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Pre-primary teachers' enacted understandings of explicit instruction of phonics and phonological awareness as evidenced in practice

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Abstract

Whether or not teachers use the research-based practices of Explicit Instruction (EI) in lessons matters, since the salient features of EI design and delivery, backed by empirical research (Hattie, 2009), enable the transfer of new and difficult information from short- to long-term memory (Kirschner et al., 2006). How teachers interpret EI is important, because effective early instruction in "systematic, direct and explicit" phonics and phonological awareness (PA) can reduce the incidence of reading difficulties (Moats, 2010).

The aim of this thesis was to investigate, describe and analyse teachers' enacted understanding of Explicit Instruction in phonics and phonological awareness, and identify the factors that enhanced or inhibited faithful implementation of EI practices in pre-primary classrooms.

Case studies were conducted with three pre-primary teachers in Perth, Western Australia. Five explicit phonics and PA lessons, delivered by each teacher, were observed and video recorded over a data collection period of 14 weeks, spanning three school terms in 2014. The teachers were interviewed after the five observations; more extensively at the beginning and end of the data-collection phase. The school principals and, where available, the teacher mentors or EI coaches were also interviewed, with further information gathered from school documents and email contact. The case studies were examined individually and across cases to provide insights into the complexities of teachers' enacted interpretations of EI.

One of the schools had adopted EI as a whole-school approach to literacy in conjunction with fully scripted Direct Instruction Programs (Carnine et al., 2010). In this school, the pre-primary teacher received extensive professional development and delivered EI with fidelity in a school environment highly aligned with teacher-directed approaches. The other two pre-primary teachers taught E I in more eclectic environments, where essential components of EI were not a sufficiently clarified, supported or embedded approach by instructional leaders.

Amongst others, O'Donnell (2019) concluded that teachers' beliefs are an important factor in the success or failure of new teaching approaches. It is therefore likely that the teachers in this study believed phonics should be taught using play-based, meaningful experiences (Campbell, 2015) because the dominant philosophy in early childhood education is play based (Ebbeck & Waniganayake, 2016). This could have contributed to their inability to adhere to critical aspects EI as recommended in the research.

I used Bronfenbrenner's Ecological Systems Theory to explain how teaching practices were subjected to multiple and complex environmental influences and pedagogical content knowledge, in addition to what teachers deemed important to their students' learning needs. Teachers' practices and understandings were found to be influenced by confusing national and state policies, a

predominantly play-based learning philosophy, vagueness of school policy in relation to literacy and EI, teachers' personal beliefs, the school's professional learning framework and the commitment of leadership to embedding teacher-led learning. This study addressed a gap in the literature on teachers' practice of EI in phonics and phonological awareness, and showed that some teachers could articulate the principles but not put them into practice. The findings have implications for further research, policy and teachers' professional learning.

Declaration

I certify that this thesis does not, to the best of my knowledge and belief

i. Incorporate without acknowledgement any material previously submitted for a degree of diploma in any institution of higher education;

ii. Contain any material previously published or written by another person except where due reference is made in the text of this thesis; or

iii. Contain any defamatory material.

Signature  Date 18 June 2019

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Glossary of Terminology

Abbreviation	Definition
ACARA	Australian Curriculum Assessment and Reporting Authority
ACER	Australian Council of Education Research
CFU	Checking for Understanding
CLT	Cognitive Load Theory
DI	Direct Instruction
EI	Explicit Instruction
EDI	Explicit Direct Instruction
ES	Effect size
NAPLAN	National Assessment Program Literacy and Numeracy
NITL	National Inquiry into the Teaching of Literacy
NRP	National Reading Panel (US)
PA	Phonological Awareness
PCK	Pedagogical Content Knowledge
WALT and WILF	'We Are Learning To' and 'What I am Looking For'
WA	Western Australia

Definition of Terms

Term	Definition
Alphabetic principle	"Usable knowledge of the fact that graphic forms represent phonemic segments of speech, such that whenever a particular phoneme occurs it can be represented by a particular letter" (Snowling & Hulme, 2013, p. 759).
Analytical phonics	This approach involves teaching students to focus on the initial sound, onset, and rime and involves working on word families (Lewis & Ellis, 2006).
Automaticity	"The ability to process information with little or no effort" (Santrock, 2018, p. 1106).
Balanced literacy	An approach to teaching literacy that combines whole-language practices with code-based instruction in an eclectic manner (Moats, 1996).
Consonant blend	"In syllable structure, two or three adjacent consonant graphemes before or after a vowel" (Moats, 2010, p. 273).
Consonant digraph	"Written letter combination that corresponds to one speech sound but is not represented by either letter alone, such as *th* or *ph*" (Moats, 2010, p. 273).
Constructivist approach	"A learner-centred approach to learning that emphasizes the importance of individuals actively constructing knowledge and understanding with guidance from the teacher" (Santrock, 2018, p. 1108).
Decoding	"Ability to translate a word from print to speech, usually by employing knowledge of sound-symbol correspondences; also, the act of deciphering a new word by sounding it out" (Moats, 2010, p. 274).
Digraph	"A two-letter combination that spells a single speech sound" (Moats, 2010, p. 274).
Direct instruction approach	"A structured, teacher-centred approach, characterised by teacher direction and control, high expectations for students' progress, maximum time spent by students on academic tasks, and efforts by the teacher to keep negative effect to a minimum" (Santrock, 2018, p. 1110).
Direct Instruction (also known as "big DI")	"Instructional procedures used in the DISTAR (Direct Instruction Systems in Arithmetic and Reading) programs" (Rosenshine, 2008, p. 1).
Direct instruction (also known as explicit instruction or "little d.i."	Instructional procedures based on teacher-effects research (Rosenshine, 2012). 'Model, Lead, Test' refers to the steps within a 'little d.i.' lesson of a teacher modelling examples while thinking aloud ("I do"). Lead refers to the next step of the teacher leading all students through worked examples, until it is clear that the majority of students can perform them proficiently ("We do"). Test, refers to the subseqent step where students practise examples under the direct supervison of the teacher ("You do").
Early childhood education (ECE)	The education of children from birth to five or eight years.

