creativity represents e.g. some educators view creativity as visual art representation and forget about the creativity involved in drama, literature, music and human movement and also the often neglected area of science. Thinking of a scientific hypothesis is a creative act in itself of visualisation, prediction and experimentation with materials.*

This statement shows a developed understanding of creativity as a cross-domain ability for children. It is apparent that this research has caused Joan to reflect on her beliefs regarding creativity and is more aware of how creativity is represented in the curriculum. Changes to practice start with the beliefs of educators. It is evident that this study has not only challenged educators in their thinking regarding children and creativity, but how educators intentionally structure and support children’s creative thinking.

Rita noted that:

*Children are creative throughout the day especially during dramatic play, free-play outside and other opportunities when they are given space and not as many pieces of equipment. I believe opportunity impacts greatly on their creativity. If they are given lots of closed, set tasks that require a completed product, they will not be as creative as if they are given free time to roam and think about what to play.*

Molly mentioned:

*Sometimes time is not taken to be creative or just to play. I really like the current focus on natural play- I am loving at the moment that flowers and leaves in our yard are boats, coffees, bugs cars.*

Both Rita and Molly are associating creativity with free-play and the outdoors. Evidence from this study previously identified that educators were paying far more attention to resourcing and planning the indoor learning environment as compared to the outdoor environment. While outdoors, educators were also found to
‘supervise’ children and interact less frequently as compared with the indoor environment as reported in chapter five. Overall, the outdoors was considered an area where children and educators could relax and enjoy playing. As found in this study, Molly and Rita commented that for them creativity occurred outdoors and with nature. Creativity was also viewed as the ‘children’s tool’ for learning thus explaining further the low level of interest or recognition for children’s creative thinking outdoors. Although it has been suggested that researchers should examine children’s interactions in free-choice activities as an indicator of creative behaviour (Milgram, 1990; Root-Bernstein & Root-Bernstein, 2006) it appears that these educators are not identifying with their role as intentional teachers who support children’s creative development while outdoors.

As children engage in free-play they encounter many problems of which the educator should provide an essential link for guiding and supporting the development of creative thought processes. This is dependent on well-informed strategies that the educator implements in order to enhance learning and development. The comments made by educators in this study indicate that creativity is something that children do and have not yet realised their role to intentionally sustain, engage and support children in creative thinking opportunities. The educators are relying on the environment to provide the resources for creative development rather than their interactions. The next section of this chapter addresses children’s environments with regard to nature and creativity.

ENVIRONMENTS: ENGAGING WITH NATURE
Young children’s engagement with nature has been dramatically affected within 21st century community and learning environments. Author Richard Louv (2008) coined the term ‘nature-deficit-disorder’ to describe the loss of connection children increasingly experience with the natural world. Louv argues that a loss of communion with other living things affects health, spiritual well-being and many other areas. The cause of the disorder includes loss of open space, routines and busy schedules, an emphasis on team sports over individualised play and exploration, competition from electronic media and ‘culture fear’ what Louv
describes as a fear to venture into outdoors (2008). Increase in reporting of sexual predators and other dangers, such as traffic, from venturing outdoors has sparked concern by parents for allowing their children to play freely outdoors (P. Gray, 2011).

A growing body of evidence suggests that significant changes have occurred in childhood over the past several decades relating to young children’s experiences with nature. Kellert (2005) argues that play in nature, particularly during the critical period of middle childhood (and debatably from this study, during early childhood), appears to be an especially important time for developing the capacities for creativity, problem-solving, and emotional and intellectual development. Kellert also notes that over the past 25 years the chances for children to directly experience nature during playtime has drastically declined (2005). This is largely due to the constraints imposed through regulatory requirements for early childhood centres as mentioned in chapter six where educators must provide a ‘safe and secure play environment’.

A fundamental characteristic of play is that it is directed and controlled by the players themselves. Children are able to decide for themselves what to do and how, and they must solve their own problems, including those that arise within their play. Gray (2011) explains that through play, children learn to control their own lives and to manage the physical and social environment around them. It is interesting to note that Gray does not acknowledge the role of adults or peers in supporting the development of creative thinking in children’s play, thus highlighting a common neglect for the role of educators in available research.

The role of the educator appears to mainly involve the need to maintain a safe environment in which children can move freely and engage in risky play and provide resources for children where they can challenge and explore their abilities. While educators in this study were focused on supervising children in order to maintain a safe play environment, they often missed out on opportunities to support children’s creative thinking and the intentional learning that was taking place before them.
In this study educators were asked to record interactions between themselves and the children. As an outsider, I observed additional interactions of children outdoors when educators were not interacting with the children. During these moments significant problem solving events occurred between children during their investigations. It was concerning that moments like this were often missed as a direct result of educators who perceived their role to be more ‘supervisory’ rather than one of an ‘intentional teacher’. Another reason previously found in this study for not engaging in such moments was the lack of intent to engage with children who did not belong to ‘their’ room. While creativity was viewed as something children did when outdoors, a general reluctance was demonstrated by educators for not engaging with the children.

This study has found that educators are depending on questioning techniques as their main tool for intentionally teaching. This focus on questioning children neglects other important intentional teaching strategies such listening, observing and documenting what children do together. In recognition of the theoretical underpinnings of this research, within the zone of proximal development children can be transformed in their knowledge and skills through shared interactions with their peers; it is not always with educators (Vygotsky, 1978). The misinterpretation here of intentional teaching and the relation to children’s creative thinking is that the role of the educator outdoors is to provide a safe environment and resources for the children. More consideration for how to effectively support children’s creative thinking through thoughtful provocations, intent listening, careful documentation and planning is required.

The following play scenario was noted in the researcher’s journal providing one example where educators were not considering opportunities for documenting collaborative problem solving and peer learning when they had no role in the interactions that took place. As a researcher, I was able to record the intricate processes of problem solving that occurred between the boys without the need for interfering in their play. This type of documentation can be useful for later reflection with other educators for considering additional resources that could be intentionally placed to promote further problem solving and creative thinking activities.
Two boys in the sandpit were discussing how to make a ramp together:

Child 1:  *The car can go up and zoom into the bucket*
Child 2:  *I wish I could do that but how?*
c1:  *Well I have a really good one, how about we put a pipe in there?*
c2:  *Yeah that was my idea!*
c1:  *There is that deep enough?*
c2:  *I think you just need a shovel (children proceed to dig deeper together)*
c1:  *There I built a new ramp on the side*
c2:  *I’ve got a great idea! If I build a new ramp on here, it can go brrrm over and on to here!“ (from the ramp over the hole and onto his friend’s ramp)*
c1:  *Okay try my ramp*
c2:  *What about we put the pipe in instead?*
c1:  *But how will it go in?*
c2:  *Like this way!*

The following is a photo of this play frame and the boys building ramps.

Figure 8.7  Building a ramp: Peer collaborative problem solving
In this scenario, the boys were quite competent at setting and achieving their own goals for learning, representative of the intentional learner as promoted through this research. The open-ended resources provided by the educators can be considered an intentional teaching strategy for children to develop their creative ideas. In addition, the natural resource of sand promotes exploratory play and the rich potential of nature. What is not clear is whether just providing resources and environments are enough to stimulate and support the development of creative thinking in children. According to Gandini (1993) environments provide children with a sense of well-being and at the same time promote learning and exploration. The following section discusses the power of nature as a valuable resource, essential for children’s growth and development.

Play with nature teaches children about nature as a ‘resource’ as well as develops a sense of wonder that manifests the spiritual life of the young child. The EYLF promotes holistic approaches to care and education, recognising the “connectedness of mind, body, and spirit” (DEEWR, 2009, p. 4). Kellert (1993) suggests we depend on nature to meet our “craving for aesthetic, intellectual, cognitive, and even spiritual meaning and satisfaction” (p. 42). Likewise Louv (2008) in calling for a nature-child reunion discusses the spiritual benefits associated with positive connections with nature. According to Hart (2005) wonder is one of the spiritual capacities and experiences of young children and includes feelings such as awe, connection, joy, insight, and a deep sense of reverence and love (Wilson, 2012). This state of pleasure provides an environment conducive to creative responses. Wilson (2012) describes that the emotional connection that arises through fascination, awe and wonder in the natural world is often expressed through the arts.

Returning to what Russ (1999) described as affective creative experiences and Preiser’s (2006) positive learning environments, being outside and a part of nature tends to induce a positive state in which creative abilities in children flourish. Ozhiganova (2001) found that specific environmental factors enhanced levels of creative production by promoting curiosity, creative activities, independent learning and a holistic understanding of the world. These factors included an emphasis on emotional self-expression, richness of materials available and
absence of requirements to exhibit creativity. In a study of four-to-six-year-old children’s preferences for play in the outdoor learning environment, Azliner and Zulkifee (2012) found that children preferred the natural play areas consisting of trees, logs, benches, sand and turf. Children also experienced increased freedom to explore and engaged in different kinds of complex activities.

Nature inspires creativity through the complexity of possibilities for play and learning. Atchley, Strayer, and Atchley (2012) reported that people from all walks of life showed startling cognitive improvement with a 50 percent boost in creativity, after living for a few days in steeped nature. Atchley et al. (2012) found that engagement with nature promoted creativity, imagination and problem solving abilities and promoted happier people who engaged more in productive ways with others. Vadala, Bixler and James (2007) emphasised the importance of adults providing opportunities for children to be in nature however their research does not go further into the role of educators in sustaining children’s play.

At Joan and Nelly’s centre nature was an important element in children’s play. One way this centre included nature in children’s learning, was in the constant provision of clay for exploration outside. The educators supported children’s representations and encouraged them to collect additional natural resources to add to their creations. The following photo provides evidence of this play area.

Figure 8:8 Engagement with natural resources
Just providing natural resources does not guarantee creative thinking in children. In making the connection from nature to children’s aesthetic and creative abilities, the educator not only needs to provide environments conducive to creativity but also be aware of the child’s intentions in their play and look for opportunities to provoke their interest, challenge their thinking and support independent or collaborative problem solving. Listening to children as they represent their thinking through different media allows the educator to gain insight to the processes of thought that guide the child’s learning.

There needs to be a careful balance between the children’s intentions for learning and how educators scaffold and guide children’s thinking. An educator who directs the child’s thinking by imposing their own goals for learning runs the risk of interrupting the child’s ‘flow’ of creative thought processes. The following artefact is a learning story written by Sally of a child’s exploration with play-dough and a goal for making turtles while outdoors. As noted in the documentation, this experience is linked to the EYLF outcome two, (DEEWR, 2009) *Children contribute to and are connected with their world.*

**Figure 8:9 A learning story: Making turtles**
This example is of a child engaged in a problem solving activity involving how to represent a turtle out of play-dough. While the learning story is descriptive of what occurred, and focuses on the educator’s role and voice, there is little attention paid to what the child said or was thinking during the experience. Further to this, in a follow-up experience, Molly who had recently visited Malaysia had some photos to share with the children. Molly was keen to share her new knowledge and experiences with the children stating: *Did you know that when I was on my holiday I was able to see baby turtles in the wild; they were baby green sea turtles.* Molly showed the children a series of photos explaining how the baby turtles are kept safe after they were born. The children were then asked if they had any questions they wanted to ask about turtles.

Children asked questions such as:

*Do turtles crawl around? What do they need their flippers for? How do they drink?*

In this example, there is a strong focus on the educator guiding the children’s learning. Children were encouraged to ask questions, rather than elect them spontaneously, and while the educator was keen to share her experiences with turtles, there were few opportunities for the children to share their knowledge or prior experiences with turtles. The intentional teaching strategies evident in these examples show the educator leading a group experience by providing her previous experiences and using questioning techniques to guide the children in a directed learning experience. This technique was found in earlier chapters at centres where intentional teaching occurred more frequently during indoor group time experiences and where educators could manage and direct the group for project work collectively.

In order to allow children an opportunity to contribute to the construction of curriculum the identification of the child as an intentional learner requires more balance in utilising strategies that seek to understand the learning goals and understandings of the children. According to Berliner (1992) thoughtful questioning is used to gain insight into what children are thinking and to stimulate their thought processes. Asking questions such as the above example are useful for finding out what children want to know in order for the educator to plan
curriculum, however they do not find out what children already know, experienced or would like to learn more about. This research has identified the child as an intentional learner providing agency for children in setting their own goals with educators. Educators therefore need to employ a variety of strategies in order to support children in co-constructing curriculum and to assist children in developing their own pathways for learning.

While the educator was sharing her experiences of engaging with the natural world, and using an iPad to show children pictures, it is important that we also provide children with opportunities to connect with nature or at least discuss their experiences with nature. Children have a natural infinity with nature (Kellert, 2005) and therefore need outdoor spaces that support natural inclinations for exploration and dispositions of curiosity. The EYLF promotes the outdoors as a special feature of Australian learning environments. Play spaces should be natural environments that include “plants, trees, edible gardens, sand, rocks, mud, water and other elements from nature”. These spaces promote “open-ended interactions, spontaneity, risk-taking, exploration, discovery and connection with nature” (DEEWR, 2009, p. 16).

Within this study participants voiced their concerns for their ‘natural world’. Carl and Rita mentioned that at their centres the private owners ripped up the natural play areas and laid Astro turf (artificial grass) and fixed climbing structures in order to provide ‘safe’ areas for children to play. Within many Australian early childhood centres, manufactured play equipment and surfaces have become common design elements in the outdoors in the view that they ameliorate risk (Ward, 2013; Wyver et al., 2010). As Ward (2013) explains, the use plastic equipment and artificial ground covers has “further restricted young children’s opportunities for engaging with nature, therefore compounding the disconnection from the natural world” (p.166).

The physical learning environments as created by the owners of centres are presenting many limitations for the educators who have become frustrated by the inflexibility of the design as well as lack of opportunities for creative expression and imagination for the children. The focus of the owners is to ensure that all equipment meet the recommended safety requirements (Kidsafe, 2014b) rather
than the educator’s considerations for adequately providing quality areas that support the explorative needs of children.

Carl mentioned:

_There’s not a lot of imagination in it_ - I’ve been watching the children outdoors, and the boys go ‘I want to play with this’ and then they go and try to find what they can use but someone else is playing with it, so they go ‘we can’t do that anymore’.

The following photo is evidence provided from Carl’s centre demonstrating the high use of plastic and artificial materials outdoors. The following section will address the resources provided within learning spaces.

**Figure 8:10  Carl’s outdoor space: Lack of imagination and purpose**

**RESOURCES**

In the two privately-owned Long Day Care centres, the outdoor areas presented as uninspiring spaces characterised by the lack of nature and resources for children to engage in and exercise their imaginations. You can see in the photo at figure 8:10 children’s disregard for resources that have been strewn over the ground, indicative of the lack of intentional teaching provided to children to sustain
their interests and model respect for resources. In a study by Munroe and McLellan-Mansell (2013) educators also reported that they did not take children outdoors for greater periods of time due to inadequate, poorly maintained, or impoverished, uninteresting outdoor play spaces. They also mentioned in this study that the educators did not like being outdoors due to no ‘provisions’ for the adults’ comfort. This implies that the educator should be able to relax, or sit down while children play, undermining the important role intentional teacher’s play while outdoors.

Children’s craving for natural environments was demonstrated at centre one when they were allowed to enter the bordering garden (something children were not usually allowed to do at this centre). You can see in the series of photos at figure 8:11 the educator, Carl leading the way, breaking new territory for the children. As one girl brushed a tree branch aside, the discovery of a stick insect drew the immediate attention of a large group of children. Carl noted:

*That day, they found the stick insect; it was only because I let them climb that tree that they found it!*

**Figure 8:11 The stick insect: Carl’s attempt to engage children with nature (a series of five photos)**
When this scenario was raised at a focus group session, other participants noted that children were almost ‘starved’ for interaction with natural resources available to children.

Molly noted:

*Everyone blower vacs because you can’t have mess in your yard….but it’s easier to pick up the leaves and pretend with them rather than go and find all the resources to play with. Like if you’re cooking, leaves and flowers with this and this….we are taking away opportunities for children to be creative.*
Despite the lack of natural features in the outdoor environment, participants mentioned that they tried to introduce natural resources where possible. Nelly mentioned how she saw a big stump on her walk to the centre, so she asked another staff member to help her drag it into the play area. The children were observed to add streamers, bridges, stones, little people, fairies and Kings and Queens. Another educator mentioned how she brought sliced palm stumps into the play area as they were lovely round forms for children to build with. Following are four photos of natural items added to learning environments.

Figure 8:12  Natural resources added to the learning environments (a series of four photos)
From research it has been suggested that children need to have goals that stretch their capabilities, but they also require supportive environments that reward efforts, even when not successful (Knapp, 1963; Russ, 2004; Sternberg, 2007). Finding a balance between demanding and supportive environments is more conducive to the development of creativity than environments that have too much of one of these characteristics and little of the other (Knapp, 1963). The next section of this chapter addresses the importance and demands of time in stimulating or restricting creativity in children.

**TIME**

One of the strongest signs of being in the zone or as Csikzentmihalyi (1990) would say in ‘the flow’ is a sense of freedom. Robinson (2009) explains that ‘time’ feels very different in the zone. Time tends to move quickly when you are fully sustained or deeply involved in an activity. Allowing children enough time to become engrossed in their learning is something most participants felt they struggled with. As was found in previous chapters, the constraints of time due to sun policies and other regulatory requirements often prevented children from either entering that ‘zone’ or staying there long enough for an experience to become meaningful to the child. In one observation I noticed a child who was building with large blocks and just started a dramatic play experience with puppy dogs and kennels, had to stop what he was doing and leave the blocks to go indoors as it was now time to ‘get out of the sun’. I remember questioning why it would not be okay to bring the blocks indoors or onto the verandah area so that the children could continue in their play. Through recognising the child as an intentional learner and co-contributor to curriculum decisions, it is fair to suggest that further considerations are necessary for how the children’s own needs and rhythms shape the arrangement of space and in turn, the allocation of time.

The following artefact at figure 8:13 is an example of a daily routine for children provided by centre one for the purpose of this study. This tight schedule does not allow for much flexibility for accounting the children’s pace in their own learning.
Often time is used by educators to elicit productivity, so that children generate products in line with set curricula goals. In a study by Lee and Seo (2006) teachers were found to define creativity in terms of actual products and productivity. A similar finding in this study has found that portfolios were being used to compile children’s accomplishments, often focusing on the products of learning. This was observed during field visits to centres.
Process or products

From research into creativity in young children, the identification of processes is necessary in order to produce the foundations for future creative abilities. Creativity involves both thinking and acting. Moran (1988) suggests that the focus of creativity needs to be on the process, rather than the product, therefore educators need to encourage students who are not yet productive but have the potential to do so. The role of the educator as an intentional teacher is vital in guiding and supporting children’s thought processes and to provide careful documentation that provides a visible trace of the learning and creative thinking (Malaguzzi, 1998). Educators in this study discussed their ideas during a focus group session in response to the question: So what’s important in creativity, the actual process or the product they come up with?

Carl stated:

*It’s definitely the process, ‘cause sometimes they could have a fantastic picture…but you might go back in five minutes and it’s turned into a mess of black! It’s frustrating…it’s still something creative for them.*

This example indicates that lack of support and guidance from the educator during this creative opportunity resulted in the process becoming lost and eventually destroyed. There may have been a different result in this learning experience had the educator not left for five minutes. The attitude that it is creative ‘for them’ implies there is no role for educator in supporting the creative process.

Rita responded:

*I think it depends on the individual children whether it’s the process or the outcome.*

Again in this example, the process seems to be owned by the individual child, rather than shared with the educator.