Term	Definition
Effective instruction	Evidence-based teacher practices that impact on student attainment.
Explicit Direct Instruction (EDI)	A form of Explicit Instruction created by Hollingsworth and Ybarra (Hollingsworth & Ybarra, 2009).
explicit instruction (also known as "little d.i.")	A systematic, teacher-led form of direct instruction that follows certain principles of instruction (Rosenshine, 2012).
Explicit Instruction	A teacher-led pedagogic approach that uses clear, unambiguous, concise language to deliver a series of lesson phases. These are a review of prerequisite skills, a clearly stated lesson objective, an "I do" phase where the teacher uses modelling and think aloud, a "We do" phase where the teacher provides guided practice with worked examples, corrective feedback and gradual release. The fourth phase is "You do" or independent practice of the skill, concept or knowledge under the direct supervision of the teacher. The final phase is a plenary check with a final check for understanding (Archer & Hughes, 2011).
Explicit, systematic phonics instruction	Teaching the letter-sound correspondences in a direct, methodical manner that follows a pre-planned scope and sequence (Moats, 2014a).
Intentional teaching	Using "strategies such as modelling and demonstrating, open questioning, speculating, explaining, engaging in shared thinking and problem solving to extend children's thinking and learning" (DEEWR, 2009, p. 18).
Long-term memory	"A type of memory that holds enormous amounts of information for a long period of time in a relatively permanent fashion" (Santrock, 2018, p. 1117).
Magic e	This is also known as the "silent e" rule in English. It usually occurs at the end of a word or morpheme and changes the pronunciation of the preceding vowel by changing a short vowel sound into a long one.
Mastery learning	"Involves learning one topic or concept thoroughly before moving on to a more difficult one" (Santrock, 2018, p. 1117).
Meaning-based instruction (constructivist approach)	A constructivist approach to reading that encourages children to use meaning and context as a way of reading unfamiliar words.
Meta-analysis	"A statistical approach for summarising the results of many studies which have investigated a similar problem. Given a number of studies, this procedure provides a numerical way of expressing "average results" (Center, 2005, p. 266).
Orthographic knowledge	Knowledge of the spelling system.
Orthographic mapping (OM)	When children use phonemic awareness and grapheme-phoneme correspondences to bond the meaning, spelling and pronunciations of words in memory. Ehri (2005) proposed a sequence of overlapping phases of development in which this occurs. It is the process that fluent readers use to store written words, so when they encounter them in unfamiliar text they can recognise them instantly.
Pedagogical Content Knowledge	"Knowledge about how to effectively teach a particular discipline" (Santrock, 2018, p. 1120).

Term	Definition
Phoneme	"The smallest individual unit of a speech sound" (Beck, 2013, p. 224).
Phoneme awareness	"The conscious awareness that words are made up of segments of our own speech that are represented with letters in an alphabetic orthography; also called phonemic awareness" (Moats, 2010, p. 277).
Phoneme blending	"The act of assembling single speech sounds into a whole word" (Moats, 2010, p. 277).
Phoneme deletion	"The act of leaving out a sound in a word in order to make a new word" (Moats, 2010, p. 277).
Phoneme segmentation	"The act of separating a word into its component speech sounds" (Moats, 2010, p. 278).
Phonics	"The study of the relationships between letters and the sounds they represent; also used to describe reading instruction that teaches sound-symbol correspondences, such as 'the phonics approach' or 'phonic reading'" (Moats, 2010, p. 278).
Phonic knowledge	Knowledge of the relationships between letter-sound correspondences.
Phonics teaching: synthetic (explicit) approach	"Synthetic phonics programs teach grapheme-phoneme correspondences individually and in a specified sequence, and children are taught early to blend (synthesize, hence the word synthetic) individual phonemes together to make words" (Castles et al., 2018, p. 13).
Phonological (awareness)	"Metalinguistic awareness of all levels of the speech sound system, including word boundaries, stress patterns, syllables, onset-rime units, and phonemes; a more encompassing term than phoneme awareness" (Moats, 2010, p. 278).
Pre-Primary	Pre-primary in Western Australia refers to the first year of formal schooling for five-year olds and is known as the foundation year. Pre-primary is known as "kindergarten" in the USA and "Reception" in the UK.
Professional learning	Where teachers engage with others to develop their professional expertise, increase their capacity and evaluate their impact on student attainment.
Research-based instructional principles	Principles based on research and agreement between three sources: a) cognitive science; b) classroom practice by master teachers; and c) "cognitive supports to help students learn complex tasks" (Rosenshine, 2012, p. 12).
Scaffolding	"A technique that involves changing the level of support for learning. A teacher… adjusts the amount of guidance to fit the student's current performance" (Santrock, 2018, p. 1123).
Short-term memory	"A limited-capacity memory system in which information is retained for as long as 30 seconds, unless the information is rehearsed, in which case it can be retained for longer" (Santrock, 2018, p. 1124).

Term	Definition
Social cognitive theory	"Bandura's theory that social and cognitive factors, as well as behaviour, play an important role in learning" (Santrock, 2018, p. 1124).
Social constructivist approach	"Emphasises the social contexts of learning and that knowledge is mutually built and constructed; Vygotsky's theory exemplifies this approach" (Santrock, 2018, p. 1124)
Task analysis	"Breaking down a complex task that students are to learn into its component parts" (Santrock, 2018, p. 1126).
'Think aloud'	A teaching strategy in which teachers verbalise their thinking while modelling.
Working memory	"A three-part system that holds information temporarily as a person performs a task. A kind of 'mental workbench' that lets individuals manipulate, assemble, and construct information when they make decisions, solve problems, and comprehend written and spoken language" (Santrock, 2018, p. 1126).
Whole Language	"An approach to teaching reading that emphasizes the value of authentic children's literature, of multiple forms of engagement with text, and of focusing on meaning during all instructional activities, and that proceeds from the assumption that learning to read is a 'natural' process like learning to talk." (Snowling & Hulme, 2013, pp. 775-776).

Chapter 1: Introduction

In Australia, some schools adopted Explicit Instruction (EI) as a signature pedagogy to successfully raise literacy attainment (Clinton, Dawson, McLaren & Koelle, 2017; Jensen, 2014; Louden, 2015) in response to political concerns about stagnating and declining literacy standards (Thomson, De Bortoli & Underwood, 2017). Phonological awareness and the alphabetic principle are vital components for learning to read words (Wheldall, 2011) and research shows they need to be taught directly, explicitly and systematically (Rowe, 2005, 2006). Pre-primary teachers of five-year-old students need to do this well, because knowledge of letter-sound correspondences, naming speed and phonological awareness when students enter Year 1 are the best predictors of subsequent word-reading ability (Schatschneider, Fletcher, Francis, Carlson & Foorman, 2004). However, teaching phonics requires a high level of skill and knowledge that can only be developed with extensive professional learning (C. Snow & Juel, 2013). For these reasons the current study focused on the factors that influence the effectiveness of pre-primary teachers' implementation of EI.

1.1 Context

Introduction of the new Australian Curriculum Foundation English (ACARA, 2012) increased the expectations of early years educators and their students. Currently, pre-primary students are expected to know most letter-sound correspondences by the end of their pre-primary year, and to this end, teachers in South Australia must administer a phonics test in Term 3 of Year 1, although this has yet to be adopted by other Australian states, including Western Australia. Some academics argued in the media that the phonics test wouldn't contribute to raising literacy levels in Australia (Adoniou, 2017a, 2017b; M. M. Clark, 2017), while others argued it would help to identify students who were able to sound out words (Buckingham, 2018). Although the number of Western Australian students identified as being at risk of falling behind their peers in basic literacy and numeracy has fallen since 2009, one in five students still fall into this category (Department of Education, 2016).