Sally mentioned:

*It comes back to the parents too….they say “do you have a painting for me today?” sometimes they didn’t choose to do a painting but they built this out of*
clay or spent a lot of time building this in the block corner, so they have been creative in other ways.

Carl stated:

*I think our documentation is a lot better these days and educates parents as to what creative processes are.*

Whereas Carl has stated the importance of documenting the process of learning, examples provided by centres were often very descriptive and from the perspective of the educator who has led the child/ren through a learning experience. Learning stories (Carr, 2001) are a useful way to trace children’s thinking. Documentation that includes the child’s intentions in their own learning is more likely to convey the message that the process is more important than the product to parents. The following artefact from centre two is an example of a learning story communicating to parents and caregivers the decision-making and cooperation that occurred during an activity. In this example, the educator is describing how the children painted and contributed to the construction of a rocket ship.

**Figure 8:14 A learning story: Our rainbow rocket**

![Our rainbow rocket](image)
Most documentation sighted from Carl’s centre and Rita and Sally’s centre on display for parents featured group project work under the guidance of an educator. What was lost in this form of documentation were the individual thought processes of the children or the child centred within communities of learners (Lave & Wegner, 1991). The following example is from a child who was sitting quietly and drawing her own rocket ship after being involved in the group painting experience. After noticing her work, she wanted me to have the drawing for my ‘research’. This artefact is indicative of a missed opportunity for recording information that represents the child’s thinking while she drew her rocket ship.

Figure 8:15 My pink rocket ship
Many definitions for creativity focus on the generation of novel ideas or products that are useful to society (Amabile, 1996; Plucker & Beghetto, 2004; Runco, 2007; Sawyer, 2006; Sternberg & Lubart, 1995). Recently, creativity research has shifted to processes rather than products with emergence theories of creativity focusing on process rather than on end products (Sawyer, 2003). This approach to children’s creative development is supported by sociocultural theorists such as Vygotsky (1930, 1978) and Rogoff (1990) who emphasise the developmental processes of creativity. This is in contrast to prior developmental theorists whose focus was on end points of development. In response, creativity researchers such as Feldman (1999), Getzels (1976), and Csikszentmihalyi (2003) have been influential in shifting the focus from an emphasis on creative products to the creative process (Sawyer, 2003). For young children “play is a window on the beginnings of the creative process” (Russ, 1999, p. 57). Research suggests that children have the capacity to develop creating thinking and that the generation of products useful to society is not such an important aspect of creative development in early childhood (Moran, 1988; Russ, 1996). Promoting creative thought processes of individual children within social contexts for learning through documentation such as learning stories highlights this significance.

Just providing the structural supports for creativity is not guaranteed to produce creative thinking and behaviour in children. Contemporary creativity research calls for a confluent approach that not only focuses on cognitive processes but also personal qualities like social and emotional characteristics, family and educational matters (Feldman, 1990; Gardner, 1989, 1993a; Gruber, 1981; Sternberg & Lubart, 1995; Sternberg & Lubart, 1996). Mentorship has been identified as an important aspect of preparation that often plays an important role in the development of great creativity (Runco, 1991). Data from this study is indicating a lack of connection between the role of the educator and the creative thinking of children. The next chapter will discuss the role of the intentional teacher in guiding and supporting creativity and creative thought processes in young children.
SUMMARY
Educators in this study expressed their belief that creativity occurred mainly during outdoor free-play times. Educators also conveyed how limitations of physical space, access to natural resources and the constraints of time prevented opportunities for children to extend their creative thinking in play. Whereas the provisions of structural elements are important factors for supporting children’s creative activities, the role of the educator cannot be overlooked. As was found with most available research, educators in this study were failing to recognise their role in supporting creative thinking in children, often viewing this process as something the children did independently while they watched on. In addition, what was emerging from the data was a lack of understanding for what creativity means holistically across learning domains and as an important aspect of children’s cognitive development.

The next chapter will address the core research question: How are intentional teaching strategies used by educators in the development of creative thought processes of children aged four to six years within Australian early childhood learning centres? This final analysis chapter will examine how intentional teaching strategies are used by educators in order to assist the development of creative thought processes in children.
Chapter 9
The intentional teaching strategies of educators and the development of creative thought processes of children

This chapter examines how intentional teaching practices promote children’s creative thinking and creative development. This chapter addresses the core research question:

*How are intentional teaching strategies used by educators in the development of creative thought processes of children aged four to six years within Australian early childhood learning centres?*

**INTRODUCTION**
In this chapter the intentional teaching strategies that promote creative thinking and development in young children through social interactions will be discussed. Chapter eight identified the structural supports of physical space, resources, environments, nature and time that promote and support creative thinking in children. From the data it became evident that while educators expressed their beliefs of children’s creative capacities, little evidence was provided for supporting children’s creativity through their role as intentional teachers, other than the structural supports provided. This chapter aims to address the significant role of the educator through closer examination of their intentional teaching strategies that enable the development of creative thought processes of children.

Firstly, this chapter will explain how an understanding of creativity is necessary in order to promote creative development in children. In response to the identified need for creativity to be re-defined in a way that is suited to early childhood learning environments, this chapter presents a revised definition for creativity suitable for early childhood contexts promoting creative thinking through play as an essential aspect of children’s development. Secondly, it aims to address children’s dispositions, such as curiosity, intrinsic motivation and interest as
important influences for creativity. Thirdly, the identification and explanation for
the elements of creative thought processes including problem solving, meaning-
making, imagination, questioning, state of flow, pretend play and improvisation will
be presented.

**UNDERSTANDING CREATIVITY**
The main issue of researching creativity with young children is that previous
definitions are not applicable to children aged four-to-six-years of age due to an
emphasis on the value or purpose of products for a society. According to
Csikzentmihalyi (2003) because creativity does not exist until it produces a
change in the culture, it cannot be observed or measured in children. Most
research on creativity agrees, as previously noted, that creativity is “a socially
recognised achievement in which there are novel products” (Barron & Harrington,
1981, p. 442). A creative idea must be novel, appropriate and valuable or useful to
society or a community (Sawyer, 2006; Sawyer et al., 2003).

John-Steiner (2003) challenges this definition suggesting that we need to explore
in much greater detail what is meant by ‘society’. Children’s production of novel
ideas or objects may not be considered useful to society at large; however there is
the potential that they may be considered novel and useful to children that inhibit
the microsystems that comprise as their ‘communities’. Further, Malaguzzi (1998)
explains that children are “the best evaluators and the most sensitive judges of
the values and usefulness of creativity” (p. 75). This view is indicative of a
contemporary image of children within societies and cultures and has been taken
up in this study. Communities that value children as contributing citizens also
acknowledge the role adults play in recognising the creative potential in young
children. Malaguzzi (1998) explains that:

> Creativity becomes more visible when adults try to be more attentive to the
cognitive processes of children than to the results they achieve in various
fields of doing and understanding (p. 77).

From a contemporary perspective and approach such as found in Reggio Emilia;
a place that values children as citizens of today who are capable, competent
contributors, perhaps the idea that children are capable of contributing in creative ways could further be recognised.

What is interesting to note, is that definitions and understandings for creativity may be culturally bound. Whereas many American researchers maintain the importance of creativity producing items that are novel and useful to societies (Amabile, 1983; Csikszentmihalyi, 1994; Feldman, 1999; Feldman et al., 1994; Sawyer, 2006; Sternberg, 2005; R. Weisberg, 2006), others such as Malaguzzi view creativity in a different way. Malaguzzi (1998) explains: “As we do not consider creativity sacred, we do not consider it as extraordinary but rather as likely to emerge from daily experience” (p. 75). Within the centres of Reggio Emilia, creativity requires that “the school of knowing finds connection with the school of expressing, opening the doors to (their slogan) the hundred languages of children” (Malaguzzi, 1998, p. 77). While the Early Years Learning Framework (EYLF) has been hugely influenced by the Reggio Emilia approach, it is not evident in the documentation that there is a clear understanding for creativity for children’s learning within Australian contexts.

As a result of this research, a revised definition for creativity has emerged from analysis of essential aspects of children’s creative thinking highlighting the significance of the imagination and creative processes. This definition is an elaboration of a neo-Vygotskian belief that creativity is a process that includes children’s play, imagination and fantasy. It is a transformative activity where meaning-making involves “construction of the new” (Connery et al., 2010, p. 13). Following is a revised definition that reflects a neo-Vygotskian theoretical framework consistent with the ontological and epistemological beliefs of this study and further draws from the John-Steiner notion for recognition of children as agents in their own lives:

Creativity for young children involves cognitive processes that develop through social interactions, play and the imagination. Creative thinking is a transformative activity that leads to new ways of thinking and doing that are novel for the child or useful to children’s communities.

To further the understanding of children’s creativity, this study has contributed a diagram of the ‘cycle of creativity’. Figure 9:1 outlines the elements of the creative
process as identified by participants and the researcher in this study. The next section of this chapter will focus on children’s dispositions as well as identify the essential components of the creative process that contribute to children becoming productive and creative members of society.

**Figure 9:1 The cycle of creativity**

**Creativity:**
The ability to produce work that is novel and appropriate or useful to society.

**Dispositions:**
Curiosity, intrinsic motivation, and interest.

**Creative process:**
Problem-solving, divergent thinking, meaning-making, imagination, questioning, state of flow, pretend play and improvisation.

**Productivity:**
Products, convergent thinking, originality and novelty.

**Educators promoting creativity within early learning environments**

It is hoped that the revised definition for creativity and the ‘cycle of creativity’ developed through this study will assist educators in how they view and support young children’s creative thinking. Once educators understand how creativity is applicable to young children’s growth and cognitive development, it is more likely that they will promote creativity within learning environments. This contributes further to the strategies of the intentional teacher who is then able to describe how children are being creative, in particular the creative thought processes employed to create and represent their thinking.
In order to support creativity in children, educators need to provide opportunities for children to practice creative thinking in all areas of learning; value and appreciate their efforts; and model creative thinking and behaviours themselves (Runco, 1991). Educators therefore can role model creativity by thinking divergently, solving problems, displaying flexibility and evaluating ideas. Discussing alternatives or thinking divergently when introducing a topic or project, demonstrates to children that creativity is something to be valued. The aim of this chapter is to look closely at the intentional strategies educators use in order to assist children in their creative thinking.

It was not evident in this study that educators understood their role in promoting children’s creative thinking through their interactions. In general, creativity was associated with children playing outdoors and considered a tool for children’s learning. In field notes it was noted that following conversations on the topic of creativity during focus group sessions, educators became more aware of incorporating the word ‘creativity’ in their practice (see examples below). This is indicative of a constructivist approach where meaning is socially constructed and applied to practice, rendering it comprehensible and understandable (Hatch, 2002). Educators’ responses to children’s creative thinking was observed to be mainly through offering praise for the children’s efforts, rather than looking for opportunities to support and extend children in their thinking.

The following interactions between educators and children are some examples from the data that provide evidence of educators supporting children’s creativity:

*So if you’re feeling creative and you’ve got a good story in your head maybe you could make a book to take home and share with your brothers or your sisters or your mums and dads.*

*Very clever, good colour mixing today, you’ve been very creative.*

*You girls are very creative!*

*Well I’ll leave you to keep creating.*

While educators in these examples are using the word ‘creative’ there is little evidence or discussion on what creativity means for children or further support or
guidance offered from the educator. The children were encouraged to create independently. This re-affirms data in chapter eight where educators expressed that creativity was the children’s tool for learning. In chapter eight, Carl expressed his understanding of creativity for children’s thinking:

*You can tell they have got something out of it. It’s like enlightenment!*

Enlightenment, as Carl called it, is often referred to as ‘insight’ where the creator experiences this emergence as an ‘Aha!’ or ‘Eureka!’ moment (Sawyer, 2003, 2006). Creative insight emerges from unconscious incubation where constructions of new combinations are brought together (Bain, 1977; Sawyer, 2003). Mednick (1962) defined creative thinking as the “forming of associative elements into new combinations” (p. 221). This moment for a child was recorded in the following scenario where the educator was encouraging children to think about what was inside a maraca:

Child: *Oh! I have an idea! We could get lollies to pop in there, so they can go shake, shake, shake!*

The child’s response indicates new insight (Weisberg & Alba, 1981) or leap in knowledge (Baker-Sennett & Ceci, 1996). Vygotsky argued that a child’s development cannot be understood by a study of the individual; an examination of the external social world is also needed (Gallimore & Tharp, 1990). Cognitive and linguistic abilities occur on two planes, the social and then the psychological. Vygotsky (1930, 1978) explained that first it appears between people (interspsychological) and then within the child (intrapsychological). The transition from other-assistance to self-assistance (internalisation) occurs through the transference of skills and knowledge in this case, known as cognitive structuring. Neo-Vygotskian ideas refer to this interaction between the educator and child as assisted performance (Tharp & Gallimore, 2005). The child uses bits of information gleaned from prior experience and pieces them together with new information provided from the educator in order to construct new meaning. Assisting children’s thinking toward new insights and information promotes curious dispositions and intrinsic motivation in children. For insight to emerge into new thoughts and ideas, it is important that children develop dispositions where
they become interested and engaged in their learning. Capturing children’s curiosity is a key component of the creative process.

DISPOSITIONS

Young children are naturally curious. Curiosity is what motivates children’s learning and is an essential disposition for creativity. The importance of motivation from an inner desire to know more is what increases children’s motivation to be creative. Csikszentmihalyi (1996) has argued that “the first step toward a more creative life is the cultivation of curiosity and interest, that is, the allocation of attention to things for their own sake” (p. 346). The idea that early educational experiences can stultify their curiosity is a disturbing one (Nickerson, 1999). Nickerson (1999) argues that there is “little a teacher can aspire to do that will be more important to the quality of the intellectual lives of his or her students throughout their adulthood than to foster in them a deep sense of wonder about the world and existence” (p. 410). You cannot determine what will capture the interest of a child; however it is reasonable to say that children who are exposed to creative products and environments in stimulating and pleasurable ways will find something genuinely interesting.

The following transcribed interaction between a child and the educator is one example of how a curious disposition motivated the child to want to know more about the world around him/her. The educator used cognitive structuring techniques to scaffold the child’s thinking and offer further learning opportunities that supported his/her curiosity and interest:

Educator:  So are you making your nest?
Child:  Yes (child is making a nest out of sand).
c:  Will a real bird come in here? Will a real bird land in here?
e:  I don’t know do you think a real bird would land in here?
c:  No birds have stick nests.
e:  Stick nests.
c:  And guess what?
e:  What?
Chapter 9: The intentional teaching strategies of educators and the development of creative thought processes of children

I've sand and I've built one of these umm I build a nest and a bird landed in there.

Really? Some birds live in sand nests.... because there would be birds that live near the beach wouldn't there?

Nooo!

They'd have to make a nest somewhere. We'll have to have a look in the book.

They see people come, they will fly away!

Yeah when the people come the birds get scared, maybe the birds won't come while all the children are here, they might be scared.

Maybe they're too told.

Say that again?

Maybe they're told of all the winter!

Ahh you're right maybe they've flown away to get to a warm spot for the winter.

That's what birds do sometimes isn't it?

How'd you know that? 'cause you're just too clever? haha (educator and child laugh).

'cause I don't see any of them in the starr (sky).

No there's not alot of birds today, you're right! Yeah sometimes we see them flying around eating our crumbs underneath the food area...ah...look! I just saw a bird! Ooh look there's 2! It was black and white! I wonder what sort of birds they were..ohh look ,I can see another one up in the sky! Can you see it?

It's flapping it wings.

It's flapping it's wings, that's right thats how they fly isn't it.

And some times they soar with their wings out without flapping.
Intrinsic motivation can be defined as the motivation to engage in an activity primarily for its own sake, simply because the individual finds it interesting, involving, satisfying or personally challenging (Collins & Amabile, 1999). Promoting intrinsic motivation in children is an important disposition conducive to creativity. Scaffolding and support (Bruner, 1986; Vygotsky, 1930, 1978) offered by the educator assists in the development of children becoming intrinsically motivated toward their own learning. This could be likened to the term ‘sustained shared thinking’ (Siraj-Blatchford & Manni, 2006) however with intrinsic motivation there is an extension of this transaction whereby the child pursues learning out of his/her own inner drive or desire. In the above scenario the educator asked questions that provoked the child’s thinking about where birds lived. Further intentional teaching strategies used such as providing new knowledge, suggesting ideas or using open questioning techniques were also used to sustain the children’s interest and to find out what the child knew in order to cognitively structure his/her thinking further.

Creativity depends on the child’s freedom to pursue personal interests or goals for learning. It is not surprising that there is compelling evidence that people are more interested in - more internally motivated to engage in – activities they have chosen themselves rather than activities that have been selected for them by others, or in which they are obliged to engage for reasons beyond their control (Dudek & Cote, 1994; Kohn, 1993; Nickerson, 1999). Children require opportunities to find their own problems, to make real discoveries, to learn from personal experience and to learn how gratifying the experience of discovery can be (Nickerson, 1999). This reaffirms the positioning of the intentional learner who uses strategic thinking “processes that have learning as a goal rather than an incidental outcome” (Bereitzer & Scardamalia, 1989, p. 363).
All experiences for children can involve incidental learning opportunities, however intentional learning is likely to occur when situational and intrinsic factors create learning goals and opportunities for the child. Ormrod explains that:

As children grow, they increasingly engage in intentional, explicit learning: they actively think about, interpret, and reconfigure what they see and hear in their environment (2006, p. 19).

Hiemstra (1994) suggests that taking personal responsibility and control in education refers to individual children assuming ownership for their own thoughts and actions. An intentional learning environment is one where the educator’s role is to mentor, coach and guide and the learner’s role is to question, connect, reflect and apply knowledge to create, act and achieve (AAC&U, 2002). Goal-orientated learning is intentionally supported when educators are aware of the child’s intrinsic need to acquire and take control of their own learning. As children interact within their social environments spontaneous learning through play emerges. When children are provided with opportunities to take control over their learning they are more likely to engage in creative thinking than if lead by an educator. The next section of this chapter will explore the creative processes in thinking for young children through the elements of: problem solving, meaning-making, imagination, questioning, state of flow, pretend play and improvisation.

**Problem Solving**

Problem solving is the pinnacle for learning. For young children it is how they transform knowledge to higher levels of understanding. It has been suggested that creativity is essentially a form of problem solving that involves flexible thought and the practical application of skills (Moran, 1988). This ability is generally considered to be a critical feature of the creative process (Moran, 1988). Through problem solving, children engage all the major cognitive learning processes, in visualising solutions, checking for errors, and through collaboration, talking and reflecting as well as metacognition involving the evaluation of strategies and solutions (Gifford, 2010). Children have the ability to generate many ideas but need to realise that
some ideas are better than others. Adults and children (or children with more capable peers) should collaborate to identify and encourage creative ideas.

Creativity is a form of cognitive development that can be viewed as a developmental transition. Close observations of children’s changing psychological structures involves an awareness of the microgenetic process that takes place within development (Sawyer et al., 2003). Microgenesis is a term used to describe the extremely short processes of development that occur during the performance of a single task (Werner, 1940). A microgenetic focus is a focus on process through time.