In Australia, principals have been under mounting political pressure to raise literacy results (Cranston et al., 2010) and EI has been a proven pedagogy for students at risk and those experiencing learning difficulties (Marchand-Martella & Martella, 2013). However, it needs to be implemented effectively in the classroom, because explicit, systematic teaching of phonics and phonological awareness are the most important prerequisites for literacy learning. A seminal study by Shaywitz, B. et al. (2004) showed that direct, systematic phonics instruction literally changes the brain of struggling readers to resemble the brains of normal readers. Along with others, Torgersen (2013) asserted that the role of schools in organising powerful, effective instruction of early literacy prerequisites can moderate the numbers of children with reading difficulties (Foorman & Torgesen, 2001; Torgesen,

2002, 2013). For this reason, the quality of explicit instruction in phonological awareness and phonics matters (S. E. Shaywitz & Shaywitz, 2004). Students should be able to decode efficiently in the early years, because research shows that children who leave Year 1 with poor decoding abilities tend to remain in the lowest reading ranks for the rest of their schooling (de Jong & van der Leij, 2003; C. Juel, 1988; Landerl & Wimmer, 2008). This is of relevance for school leaders, because EI has been used as a signature pedagogy to transform underperforming schools into top performing institutions (Jensen, 2014; Louden, 2015).

It is challenging for pre-primary teachers to successfully implement EI for several reasons. Firstly, research suggests direct instruction poses an ideological difficulty for early years teachers (Barblett et al., 2016; Campbell, 2018) who are encouraged to adopt a facilitative, play-based approach to teaching phonics and phonological awareness (Australian Department of Education, Employment and Workplace Relations, 2009) (DEEWR). The difficulty is that scientific research shows "phonemic awareness and phonics need to be taught systematically and explicitly" (S. E. Shaywitz & Shaywitz, 2004, pp. 22-23). In all its forms, EI is teacher led rather than child led, facilitative or play based, and the evidence supports a systematic approach to phonics (Ehri & Flugman, 2018; Ehri et al., 2001; Torgerson et al., 2006) rather than an unsystematic, indirect approach. Constructivist approaches to literacy were popular in Australia throughout the 1980s and 1990s (P. S. Westwood, 2008). However an explicit, systematic approach to phonics and phonological awareness, as recommended by the Australian Government's National Inquiry into the Teaching of Literacy (Rowe, 2005) is now conceptualised as best practice in terms of instruction.

While EI and an explicit, systematic approach to phonics are not synonymous, some schools are using EI to achieve this. EI is based on numerous principles of effective instruction, expressed by Rosenshine (2012). Rosenshine's (2012) principles of effective instruction included, beginning a lesson with a revision of prior learning, breaking down concepts into manageable steps, with student practice after each step, continuous checking for understanding with questioning throughout the lesson, teacher modelling and guided practice with scaffolding for complex learning, opportunities for independent practice and weekly and monthly reviews to embed learning. In short, to achieve successful practice, "teachers must determine what new knowledge, strategy or rule they will teach and how this will be communicated to students in a fast-paced manner that provides guided practice and regular feedback" (Hammond & Moore, 2018, p. 111). Delivery of EI can unravel at any point, so school leaders need to build and sustain teachers' will, skill and pedagogical content knowledge (Shulman, 1986). The anxiety of school leaders and the Australian government to identify and implement research-based approaches (Gonski, 2018; Jensen, 2014; Masters, 2010) in the face of

declining student attainment in international literacy tests (Bonnor et al., 2017; Danks, 2012; Masters, 2010) has intensified the focus on EI.

Secondly, while scientific research supports an "explicit, systematic" approach to teaching phonics and phonological awareness (National Reading Panel, 2000; Rowe, 2005), it requires considerable linguistic knowledge (Hammond, 2015). Further evidence, both in Australia and abroad, suggests that teachers lack the necessary linguistic knowledge (Cheesman et al., 2009; Hammond, 2015; Moats, 2009, 2014b; Moats & Foorman, 2003; Washburn et al., 2016). This is important, because there is a positive correlation between teachers' knowledge of linguistic concepts and students' attainment in reading (Ehri & Flugman, 2018; McCutchen et al., 2009; Piasta et al., 2009).

Thirdly, EI is a complex pedagogic approach comprised of numerous research-based components. In practice it is difficult to do all parts well and the success of the whole lesson depends on the effectiveness of the component parts. The component parts were identified by Hattie's (2012b, 2009) meta analyses of 304 studies on teacher effects, with an effect size of *d = .59*. In his later work, Hattie reported that the component parts of EI had stronger effects on achievement: teacher clarity (*d = .75);* feedback (*d= .75);* spaced vs. massed practice (*d = .71);* meta-cognitive strategies (*d = .69);* teaching self-verbalisation (*d = .64)*; mastery learning (*d = .58);* worked examples (*d = .57)*; and setting goals (d = .50) (Hattie, 2012b). It is important to acknowledge that an effect size compares two phenomena or conditions or data at two points in time. He ranked each of these components in the top 50 influences on student achievement (Hattie, 2012b) and concluded that "direct instruction methods have been the most powerful in teaching phonics skills" (Hattie, 2009, p. 134). The author's findings concurred with other research (Ehri et al., 2001) that also found direct instruction in phonics and phonological awareness vital for children's acquisition of spelling, comprehension and reading skills (Hattie, 2009). As Hattie (2009) has argued that many component parts have higher effect sizes than d.i. as an approach, the implications for its adoption are that modelling and coaching need to be provided for its component parts, and school leaders need to decide on what component parts should be visible in an EI lesson, and embed effective practice of the same.

A difficulty for pre-primary teachers and school leaders alluded to above is the widespread recommendation to adopt a balanced approach to literacy in the early years (Center, 2005; Pressley, 2006; Tompkins et al., 2015). Some proponents of EI argue that the concession of a balanced, rather than an explicit approach, was the remnant of an earlier strategy adopted to continue incorporating practices from the now discredited whole-language approach for novice readers (Moats, 1996, 2014a; Seidenberg, 2017). The balanced approach arose from lengthy literacy wars between whole-language and phonics advocates in Australia, although a synthesis study showed whole language (*d = .06*) had "negligible effects on learning to read – be it on word recognition or comprehension" (Hattie, 2009,

p. 138). Other meta-analyses concurred with this conclusion (Ehri et al., 2001; Torgerson et al., 2006), but the research also supported a more balanced approach for able students in Year 1, while maintaining explicit, intensive phonics for weaker readers (Connie Juel & Minden-Cupp, 2000). Some proponents of an explicit approach to phonics and phonological awareness argued that a balanced approach needed to be redefined, and called for an end to the literacy wars in Australia (Castles et al., 2018). Australian teachers were advised to adopt a balanced approach to literacy using the Four Literacy Resource model (Freebody & Luke, 1990; Allan Luke, 2012) with novice readers instead of concerning themselves with literacy debates (Tompkins et al., 2015). This was significant, because the model encouraged the use of multiple cues when approaching an unfamiliar word, rather than a phonic decoding approach or the direct and explicit teaching of the basic skills necessary for raising literacy outcomes in Australian schools (Allan Luke, 2012; A. Luke, 2014).

The instructional design of EI is sympathetic to cognitive load theory and as such is very relevant to this study. Cognitive Load Theory (CLT) is concerned with the amount of effort being used in working memory (Kirschner, 2002; Sweller, 1994). The theory proposes that reducing cognitive load can enable students to transfer new and difficult concepts, skills and knowledge from short to long-term memory. In EI, teachers compensate for this high intrinsic load by breaking down the information into manageable chunks and differentiating the lesson content with examples ranging from "below expectation" to "at expectation" and "challenging". Cognitive load is reduced by modelling strategies for encoding words and providing a large volume of practice within lessons. After providing working examples, visual and auditory PowerPoint slides are used to focus attention on one concept at a time in fully guided practice, thereby reducing extraneous load. In this way, following the instructional design of EI with fidelity reduces cognitive load and enables students to learn efficiently and effectively.