Microgenetic studies found that children do not ordinarily substitute a more advanced strategy for a simpler one, even after older strategies are clearly seen to be ineffective (D. Kuhn, 1995). A second consistent finding was that children generally think about a problem in many ways at once (Alibali & Goldin-Meadow, 1993). Vygotsky (1930, 1978) emphasised microgenetic or ‘microstructural’ method through his Zone of Proximal Development (ZPD). Vygotsky highlighted that developmental processes lead to the construction of the new. While painting a rocket ship outside, the educator, Sally was asking the children questions about what else it needed such as fire at the bottom and an astronaut to drive it. The following discussion occurred where problem solving became a necessary means for the child to think innovatively through the ZPD as the educator scaffolded his/her understanding:

Educator: **We need a driver that drives the rocket!**
Child: **Yeah!**
e: **Excellent!**
c: **We need a thing to make it go up.**
e: **Yes, that’s right.**
c: **I know what can make it go up! String!**
e: **String, great idea. Who’s going to drive our rocket?**

Whereas the child in this transcript produced a good idea and brought something new to the learning experience, it is unfortunate that the educator did not follow up
on this idea – instead she returned to her goal for finding out who was going to drive the rocket. This example demonstrates also how adult-lead experiences can inhibit the contributions of children and ultimately their capacities to be intentional in their learning. It is not known what the possibilities for learning could have been had the educator provided the child with string to experiment and test and trial his/her novel idea.

Through social interaction, children develop the ability to see problems from different views and to escape the bounds of conventional thinking (Sternberg & Lubart, 1999). Problem solving is pinnacle to learning and essential for the cognitive progression to higher levels of thought. This may be realised when the individual experiences a kind of disequilibrium or in the case of adversity where a solution is required (Piaget, 1971; Runco, 1999, 2007; Stein, 1988). Transformational bases of personal creativity are universal and apparent wherever an individual constructs new understanding (Runco, 2004).

Vygotsky made the point in an essay that a “collective form of ‘working together’” involved a qualitative transformation as opposed to rote learning (Vygotsky, 2004, p. 202). From the data it was found that educators were focusing on their goals for children’s learning by emphasising the acquisition of knowledge and skills. In this study greater focus has been placed on goals for learning by educators in their intentional teaching strategies in comparison to acknowledging the microgenetic processes of the child. This was evident in practice through the use of closed questioning during planned group time experiences, mainly held indoors.

The following is one example from indoor experiences with a group of children where the educator was recalling information with the children on the topic of the solar system and using closed questions to elicit pre-determined answers from the children:

Educator:  Do you remember when I talked about the solar system, what goes around our world?

Child:  Air!

e:  Two things.
Chapter 9: The intentional teaching strategies of educators and the development of creative thought processes of children

c:  Air!
e:  The sun and....
c:  The moon!
e:  That’s right. What happens if the sun is in Australia? Where’s the moon?
c:  Uummmm.
e:  Other side of the world?
c:  Other side of the world.
e:  So when it’s sunny in Australia, what sort of time is it? Is it day-time or night-time?
c:  Day-time.
e:  That’s right.

In comparison, social collaboration where children and adults worked together on problems brought about different conversations. In the following example the educator and child were figuring out how to build with blocks:

Child:  I think I might need a different brick.
Educator:  Maybe, do you know? We’re trying to figure out what these pieces do. Oh, I see some of them have snapped off and broken. They’re actually supposed to look like that. That’s why we’re getting a bit confused. Let’s see…
c:  I need a big long piece.
e:  I think it connects to…
c:  This side, to this. A big green piece like this (holds up a block). It doesn’t matter what colour.
e:  What is it you’re after?
c:  One of these long things.
e:  Just like the ones at the bottom?
c:  Yeah.

Vygotsky identified that the child’s potential to move from what s/he is able to do and what s/he is not, is the central characteristic and creative activity of learning leading development (Connery et al., 2010; John-Steiner & Mahn, 1996;
Vygotsky, 1987). The ZPD presents opportunities for improvisational activity where children and adults can take risks, make mistakes, and support each other to do what they not yet know how to do (Lobman, 2010).

In the above example, the child shared the problem with the educator who provided assistance and asked questions that promoted finding solutions, however no new ideas emerged. Rather than leading the child toward an outcome for learning, the educator and child were engaged in joint problem solving. A major difference is that the educator did not know the answer, so had to work with the child, rather than lead him/her. This shared learning space between the educator and child is referred to by Vygotsky as intersubjectivity (Diaz et al., 1990).

In the example, the child is not a passive recipient, nor is the adult simply an expert model, instead the child-adult relationship engages in joint-problem solving where knowledge is shared (Diaz et al., 1990). Rather than simply modelling, the educator must create a level of intersubjectivity (Wertsch, 1984) where the child redefines the problem in terms of the adult perspective. Once the child is able to share the adult’s goals and understand the problem situation, the adult gradually transfers task responsibility to the child (Diaz et al., 1990; Rogoff & Gardner, 1984; Wertsch, McNamee, McLane, & Budwig, 1980).

The following example demonstrates a level of intersubjectivity. Here the educator responds to a request for help from the children whose goal is to build the Eiffel Tower. In this example the educator uses strategies in order to provide enough support until the children successfully achieve their goal. After modelling and providing verbal support, the educator gradually allows the children more control in order to complete their tower by transferring responsibility of the task back to the children. This type of instruction is what Vygotsky refers to as assisted performance.

Child:  *I love building Eiffel Towers with ____* will you help?
Educator:   *Yes, I'll help you put that there.*
c:  *Umm the little one has to go last.*
c2:  *We can't have the little one, that doesn't have the Eiffel Tower.*
What do you think? You can if you want to, yes.
So where can we put it?
Well think about it, think both of you where do you want it? Up top, okay.
And we're making an Eiffel Tower and _____ said we can leave it out.
Absolutely!
Be very careful!
I am, so we're making the Eiffel Tower....
Would you like my help? Now this bit of wood, it's a bit too small, what do you think we need to do to make it fit? Use your words and tell me.
Closer.
Make it a little bit closer to each-other? Okay.
I love this!
This Eiffel Tower?
I love it!
Thanks.
Alright when you've finished putting the stones up on the lovely Eiffel Tower we can look at some book I have here about Paris, alright? When you've finished decorating the beautiful Eiffel Tower that you've made you can come and look at some books alright? Is that good?
Yes and we can show you the Eiffel Tower.
And we and share the book together! To look at it.

The following photo at figure 9:2 shoes the careful co-construction of the Eiffel Tower. The two girls involved were able to extend their thinking and derive meaning from the experience from the thoughtful guidance and support of the educator.
MEANING-MAKING

Very little is known about the processes involved in the successful transfer of task responsibility from adult to child. What has been found is that teaching strategies, inspired by concepts such as scaffolding and working within the zone of proximal development suggest three factors are necessary in the process of self-regulation: the child’s cognitive or problem-solving activity is socially regulated by the adult through joint interaction; the child’s successful takeover involves active redefinition of the problem in terms of the adult’s goal or perspective; and the process from other to self-regulation, from joint to independent problem-solving, does not happen automatically, rather through specific teaching interactions on the part of the adult (Diaz et al., 1990). Based on Luria’s stages of self-regulation, Meichenbaum and Goodman (1971) proposed that through interaction, adults use strategies such as: cognitive modelling (performing a task while talking aloud); overt guidance (guiding the child performing the task under directions of the
model’s instructions); faded self-guidance (supporting the child as s/he whispers the instructions to him/herself); and covert instruction (allowing the child to perform the task while guiding his/her performance by way of private speech). From recorded interactions educators were found to use modelling necessary for problem solving:

**Educator:** Now this bit of wood, it’s a bit too small, what do you think we need to make it fit? (overt guidance).

e: Voting makes things fair so everybody gets a say, so the outcome has thought about everybody’s views, what everybody wants (cognitive modelling).

Often modelling thinking was presented as open or rhetorical questions. For example:

*I wonder what would happen if? Or what else could we try to make this work?*

These rhetorical type questions are also a form of covert instruction by way of private speech while the child performs the action. The educator also models metacognition for the child. This form of thinking out loud is widely associated with good thinking techniques and taken for granted goals of efforts to teach thinking (Nickerson, 1999). ‘Mindfulness’ captures this idea that good thinking depends on a habitual approach to solving problems in a thoughtful and nonimpulsive way (Langer, 1989). During a focus group session, educators were asked if they could identify other strategies they used when promoting creative thinking in children. Joan was able to identify in her practice the following:

*Suggesting ideas through the provision of additional resources can effect creativity. For example if the children have built a castle with blocks; then providing factual books with photographs of Romanesque buildings can further stimulate their interest. Modelling helps children to develop skills and techniques that they may not think of alone, for example, creating armatures to support clay work.*
Carl identified in his practice that he shared knowledge:

*I share knowledge when the children look like they need an explanation. I model thought processes through my questioning and positive encouragement. I think preschool aged children need to be talked through the steps they are taking and encouraged to recognise these steps. It is really important they recognise for future problems.*

From these responses the suggested strategies of educators by Langer, Meichenbaum and Goodman (1971) are evident. Scaffolding children through cognitive modelling, mindfulness, overt guidance, faded-self guidance and covert instruction form aspects of intentional teaching strategies required for successful problem solving and creative thinking in children. Modelling creativity for children is often referred to as ‘mentoring creativity’ (Runco, 2007). Educators can encourage creativity through role modelling creative behaviours. During a focus group session educators were asked about their own creativity. Participants were asked: *How important do you feel it is that you model creativity in your own teaching? Can you give an example when you were novel in your approach? What happened?*

Rita suggested that:

*It’s important to be creative because it encourages the children to relax and settle into the room. Other staff react when I am being creative and it seems to motivate them to change the way they teach too. It is fun to be creative – it makes our day more fun.*

Rita described how they decorated their ‘space corner’ with a dark sheet, fairy lights and posters. This created an exciting space for both educators and children to visit.

Rita found that her creativity:

*Provokes children’s imagination. Like they have been given permission to ‘think outside the square’ and to share ideas and thoughts they may have been too afraid to share for fear of it being a silly idea.*
Rita believes that creativity:

Encourages independent thinking in children and it reinforces to them that it’s a good thing to have a creative view of something different.

Carl believes that:

One definitely needs to be creative in their teaching. There are so many possibilities in each group and to capture them all, I believe as a teacher, you need to be creative in the way you present learning, group times, learning centres, etc.

Carl believes also that:

A result of not being creative and imaginative or interesting attracts negative behaviour. They’re not engaged or inspired to be creative if we as teachers don’t model creativity.

Modelling imagination and being an inspired educator promotes creative behaviours in children. Vygotsky put forth a theory that creative imagination introduces “something new into the flow of our impressions, the transformation of these impressions such as something new, an image that did not previously exist, emerges” (Vygotsky, 1987, p. 339). Creative imagination emerges when fantasy becomes infused with thinking. Using the imagination and the ability to abstract and categorise become integrated into a functional system (Vygotsky, 1987). Analysis of data in this study has revealed how young children use their imagination through spontaneous role play events as well as to ‘fill gaps’ in their cognitive processes. The following is an example of how young children draw from what they know as well as how they use their imagination to come up with an answer they do not know:

Educator:  *Do you know why spiders have eight legs and not two like us?*
Child:  *Because they’re spiders.*
e:  *They spin spider webs don’t they. Anyone know what their webs are made of?*
c1:  *String!*
e:  *Good guess.*
c2: Knitting?
e: Sorry? Knitting, like wool? It's made of silk?
c2: They're like Spiderman, the silk comes out of their mouth.
e: The what does?
c2: The silk comes out of their mouth.
e: Out of their mouths, maybe. Maybe we could research that.

This interaction demonstrates how children draw from previous knowledge in order to come up with new ideas or answers to problems. The child relates his/her experience with watching Spiderman (and possibly toys s/he has played with) and connects this knowledge through imaginative processes in order to come up with a response. When children do not know an answer, they integrate their imagination with prior knowledge.

**IMAGINATION**
As Freud suggested: “Should we not look for the first traces of imaginative activity as early as in childhood?” (1907, p. 21). Imagination is located at the core of learning and development, originating within social and cultural interactions. Vygotsky (1930, 2004) noted that the imagination serves as an imperative impetus of all human creative activity. For Vygotsky, the development of the creative imagination is based on what is usually considered creative activity: pretend play, fantasy, and the making of creative products (1987). He also emphasised collaborative problem solving as a major vehicle for learning (1978). Through overcoming difficulties, problem solving helps children make new connections with existing knowledge and provide motivation for learning (Miller et al., 2010). Ownership of the problem and a shared understanding of the goal, allows children to take control over the outcome, rather than seeking an answer to please the educator (Carr et al., 1994). The following examples demonstrate children’s use of their imagination when involved in solving problems under the guidance of an educator:
Chapter 9: The intentional teaching strategies of educators and the development of creative thought processes of children

Educator:  Yeah right we could do that. We have lots of ideas, we have thought of soup mix, sand, rice all to put in our containers….some shoes as well.

Child:  And socks???

e:  And we have got water, balls, popping candy….

c:  Socks, socks? Socks?

e:  Socks…. I don't know that socks would work. I don't know if they would fit?

e2:  Things would just squish through the hole wouldn't they?

c:  Nooooo!

e:  If we are going to use shoes and socks you guys would need to tell me what kind of containers we’d need.

c:  We could just get shoes and scrunch the socks up and put them in there.

Child:  Well! That looks like Saturn!

Educator:  Looks like a umm spaceship brrrrrrr.

c:  No it looks like an alien saucer!

e:  An alien saucer, yeah!

c:  That's an alien saucer and do you know they don't use spaceships they use saucers instead.

e:  Well today, after we've made our shaker, _____ you could paint it to make it look like an alien saucer if you want or you could paint it to look like Saturn because it looks like it has the rings.

c:  Yeah and it ...like a hat!

e:  Might be too small for a hat (children getting louder and calling out ideas),

c:  Put it on me put it on me! Put it on me!!

In conversations with educators it was noted that they were more concerned with children’s developing conceptual knowledge and curriculum content than allowing children the freedom to use their imagination. Providing real, factual information
Chapter 9: The intentional teaching strategies of educators and the development of creative thought processes of children

appeared to be the goal of educators during planned or indoor learning experiences. This was evident in the following conversations noted in the researcher’s journal:

*After noting the beautiful display of the project on space, I asked the educator if the children made aliens, or created any space creatures during the project.*

The educator’s response was:

*No, we want them to learn real things about space.*

This attitude also became evident in a transcribed interaction that occurred between this educator and a child who were making an alien out of clay:

**Child:** I just made the alien up.

**Educator:** Okay so from your imagination. Right, where do you think Alien lives?

**Child:** Ummmm in space?

**Educator:** They do, do they? Do you remember when we talked about the Solar System? Maybe you can remember some of the comments some of the other planets names?

**Child:** Mars?

**Educator:** Mars, do you think they live on Mars?

**Child:** Yeah!

**Educator:** Yeah what other planets did we talk about?

**Child:** I been to Sydney.

**Educator:** What other planets did we talk about?

**Child:** Umm Mars..

**Educator:** Mars.. and.....

**Educator:** Do you remember some of the planets we talked about _____?

**Child 2:** Jupiter

**Educator:** Jupiter, that’s right, what else?

It is highly evident in the above scenarios what the educator wanted the children to learn, however, it was not evident that the child had a say in what s/he wanted. Here the educator has hijacked the child’s thinking and taken it to another place. A strong focus on constructing pre-determined knowledge limits children’s
capacities to explore other potentials. Knowledge is limited to what is known; our intelligence is measured by the information and experiences we have. The belief that knowledge and intelligence are important to a child’s education stems back to a time where IQ testing was used to quantify intelligence. Ironically Binet, one of the creators of the test, never intended it to be used in this way. The test was developed to identify children with special needs in order to receive suitable forms of schooling (Robinson, 2009). According to Binet, IQ testing “does not permit the measure of intelligence, because intellectual qualities are not superposable, and therefore cannot be measured as linear surfaces are measured” (1905, p. 40).

In a rapidly changing global community, we have become what Hargreaves (2003) refers to as a ‘knowledge society’ dependent on the distribution and exchange of commodities and services. Educational policy makers have emphasised the importance of teaching subject matter and mastery of knowledge. Hargreaves (2003) warns against such policies arguing for approaches that place the identity of the individual in the centre of educational obligations. In his view, a knowledge society will benefit from critical, creative and well-informed individuals. From this perspective, intelligence takes different forms.

Sternberg (2005) argues there are three types of intelligence: analytic intelligence (the ability to solve problems using academic skills), creative intelligence (the ability to deal with novel situations and to come up with original solutions) and practical intelligence (the ability to deal with everyday problems and challenges). Goleman (1996) argued that we also need to consider the emotional and social intelligence and Gardner (2006) proposed that there are eight forms of intelligences. Human intelligence is extraordinarily diverse. Einstein proclaimed that his success came not from the brute strength of his mental processing power but from his imagination and creativity (Isaacson, 2007). Intellectual growth and creativity come through embracing the dynamic nature of intelligence. Malaguzzi (1998) explains that “creativity seems to express itself through cognitive, affective, and imaginative processes” (p.76).

Our capacity for the imagination is an unlimited source of potential for exploring unknown worlds; to project our thinking into the future. Imagination lies at the heart of children’s creative development as it pieces together information from
prior experiences with future ideas and novel outcomes. Promoting the imagination in children is essential for accessing creative processes involving divergent thinking. The educator’s role as an intentional teacher is therefore significant, especially with regards to the types of questions posed to young enquiring minds that potentially ‘railroad’ children’s thinking.

**Play**

Smolucha and Smolucha (1986) summarised the key components of Vygotsky’s theory of creative imagination where it was noted that the imagination is the internalisation of children’s play. Play has been described to provide an arena for creative activities and processes (Hennessey, 1987; Saracho, 2002). Observations of creative adults found that their work processes stemmed from some aspects of child’s play (M. Root-Bernstein & R. Root-Bernstein, 2006). In fact Russ (2003) acknowledges that the processes that are predictive of creativity in adults are the same as those that predict creativity in children.

Craft (2003) mentions that play is necessary to creativity, but not all play is creative. Educators therefore need to consider the purpose of activities and how play activities support creative development. Anderson (1994) identified that play depends on two rudimentary ingredients: safety and stimulation. On one hand, play involves uncertainty; thus the role of educators is to recognise the risk-free ramification. On the other hand, play involves the use of personal energy and strategy. Educators need to ensure adequate stimuli are provided to sustain children’s interactions. In order to support creative development educators need to use strategies that promote the inclusion of play, imagination and creativity. The next section will address the use of questioning techniques by educators in supporting the developing creative thought processes in young children as they engaged in play.
QUESTIONING TECHNIQUES OF EDUCATORS AND CREATIVE THOUGHT PROCESSES IN CHILDREN
As mentioned previously in this research, the types of questions educators asked children were found to have an impact on the thought processes of children. Open style questions during free-play times promoted flexibility in thought whereas closed questions used during structured group learning experiences, narrowed children’s thinking. Similarly, open-ended problems allow divergent thinking (coming up with many possible answers), and closed-ended problems require convergent thinking (coming up with the right answer). Divergent thinking is not synonymous with creative thinking, however combined with convergent thought form cognitive processes that lead to original ideas and solutions (Runco, 2007).

How knowledge was shaped through adult-guided experiences involved convergent thinking where an outcome or goal for learning was pre-planned by the educator. The following transcript demonstrates how convergent thinking was encouraged in children and divergent thinking discouraged, through the questioning techniques used by the educator. Here the educator makes it clear that the discussion again will be about ‘space’ as this was the chosen topic for project work in their room. In response to the educator’s question, some children started thinking divergently and used their imaginations regarding space. In order to narrow responses to real information on space, the educator used specific strategies including: not responding to children’s suggestions that were imaginative; offering praise only to correct answers; repeating questions until the right answer was given; and using closed questions in order narrow answers toward the desired outcome for learning:

Educator:  Okay sitting down. Today, we are going to talk about space. Okay, who knows what space is?
Child 1:  Space rangers!
e:  Umm, do you know, in space there is some planets that have more than one moon?
c2:  Two Moons?
e:  More than two? Some of them have more. Does anyone know the names of the planets?
c3:  Maaars?
e: Mars excellent.
c4: Jupity!
e: Jupiter! great job, anymore? Any other names?
c3: What about Saturn?
e: Saturn, excellent.
c4: Ummmm, what about that green one?
e: The green one. What we’re going to do, we’re going to learn lots and lots about space.
c3: The blue one, the blue ones that the Earth.
e: What planet do we live on?
c: Earth!!!
e: Our country is Australia but we live on planet Earth don’t we.
c3: Yeah! And it spins around. And we are Australia!
e: That’s right. How do we get to space?
c2: You go in a rocket ship?
e: In a rocket ship. Who goes in a rocket ship?
c1: Space rangers!
e: Space rangers???
c3: I know!
e: You know the special name of people who go in the rocket ship?
c3: Yep! ummm asssshtranaut.
e: Astronauts that’s right.
c2: Astronaught!
e: Excellent!
c1: Space rangers??????? (mimicking the educator).

It is interesting to note in this example that the educator did not encourage or respond to the children’s ideas or use of imagination, even though the child was persistent in wanting to contribute his/her ideas on ‘space rangers’. In comparison, the following examples will demonstrate how questioning techniques promoted divergent thinking and allowed imagination to emerge as well as promote the independent goal attainment of children:
Chapter 9: The intentional teaching strategies of educators and the development of creative thought processes of children

Educator:  What do you think goes in cherry pie?

Child:  Umm there’s marshmallows, blueberry pie, gooseberry...

e:  Wow that sounds like a pretty big pie.

c2:  And cheese!

e:  Cheese! cheese and marshmallow, mmm.

c1:  And um chocolate and caramel and chocolate, chocolate cake, strawberry cake and gooseberry cake.

e:  Wow that sounds like there’s a lot in there.

In the following example, the educator does not limit the children’s responses; instead s/he encourages divergent thinking as a tool for exploring ideas before suggesting ways to find out what is inside a maraca:

Child:  What about this one?...maracas.....what about this one?...maracas with eggs inside them and then we shake them and then they'll just go Crrr ...they'll crack!

Educator:  Yeah, they would wouldn’t they (laugh).

c2:  I know maybe put soup in!

e:  Soup inside?

c2:  Soup mix inside, yes that’d make a good sound.

c1:  And, and, and a ball then rice and then shake it!

e:  Wow you’d try all different things in there!

e:  Maybe that’s a good question to ask Mum or Dad when you get home: if they know what’s inside a maraca.

e:  That’s a good idea! Did you hear what ___ said, she said when we get home, you could think maybe you could ask Mum or Dad and see if maybe they know what’s inside a maraca!

c1:  Yeah or and this is what ___ said: He said “What about shoes in there!”

e:  You’d probably need a pretty big maraca to fit my shoes in there! (laugh)
Before products (or solutions) are created, children need time to explore potentials, use their imaginations, be silly, and to test or trial their ideas. In the above transcript children were encouraged to explore ideas and to problem solve in a non-evaluative environment; humour was actually used by the educator and children who both laughed at some of their suggestions.

As noted in previous chapters, educators often used questioning too early or too frequently without allowing children time to just play. Play is an important aspect of developing cognitive, affective and personality processes involved in creativity. Cognitive processes such as divergent thinking and affective processes such as cathartic exercise or fantasy are expressed and develop through play experiences (Russ, 1999). Focusing on processes allows children freedom to explore, investigate properties, make cognitive connections, think divergently, test and trial ideas and gain pleasure or satisfaction from simply ‘playing’. In order to find answers to problems children need time to play. The idea that an incubation period precedes insight was put forward by Wallas (1926, 1945). During incubation, ideas and thoughts combine rapidly in undirected ways, often below the surface of consciousness. Mental elements combine, and insight occurs when combinations emerge and merge into consciousness (Sawyer, 2006).

Focusing on an end product or goal through the imposition of questioning by the educator can affect changes to internal cognitive structures of the mind that has already commenced seeking solutions through incubating ideas. Intervening too early or asking unrelated questions re-directs children’s thought patterns and the potential for creative experiences. The following transcript is an example of an educator asking about the end product before the process of thought has occurred.

Educator: What have you got ____?
Child: Gumnuts!
e: Gumnuts, why you got the gumnuts there?
c: ‘cause I like collecting them.
e: You like collecting them. So what are you going to do with them?
c: Make some things out of them.
e: Make some things, like what do you think?
Chapter 9: The intentional teaching strategies of educators and the development of creative thought processes of children

Children need time alone and with each other, without being questioned or pressured by the educator, to just play and enjoy being in the moment of discovery. Great sensitivity and intuitiveness on the part of the educator is needed in recognising the value of allowing children time to access knowledge bases so that connections can be made during what is identified as the incubation period. Incubation involves the child accessing primary processes necessary in the transformation of what is known into novel ideas or products. Incubation occurs when children are in a state of flow. The next section explains the importance of allowing children time to incubate ideas or to simply enjoy being in the moment.

**STATE OF FLOW**
Children who have access to primary process thinking become better divergent thinkers. Primary processes involve feeling states that stimulate and facilitate creativity (Kris, 1952) providing a leave of absence from reality. This engagement in a pleasurable state of mind through play is referred to by Csikszentmihalyi (1996) as being in a ‘state of flow’. Here the child is free from distractions or the limitations of time and is fully emerged in the experience. Out of the 117 transcribed interactions, this state of flow was found in only one recording. Here, no questions were asked by the educator, only praise offered for her beautiful singing. The child was simply free to enjoy the moment. The following transcript features a child singing a spontaneous song while painting a rocket:
Child: I'm painting, I'm painting, I like painting when I'm singing.....

Educator: That is beautiful singing!

c: I made it up!
e: That's clever!

c: Singing, I like painting when I sing I like painting the whole thing in the rest I like I like... I just made it up!!
e: That's a beautiful song.

c: I like painting, I like painting, a paint a paint....

c: I'm painting the whole day....I'm painting my colourful..... (pauses)

Can I have the glue?
e: Yes there's some glue over here.

It is likely that other states of flow would have occurred, however may have gone unnoticed by the educators. During this study, educators were asked to record their interactions with children. This aspect of the study may have prevented more opportunities for investigating young children’s experiences with flow as participants may have switched off their recording devices when they were not directly involved with the children. However, analysis of data from focus group discussions found educators were able to describe times when they noticed children being creative.

The following conversations acknowledge children they have observed in a state of flow:

Carl mentioned that:

They are more creative when there’s a problem that needs to be solved. They need time to just think…

Rita noticed that:

Even when they are three and they are on their own, just sitting quietly, and have a little thing of Lego, they are creating something. Or over at the drawing table, where there is no one asking them questions, or there’s no expectation; they are so free.
Achieving a state of flow is also an important characteristic of pretend play where children have to ‘think on their feet’ in order keep the momentum for their activities. Pretend play represents a dynamic and complex activity, where Vygotsky (1976) believes “action in the imaginative sphere, in an imaginary situation, the creation of voluntary intentions and the formation of real-life plans and volitional motives – all appear in play and make it the highest level of preschool development” (p. 552). As children ‘perform’ or act out the many social and cultural roles within dramatic enactments, the creative process is made visible. The next section of this chapter will discuss the importance of pretend play for the development of children’s creative thinking.

**PRETEND PLAY**

The type of play most important to the area of creativity is pretend play. Fein (1987) stated that pretend play is a symbolic behaviour in which “one thing is playfully treated as if it were something else” (p. 282). Pretend play allows children the expression of both positive and negative feelings and allows them to modulate these (Jent, Niec, & Baker, 2011; Russ, 2004). Fein viewed pretend play as a natural form of creativity where pretense is charged with feelings and emotional intensity (Fein, 1987). The child’s use of the imagination and improvisation as part of the intentional learner’s strategies provides opportunities that promote creative thinking and collaborative problem solving. In early childhood, pretend or dramatic play provides the motives of the growing child for the realisation of personal desires. As these desires are unattainable in reality, the child seeks to realise them through the imagination (John-Steiner et al., 2010).

The role of the educator while children are in a state of flow or engaged in spontaneous dramatic activity is to listen carefully to the play, watch what they do and respond to requests by the children that enable them to remain in the flow of the activity. Interrupting the flow by imposing limits, rules, instructions or concerns for safety may run the risk of disturbing the flow of the activity or children abandoning their play altogether. In the following transcript the child was redirected in his play due to safety concerns imposed by the educator:
Intentional teaching strategies of educators that support, guide and extend children’s thinking are critical for sustaining children’s play so that meaningful learning opportunities can develop. Educators need to know when to either enter a play scenario or to simply listen attentively for opportunities to stimulate and provoke children’s thinking. Finding a balance between educator-guided and child-led experiences is an essential aspect of intentional teaching practice (Epstein, 2007). The following photograph depicts children in control of their own learning during a pretend play scenario where they are making Sushi.

Figure 9:3 Making Sushi

This photograph depicts children working together and discussing what type of food to make. The children set their own goals for making a bowl full of ‘Sushi’ by rolling up balls of playdough and then allocating a ‘mummy’ who shared the meal by dividing up the food using chopsticks into smaller bowls. In this scenario the
children gave no indication of wanting an educator to be involved as they were all actively involved in their play. In the following photo the children have invited the educator in to their ‘hairdressing salon’ and asked if she would like to have her hair done. Naturally the educator responded by agreeing to allow the children to style her hair.

**Figure 9:4 The hairdressing salon**

The following transcript is a snippet of the dialogue that occurred between the children and the educator:

**Educator:** Who’s brushing my hair?

**Child:** Uumm me, M____

**e:** Thank you M___ for being so gentle.

**c2:** She’s doing it with a comb.

**e:** Have you ever been to the hairdresser?

**c:** Yes.

**c2:** I have!

**c:** What hair do you want?

**e:** Hmm what hair do I want? Good question. I’d really like some brown streaks, some caramel I should say, I like this colour here (pointing to a magazine of hair styles), I like that, I really like that.

**c:** What about, you could have that hair?
e: I like that hair very much. I've never been to a hairdresser’s with so many people!
c: What about this one? (Child points to another picture).
e: Ohh what colour do you think would suit me?
c: That colour!
e: Yes, I’d pick that colour too.

While the educator is a participant in the play she is careful not to take control but skilfully act out the role of a client for the children. She guides the children through the role of a hairdresser by co-constructing knowledge through a shared experience.

Sensitivity in the role of the educator is required for knowing when to use intentional teaching strategies that assist and scaffold children’s learning. In the hair dressing salon photo, authentic resources have been provided by the educator for the children including hair elastics, an old hair dryer, ribbons, rollers, brushes, a beauty schedule and a pricing list. As was found in chapter six, this was important to Nelly and Joan who believe that children should have access to authentic resources. The educators from this centre often asked local businesses to contribute a menu or pricing list for the purpose of the children’s pretend play experiences. However, in consideration for developing children’s creativity, this type of pre-determined play limits the capacities of children to incorporate their imagination in order to symbolically represent an object or to improvise with non-descript resources.

These types of experiences draw from the children’s prior experiences and understandings. Often when children do not have ‘all the pieces’ to construct their play they draw from their imagination and improvise in order to keep the flow of play alive. Longitudinal studies found that early imaginative play was associated with increased creative performance years later (Russ, 2004). For Vygotsky, play represents the first appearance of imagination in development. Children distinguish play from other activities by creating imaginary situations and basing their play on rules. This type of play involving peers or educators is referred to as improvisational creativity (John-Steiner & Moran, 2012).
**IMPROVISATIONAL CREATIVITY**

Most creativity research has focused on the product instead of performance (Sawyer et al., 2003) in order to evaluate the innovation and usefulness to society. With product creativity, the process usually takes place in isolation and does not have to be released until the creator is ready. However, creativity does not happen all in the head; it happens through the work of execution (Robinson, 2009; Sawyer, 2006). Essentially, this explains why creativity requires a focus on the process as no creative process is ever predictable; there is always an element of improvisation. Improvisational creativity focuses on collaboration where the process of creativity is made visible. Young children engage in improvisations as they play and problem solve collaboratively (John-Steiner & Moran, 2012). In order to maintain the flow of activity great spontaneity is required through responding to the leads of others as insight for what to say or do next. The following transcription is an example of improvisational creativity:

**Educator:**  *What are you making over here today?*

**c1:**  *A doggy house.*

**e:**  *A doggy house.*

**c2:**  *We’re making a doggy too but first we’re going to build it and then I’m going to…*

**c1:**  *This is mine!*

**e:**  *That’s your room there, how are you going to fit in there?*

**c2:**  *We’ve just got to do this you go through there.*

**e:**  *So you’ve got to curl up in a little ball in there?*

**c2:**  *Yes.*

**e:**  *You’re stretching out in there.*

**c2:**  *Yeah, this is for when I stretch out.*

**e:**  *Okay what about you, how are you going to lie in your house?*

**c1:**  *And then.....I've got an invisible house and the roof opens and I stretch out and sunbake.*

**e:**  *With his invisible roof!

**e:**  *Oh so when you press the button what happens to the roof?*

**c1:**  *It comes open.*

**c1:**  *And when you press it again it goes closed.*
e:  And does it make it dark when it closes up?
c1:  No.
e:  Why not?
c1:  ‘cause we turn on the lights!
c2:  No we don’t!

From the data, children were often observed to be socially involved in paracosms of improvisational creativity such as dramatic play, make-believe and imaginative play. This type of play was featured largely outdoors where children were free to take the lead and invent their own experiences. Children require playfulness and the opportunity to express themselves in order to develop holistically (Csikszentmihalyi, 2003). From the data it was evident that children engaged in a range of social experiences and interactions that promoted the development of creative thinking. These processes are what generate creative productivity later in life.

Creativity flourishes in an atmosphere where original thinking and innovation are encouraged and stimulated and fades where dialogue and interaction are stifled (Robinson, 2001). Cultural conditions where children’s ideas are not encouraged can stultify creativity. Implicit theories and beliefs held by educators toward young children’s early education have in some ways stifled creativity through the structures they inhabit and the ethos they promote (Robinson, 2001). Conventional systems of education run the risk of separating intelligence from feeling; yet there is an intimate relationship between knowing and feeling. Creativity is enriched by feelings, intuition and a playful imagination.

The most valuable learning occurs when children are engaged creatively – in activities that allow them to use their imaginations intellectually, socially, artistically, and culturally (Egan, 2005; Eisner, 1999; Greene, 1988; Lobman, 2010, Ward, 2013, Wilson, 2012). It is now time to recognise the significant neurological processes of creative development in early childhood learning environments. Recognition for the value of creative development prepares children to be critical, flexible thinkers who can respond creatively to their rapidly
Chapter 9: The intentional teaching strategies of educators and the development of creative thought processes of children

changing world. The possible reward not only for individual potential, but for the advancement of society in general, depends on our ability to identify creative origins in the early years. Placing creativity on the map of development is a step towards preparing children for future worlds.

**SUMMARY**

Children, in particular from four-to-six years of age, are adventurous, imaginative and spontaneously creative. From this study it has become evident that educators are underestimating and dramatically underutilising the power of children’s imagination not only for creative purposes but as a valuable link in the development of cognitive thinking. Far too great an emphasis has been placed on the construction or products of knowledge, with little time or appreciation for the internal thought processes that occur while a child is playing with materials or natural resources in their environments. Rather than just passive recipients of knowledge, children should be considered as active creators of the very activity that produces opportunities for learning and development.

With regard to understanding children’s creativity, the general view was that this is something children do independently. This is perhaps indicative of the culture at large that views creativity as an individual ability rather than a shared process where novelty and innovativeness useful for communities evolves from shared participation. Within social learning environments children and adults share in the co-construction of the new as they guide, support and model creative thinking and behaviours.

Adults have a key role in fostering a supportive climate for successful problem solving within social learning contexts. This study has identified a major gap through a lack of awareness for creativity in the EYLF that has resulted in a lack of appreciation for creative thinking as an essential component of early childhood education. In addition to this, educators appear to not understand their role as intentional teachers and the implications of their practice in the creative development of young children. This study urges educators to focus on the development of creative processes in children rather than the products of
knowledge. Children’s imagination also needs to be acknowledged as a powerful cognitive tool that advances children’s thinking and assists conceptual growth and understanding. This chapter has analysed data in order to answer the research question: *How are intentional teaching strategies used by educators in the development of creative thought processes of children aged four to six years within Australian early childhood learning centres?*

The next chapter is the final chapter of this thesis that will conclude the research. Based on the evidence accumulated, it will tie together and synthesise what has been discussed throughout the chapters in response to the research questions. Research findings, implications for policy and recommendations for future research will also be presented.
Chapter 10
Summary and conclusion

Firstly, this chapter reviews the aims of this study and presents the scope, limitations and assumptions of the research. Secondly, a summary of the significant research findings are presented followed by the implications of these for further research.

INTRODUCTION
The aim of this study was to find out how intentional teaching strategies were being used by educators in the development of creative thought processes of children aged four-to-six years within Australian early learning contexts. The purpose of the research was to contribute further understandings for the implementation of the Early Years Learning Framework (EYLF) (DEEWR, 2009) by providing educators with a comprehensive understanding of their role as intentional teachers as well as for supporting the development of creative thinking in young children. The central research inquiry investigated by this study was:

How are intentional teaching strategies being used by educators in the development of creative thought processes of children aged four-to-six-years within Australian early childhood learning centres?

The study was guided by the following subsidiary questions:

What are the educators’ understandings of intentional teaching?
What types of intentional teaching strategies do educators use in their practice with young children?

What are the educators’ understandings of creativity and creative thinking in children?
SCOPE, LIMITATIONS AND ASSUMPTIONS
The scope of this study presented a case study of three centres, six educators and fifty-seven four-to-six-year-old children. As this was a new area for Australian research within early childhood this was intentionally designed in order to maintain integrity with a small number of sites. In order to make the research about the phenomena relevant (intentional teaching as part of the EYLF and creative thought processes in young children) in-depth interrogation was required. This was to ascertain understandings from early childhood practitioners about these new phenomena. It was therefore appropriate that a qualitative study generating rich data for micro-analysis was utilised. However, further study, both qualitative and quantitative would be needed to establish the extent of key findings more broadly.

For this study, ethics approval was obtained for six months for data collection to be carried. The data collection phase over a six month period involved weekly visits to each of the centres for fourteen weeks, where the researcher stayed and observed and recorded interactions over approximately one to two hours. This allowed for additional memos, researcher notes, observations, photographs and the collection of artefacts to occur as well as time to form relationships with educators and children in order to establish my presence within the normal routines and activities of the centre. Weekly visits on the same day were arranged in order to involve the same group of children and educators, as different patterns of children and educators attended on different days. Over a few weeks, the children and educators became used to my presence and I was able to develop a rapport with participants (Dey, 1999), meeting the aims of naturalistic inquiry within an interpretive qualitative research framework.

According to Patton (2002) all proposed research projects have limitations; none is perfectly designed. Discussing limitations assists in understanding this reality. It is important to acknowledge the limitations in this study. The decision to confine the number of participants to six educators and three early childhood centres was made in order to ensure the research remained manageable and yet provided sufficient data for reliability and validity purposes. Caution is therefore required to extrapolate findings with such a small sample. There was no attempt in the
methodology to develop broad generalisations to a wider context; however qualitative case study research does have other benefits. Thick description (Geertz, 1973) provided through case study research allows a foundation of detailed information for those interested in transferability (Denzin & Lincoln, 2000). Should the research be duplicated at another three centres it is expected that some similar as well as different findings would arise due to the individual characteristics of educators and their social and cultural worlds. It would be interesting to see if a broader scope of centres would produce similar findings. Given this study has contributed to a firm foundation about intentional teaching, a quantifiable survey of a much larger cohort might establish the extent of understandings about intentional teachings and its relationship to creative thinking.