1.2 Statement of the Problem

Empirical research has shown that novice readers require an explicit, systematic approach to phonics and phonological awareness (Seidenberg, 2017). This is crucial for children at risk of literacy difficulties (C. Snow & Juel, 2013). EI is a complex, unscripted pedagogy that must be implemented with faithful adherence to its principles, summarized by Rosenshine (2012), in order to be effective. However, it is counterintuitive for early years teachers, who are inclined towards a play-based and constructivist education philosophy. Further research is needed to close the gap in the literature and identify the conditions under which EI can be effectively implemented in pre-primary classrooms.

1.3 Development of the Study

This study was borne out of my personal concerns over the difficulties experienced by students to acquire literacy. I taught children with reading difficulties in Irish state primary schools, initially as

an early years classroom teacher, using Letterland (Carlisle et al., 2008) and whole-language practices (Goodman, 1989) to promote a balanced approach as authenticated in the literature, but despite my best efforts students continued to struggle. In an attempt to solve the problem I undertook a postgraduate diploma in learning support where we read Reading Recovery (Clay, 1993), and as a peripatetic learning support teacher, used it in four schools in rural north Dublin, but to little effect. Determined to do better, I enrolled in a MA in Special Education, and as a special education teacher, taught fewer students more intensively in a primary school in Wicklow. I was struck by how difficult students found spelling, comprehension and building fluency. Later, as a special education teacher in state primary schools in Perth, Western Australia, I continued to meet children with significant literacy difficulties. This was where I had my first encounter with Direct Instruction (DI), a highly incremental program that shares many principles with EI, including activating prior knowledge, checking for understanding and maintaining high levels of student involvement through guided instruction. Unlike EI, Direct Instruction is wholly scripted and places a heavy emphasis on curriculum analysis rather than stated learning objectives. I taught Direct Instruction without additional professional learning and was impressed by how effective it was.

The political discourse about poor literacy results in Western Australian schools and my own experiences with ineffective teaching approaches led me to further my study of EI as a research-based practice for raising attainment in schools. The difficulty with following research-based pedagogic approaches is that their efficacy varies depending on how they are implemented. While Hattie (2009) and others established that reciprocal teaching (*d = .74*), cooperative learning (*d = .59*) and peer tutoring (*d = .55*) are highly effective (Hattie, 2012b; Palincsar et al., 1987), successful implementation depends on the quality of the ongoing interaction between students and close adherence to specific principles (Topping et al., 2017). The same could be said for the quality of student-teacher interaction in EI and how its principles are followed. Slavin (2002) observed teachers' need for quality professional learning coupled with intensive support and coaching in research-based practices to ensure effectiveness with students at risk of failure (Slavin, 2002). The author also proposed that instructional leaders set goals for every year level, track individual student progress in monthly intervals and implement a team-based approach for timely intervention (Slavin, 2002).

1.4 Rationale

EI has been identified in the research as an effective pedagogy for raising literacy attainment in Australian schools (Louden, 2015; Masters, 2010). The explicit and systematic teaching of phonics and phonological awareness is critical for students at risk of literacy difficulties and beneficial for all students, but difficult to put into practice due to a lack of teacher knowledge (C. Snow & Juel, 2005). Research indicates that teachers require embedded professional learning to use EI effectively, because

they are unfamiliar with this approach and it is difficult to transfer into practice (Hammond & Moore, 2018). Studies on early years teachers in Australia also showed that teachers' beliefs about play-based approaches to phonics were sometimes in opposition to school-based decisions (Campbell, 2018). In addition, there is a dearth of literature on teachers' enacted understandings of this highly complex approach and further research is needed to not only identify the conditions for effective EI implementation, but also to inform teacher professional learning, instructional leadership and literacy programs and address the needs of students with literacy learning difficulties in schools.

1.5 Purpose and Research Questions of the Study

The purpose of this study was to examine teachers' enacted understandings of explicit direct instruction in phonics and phonological awareness and to identify the factors that enabled or inhibited their practice of EI. I chose to explore these issues because the quality of effective early literacy instruction is vitally important for early intervention with students at risk of literacy difficulties (C. Juel, 1988; C. Snow & Juel, 2013). This is particularly important in the pre-primary year, as children who enter Year 1 with weak phonological awareness are likely to experience difficulties with reading instruction (Torgesen, 2002). Weakness in phonological awareness also has serious implications for decoding, reading fluency, spelling and students' confidence levels (Torgesen, 2002).

The overarching research question was:

- What are pre-primary teachers' enacted understandings of explicit instruction of phonics and PA as evidenced from practice?

The subsidiary questions of this study were:

- What are the actual practices of the teachers?
- How do teachers' personal beliefs influence their enactment of EI?
- What are the school-based instructional leadership factors that support or inhibit teachers' enacted interpretation of EI?

1.6 Significance

This case study adds to the body of knowledge about EI as a signature pedagogy in Australian schools by examining the factors that contribute to effective practice. Jackson (2013) asserted that unless instructional leaders understand teachers' skills and motivation for teaching, they cannot be helped to become masters of their pedagogic craft. The study also addresses the paucity of research on how early childhood teachers' knowledge, beliefs and practice of EI in phonics and phonological awareness are fostered in schools (Hammond, 2015).

1.7 Research Approach

The research was conducted as a case study of the identified phenomena in three schools. Each school had adopted Explicit Instruction as a method for improving literacy results and had invested in professional learning for the teachers involved. The study focused on three pre-primary teachers in three different schools in the Perth metropolitan area of Western Australia.

The following chapter reviews and synthesises the literature relating to literacy education, the pedagogical principles of EI and evidence of its efficacy, in addition to presenting the conceptual framework for the study.

Chapter 2: Review of the Literature

A review of the literature shows Explicit Instruction (EI) has been described as a characteristic of effective schools (Jensen, 2014; Louden, 2015; Masters, 2010). This thesis argues that while different interpretations of EI exist in the literature, the verified salient features of EI must remain visible in practice because the sum of these elements is exponentially greater than the individual parts. It also contends that these salient features, aimed at transferring learning from short to long-term memory, are difficult for teachers to incorporate into their practice in combination. Since the explicit teaching of phonics and phonological awareness (PA) must negotiate its place in the practices of early childhood teachers in Western Australia (WA), I examined the historic and contextual factors that impact on the practice of EI, the salient principles of EI design and delivery and the issues that influence teachers' implementation of EI as a pedagogy (see Figure 2.1).