As part of this qualitative study, it was assumed that participants would be familiar with the EYLF and with their newly defined role as intentional teachers. It was not known exactly how much training or support with which educators had been provided in learning how to be an intentional teacher or how this differed from past roles. For the purpose of this study the assumption was mainly that educators were familiar with the EYLF documentation as well as some of the newly introduced terminology and were comfortable interacting with children. It was found that while educators were familiar with the EYLF and newly introduced terminology, there were limited understandings for how this influenced their role.

With regard to creativity, it was assumed that educators would be familiar with creativity as associated with the creative arts and be able to make connections to how children are creative within the learning environment. It was not known how much understanding educators had of their role in young children’s creative development or if creativity would be viewed as a cognitive process that is transferable to other domains of learning. It was anticipated that a general lack of knowledge on what creativity means from a cognitive perspective would arise given the lack of research in this area with regard to young children.

Other assumptions included the expectation that participants would be truthful in their responses and respond to questions posed by the researcher based on personal experience, beliefs and understandings. At the commencement of each
focus group it was made clear by the researcher that there were no right or wrong answers and that the aim was to create rich discussions around questions posed by the participants. It was also assumed that participants would naturally be interested in the research for the potential contribution to their practice. It was difficult to assume the amount of time educators would be able to contribute to the study and in particular, anticipate the unplanned events that occurred. Regular attendees who were obviously interested in the research topics appeared to be gaining personal growth in their professional practice. Their commitment to the study resulted in having more voice and input over other participants.

Interpretive qualitative methods meant entering research participants’ worlds respecting their everyday practices and perspectives. This was achieved through establishing a rapport with participants (Charmaz, 2006). As a researcher I needed to respect my research participants by learning what I could about their views and actions and to try and understand their lives from their perspectives (Charmaz, 2006; Glaser, 1998; Glaser & Strauss, 1967). This approach meant that I needed to test my own assumptions as well as discover what the research participants took for granted or did not state as well as what they said or did (Charmaz, 2000). At focus group sessions I found that skilful questioning techniques were necessary in being able to dig deeper or to bring participants back into focus in order to sustain conversations that related to research topics. Whereas discussions that varied were meaningful to participants it was often time consuming and required me to take a lead and redirect conversations. As a researcher my aim was to understand, not necessarily adopt participants’ worldviews, but rather interpret them.

Overall, the suitability of a constructivist grounded theory methodology (Charmaz, 2006, 2014) was appropriate for the nature of this study that depended on multiple perspectives to construct meaning on the phenomena of intentional teaching and creativity. Further considerations for the methods used could be reconsidered as the use of digital recorders provided educators with control over when and where they recorded data. Videoing by the researcher would provide a more unbiased approach to gathering data and perhaps capture other significant events between children themselves. However, videoing could be considered invasive to learning
environments, interrupting the intended naturalistic style of inquiry. Although the dynamics of group interaction were beneficial for building theory together, committing to monthly focus group sessions outside of working hours was not always possible for some participants. It would be useful in the future to consider skype or emailing chains as other methods for acquiring data from those who were unable attend these sessions.

The underlying theoretical framework of Vygotsky’s socio-cultural theory (1930, 1978) and neo-Vygotskian creativity theory (1930, 2004) provided strength and validity for the emerging development of theories formed from transactions between participants. Through social transactions knowledge was shared and reconstructed as new meanings emerged from the data. The triangulation of data was achieved through various sources as found through constructivist grounded theory where ‘all is data’ (Charmaz, 2011). This together with the additional application of Vygotsky’s creativity theory has proved to be most suitable and relevant to aspects of this investigation providing strength where the phenomena under investigation could be viewed through a kaleidoscope of lenses.

SIGNIFICANCE OF RESEARCH FINDINGS
There were several significant findings of this research. These included the identification of intentional teaching strategies used by educators, even as those same educators found it quite challenging to articulate precisely what was meant by intentional teaching in the context of the EYLF, the identification of the child as an intentional learner, the role of the educator outdoors and their view of play as ‘aimless’ or ‘free’ as well as children’s questions and the role of the imagination in children’s creative development. The following section presents these key findings in relation to the research questions of this study.

There were significant findings relating to the research question: What are the educators’ understandings of intentional teaching? Misunderstandings and misinterpretations of intentional teaching arose in discussions with participants as well as from evidence recorded during observed practice. One main finding was that while educators were identifying with their role to ‘teach’ and provide goals for
children’s learning, this created imbalances in the construction of curriculum between teacher-guided and child-led experiences thus overlooking the important role children play as co-contributors of learning. The identification of the intentional learner, as a result of this study acknowledges the child’s agency from a contemporary view of the child and claims the early learning context as a democratic space for children’s learning.

From the data it was also revealed that the role of the educator shifted from an intentional teacher, when indoors, to the role of a supervisor when outdoors. Intentional teaching moments therefore were largely confined to indoor learning areas where group times and project work routinely took place. The general acceptance of the outdoors being a place to relax meant that teachable moments were often missed or overlooked due to regulatory requirements for supervision. However, it is important to note, that when the educators were more relaxed and children were given more control over their play and learning, creativity was more likely to become evident. According to the educators in this study, the outdoors was perceived by educators to be a space where children engaged in ‘free-play’ or ‘aimless play’ while participants believed the indoors provided a more conducive learning environment where they could engage more with children. This runs counter to the educators’ recognition that thinking creatively was more likely to occur outdoors and the EYLF which suggests that intentional teaching should occur frequently throughout the entire day (DEEWR, 2009; Leggett & Ford, 2013).

In response to the research question: What types of intentional teaching strategies do educators use in their practice with young children? Significant findings were related to broad dimensions: structural (the physical learning environment, routines and regulations and co-constructing a curriculum framework) and process elements (sustained shared thinking, explicit and mediating intentional teaching strategies, questioning techniques, grouping patterns, children’s questions and intentional learning strategies).

An analysis of structural elements found that issues relating to child safety and regulatory requirements greatly impacted upon intentional teaching opportunities. Educators struggled in their role to engage with children outdoors due to
constraints such as supervision, safety concerns and managing routines. Educators further supported their belief that the outdoors was a space where children could release energy and freely engage with their environment. The notion of ‘free-play’ was further explored with educators who believed that the freeness of play was being challenged by overly structured play environments that also impacted upon children’s physical development. A fundamental characteristic of the creative environment is the encouragement of children’s play, with all corresponding opportunities for learning that come with it.

Intentional teaching strategies as used by educators also revealed significant findings relating to process elements. It was found that despite educators’ initial struggles to define intentional teaching, 42 strategies were observed through data collected during their everyday practice. In this study educators were found to draw from explicit strategies (directing, explaining), including closed questioning techniques (‘what’) in order to lead children’s thinking at planned indoor group times or to assess knowledge. This type of teaching focused on children’s convergent thinking (coming up with the right answers) in order to build conceptual knowledge. This type of teaching was found to predominate intentional teaching opportunities.

In comparison, there were significant increases in interactions when mediating strategies were used (provoking, praising efforts, asking children to describe their efforts and ideas) and the use of open questions (‘how’, ‘why’) during free-play times. Mediating strategies and open questioning techniques assisted the children’s use of the imagination and divergent thinking (coming up with many ideas) during times where they were given more control over their own learning. This type of learning through play provided children with greater choice, time, flexibility of thought and opportunities to test, trial and explore their ideas and theories in a non-evaluate environment; all essential tools for collaborative problem solving and the development of creative thinking.

In order to recognise the importance of children’s creative development and the developing thought processes that generate creative thinking, this research has identified the child as an ‘intentional learner’. Data revealed that children used a total of 22 strategies in their own learning. Children were also found to use
questioning as a means for finding out information. In order to find out children’s big questions of the world around them, educators were urged to be attentive in their listening and to provide children with time to ask questions such as ‘how’ and ‘why’ questions. New findings on the identification of the intentional learner and intentional learning strategies used by children in conjunction with the intentional teaching strategies of educators has provided significant new understandings for early childhood practitioners in consideration for providing more equitable approaches to their pedagogical practice.

In response to the research question: What are educators’ understandings of creativity and creative thinking in children? Significant findings revealed how educators’ understandings of creativity influenced the type of learning environments, resources and interactions provided for children. Due to the highly complex nature of defining creativity that included opportunities for creative thinking outside of traditional sites of art and craft activities, it was not unusual that participants in this study struggled to articulate a definition. What emerged was a lack of acknowledgement of the significant role educators have in stimulating creative thinking through their intentional teaching practice, throughout the curriculum – that is “all the interactions, experiences, activities, routines and events, planned and unplanned, that occur in an environment designed to foster children’s learning and development” (DEEWR, 2009, p. 9).

Significant findings were found in response to the core research question: How are intentional teaching strategies used by educators in the development of creative thought processes of children aged four to six years within Australian early childhood learning centres? The child's use of the imagination as an essential cognitive function within play and social interactions has been seriously undervalued by the educators in this study. While educators demonstrated their understandings for providing children with the structural supports of physical space, environments, nature, resources and time, little attention was attributed to their role to intentionally scaffold and support children in the processes of creative thinking. Creativity was viewed largely as the children’s tool for learning. From the data it was found that more creative behaviour occurred during free-play or dramatic-play experiences where children had control over their social learning.
Given that ‘free-play’ was emphasised in the outdoor area, it was during these times that the educator resumed a ‘supervisory role’ often missing opportunities to engage children in the teaching/learning nexus. One aspect of the role of the intentional teacher from this research has been the need to listen to children and respond to children’s play sensitively. This requires great skill by the educator to intentionally and carefully enter children’s play without disturbing it. Therefore, what this study promotes is a balance between the role of the intentional teacher and the role of the intentional learner.

Analysis of data in this study has revealed how young children use their imagination through spontaneous imaginative dramatic play events and improvisational creativity to ‘fill gaps’ in their cognitive processes. Educators in this study were found to discourage children’s use of the imagination with a goal for focusing on ‘real’ knowledge. Understanding imagination as a lifelong cognitive endeavour means educators need to value imagination and the connection to cognition and learning within social learning environments. Greater recognition for children’s use of the imagination as an important cognitive ability characteristic of this age group is essential for allowing children opportunities to think divergently and create new possibilities and prospections through the imaginings of the mind.

This study urges educators to not only focus on the products as evident by the construction of knowledge and tangible outputs, but to consider the important role of creative thought processes as an essential part of cognitive growth. Rather than being viewed as recipients of knowledge, from a contemporary perspective, children are to be considered as active creators in their own learning processes. Educational policy makers have often put knowledge at the forefront of effective teaching, valuing the importance of subject matter and mastery of knowledge. Educationalists, such as Hargreaves (2003) warns against following a ‘knowledge society’ arguing for an approach that puts the identity formation of the individual at the centre of educational obligations. Knowledge formation requires the transformative power of creative thinking in order to generate novel ideas and project thinking and abilities. Promoting creative thinking through the strategies educators use therefore must be included as a goal for their intentional teaching practice.
IMPLICATIONS FOR POLICY
Including and embracing children’s agency in the construction of a curriculum has created an emerging new identity for the child as an intentional learner. However this side of the teaching/learning equation has neither been fully developed within the EYLF nor additional teaching guide materials (DEEWR, 2010), thus contributing to the incomplete understanding of intentionality as it applies to early childhood sites. This study has also assisted educators in gaining further understanding for what it means to be an intentional teacher through the identification of specific strategies as demonstrated in their everyday interactions with children.

Children’s creative development as part of an holistic early educational program is currently not fully recognised due to inadequate definitions of creativity specific to early childhood settings. As a result there is an apparent lack of recognition in curriculum documentation for the importance of creative thinking in young children that is currently overlooked by a traditional focus of creative ability in association with the arts. In response to current tensions and misunderstandings on intentional teaching and creative thinking this research has provided revised definitions that will better inform educators’ pedagogical approaches as well as direct future policy decisions within early education.

This research has re-defined the role of the intentional teacher in order to align with contemporary theories that guide pedagogical practice within Australian contexts. The additional development of a new definition for the intentional learner will assist in ensuring that children are considered and included in the co-construction of an intentional curriculum. The following definitions are a result of this study:

Intentional teaching:

Involves educators using specific strategies that support children’s progress toward broad outcomes for learning and development. Educators are deliberate, thoughtful and purposeful in decisions and actions involving planned and spontaneous teaching opportunities that arise throughout the day.
This definition builds upon Epstein (2007) and Siraj-Blatchford (2005) definitions. In comparison to Epstein’s definition of having ‘specific goals’ for learning domains, this definition is more suited to the aims of the EYLF by stating ‘broad goals’ for children’s learning. In addition, learning opportunities arise throughout the day, as is the intention for an holistic curriculum as part of the EYLF, rather than curriculum areas as mentioned by Epstein. Further, this definition contributes to Siraj-Blatchford’s strategies for sustained shared thinking opportunities that arise throughout the day. This holistic approach aims at supporting children’s progress toward their own goals for learning. This study also contributes a new definition for the intentional learner. It is believed that this will create an improved balance within the teaching/learning nexus by acknowledging children’s rights to contribute to their own learning.

Intentional learning:

- Involves children using specific strategies that enable them to progress toward their own goals for learning as well as broad outcomes for learning as supported by the educator. Children actively participate as co-constructors in the planning of curriculum and are involved in everyday decisions that impact upon their growth and development.

This definition is absent in the current EYLF leaving interpretations for practice heavily focused on the role of the educator. This definition builds on the social concept of children as co-contributors, refocussing the teaching/learning dynamic to take account of what children are doing and thinking. In addition, a definition for an intentional curriculum is provided by this study in order to bring together the role of the intentional teacher and the intentional learner.

Intentional curriculum:

- Is a co-constructed curriculum that supports the teacher-child interactions that occur throughout the day within social learning environments that are designed to support children’s learning, growth and development.

This definition builds on what is currently stated in the EYLF by acknowledging the role of children in co-participation of curriculum where both teachers and children are valued as equal partners.
It was also found that a definition for creativity applicable for early childhood contexts was necessary in order for educators to understand the importance of creative thinking as an essential aspect of children’s learning and development. For creativity to flourish in early educational settings, it is necessary for learners to be supported by educators as they actively engage the creative processes for their own learning. The EYLF does not define creativity; it relegates it to a disposition, thus devaluing the importance of creativity as a quintessential aspect of children’s learning and development. Findings from this research argue that there needs to be a much clearer distinction made between curiosity and creativity.

A redefinition has emerged from the analysis of essential aspects of children’s creative development highlighting the significance of the imagination and creative processes. The following definition as a result from this study will assist in future revisions for policy development in order to give creativity a rightful place in early childhood curriculum documentation.

Creativity for young children involves cognitive processes that develop through social interactions, play and the imagination. Creative thinking is a transformative activity that leads to new ways of thinking and doing that are novel for the child or useful to children’s communities.

This definition as a result of this study challenges previous definitions that exclude young children who are not yet considered capable of creativity. This was because young children were not considered capable of contributing novel or useful ideas or items of significance for society. This confines a definition of creativity that is not applicable or appropriate in the early childhood context. It has been identified in this research that children are developing creative thought processes that are essential for creative production. Ideas and objects created by the children through their play may be considered as novel or useful to them, or their learning communities. The revised definition provided by this study for creativity acknowledges the important cognitive thought processes that occur within social learning environments. It also implies that young children are capable of contributing new and novel ideas that may be useful to their play and learning.
Another aspect of educator practice that must be challenged is the belief that creativity is synonymous with and exclusive to the creative arts. Research has shown that creativity is a cross-domain ability through thought processes that are applicable to learning in any situation (Amabile, 1996; Barron & Harrington, 1981; Carroll, 1993; Dacey & Lennon, 1998; Fasko, 2006; Fink & Neubauer, 2008). This evidence presents the need for educators to view creativity in a much broader context providing vital connections for cross-curricula development rather than narrowly situating creativity within art education. Of course this is feasible within the current EYLF as it is not domain specific, but its outcomes are scripted in ways that allow a more holistic approach. As mentioned, the issue is the lack of meaningful reference to children’s creative thinking within the curriculum framework.

It has been found in other research that play provides the strongest link for children’s creative development (Mellou, 2006). From this research, the need for a more robust definition of play reflective of socio-cultural theories that include creative theoretical perspectives has emerged based on misunderstandings and beliefs of the educators in this study. Play, especially when children were outdoors, was considered as ‘aimless’ and ‘free’ therefore also ‘freeing’ the educator from the responsibility and cognitive load of teaching. In addition, this view presents a lack of appreciation for the complex cognitive constructions that occur through contextually determined social collaboration.

From this research it was found that it was less likely that educators in this study would create teachable moments with children, for whom they had no direct responsibility, claiming that mixed-aged grouping of children prevented intentional teaching and documentation from occurring. Whilst it would require a large quantitative study to establish the extent of this belief in Australia, it is worth noting this belief contrasts with global approaches, such as in Italy, Sweden, Canada and New Zealand where a collective responsibility for all citizens to care for and support children is encouraged. Through play children encounter opportunities to develop their creative thinking as they participate in shared social learning experiences. A more robust definition for play is needed so that
educators can value the contribution of play to children’s social and cognitive learning.

This research has sought to contribute a refined definition that aligns with socio-cultural theorising and contemporary views on children’s cognitive growth that is inclusive of creative development. Following is a definition on play as influenced by research, data from this study and current literature derived from Vygotsky (1987, 2004) and John-Steiner et al., (2010):

Play encompasses the integration of thought and emotion. Multidirectional meaning making and learning occurs through complex symbolic constructions and desires as children participate in play. This duality in the process of play in terms of social and cognitive learning provides strong links to creativity. Play fosters unlimited potential for problem-solving skills through creative thought processes as children develop imaginings about possible futures.

This definition for play acknowledges both the cognitive and creative aspects of learning and development. Play should not be referred to as ‘aimless’ or ‘free’ rather, children are always learning and developing as they engage with others and the world around them.

This research has investigated the key strategies of intentional teaching practice used by educators. The role of the educator in children’s development of creative thinking that goes beyond an artistic endeavour requires greater emphasis. Pathways between the social and cognitive processes that contribute to creativity need to be negotiated and mediated by thoughtful adults who respond to children’s ideas, thoughts and imaginings. Identifying the powerful cognitive process of the imagination must be considered as an important element for children’s creative development. The following is a summary of the key practices relating to structural and process elements as identified in this study for educators as part of their key pedagogical practice.
**IMPLICATIONS FOR PRACTICE**

The educator has an important role in supporting children’s creative development through the structural supports provided in the learning environment. Structural quality consists of the supporting elements which create the framework for the processes that children experience (Litjens & Taguma, 2010; Sylva, 2010). The following is a summary of structural supports identified in this research as important features of developing children’s creative thinking within early childhood learning environments. The identified structural supports build on what has previously been noted in the EYLF (DEEWR, 2009) as well as recommendations by Berliner, 1992, Epstein, 2007, Litjens & Taguma, 2010, Siraj-Blatchford, 2005, 2010, and Sylva, 2010. These structural supports were found to be an important aspect of the role of the intentional teacher in this study.