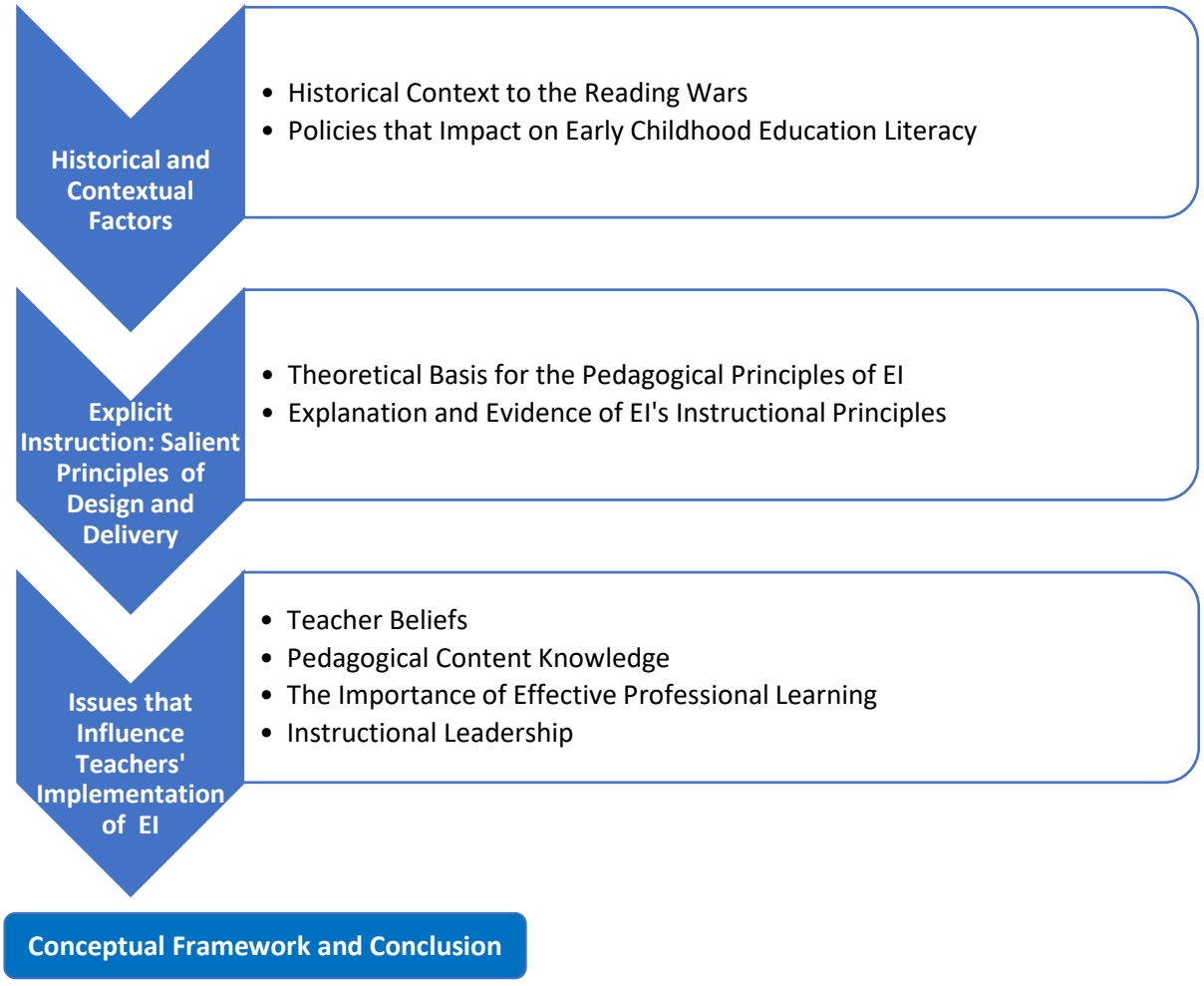


Figure 2.1 Outline of the Chapter

2.1 Historical and Contextual Factors Affecting Teachers' Practice of EI

Despite extensive empirical evidence in support of EI for teaching phonics and phonological awareness (Department of Education Science and Training, 2005; National Reading Panel, 2000), the literacy wars have persisted in Australia (Castles et al., 2018). In my view, the legacy of the reading wars has taken the form of certain pedagogic approaches that impact on teaching practice. EI fits well with approaches that embody empirical evidence (National Reading Panel, 2000) and scientific research about how reading is acquired (Seidenberg, 2017), as well as models that include explicit teaching of the Big Five (Barnes & Harlacher, 2008) and the Simple View of Reading (Gough & Tunmer, 1986). It should be noted at this point that explicit and systematic phonic teaching is not dependent upon the particular model (EI), specified by Archer and Hughes (2011) and examined in this thesis, rather EI represents a particular form of explicit instruction that involves task analysis and faded instruction in the form of model-lead-test or "I do, We do, You do". For this reason, EI jars with other approaches, such as the whole-language approach (Moats, 2014a), an intentional stance to phonics and a balanced methodology (Seidenberg, 2017). Teachers and instructional leaders face confusing and conflicting choices, and frequently need to align their approach to EI as a signature pedagogy in school literacy and curriculum policy. This is difficult to achieve in practice, because these approaches represent powerful discourses about what is best for young children, as well as genuine concerns about the effects of replacing some approaches to phonics with others (Campbell, 2018).

2.1.1 Historical Context of the Reading Wars

Two major philosophical approaches to teaching literacy, the phonics or skills-based method and the whole-language approach, escalated into reading wars in Australia that were hotly debated and heavily politicised (Ewing, 2006; Snyder, 2008). The reading wars were centred around the most appropriate method of teaching reading to young children (C. Snow & Juel, 2013), in particular, whether teaching should stress meaning (Goodman, 1967) or the alphabetic principle (Chall, 1967; Flesch, 1955; James, 2008).

During the 1960s and 1970s the bottom-up model of reading was popular in Australia. This method of teaching favoured phonics, "look and say", and adopted a skills-based approach (Boys, 2008). There were some early warnings from academics in the USA about the importance of early code instruction (Chall, 1967; Flesch, 1955), but during the 1980s, Australia, New Zealand and England embraced a child-centred pedagogy and integrated curriculum from which the whole- language approach emerged (Pearson, 2004). Subsequently, from the late 1970s until the mid-1990s, progressive and holistic models of literacy prevailed, based on the natural acquisition of language, as developed by Chomsky (Chomksky, 1972) and Goodman (1967).

This psycholinguistic or whole-language approach was based on theories that examined how successful early readers acquired reading (Cambourne, 2014) and stood in direct opposition to the deficit-based, bottom-up model of reading that emanated from a research base of why children struggle with reading (Boys, 2008). The whole-language model was promoted by the Bullock Report (1975) in the UK and recommended a move away from drills and formal teaching to a more natural approach to teaching reading: "...language should be learned in the course of using it in and about the daily experiences of the classroom and the home" (Bullock, 1975, p. 520). The whole-language movement suggested skilful readers did not process individual letters or use orthographic information and that instruction in phonics and spelling was unnecessary (Smith & Goodman, 1971). Smith and Goodman claimed that phonics should not be explicitly taught because children could discover phonics rules themselves through reading experience (Smith & Goodman, 1971). These authors also argued that the act of decoding would lead to a loss of comprehension (Smith & Goodman, 1971) and that rich children's literature, environmental print and non-fiction remained the best instructional materials for young children. Two significant concepts inherited from whole language were that novice readers process text in the same way as expert readers and novice readers need to use multiple cues to decode words (C. Snow & Juel, 2013).