**STRUCTURAL ELEMENTS IN RELATION TO EDUCATORS’ PRACTICE**

**Physical learning environments:**

- Educators provide welcoming spaces for children and families that are vibrant, flexible, inviting and responsive to the needs of the children.
- Educators ensure that learning spaces are safe for children and stimulate freedom in activity and engagement with nature.
- Educators offer children a balance between structured learning and play and learning opportunities.
- Educators provide children with flexible, open-ended activities and resources that promote divergent thinking.
- Educators create an atmosphere that encourages children’s innovation and original thinking.
- Educators provide freedom for children to engage in creative expression without fear of reprimand.
- Educators provide children with a balance of freedom and structure.
• Educators ensure that creativity is acknowledged and evident in all areas of the curriculum.

• Educators include natural resources in the learning environment.

• Educators promote children’s play in natural environments.

• Educators promote in children a sense of awe in the natural world.

• Educators provide environments for children that contain open spaces.

• Educators encourage children’s exploration, curiosity, risk taking, discovery and spontaneity.

• Educators provide children with opportunities for open-ended interactions.

• Educators allow children opportunities for individualised and group play.

• Educators provide children with supportive environments that reward effort.

Resources:

• Educators ensure that there is a balance of natural and manufactured resources.

• Educators purposefully select open-ended resources.

• Educators offer children a variety of resources.

• Educators ensure resources are stimulating and interesting to children.

• Educators provide children with choice.

• Educators offer children flexibility in the resources they provide.

• Educators include novelty in the resources they provide.
• Educators incorporate resources that challenge children’s thinking and provoke problem solving.

• Educators provide quality resources for children that are carefully combined and thoughtfully presented.

• Educators provide resources that are seen as provocations for learning and creativity.

**Time, routines and regulations:**

Time is provided:

• For children to achieve flow through experiencing a sense of freedom.

• For children to become engrossed, fully sustained, and deeply involved – enter the zone of flow.

• For children to fully experience the process and if need be complete the product of learning.

• For educators to support, guide and mentor children by modelling creative thinking and supporting creative development.

• For educators to listen and engage with children at opportune times throughout the day.

**Routines:**

• Are consistent, yet flexible and offer rich and varied learning.

• Provide opportunities for a variety of types of activities.

• Provide opportunities for a variety of grouping patterns.
• Support educators in their role of intentionally teaching children throughout the day.

**Regulations:**

• Include an awareness of how safety is not only important for supporting emotional well-being but also how some unnecessary constraints may impact upon children’s learning, well-being and creative development.

• Provide safe environments that support risk-taking behaviours.

• Include consideration for the management and grouping of children within the scheduling patterns of the day, including curriculum quality, equity and children’s well-being.

• Provide opportunities for educators to take a leadership role in decision making through critical reflection.

• Allow children to take on a role as active citizens with decision-making capabilities within a democratic learning environment.

• Be challenged according to contemporary theories and beliefs that influence practice and pedagogical decisions affecting the quality of creative learning environments provided for children.

**Curriculum:**

• Encompasses “all the interactions, experiences, activities, routines and events, planned and unplanned, that occur in an environment designed to foster children’s learning and development” (DEEWR, 2009, p. 9).
• Is a co-constructed curriculum that supports the teacher-child interactions that occur throughout the day within social learning environments that are designed to support children’s learning, growth and development.

• Is play-based and values play as “the leading source of development in the preschool years” (Vygotsky, 1976, p. 537).

• Provides a wide-range of experiences that engage and support children’s interests and ideas.

• Provides outcomes that remain intentionally broad and consider individual pathways for learning.

• Is an ongoing cycle, sequential and builds on children’s goals for their own learning as well as the goals of the families/caregivers and educators.

• Incorporates and encourages the child’s use of the imagination and divergent thinking as essential qualities of cognitive growth.

• Involves active participation and is socially constructed.

• Is inclusive and holistic - connected to children’s homes, lives, families and communities.

• Promotes a community of learners, is collaborative and democratic.

• Responsive to children’s strengths, abilities and interests.

• Includes spontaneous learning.

• Offers a balance between adult-led and child-guided experiences.

• Provides a balance between structured learning and freedom of expression.

While it is important to note that many of the identified elements in these lists are already practices that educators would be familiar with, this list strengthens the
role of the educator in his/her capacity to intentionally provide the structural supports necessary for every day learning experiences to occur. The next section provides a list of the process elements that summarises evidence from research as well as what was found in this study. These elements together with the structural supports are what constitute ‘curriculum’ under the EYLF (DEEWR, 2009) thus providing a holistic and balanced approach to teaching and learning.

**PROCESS ELEMENTS IN RELATION TO EDUCATORS’ PRACTICE**

As identified in this study, process quality consists of what children actually experience in their programmes and are thought to have an influence on children’s well-being and development (Litjens & Taguma, 2010; Sylva, 2010). Educators attend to the development of children’s creative thinking by recognising the importance of children’s dispositions towards engagement in their own learning as well as the identified process elements that contribute to children’s creative development. The following list of process elements build on the findings and strategies of Epstein (2007), Malaguzzi (1998), Marjanovic-Shane, Connery and John-Steiner (2010), Rinaldi (2006), Siraj-Blatchford (2010), Tharp and Gallimore (2005) and Vygotsky (1987, 2004). The following summaries are an extended list that contributes further understandings for the role of the intentional teacher in supporting and guiding children’s creative thinking.

**Sustained shared thinking (Siraj-Blatchford, 2010):**

- Educators engage in conversations with children.
- Educators look for opportunities to engage with children throughout the curriculum.
- Educators limit their questioning.
- Educators are thoughtful in their questioning techniques and include more open questions that invite children’s contributions.
Educators tune in, listen and show genuine interest to the thoughts and ideas of children.

Educators allow for and provide sufficient time for quality interactions and discussions with children.

Educators are attentive in listening to children.

**Children’s dispositions:**

- Educators respond to children’s natural curiosity.
- Educators encourage children’s intrinsic motivation.
- Educators develop individual and group interests.
- Educators praise, encourage and support perseverance.
- Educators support and promote children’s interactions and their relationships with educators and peers.
- Educators create a positive affect and support children’s emotional well-being.

**Problem solving:**

- Educators encourage a collaborative approach as well as individual problem solving abilities.
- Educators use strategies that support the divergent and convergent thinking.
- Educators model problem solving strategies.
- Educators respond to children as they produce original and novel ideas.
• Educators provide opportunities for children to problem solve in their daily encounters.

Meaning-making:

• Educators use assisted performance techniques: The educator find out what the child already knows or has gleaned from prior experience and pieces them together with new information.

• Educators use cognitive structuring techniques: The educator transfers skills to the child by scaffolding and supporting the child’s abilities, knowledge and skills.

• Educators use thoughtful questioning techniques: The educator provides thoughtful questioning that stimulates children’s thinking, and open-questioning techniques that support divergent thinking and the use of the imagination.

• Educators use modelling techniques: The educator models thinking including creative thinking and problem solving strategies for children.

• Educators incorporate imagining techniques: The educator models how the use of imagination can generate new ideas and possibilities for learning and play.

Play:

• Educator uses questions and mediating strategies that sustain children during play and provoke further thinking.
• Children are allowed time and opportunities to enter into/remain in a ‘state of flow’ (Csikszentmihalyi, 1996).

• Educators provide resources and space for children that support paracosms: pretend play, role-play, make-believe and imaginative play.

• Educators provide spaces that allow for investigation, exploration, and the testing and trialling of ideas and theories.

• Educators encourage and support children’s improvisational creativity.

**INTENTIONAL TEACHING STRATEGIES OF EDUCATORS**

Explicit strategies are used when educators have a goal or purpose in mind for children’s learning:

• Clarify, show concern, explain, extend thinking, introduce new information, instruct, manage group or individual behaviour, model skills, demonstrates, models thinking, offers an alternative viewpoint, offers assistance, offers educators’ own experience, plans, provides positive feedback, reassures, re-cap, revise, reflect, research and suggest ideas.

Mediating strategies are used when educators act with the intention to promote children’s social interactions, collaborative problem solving and independent learning:

• Ask children to describe their efforts/ideas/products, co-constructs knowledge, collaborates, co-problem solves, describes, encourages independent problem solving, encourages initiative, encourages further thinking, uses humour, imagines, involves/invites children, makes connections, mediates, negotiates, provides choice, provides clues, provides resources, provokes/stimulates, reminds, respects children’s ideas/choices, scaffolds skills and abilities, shows interest, speculates and supports peer interactions.
INTENTIONAL LEARNING STRATEGIES OF CHILDREN

- Asking questions (seeking approval/confirmation, asking permission or requesting, suggesting ideas, theorising/wondering, finding out information), being independent and making own choices, children co-constructing knowledge together, clues from their environment, demonstrating, describing, explaining, imagining, inviting others, making connections to home, making connections to prior learning, making requests, modelling, personifying, pretending, problem solving, recalling, requesting assistance, suggesting ideas, using rules, using gestures and actions, using humour, and seeking the use of technology.

Summary

This summary of structural and process elements is an expanded list of current practices derived from previous research as well as new practices as a result of this study. This research has reconceptualised the role of the intentional teacher providing educators with a robust list of informative strategies derived from research within Australian contexts. In addition, this summary connects teaching to children’s learning by bringing together the intentional teaching practices of educators with the creative thinking of young children, enabling a balance in curriculum through the contributions of the intentional learner.

Focus on the child as intentional learner adds a new dimension to the Early Years Learning Framework providing a more equitable and democratic approach to curriculum development. This study also provides greater understanding on creativity and its application within early learning contexts through the development of a new definition applicable to early learning contexts. The identification of structural elements and process elements used by educators in supporting the development of creative thinking in young children has provided a more comprehensive interpretation for the role of educators within the Early Years Learning Framework.
FUTURE RESEARCH

This study has signalled key areas for future research including how creativity is defined, the view of children as capable creators, the role of the imagination in children’s creative development and the changing role of the educator as an intentional teacher.

There is no doubt that creativity is one of the largest and broadest topics for research, beyond the competence of any one accepted discipline. Those who have attempted to research creativity have often received criticism for presenting a too narrow approach in seeking explanations for creative development. The problematic nature of defining creativity has also resulted in excluding children because creativity has not been considered an area for research with young children based on the opinion that they are not yet capable of producing original or novel items. The current ‘Westernised’ definition for creativity centres on the valuing of products and their apparent worth to society. This perhaps reflects the consumeristic systems of the societies that underpin the definitions in which these communities live.

Further research into the cultural implications for how creativity is defined and represented in different countries would paint a better picture for how creativity is being widely interpreted and represented on the world stage. What has not been considered is that communities that value creativity and recognise the potential in young children such as Reggio Emilia, Italy, and other contemporary approaches such as in the Nordic countries, hold very different interpretations and therefore definitions of creativity. These communities are renowned for their artistic and creative contributions to society, so it would be assumed that the valuing of creativity from an aesthetic and artistic approach to teaching and learning be reflected within educational policies. Further research is required to understand Australian values and ways of being in relation to creativity within Australian culture.

Whereas the focus of this study has been on the creative thought processes of young children, the fact that children are capable of producing novel ideas and products for their social groups cannot be ignored. The creative products of young children may not be deemed useful to wider society; however, children within their
own communities have the ability to evaluate the usefulness and novelty of their own products and the appropriateness of these to their social groups. Reconsiderations for what is meant by ‘society’ will alter research perspectives on children’s abilities to be creative. It is further believed that the revised definition for creativity within social early childhood learning environments, as a result of this research, will further support the belief that young children are capable of developing creative processes as well as demonstrate productive behaviours.

There is limited research available that acknowledges the important role of educators in supporting young children’s creativity. Neuroscientific evidence indicates that children between the ages of four and six years of age are in a critical period in their creative development, forming the foundations for later creative potential. Creativity is considered a fundamental aspect of growth through the transformations that occur within development in all domains of learning. The role of the educator is significant in supporting and guiding children’s creative development through various intentional teaching strategies. This research has identified a need for intentional teaching strategies of educators to support children’s creative thinking within varying learning environments. It is hoped it will provoke further research into how educators can further support creative development as part of children’s holistic growth in all areas of learning and development.

One significant area identified in this study is the importance of the imagination for young children’s cognitive processes. Play has been identified as an essential component for stimulating intrinsic motivation and creative imagination in young children. This study highlights the value of play within curriculum promoting children’s imagination as a vital component of cognitive and creative development. Further research is needed to investigate how children use their imaginations to reach higher levels of understanding, or to think in creative ways. Whereas this research attempted to identify children’s creative thought processes, further study on children’s creative abilities through their play is now needed. The revised definition for play provided by this study abandons previously held beliefs of play as ‘aimless’ or ‘free’ and provides a strong link to children’s creativity. Future research that investigates the powerful neurological connections that occur
between cognitive and creative processes as a result of children playing and learning will further contribute to this definition and findings from this study.

This research has highlighted new understandings for the role of the intentional teacher in the development of creative thought processes in children. In this study, educators were focusing more on guiding the development of conceptual knowledge, at the expense of promoting the child’s use of the imagination. Intelligence and creativity are necessary tools for children to participate in a technologically advanced era. This creative behaviour is what orients humans toward future possibilities. Humans draw from knowledge bases and through the internalisation of thought and neurological connections or ‘imaginings’ are then capable of producing innovative ideas and possibilities. In a fast moving technologically advancing world, children need access to sound knowledge bases as well as opportunities to develop creativity capacities that will sustain their futures.

The changing role of the educator in the 21st century urges educators to now consider the early creative development of children alongside conceptual growth, or intelligence. Ken Robinson claims that “raising academic standards alone will not solve the problems we face. To move forward we need a fresh understanding of intelligence, of human capacity and of the nature of creativity” (2001, p. 9). Creativity is now at the forefront of human development as we face a future of rapid social and technological change. Integrating imaginative and creative thinking into children’s early educational experiences provides rich foundations for children to build futures worlds. It is hoped this study will not only provide useful insights for educators in terms of their pedagogical practice, but will provoke further research that will continue to investigate the changing role of the educator in recognition of the changing needs of children within contemporary early learning contexts.

**CONCLUSION**

As the topic of creativity continues to become of ever-increasing interest to education settings and the world in general, it is imperative that the role of the
educator as an intentional teacher, particularly in the development of creative thought processes of young children, be seriously considered. Supporting creative development in young children within social learning contexts urges educators to reconsider and re-evaluate past theorising for how this influences their role as an intentional teacher. This research has identified children as intentional learners, categorising key strategies children incorporate in their play and learning. This study has contributed further understandings through revised definitions for intentional teaching, the intentional learner, creativity and play within Australian early childhood learning contexts. It is hoped that this study not only extends educators’ understandings on the phenomena of intentional teaching and creativity, but has foregrounded new understandings for the importance of the relationship between the two. Early education requires a balance between teacher knowledge and skills and encouraging innovation in children. It is my belief that quality early education needs to bring together the knowledge, skill and guidance of educators with the imagination, curiosity and the intrinsically playful nature of children, in order to develop curriculum that will lay solid foundations for future learning and creative potential.
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APPENDICES

Appendix 1: Ethics approval letter (The University of Newcastle)

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<tr>
<th>HUMAN RESEARCH ETHICS COMMITTEE</th>
<th>Notification of Expedited Approval</th>
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To Chief Investigator or Project Supervisor:

Associate Professor Linda Newman

Cc Co-investigators / Research Students:

Dr Margot Ford Mrs Nicole Leggett

Re Protocol:

Intentional teaching practices of educators and the development of creative thought processes in young children within early childhood centres

Date:

12-Dec-2011

Reference No:

H-2011-0330

Date of Initial Approval:

12-Dec-2011

Thank you for your Response to Conditional Approval (minor amendments) submission to the Human Research Ethics Committee (HREC) seeking approval in relation to the above protocol.

Your submission was considered under Expedited review by the Ethics Administrator.

I am pleased to advise that the decision on your submission is Approved effective 12-Dec-2011.

In approving this protocol, the Human Research Ethics Committee (HREC) is of the opinion that the project complies with the provisions contained in the National Statement on Ethical Conduct in Human Research, 2007, and the requirements within this University relating to human research.

Approval will remain valid subject to the submission, and satisfactory assessment, of annual progress reports. If the approval of an External HREC has been "noted" the approval period is as determined by that HREC.
The full Committee will be asked to ratify this decision at its next scheduled meeting. A formal Certificate of Approval will be available upon request. Your approval number is H-2011-0330. If the research requires the use of an Information Statement, ensure this number is inserted at the relevant point in the Complaints paragraph prior to distribution to potential participants. You may then proceed with the research.
Appendix 2: Participant information sheets

Dr Linda Newman  
Associate Professor  
School of Education, Faculty of Education and Arts  
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University of Newcastle  
University Drive  
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Dr Margot Ford  
School of Education, Faculty of Education and Arts  
PO Box 127  
Ourimbah NSW 2258  
Ph. (02) 43494413 fax. (02) 43484075  
Email: Margot.Ford@newcastle.edu.au

Information Statement for the Research Project: Organisation form

Intentional teaching and the development of creative thought processes in young children within early childhood centres.

Document Version (03) ; dated 05/12/2011

Educators and children from your centre are invited to participate in the research project identified above which is being conducted by Nicole Leggett (PhD candidate), Dr Linda Newman and Dr Margot Ford from the School of Education at the University of Newcastle.

Why is the research being done?

This study is an in-depth investigation of the intentional teaching methods of early childhood educators providing provocations for creative thinking in 4-6 year old children. This study will add a new dimension to the National Early Years Learning Framework (EYLF) by providing educators with an opportunity to explore the concepts and relationships between intentional teaching methods and the development of creative thinking in young children.
**How were you chosen?**

Your centre was purposefully selected based on the knowledge of your involvement with the Early Years Learning Framework and that you cater for 4-6 year old children.

**Who can participate in the research?**

Early childhood educators working with 4-6 year old children in early childhood centres on the Central Coast of NSW are invited to participate in this research. It is anticipated that children aged 4-6 years will also be part of this research.

**What choice do you have?**

Participation in this research is entirely the choice of the centre, early childhood educators, parents/caregivers of the children and the children themselves. Only those people who give their informed consent will be included in the project. Whether or not you decide to participate, your decision will not disadvantage you. You may choose to withdraw your consent at any time, without giving a reason and have the option of withdrawing any data which identifies you.

There are two sections on the attached consent form. The first seeks your consent for your centre to participate in the research. The second, subject to parent/caregiver permission, seeks your consent for educators to contribute additional documentation in the form of written observations, learning stories and copies of children’s work from your centre. Parents/care-givers and educators reserve the right to withhold documentation they do not wish to be used.

Your consent is also requested for the researcher to use excerpts from transcripts, journals, audio-recordings, photographs, artefacts and observations for the purpose of her thesis as well as at conferences, teaching seminars or in journal articles. You may choose not to give consent to the use of excerpts and still consent to participate in the project.

**What would participants be asked to do?**

Educators and parents/care-givers of children will be asked for their consent to audio-recording of interactions between the educator and the children, and to having the content of these interactions analysed by the researcher.

Children will not be required to participate in anything out of the norm for a preschool learning environment. It is anticipated that children will naturally join in
with activities that engage their curiosity. No child will be coerced into participation.

Educators will be asked to wear and operate a zoom recording device during various times of the day in order to record their interactions with the children. Educators will be provided with a journal in order to note observations and thoughts throughout the project should they elect to do so. Subject to parent/care-giver permission, educators may be asked to contribute additional data for the purpose of the research, such as observations, learning stories, copies of children’s work or photographs.

Approximately five focus groups for educators from all three centres led by the researcher will be planned in negotiation with participants. These sessions will involve some interviews using open questions in order to generate conversation around the research topics. Focus groups will be audio-taped for later transcription and analysis. Staff will also have an opportunity to view transcripts from recordings and to reflect together on the researcher’s analysis of the data collated. Educators will be made aware of their right to edit/delete any material or data throughout the research process as well as their right to confidentiality.