Both concepts contradicted seminal research findings during the 1980s and 1990s on the importance of phonological awareness and systematic phonics in reading acquisition (Adams, 1990; Bradley & Bryant, 1985; Hulme et al., 2002). Against a backdrop of highly critical, dissenting academic voices (Liberman & Liberman, 1990; Moats, 1996; Stahl & Miller, 1989; Stanovich, 1986; Vellutino, 1991) throughout the 1980s and 1990s, Pearson (2004) asserted that "by the early 1990s whole language had become the conventional wisdom" (Pearson, 2004, p. 219). Essentially, there was growing recognition that reading and speaking were not acquired in the same way (Stanovich, 1986) and children benefitted from decoding.

Self-teaching advocates (Jorm & Share, 1983; Share, 1995) held the view that teaching phoneme-grapheme rules helped children to first decode and then gradually develop an ability to build on orthographic knowledge that was stored in the brain. This enabled children to gradually reduce their need for decoding each word. Through repeated reading, children were able to teach themselves holistic representations of words and build fluency and comprehension (Share, 1999, 2004). Gough and Tumner (1986) further argued that a student's reading comprehension score could be predicted from a student's decoding and language comprehension abilities. In 1990, Adams confirmed many of Chall's (1967) findings about the efficacy of phonics for developing word recognition and challenged the efficacy of whole language. Adams asserted that automaticity was developed from decoding words, not from guessing them (Adams, 1990). Research showed novice

readers depended on the alphabetic principle to read, including irregular words (Ehri, 1995, 2013; Share, 1995, 1999; W. Tunmer et al., 1998). The role of phonological awareness for decoding and comprehension was established during the 1990s (C. Juel, 1988; C. Snow et al., 1998), when it was proposed that students needed to first grasp and be able to use the alphabetic principle in order for sight words to develop. Whole language was criticised for failing to teach phonics systematically in the early stages of literacy (Ehri, 1995).

Despite these seminal findings, the whole-language approach became characteristic of different models in the English-speaking world during the 1990s. The National Literacy Strategy (Department for Education and Employment 1997) in the UK used the psycholinguistic approach in the Searchlights model, where the reader was encouraged to use four different cues to decipher text (Ellis & Moss, 2014). This model required teachers to keep running records and analyse miscues based on the work of whole-language proponents (Goodman, 1969). Similarly, teachers in New Zealand were advised that children should not try to read words in the absence of a meaningful context, and that using grapho-phonics cues as an initial strategy would interfere with their ability to predict meaning from other cues (Ministry of Education, 1996). Teachers were encouraged to engage in miscue analysis and accept approximations (Clay, 1993), and teachers who were effectively using this approach were compared to parents teaching children how to talk (Cambourne, 2014, p. 3). The whole-language movement spawned the three-cueing system, whereby teachers encouraged children to use semantic, syntactic and grapho-phonic cues (Education Department of Western Australia, 1997, p. 18), in direct conflict with the evidence that showed good readers used quick and efficient decoding in word identification, not context (Gough & Tunmer, 1986; Seidenberg, 2017). Teachers in Australia and elsewhere were encouraged to use this cueing system during shared reading, independent reading, reading and guided reading sessions, and were urged to promote the model by showing "how real readers use semantic and syntactic cues to predict and then confirm or change their guesses using grapho-phonic cues" (Education Department of Western Australia, 1997, p. 17). The three-cueing system was also used in Reading Recovery (Clay, 1993), which was widely implemented in Australia, New Zealand, the UK and the Republic of Ireland and later discredited by studies that were highly critical of its whole- language inheritance and effectiveness (Center et al., 1995; Chapman & Tunmer, 2011; W. Tunmer, 2003). The use of grapho-phonic cues as the final, rather than the first and foremost strategy, was ultimately discredited by multiple research studies showing that readers recognised spelling and pronunciation first and meaning later (Perfetti, 2011; Seidenberg, 2017; Stanovich et al., 1985).

Similarly, the Four Resource Model (Muspratt et al., 1997) was based on critical theories emphasising meaning. Milton (2017) asserted that Australian teachers were strongly influenced by

this model (Milton, 2017, p. 14), under which literacy was a social practice rather than a technical skill. Student interest and purposes were central to a critical literacies approach and students were encouraged to question texts, social and political motives (Comber & Simpson, 2001; Muspratt et al., 1997). Unlike the whole-language approach, this model incorporated the alphabetic principle, phonological awareness, spelling, grammar and vocabulary in code-breaking practices, but with an emphasis on aligning instruction with the interests, pleasures and background knowledge of students in the early childhood classroom (Comber, 2000). This fuelled a spate of publications on whole language from Australian academic authors (Cambourne et al., 1988; Cambourne & Turbill, 1994; Turbill & Cambourne, 1997), some of whom persisted beyond the National Inquiry into the Teaching of Literacy (2005) in their promotion of holistic and whole- language approaches to literacy (Cambourne, 2008, 2014).

In Australia, the Ministerial Council on Education, Employment, Training and Youth Affairs (MCEETYA) concluded that every child leaving primary school should be able to read, write, spell and communicate at an appropriate level (Council, 1999, p. ix). In 1998, a National Literacy and Numeracy Plan called for improvements in literacy standards and argued that this represented a shift in government policy towards literacy as a skill, distinct from literacy as part of language learning (D. Edwards & Potts, 2008). The plan focused on the crucial role of teaching in the early years to raise literacy standards and reflected similar government policies in the UK and the USA (Ellison & Australian College of Education Conference, 1998).

These policies reflected growing scientific consensus from the mid-1990s that teachers could prevent reading failure with effective instruction (Denton & Mathes, 2003; Moats, 1994; C. Snow et al., 1998). The National Research Council found that quality classroom teaching in kindergarten and the early years was the single best weapon against reading failure (C. Snow et al., 1998, p. 343). The report provided the groundwork for the USA National Reading Panel that found in favour of early teaching of direct, explicit and systematic phonics (National Reading Panel, 2000) as well as explicit teaching of the Big Five, otherwise known as the alphabetic principle, phonological awareness, comprehension, fluency and vocabulary. Training in phonological awareness was found to be particularly effective prior to or during reading instruction when combined with letter-sound correspondence teaching (National Reading Panel, 2000). Research also showed that knowledge of phonological awareness and the alphabetic principle were the two most important predictors of literacy success (National Early Literacy Panel, 2008) and required an explicit approach (Barone & Mallette, 2013). These findings by leading US academics influenced later reports in Canada and Australia, advising teachers to focus on those factors (Canadian Language and Literacy Research Network (CLLRN) 2009; Department of Education Science and Training, 2005).

The National Inquiry into the Teaching of Literacy in Australia was a substantial undertaking for the Australian Council for Educational Research (Rowe, 2006). The findings affirmed the importance of explicit teaching of the Big Five, the importance of a whole-school, integrated approach to reading and teachers having a thorough understanding of a range of effective strategies, as well as knowing when and where to apply them (Department of Education Science and Training, 2005, p. 11). However, there is no evidence to suggest these findings impacted in any major way on subsequent policy in early childhood practice for phonics instruction (DEEWR, 2009).