**How much time will it take?**

The project will be carried through a six month period with approximately ten daily visits in negotiation with each centre. Focus group sessions will take place at the commencement of the study as well as throughout the term of the research project. Sessions lasting approximately 90 minutes will be planned for a time and place convenient to the educators.

**What are the risks and benefits of participating?**

There are no anticipated risks associated with participating in this research given that the format of the research project will be carried out within the centre’s regular approach to teaching and learning.

Benefits for the children will be their involvement in activities that appeal to their interests, curiosity and promote creativity.

Benefits for the centre, staff, families and children include engagement in this innovative research that will provide opportunities for participating educators to work closely on practices associated with the Early Years Learning Framework. Participation will allow the development of a greater awareness and understanding of intentional teaching strategies and the relationship with the creative thought processes of young children.
Furthermore, contemporary understandings of the links between intentional teaching and creative problem solving in young children will provide opportunities for educators to discuss implications for their own practice. Educators will also benefit from discussions lead by the university researcher sharing recent research and the analysis of data.

**How will your privacy be protected?**

No centre, research participant or child will be identifiable in this process. All data collated will be de-identified, using codes in place of names. Individual participants will not be identified in any reports or presentations arising from the research. The researcher will make a conscious effort not to photograph children or educators and adults who have not consented to participate. The researcher will wherever possible avoid using photographs that contain images of children without parent/care-giver and/or child consent, or any non-consenting adults or educators. However, should any non-consenting child, educator or adult appear in any photographs, they will be fully pixelated. Parents/caregivers and educators who do provide permission to have photographs taken while engaged in learning experiences, will also be asked to give consent for photographs to be used in the researcher’s thesis, educational publications, teaching seminars and conference presentations.

All signed consent forms, audio-recordings, photographs, memos and field notes will be stored in a lockable cabinet in the researcher’s personal office in the humanities building at the Central Coast Campus of the University of Newcastle. Data will only be accessible to the researchers.

Participants will be requested to maintain the confidentiality of focus group discussions and not divulge the specific content to outside parties. All personal journals will remain anonymous and may be used as data for later analysis. Collected data will be stored for a minimum of 5 years, as per University of Newcastle policy.

**How will the information collected be used?**

The data will be presented in a thesis to be submitted for Ms Nicole Leggett’s Doctor of Philosophy (PhD). Research findings may also be included in educational publications, presented at conferences, seminars or used for teaching purposes. Findings from the research will be communicated back to the participants through a report. Non-participating educators and parents/caregivers will also be invited to request a summary of the results of the research from the researcher.
What do you need to do to participate?

If you would like to participate, please read this information statement carefully then complete and return the attached form in the pre-paid envelope. This form is only an indication of your interest in becoming involved in the research project. One of the researchers will then contact you to make a time for an informal meeting where any further questions you may have will be answered. Specific consent forms and information statements will be left at this time for distribution to participating educators and parents/care-givers of children in your 4-6 year old room.

Further information

If you would like further information please contact Dr Linda Newman or Dr Margot Ford on the contacts listed above.

Thank you for considering this invitation.

Dr Linda Newman (Chief Investigator)
School of Education, Faculty of Education and Arts
University of Newcastle

Dr Margot Ford
School of Education, Faculty of Education and Arts
University of Newcastle

Nicole Leggett
PhD candidate
Nicole.Leggett@newcastle.edu.au

Complaints about this research

This project has been approved by the University’s Human Research Ethics Committee, Approval No. H-2011-0330.

Should you have concerns about your rights as a participant in this research, or you have a complaint about the manner in which the research is conducted, it may be given to the researcher, or, if an independent person is preferred, to the Human Research Ethics Officer, Research Office, The Chancellery, The University of Newcastle, University Drive, Callaghan NSW 2308, Australia, telephone (02) 49216333, email Human-Ethics@newcastle.edu.au.
Information Statement for the Research Project: Educators.

Intentional teaching and the development of creative thought processes in young children within early childhood centres.

Document Version (03); dated 05/12/2011

As an educator of the 4-6yr old room, you are invited to participate in the research project identified above which is being conducted by Nicole Leggett (PhD candidate), Dr Linda Newman and Dr Margot Ford from the School of Education at the University of Newcastle.

Why is the research being done?

This study is an in-depth investigation of the intentional teaching methods of early childhood educators providing provocations for creative thinking in 4-6 year old children. This study will add a new dimension to the National Early Years Learning Framework (EYLF) by providing educators with an opportunity to explore the concepts and relationships between intentional teaching methods and the development of creative thinking in young children.
How were you chosen?

Your centre was purposefully selected based on the knowledge of your involvement with the Early Years learning Framework and that you cater for 4-6 year old children.

Who can participate in the research?

Early childhood educators working with 4-6 year old children in early childhood centres on the Central Coast of NSW are invited to participate in this research. It is anticipated that children aged 4-6 years will also be part of this research.

What choice do you have?

Participation in this research is entirely your choice. Only educators who give their informed consent will be included in the project. Whether or not you decide to participate, your decision will not disadvantage you. You may choose to withdraw your consent at any time, without giving a reason and have the option of withdrawing any data which identifies you.

There are two sections on the attached consent form. The first seeks your consent to participate in the research. The second, subject to parent/care-giver permission, seeks your consent to contribute additional documentation in the form of written observations, learning stories and copies of children’s work. Parents/care-givers and educators reserve the right to withhold documentation they do not wish to be used.

Your consent is also requested for participation in focus group sessions with participants from other centres involved in the research at a time that is mutually convenient to all participants.

Your consent is also requested for the researcher to use excerpts from transcripts, journals, audio- recordings, photographs, artefacts and observations for the purpose of her thesis as well as at conferences, teaching seminars or in journal articles. You may choose not to give consent to the use of excerpts and still consent to participate in the project.

What would participants be asked to do?

Educators will be asked for their consent to audio-recording of interactions between themselves and the children, and to having the content of these interactions analysed by the researcher.
Children will not be required to participate in anything out of the norm for a preschool learning environment. It is anticipated that children will naturally join in with centre activities that engage their curiosity. No child will be coerced into participation.

As an educator you will be asked to wear and operate a zoom recording device during various times of the day in order to record your interactions with the children. Educators will be provided with a journal in order to note observations and thoughts throughout the project should they elect to do so. Subject to parent/care-giver permission, educators may be asked to contribute additional data for the purpose of the research, such as observations, learning stories, copies of children’s work or photographs.

Approximately five focus groups led by the researcher for educators from all three centres will be planned in negotiation with participants. These sessions will involve some interviews using open questions in order to generate conversation around the research topics. Focus groups will be audio-taped for later transcription and analysis. All educators will also have an opportunity to view transcripts from recordings and to reflect together on the researcher’s analysis of the data collated. Educators will be made aware of their right to edit/delete any material or data throughout the research process as well as their right to confidentiality.

**How much time will it take?**

The project will be carried through a six month period with approximately ten daily visits in negotiation with each centre. Focus group sessions will take place at the commencement of the study as well as throughout the term of the research project. Sessions lasting approximately 90 minutes will be planned for a time and place convenient to the educators.

**What are the risks and benefits of participating?**

There are no anticipated risks associated with participating in this research given that the format of the research project will be carried out within the centre’s regular approach to teaching and learning.

Benefits for the children will be their involvement in activities that appeal to their interests, curiosity and promote creativity.

Benefits for the centre, educators, families and children include engagement in this innovative research that will provide opportunities for participating educators to work closely on practices associated with the Early Years Learning Framework. Participation will allow the development of a greater awareness and understanding
of intentional teaching strategies and the relationship with the creative thought processes of young children.

Furthermore, contemporary understandings of the links between intentional teaching and creative problem solving in young children will provide opportunities for educators to discuss implications for their own practice. Educators will also benefit from discussions lead by the university researcher sharing recent research and the analysis of data.

**How will your privacy be protected?**

No centre, research participant or child will be identifiable in this process. All data collated will be de-identified, using codes in place of names. Individual participants will not be identified in any reports or presentations arising from the research. The researcher will make a conscious effort not to photograph educators who have not consented to participate. The researcher will wherever possible avoid using photographs that contain images of any non-consenting educators. However, should any non-consenting educator appear in any photographs, they will be fully pixelated. Educators who do provide permission for their photograph to be taken while engaged in learning experiences, will also be asked to give consent for photographs to be used in the researcher’s thesis, educational publications, teaching seminars and conference presentations.

All signed consent forms, audio-recordings, photographs, memos and field notes will be stored in a lockable cabinet in the researcher’s personal office in the humanities building at the Central Coast Campus of the University of Newcastle. Data will only be accessible to the researchers. Participants will be requested to maintain the confidentiality of focus group discussions and not divulge the specific content to outside parties. All personal journals will remain anonymous and may be used as data for later analysis. Collected data will be stored for a minimum of 5 years, as per University of Newcastle policy.

**How will the information collected be used?**

The data will be presented in a thesis to be submitted for Ms Nicole Leggett’s Doctor of Philosophy (PhD). Research findings may also be included in educational publications, presented at conferences, seminars or used for teaching purposes. Findings from the research will be communicated back to the participants through a report. Non-participating educators and parents/care-givers are also invited to request a summary of the results of the research from the researcher.
What do you need to do to participate?

If you would like to participate, please read this information statement carefully then complete and return the attached form to your centre Director. One of the researchers will be in contact with the centre once permission has been granted where any further questions you may have will be answered.

Further information

If you would like further information please contact Dr Linda Newman or Dr Margot Ford on the contacts listed above.

Thank you for considering this invitation.

Dr Linda Newman (Chief Investigator)
School of Education, Faculty of Education and Arts
University of Newcastle

Dr Margot Ford
School of Education, Faculty of Education and Arts
University of Newcastle

Nicole Leggett
PhD candidate
Nicole.Leggett@newcastle.edu.au

Complaints about this research

This project has been approved by the University’s Human Research Ethics Committee, Approval No. H-2011-0330.

Should you have concerns about your rights as a participant in this research, or you have a complaint about the manner in which the research is conducted, it may be given to the researcher, or, if an independent person is preferred, to the Human Research Ethics Officer, Research Office, The Chancellery, The University of Newcastle, University Drive, Callaghan NSW 2308, Australia, telephone (02) 49216333, email Human-Ethics@newcastle.edu.au.
Information Statement for the Research Project: Parents/Care-givers

Intentional teaching and the development of creative thought processes in young children within early childhood centres.

Document Version (03); dated 05/12/2011

You and your child are invited to participate in the research project identified above which is being conducted by Nicole Leggett (PhD candidate), Dr Linda Newman and Dr Margot Ford from the School of Education at the University of Newcastle.

Why is the research being done?

This study is an in-depth investigation of the intentional teaching methods of early childhood educators providing provocations for creative thinking in 4-6 year old children. This study will add a new dimension to the National Early Years Learning Framework (EYLF) by providing educators with an opportunity to explore the concepts and relationships between intentional teaching methods and the development of creative thinking in young children.
**How were you chosen?**

Your centre was purposefully selected based on the knowledge of their involvement with the Early Years Learning Framework and that they cater for 4-6 year old children.

**Who can participate in the research?**

Early childhood educators working with 4-6 year old children in early childhood centres on the Central Coast of NSW are invited to participate in this research. It is anticipated that children aged 4-6 years will also be part of this research.

**What choice do you have?**

Participation in this research is entirely your choice and of the children themselves. Only parents/care-givers of children who give their informed consent for their child to participate will be included in the project. Whether or not you decide to participate, your decision will not disadvantage you or your child. You may choose to withdraw your consent at any time, without giving a reason and have the option of withdrawing any data which identifies you.

There are two sections on the attached consent form. The first seeks your consent for your child to participate in the research. The second seeks consent for the researcher to photograph and audio-tape your child while engaged in interactions with an educator. You are also asked consent for the use of copies of your child’s artwork, written observations or other documentation provided by the educators.

Consent is also asked for the researcher’s use of excerpts from transcripts, journals, audio-recordings, photographs, artefacts and observations for the purpose of her thesis as well as at conferences, teaching seminars or in journal articles. Participants may choose not to give consent to the use of excerpts or children’s work examples and still consent to participate in the project.

**What would participants be asked to do?**

Children will not be required to participate in anything out of the norm for a preschool learning environment. It is anticipated that children will naturally join in with centre activities that engage their curiosity. No child will be coerced into participation.

**How much time will it take?**

The project will be carried through a six month period with approximately ten daily visits in negotiation with each centre.
What are the risks and benefits of participating?

There are no anticipated risks associated with participating in this research given that the format of the research project will be carried out within the centre’s regular approach to teaching and learning.

Benefits for the children will be their involvement in activities that appeal to their interests, curiosity and promote creativity.

Benefits for the centre, staff, families and children include engagement in this innovative research that will provide opportunities for participating educators to work closely on practices associated with the Early Years Learning Framework. Participation will allow the development of a greater awareness and understanding of intentional teaching strategies and the relationship with the creative thought processes of young children.

Furthermore, contemporary understandings of the links between intentional teaching and creative problem solving in young children will provide opportunities for educators to discuss implications for their own practice. Educators will also benefit from discussions lead by the university researcher sharing recent research and the analysis of data.

How will your privacy be protected?

No child will be identifiable in this process. All data collated will be de-identified, using codes in place of names. Individual participants will not be identified in any reports or presentations arising from the research. The researcher will make a conscious effort not to photograph children who do not have parent/care-giver consent to participate. The researcher will wherever possible avoid using photographs that contain images of children without parent/care-giver and/or child consent, however, should any non-consenting child appear in any photographs, they will be fully pixelated. Parents/care-givers who do provide permission to have photographs taken while engaged in learning experiences, will also be asked to give consent for photographs to be used in the researcher’s thesis, educational publications, teaching seminars and conference presentations.

All signed consent forms, audio-recordings, photographs, memos and field notes will be stored in a lockable cabinet in the researcher’s personal office in the humanities building at the Central Coast Campus of the University of Newcastle. Data will only be accessible to the researchers. Collected data will be stored for a minimum of 5 years, as per University of Newcastle policy.
How will the information collected be used?

The data will be presented in a thesis to be submitted for Ms Nicole Leggett’s Doctor of Philosophy (PhD). Research findings may also be included in educational publications, presented at conferences, seminars or used for teaching purposes. Findings from the research will be communicated back to the participants through a report. Non-participating parents/care-givers will also be invited to request a summary of the results of the research from the researcher.

What do you need to do to participate?

If you would like to participate, please read this information statement carefully then complete and return the attached form to your centre’s Director. One of the researchers will then contact the centre and make a time for an informal meeting where any further questions you may have will be answered.

Further information

If you would like further information please contact Dr Linda Newman or Dr Margot Ford on the contacts listed above.

Thank you for considering this invitation.

Dr Linda Newman (Chief Investigator)
School of Education, Faculty of Education and Arts
University of Newcastle

Dr Margot Ford
School of Education, Faculty of Education and Arts
University of Newcastle

Nicole Leggett
PhD candidate
Nicole.Leggett@newcastle.edu.au

Complaints about this research

This project has been approved by the University’s Human Research Ethics Committee, Approval No. H-2011-0330.
Should you have concerns about your rights as a participant in this research, or you have a complaint about the manner in which the research is conducted, it may be given to the researcher, or, if an independent person is preferred, to the Human Research Ethics Officer, Research Office, The Chancellery, The University of Newcastle, University Drive, Callaghan NSW 2308, Australia, telephone (02) 49216333, email Human-Ethics@newcastle.edu.au.
Appendices

Appendix 3: Participant consent forms

Dr Linda Newman
Associate Professor
School of Education, Faculty of Education and Arts
Hunter Building
University of Newcastle
University Drive
Callaghan NSW 2308
Ph. (02) 49216283 0414 376 072 fax (02) 49217887
Email: Linda.Newman@newcastle.edu.au

Dr Margot Ford
School of Education, Faculty of Education and Arts
PO Box 127
Ourimbah NSW 2258
Ph. (02) 43494413 fax. (02) 43484075
Email: Margot.Ford@newcastle.edu.au

Organisation Consent Form for Participation in the Research Project:
Intentional teaching and the development of creative thought processes in young children within early childhood centres.
Document Version (03) ; dated 05/12/2011

I __________________________ give permission for the educators and children in the 4-6yr room to participate in this research as carried out by Nicole Leggett, a PhD candidate with the University of Newcastle:

Yes ☐ No ☐

Subject to parent/care-giver permission, I give consent for educators to contribute additional documentation in the form of written observations, learning stories and copies of children’s work from this centre, at the discretion of the educators.

Yes ☐ No ☐

I give consent for the researcher to use excerpts from transcripts, journals, audio-recordings, photographs, artefacts and observations taken at this centre, for the purpose of her thesis as well as at conferences, teaching seminars or in journal articles.

Yes ☐ No ☐
Centre name: ________________________________
Centre address: ________________________________
Contact person: ________________________________
Signature: ______________________ Date: __________
Phone: ______________________ Email: ____________
Dr Linda Newman
Associate Professor
School of Education, Faculty of Education and Arts
Hunter Building
University of Newcastle
University Drive
Callaghan NSW 2308
Ph. (02) 49216283  0414 376 072 fax (02) 49217887
Email: Linda.Newman@newcastle.edu.au

Dr Margot Ford
School of Education, Faculty of Education and Arts
PO Box 127
Ourimbah NSW 2258
Ph. (02) 43494413 fax. (02) 43484075
Email: Margot.Ford@newcastle.edu.au

Educator Consent Form for the Research Project:

Intentional teaching and the development of creative thought processes in young children within early childhood centres.

Document Version (03) ; dated 05/12/2011

I agree to participate in the above research project and give my consent freely:

Yes ☐ No ☐

I understand that the project will be conducted as described in the Information Statement, a copy of which I have retained.

I understand I can withdraw from the project at any time and do not have to give any reason for withdrawing.

Signed:_____________________________________________date:_________

I consent to:

• Being photographed and/audio-taped during interactions with children

Yes ☐ No ☐

• Providing additional documentation in the form of observations, learning stories, copies of children’s work and photographs (subject to parent/care-giver permission), whilst reserving the right to withhold documentation I do not wish to be used

Yes ☐ No ☐
Appendices

Yes ☐ No ☐

- Participating in focus groups with participants from other centres

Yes ☐ No ☐

- Being audio-recorded during focus group sessions with other participants

Yes ☐ No ☐

- The use of excerpts from transcripts, photographs and audio-recordings in the researcher’s thesis, educational publications, teaching seminars and conference presentations.

Yes ☐ No ☐

I understand that my personal information will remain confidential to the researchers.
I have had the opportunity to have questions answered to my satisfaction.

**Print Name:**
____________________________________________________________

**Signature:** ____________________________ **Date:** __________

**Contact details:** participants who wish to receive a summary of results will need to provide their contact details.

**Name:**
______________________________________________________________

**Phone:** _____________________________________________________

**Address:** _____________________________________________________
Parent/Care-giver Consent Form for the Research Project:

Intentional teaching and the development of creative thought processes in young children within early childhood centres.

Document Version (03); dated 05/12/2011

I agree to my child (name)____________________________participating in the above research project and give my consent freely.

I understand that the project will be conducted as described in the Information Statement, a copy of which I have retained.

I understand my child or I can withdraw from the project at any time and do not have to give any reason for withdrawing. If my child withdraws from the research he/she can still participate in any activities.

I have discussed this with my child and he/she has indicated assent to participate.

Signed:_____________________________________________date:___________
I consent to:

- My child being photographed and audio-taped during interactions with an educator
  
  Yes ☐ No ☐

- Copies of my children’s artwork, observations and other recorded documentation being shared with the researcher
  
  Yes ☐ No ☐

- The use of excerpts from transcripts, photographs and audio-recordings in the researcher’s thesis, educational publications, teaching seminars and conference presentations.
  