In contrast, the Rose Review (Rose, 2006) had a profound effect on teaching practices in state schools in England. The nationwide imposition of systematic phonics as the best and most direct route (Rose, 2006, p. 4) reinforced Australia's decision (Department of Education Science and Training, 2005) to recommend systematic phonics teaching (Wyse & Styles, 2007). The Rose Review acknowledged uncertainties (Rose, 2006, p. 4) in the research findings, but systematic and synthetic phonics has continued to dominate practice in reception year (pre-primary) and throughout key teaching in Stage 1 with the use of Letters and Sounds (Department for Education, 2007) and Jolly Phonics (Lloyd, 1992). The research findings ended the National Literacy Strategy in the UK. Academics argued in favour of phonics and the Simple View of Reading (Hoover & Gough, 1990) and called for the end of the Searchlights model (Committee, 2005c) following a longitudinal study of almost 300 Year 1 students in Clackmannanshire in Scotland.

The Clackmannanshire study found that children exposed to accelerated synthetic phonics made greater progress than those exposed to analytical phonics or analytical phonics and phonological awareness (Johnston & Watson, 2004), and that synthetic phonics had a long-term effect on word reading and spelling ability (Johnston & Watson, 2005). This study was later criticised for a lack of robust analysis, but systematic phonics teaching was acknowledged as being effective (Ellis, 2007; Wyse & Goswami, 2008; Wyse & Styles, 2007). Nonetheless, the UK government established the Rose Review (Rose, 2006) and accepted both the Simple View of Reading and the favourable findings of systematic, synthetic phonics as a key component of the UK curriculum for reception (pre-primary) to Year 2 students (DfE, 2012a; Ellis & Moss, 2014).

Australian government policies imposed pressure on teachers and school leaders to adjust their approaches to literacy at this time. In 2008, the Melbourne Declaration on Educational Goals for Young Australians (Barr et al., 2008) called for successful and equitable education for all students. The Australian Curriculum, Assessment and Reporting Authority (ACARA) was established in December 2008, responsible for developing the Australian Curriculum (ACARA, 2012) as well as the National Assessment Program for Literacy and Numeracy (NAPLAN) testing and reporting. In the same year, all state governments in Australia signed up to a new National Partnership Agreement on Literacy and

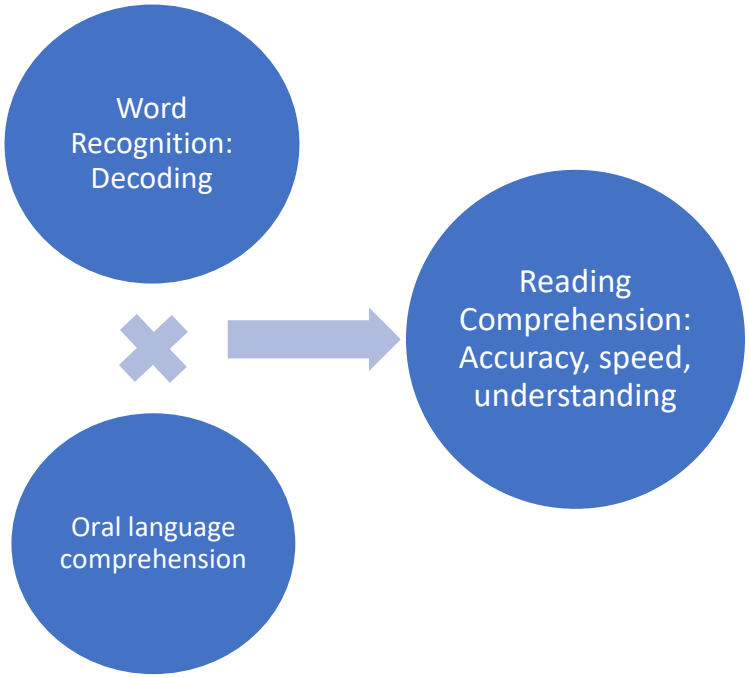
Numeracy (2008), and in 2011 to 2012, again committed to improving standards for students who failed to achieve minimum standards in literacy by providing funding for evidence-based practices (Council of Australian Governments, 2011-2012). This was followed by further funding to the states to improve the performance of struggling readers.

Significantly, teachers in the UK were encouraged to use commercial, systematic, synthetic phonics programs, songs, quick-fire practice in warm ups, fast pacing, fidelity to the phonics program, regular assessment testing rather than merely observational assessment, reading schemes that support teaching, revision of previous learning, regular structure and word making, letter formation and consolidation (Lambirth, 2011, pp. 25-32). In addition, a phonics screening check was introduced in 2012 for Year 1 students; the results were published online and subject to the Ofsted inspections in schools (DfE, 2012b). This check assessed students' ability to read real words and non-words out of context as a measure of how well they understood and applied phonics. Following calls from Australian academics (Buckingham, 2016) in 2017, the then federal education minister, the Hon. Simon Birmingham, announced that the UK phonics screening check would be trialled and used in schools across Australia (Martyn-Jones, 2017). Based on the success of the trial, a modified form of the UK phonics screening check is now being implemented in South Australian state schools (Education, 2018), but not without resistance from some academics who argue it will not raise literacy attainment (Adoniou, 2017b).

Importantly for school leaders and teachers alike, the Australian government revised the Australian Curriculum (ACARA, 2017a) in 2016 to emphasise the early teaching of phonics, citing the need for a back-to-basics approach (Australian Government, 2016; Martyn-Jones, 2017). Introduction of the UK phonics screening test was hailed by proponents of EI, who argued that this would help inform teachers about student learning (Buckingham, 2016, 2017; P. Snow et al., 2016). Others suggested the phonics screening test would be of limited value for assessing students' difficulties (Adoniou, 2017b). While phonics for early readers is now of critical importance in foundation year to Year 2 (ACARA, 2017a), teaching and assessment of phonics in Australia remains contentious.

This is unfortunate for school leaders introducing EI, given the weight of evidence in favour of the Simple View of Reading (Gough & Tunmer, 1986), as supported by contemporary neuroscience research (Seidenberg, 2017; Willingham, 2017) and a view that successful reading is not just about decoding words, but also linguistic comprehension. Both are equally necessary and neither is sufficient on its own. Consensus was reached that phonological awareness was the critical partner in cracking the alphabetic code, because ultimately the child must come to know that the letters he sees on the page represent or map to the sounds he hears when the same word is spoken (S. E. Shaywitz, 2014, p. 250). The research acknowledged that, while decoding can be taught independently from

comprehension, comprehension can assist decoding (Goswami, 2008b). Further scientific research on eye-movement studies revealed that skilled readers scan every letter in words (Castles et al., 2018; Taylor & Perfetti, 2016), while simultaneously processing chunks in words. It became clear that readers accessed meaning by using phonemes, which is why systematic and explicit instruction in phonological awareness and the alphabetic principle are so important for novice and weaker readers in particular (W. Tunmer et al., 2013).



Reading comprehension is conceptualised as a *product* of both components rather than an *accrual*. Without one component, reading comprehension competency will not be achieved.