  Yes ☐ No ☐

I understand that my personal information will remain confidential to the researchers.
I have had the opportunity to have questions answered to my satisfaction.

Print Name: ________________________________________________________________

Signature: __________________________________________ Date: ____________

Contact details: Participants who wish to receive a summary of the results will need to provide their contact details.

Name: ________________________________________________________________

Phone: ________________________________________________________________

Address: ________________________________________________________________
Appendices

Appendix 4: Focus group plan

<table>
<thead>
<tr>
<th>Week</th>
<th>1</th>
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<tbody>
<tr>
<td>Planning</td>
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<tr>
<td>Recruiting</td>
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<td>Moderating</td>
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**Planning:**

- Once consent forms have been signed and returned, negotiations between the researcher and educators will be initiated on where and when we can meet on a regular basis throughout the research period.
- All necessary documentation and resources will be ready (ethics approval documentation, audio recorders, paper, pens, computers/lap tops, printers, refreshments etc).
- Purchase if required, high quality digital recorder with long battery life and a good microphone. Pre-test the quality of the recording and uploading to software package.
- Participants and the educator will then decide on the number of focus groups to be held.
- Planning will also involve ensuring that every participant feels comfortable about sharing and being audio-taped.
- The environment will be neutral, comfortable, easy to find with minimal visual or noise distraction.
- Participant’s rights will be clearly outlined in the information statement provided.
- Complexities will involve finding a time that is conducive to staff on varying shifts at each centre as well as accommodating those with children.
- Planning will also involve providing snacks or meals for participants depending on when the sessions are scheduled.
- The researcher will outline the problem/issue/phenomenon to be addressed at each focus session.
Appendices

- Specific questions for open discussions will be thoughtfully prepared in advance. No more than 10 questions will be asked during a one hour focus group session. This plan will be shared with participants ensuring transparency within the project and so that educators are aware of focus group procedures.

Recruiting:
- All educators working in the 4-6 year rooms will be invited to participate.
- Participants will sign a consent form that provides their willingness to participate in learning experiences with the children as well as their involvement in focus group sessions with the researcher.
- Focus groups will be held monthly at the University campus throughout the research period for a total of five sessions.

Moderating:
- The researcher will moderate the focus group sessions using open interview as a technique to direct conversations around the phenomenon (Hatch, 1995).
- Conversations and dialogue will be recorded through using audio taping allowing data to be collated and analysed in response to specific research questions.
- The participating educators will act as assistant moderators through the maintaining of personal journals. Journals provide a tool for reflective practice and serve as individual records for teacher change.
- Through shared dialogue educators identify similar problems and work collaboratively in generating workable solutions.
- The researcher and the educators will work together in focus group sessions in assessing and evaluating the learning experiences through collating photographs and dialogue in the form of learning and teaching stories (Carr, May & Podmore, 2000)
- The rationale for collaborating with educators is based on evidence that action research is “considered to enhance professional learning and to provide reflective practice” (Rodd, 1994, p.144).
Learning and teaching stories will enable practitioners and researchers to identify the “engine” for progress and change – they enable assessments and evaluations to be formative (Carr, et al., 2000).

Analysis:

- At subsequent focus group sessions, the researcher will present audio-taped data and analysis from prior sessions to the educators for verification as well as providing an opportunity for participants to edit or delete and contributions.
- The researcher will draw together and compare discussions of similar themes. Coding from the script taken from audio-taping sessions will be used to identify specific categories relating to the research questions. The focus on language earns focus group methodology the label, qualitative (Creswell, 1998).
- A report based on focus groups will feature patterns formed by words, called themes or perspectives through coding of data and the analysis of patterns in spoken language (Creswell, 1998).
- Through moderation, the researcher will encourage the occurrence of spontaneous, unexpected events, such as a participant raising a topic or responding in a way that the moderator did not anticipate.
- If the line of discussion contributes to an understanding of the topic, the moderator may encourage even more discussion. They may build the new ‘point’ into the interview guide for future sessions (Krueger & Casey, 2000).
Appendix 5: Five focus group sessions

FOCUS GROUP 1: 2/08/2012
Introduction: This session was not recorded as I wanted to put participants at ease and develop friendships before the commencement of more formal recorded focus groups.

Introduce myself and clarify my role as the researcher within their setting, as well as my background in early childhood education. Invite participants share a little about their background as well.

Participants will be reassured that there are no right or wrong answers during focus group sessions and will be encouraged to share honest conversations with the researcher and each other. Participants will also be reassured that their expertise and knowledge is valued as a necessary part of quality data collection and analysis.

Afternoon tea provided:
1/ Introduction of focus group members: backgrounds.
2/ Provide a brief overview of research – supervisors, ethics, approval, methodology and outcomes.
3/ Requirements of educators
4/ Schedule for focus group sessions (1/month - TBA)
5/ Contact details: email/mobile
6/ Permission forms: final collection
7/ Overview: what will happen at centre visits
8/ Demonstration: How to use digital recording equipment
9/ Diaries: hand out participant journals and explain their purpose
10/ Artefacts: ethics, respect for children and their work
11/ Confidentiality issues pertaining to research
12/ Professional and ethical conduct
13/ Questions/Thank you
FOCUS GROUP 2: 13/9/12
Participants will again be reassured that there are no right or wrong answers and encouraged to share honest conversations with the researcher and each-other. Participants will also be reassured that their expertise and knowledge is valued as a necessary part of quality data collection and analysis. In keeping with grounded theory, questions will be suggestions only and drawn on if discussion does not independently draw out pertinent information. The actual analysis may have different questions drawn from the transcriptions to what is on the focus group schedule plan.

Welcome participants: It’s not often educators get to share ideas without children around – I hope you agree that this is a valuable time for overall professional growth and identity. I have prepared individual transcripts from the research so far for you all to read and reflect on as we engage in discussions.

Reflections from visits to centres:

Joan:
1. What has been the effect of using the digital voice recorders? How has it made you feel about your teaching?

2. I’m really interested in our conversation we had during the week regarding respect. Can you share a little about what respect means to you within the culture of your centre?

3. Do you think that respect and other values are part of intentional teaching strategies? How? It seems there are very tangible aspects of intentional teaching but there are also abstract themes emerging from this research.

4. Would anyone else like to share their thoughts?
Nelly:

1. Linking to respect for the environment, we also had a brief conversation at your centre regarding the care you show towards the aesthetics and how the environment impacts on quality learning. Can you share a little on how and why your environment is set up the way it is?

2. Can you also comment on the types of resources you provide children? You have a lovely balance of natural and man-made resources at your centre – can you tell me if there is a difference in how children use natural resources as compared to the man-made resources?

3. What have others found when using natural resources?

Carl:

1. How has this research impacted/changed the way you approach your role as an educator?

2. I’ve noticed more freedom/choice for children incorporated in your activities and flexibility in your teaching style.

3. Listening to the children’s ideas and suggestions and including them in activities

4. Would others like to comment?
Sally:

1. *I noticed your activities are developing into projects – Is there a link between intentional teaching and project work?* Do you have more direction/goals in mind for the children and for your own teaching?

2. *I also observed you and Rita scaffolding individual children with writing names of people and objects in a few transcripts. Can you share a little about your role as an intentional teacher here?*

Feedback from researcher:

**Patterns:** I have observed overall some strategies used by educators: Would you assist in identifying and labelling some of these strategies with me?

*Researcher: It’s interesting to share with you from the data just how many intentional teaching strategies you actually use!*

From the transcripts we looked for evidence and labelled together some of the following categories of strategies:

*I don’t think you are actually aware of all the strategies you use. In this focus group we have talked about eight strategies already, however, in your everyday practice there is about 24.*

*The strategies you have mentioned so far include: scaffolding, co-constructing, giving directions, questioning, listening to their ideas, finding out what they already know, being spontaneous to ideas and supporting. Is this right? Have I missed any?*

Thank you for contributing

Next focus group: 11th October 5pm.
FOCUS GROUP 3: 11/10/12
So I don’t keep you all over time, I will be keeping focus group sessions to 1 hour. I encourage your honest thoughts and participation in discussions.

Opening question:

*Was there anything you took away from the focus group session last month that has impacted on your practice? If any, what changes have you made?*

Reflection on question use:

*Last time we discussed the effects of questions and allowing time for children to answer or time to come up with their own questions.*

1. *How have your strategies changed involving the types of questions you ask children? How?*
2. *Have you noticed children asking questions?*
3. *When the group becomes bigger, do your questions change?*
4. *

We also discussed the impact of the environment, in particular the outdoors regarding balancing manufactured equipment and natural resources.

1. *What impact does the outdoor environment have on your role as an intentional teacher?*
2. *What changes have you made?*
3. *Has this impacted on your teaching in any way?*

Focus: Intentional teaching

1. *What is your understanding of Intentional teaching? What does it mean to be an intentional teacher?*
2. *When are you more likely to be intentional and why?*
3. *So behaviour management; is that part of your intentional teaching strategies?*
Environments: Outdoors

1. *How much do supervision responsibilities impact on your ability to intentionally teach children while outdoors?*
2. *Do you feel that the outdoors is where you need to supervise children?*

1. *How does the environment support your intentional teaching practice?*
2. *What impact do you think the environment has on your role as an educator? Does it change? If so, why?*

3. *What do you feel are the major constraints preventing you from intentionally teaching outdoors?*
4. *What do you think would improve the outdoors? How can you provide greater flexibility?*
5. *Does anyone have anything to share from their journals – or in general?*
FOCUS GROUP 4: 21/11/2012

Dear educators,

Below are some questions I would like you to think about before our next focus group session. Hopefully this will give you time to make some notes/think about the issues so far and feel prepared for participating in the focus group. As I am nearing the end of the data collection stage I may not need to visit the centres anymore as I should have enough data from you all. I will miss your beautiful children! It doesn’t take long to form a bond with them.

This will be the second last focus group session. The final session will be emailed to you as I know how busy December can be. I can’t thank you enough for your participation; I value your input immensely and look forward to seeing you all on the 21st November.

Question 1:

Through the data so far it is evident that intentional teaching opportunities occur more frequently indoors than outdoors.

*Why do you think this happens?*

Question 2:

*What impact does the environment have on your role as an educator – does it change from when you are indoors to outdoors?*

*Can you describe how?*

*What are some reasons for this change (if any)*

Question 3:

*Do you think the outdoors promotes aimless play?*
Question 4:

1. What is your role as an intentional teacher during children’s play?
2. What does play mean to you?
3. Should it be structured or free?
4. How do you view play?

Question 5:

1. How would you define creativity?
2. What does creativity mean?
3. Can you recognise or describe when a child is being creative?

Question 6:

1. What types of resources do you think promote creativity?
2. What is your role in helping children to express their ideas and to use their imagination in play?
3. How important is the natural environment for children’s free-play and in stimulating ideas/the imagination?
4. How are you able to provide a balance of natural and artificial areas outdoors?

Other notes:

Is there anything you would like to share on the topics of intentional teaching and the relation with children’s creative thinking?
FOCUS GROUP 5: FINAL SESSION, December 2012

Due to the time of year and I know how busy everyone is, you are welcome to just email me in point form a response to following final questions:

Question 1:

1. **How important do you feel it is that you are creative in your own teaching?**
2. **Can you give an example of a time when you were novel in your approach?**
3. **What happened?**
4. **What effect does this have on the children’s learning?**

Question 2:

1. **Do you think children are creative?**
2. **Can you think of a time when the children were creative?**
3. **How do you encourage children to be creative?**
4. **So what’s important in creativity, the actual process or the product they come up with?**

Question 3:

1. **In your role as an intentional teaching what practices best shape your role?** From the strategies we have identified: modelling?
2. **How do these strategies impact on young children’s creative thinking?**

Thank you for your participation in this research, I look forward to sharing a summary of the results in the near future with you all,

Kind regards,

Nicole
Appendix 6: Overview of research carried out over a six month period

<table>
<thead>
<tr>
<th>Focus group session 1: 2/08/2012</th>
<th>Introductory session: introduce participants, introduce researcher, provide an overview of the research, explain confidentiality and ethics, demonstrate recording devices and hand out educator's journals.</th>
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<tbody>
<tr>
<td>Week 1:</td>
<td>Collect remaining forms and introduce self to team and children.</td>
</tr>
<tr>
<td>10/8/12</td>
<td>Initial visit to centre 1: Carl</td>
</tr>
<tr>
<td>14/08/2012</td>
<td>Initial visit to centre 2: Rita, Sally and Molly</td>
</tr>
<tr>
<td>16/08/2012</td>
<td>Initial visit to centre 3: Joan and Nelly</td>
</tr>
<tr>
<td>Week 2:</td>
<td>Observe, take researcher memos, take photos/ collect artefacts and collect data from recording devices.</td>
</tr>
<tr>
<td>28/8/2012</td>
<td>2\textsuperscript{nd} visit to centre 2: Rita, Sally and Molly</td>
</tr>
<tr>
<td>30/08/2012</td>
<td>2\textsuperscript{nd} visit to centre 3: Joan and Nelly</td>
</tr>
<tr>
<td>31/08/2012</td>
<td>2\textsuperscript{nd} visit to centre 1: Carl</td>
</tr>
<tr>
<td>Week 3:</td>
<td>Observe, take researcher memos, take photos/ collect artefacts and collect data from recording devices.</td>
</tr>
<tr>
<td>4/09/2012</td>
<td>3\textsuperscript{rd} visit to centre 2: Rita, Sally and Molly</td>
</tr>
<tr>
<td>6/09/2012</td>
<td>3\textsuperscript{rd} visit to centre 3: Joan and Nelly</td>
</tr>
<tr>
<td>7/09/2012</td>
<td>3\textsuperscript{rd} visit to centre 1: Carl</td>
</tr>
<tr>
<td>Focus group session 2: 13/09/2012</td>
<td>Topic: Role of the intentional teacher. Initial identification and classification of strategies. Participants were invited to share how the research was going at their centres and to respond to questions presented by the researcher.</td>
</tr>
<tr>
<td>Week 4:</td>
<td>Observe, take researcher memos, take photos/ collect artefacts and collect data from recording devices.</td>
</tr>
<tr>
<td>18/09/2012</td>
<td>4\textsuperscript{th} visit to centre 2: Rita, Sally and Molly</td>
</tr>
<tr>
<td>20/09/2012</td>
<td>4\textsuperscript{th} visit to centre 3: Joan and Nelly</td>
</tr>
<tr>
<td>21/09/2012</td>
<td>4\textsuperscript{th} visit to centre 1: Carl</td>
</tr>
<tr>
<td>Week 5:</td>
<td>Observe, take researcher memos, take photos/ collect artefacts and collect data from recording devices.</td>
</tr>
<tr>
<td>25/09/2012</td>
<td>5\textsuperscript{th} visit to centre 2: Rita, Sally and Molly</td>
</tr>
<tr>
<td>27/09/2012</td>
<td>5\textsuperscript{th} visit to centre 3: Joan and Nelly</td>
</tr>
<tr>
<td>28/09/2012</td>
<td>5\textsuperscript{th} visit to centre 1: Carl</td>
</tr>
<tr>
<td>Week 6:</td>
<td>Observe, take researcher memos, take photos/ collect artefacts and collect data from recording devices.</td>
</tr>
<tr>
<td>2/10/2012</td>
<td>6\textsuperscript{th} visit to centre 2: Rita, Sally and Molly</td>
</tr>
<tr>
<td>4/10/2012</td>
<td>6\textsuperscript{th} visit to centre 3: Joan and Nelly</td>
</tr>
<tr>
<td>5/10/2012</td>
<td>6\textsuperscript{th} visit to centre 1: Carl</td>
</tr>
<tr>
<td>Week 7:</td>
<td>Observe, take researcher memos, take photos/ collect artefacts and collect data from recording devices.</td>
</tr>
<tr>
<td>9/10/2012</td>
<td>7\textsuperscript{th} visit to centre 2: Rita, Sally and Molly</td>
</tr>
<tr>
<td>11/10/2012</td>
<td>7\textsuperscript{th} visit to centre 3: Joan and Nelly</td>
</tr>
<tr>
<td>12/10/2012</td>
<td>7\textsuperscript{th} visit to centre 1: Carl</td>
</tr>
<tr>
<td>Focus group session 3: 15/10/2012</td>
<td>Topic: Intentional teaching. In this session the researcher provided some feedback for how intentional teaching was being represented at the centres. Further discussions on intentional teaching practice in relation to questions, learning environments and their role outdoors were held.</td>
</tr>
<tr>
<td>Week 8:</td>
<td>Observe, take researcher memos, take photos/ collect artefacts and collect data from recording devices.</td>
</tr>
<tr>
<td>15/10/2012</td>
<td>8\textsuperscript{th} visit to centre 2: Rita, Sally and Molly</td>
</tr>
</tbody>
</table>
18/10/2012  8<sup>th</sup> visit to centre 3: Joan and Nelly
19/10/2012  8<sup>th</sup> visit to centre 1: Carl

Week 9:  Observe, take researcher memos, take photos/ collect artefacts and collect data from recording devices.

23/10/2012  9<sup>th</sup> visit to centre 2: Rita, Sally and Molly
25/10/2012  9<sup>th</sup> visit to centre 3: Joan and Nelly
26/10/2012  9<sup>th</sup> visit to centre 1: Carl

Week 10:  Observe, take researcher memos, take photos/ collect artefacts and collect data from recording devices.

30/10/2012  10<sup>th</sup> visit to centre 2: Rita, Sally and Molly
1/11/2012  10<sup>th</sup> visit to centre 3: Joan and Nelly
2/11/2012  10<sup>th</sup> visit to centre 1: Carl

Week 11:  Observe, take researcher memos, take photos/ collect artefacts and collect data from recording devices.

6/11/2012  11<sup>th</sup> visit to centre 2: Rita, Sally and Molly
8/11/2012  11<sup>th</sup> visit to centre 3: Joan and Nelly
9/11/2012  11<sup>th</sup> visit to centre 1: Carl

Week 12:  Observe, take researcher memos, take photos/ collect artefacts and collect data from recording devices.

12/11/2012  12<sup>th</sup> visit to centre 2: Rita, Sally and Molly
15/11/2012  12<sup>th</sup> visit to centre 3: Joan and Nelly
16/11/2012  12<sup>th</sup> visit to centre 1: Carl

Focus group session 4: Topic: Creativity. Educators were presented with transcripts and data from the research. Further discussions around children’s play and the role of the educator were held. Questions were also asked by the researcher in order to find out educators’ understandings of creativity and the types of environments and resources they provided to promote children’s creative development.

Week 13:  Observe, take researcher memos, take photos/ collect artefacts and collect data from recording devices.

20/11/2012  13<sup>th</sup> visit to centre 2: Rita, Sally and Molly
22/11/2012  13<sup>th</sup> visit to centre 3: Joan and Nelly
23/11/2012  13<sup>th</sup> visit to centre 1: Carl

Week 14:  Observe, take researcher memos, take photos/ collect artefacts and collect data from recording devices.

27/11/2012  14<sup>th</sup> visit to centre 2: Rita, Sally and Molly
29/11/2012  14<sup>th</sup> visit to centre 3: Joan and Nelly
30/11/2012  14<sup>th</sup> visit to centre 1: Carl

Focus group session 5: Conclusion: Relation of intentional teaching to children’s creative thinking. Educators were invited to write down their final thoughts on children’s creativity and their role as an intentional teacher. Educators were asked to also identify what strategies they felt were important in their practice as intentional teachers and to confirm the analysis presented by the researcher.