Figure 2.2 The Simple View of Reading (Gough & Tunmer, 1986)

To emphasise the fact that early reading is not just about phonics, Buckingham (2018) extended the Simple View of Reading model (Gough & Tunmer, 1986), arguing that the acquisition of oral language comprehension and decoding requires development of five essential reading skills. She proposed a model that acknowledges the need for evidence-based reading instruction across all five components of reading (Buckingham, 2018). Buckingham's model aligns with both EI and the principles of RTI (Response-to-Intervention) (Barnes & Harlacher, 2008) because it offers preventative, effective and evidence-based practice for schools, underpinned by a philosophy that all children can be successful at literacy (Barnes & Harlacher, 2008; Hollingsworth & Ybarra, 2009). Another advocate of EI proposed a useful three-tier model of RTI that encompassed these principles and aligned with EI

(Wheldall, 2011), with important implications for school literacy policy. RTI is widely practised in the USA following the No Child Left Behind Act (2002) and the Individuals with Disabilities Education Act (2004) that legislated for all children to be provided with early intervention through evidence-based instruction, including EI and tiered intervention (Forbringer & Fuchs, 2014).

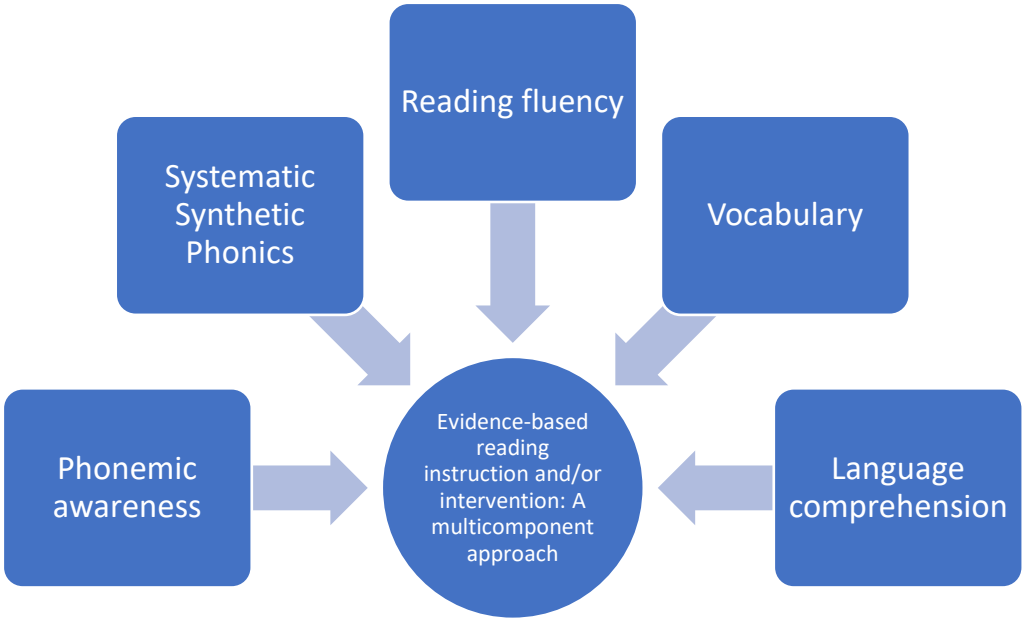


Figure 2.3 The Five from Five Model (NRP, Rose, NITL, Five from Five)

Importantly, arguments for the explicit, systematic teaching of early phonics and phonological awareness rested on neuroscientific research and theory and weighed the evidence in favour of the alphabetical principle. Cognitive models have informed our current understanding of common brain mechanisms (Dehaene, 2009) and emphasised the role of phonology, orthographies and semantics in reading. Both computational (Pritchard et al., 2018) and triangle models propose that skilled readers analyse letters and transform them into phonemic or stored orthographic forms of words linked with semantic knowledge (Pritchard et al., 2018). The way in which children gradually move from novice readers (heavily reliant on decoding) to rapid and automatic recognition of words (that link orthographic features or spelling directly to meaning) is called orthographic learning (Nation & Castles, 2017) and is proposed to do so when children draw on their background of semantic and episodic knowledge (Nation, 2008). The theory that pathways interact and process print using sound, spelling and meaning in the brain is consistent with recent models (Seidenberg, 2017). Criticism of systematic phonics programs that imply children all learn the same way ignore learner diversity and experiences of print that children bring to learning (Brien, 2012) and have been debased by science:

> It simply is not true that there are hundreds of ways to learn to read […] when it comes to reading we all have roughly the same brain that imposes the same constraints and the same learning sequence (Dehaene, 2009, p. 218).

In terms of constraints, neuroimaging studies have shown that readers use three interrelated parts of the brain while reading: the frontal lobe, the lower posterior ventral lobe and a higher posterior dorsal lobe. The part of the brain near Broca's area in the frontal lobe is used for semantic processing or word analysis, as well as processing phonological information. The ventral lobe is used for orthographic processing when readers begin to recognise words by sight and automatically, rather than laboriously, decode each sound (Matthews et al., 2003; Willis, 2008). This area is particularly sensitive to written language and highly responsive to reading words and non-words as opposed to strings of consonants (L. Cohen et al., 2002). The dorsal lobe uses parts of the temporal and parietal lobes in novice readers to decode letters or letter strings into sounds (Price et al., 1996; Willis, 2008). Patients with brain damage in this dorsal pathway experience difficulties reading non-words (Woollams & Patterson, 2012), consistent with Dehaene's (2010) assertion that "the acquisition of visual word recognition proceeds by progressively specializing a subpart of the left ventral visual system, which has been termed the visual word form area" (Dehaene et al., 2010, p. 1). Along with a recent meta-analysis of neuroimaging studies, this finding supports the theory that there are two pathways teachers need to develop for children to make meaning from print (Woollams & Patterson, 2012). Given that comprehension is the aim of reading (Seidenberg, 2018), systematic development of fluency in letter-sound correspondences and word reading using a bottom-up approach is important. According to Horowitz-Kraus and Hutton (2015), reading will remain laboured and children's cognitive resources will be focused on decoding rather than understanding until fluency is achieved.

In terms of school literacy policies on learning sequence, neuroimaging is consistent with developmental theories of phonemic awareness. The left temporal lobe is the first to respond in phonological awareness (Turkeltaub et al., 2003). Metabolic activity in the left superior temporal lobe and the lower frontal lobe increases in response to phonemic awareness activities, and early activity in these areas has been correlated with later reading achievement (Wagner et al., 1994). Children have difficulty isolating sounds that make up individual words, and developmental theories on phonemic awareness show that they first learn to distinguish separate words, followed by compound words before distinguishing syllables, and finally, individual phonemes (Willingham, 2017). Teaching phonological awareness therefore needs to be systematic and sensitive to developmental phases. Sensitivity to syllable, onset-rime and phoneme awareness is the prime predictor of reading acquisition (Goswami, 2008b; Goswami et al., 2005) and the possibility that English-speaking children

develop phonemic awareness more slowly due to its deep orthography (Goswami, 2008b) warrants reflection in school policy.

The literacy wars between whole-language and grapho-phonic advocates concluded with overwhelming evidence in favour of phonics *(d = .60)* (Hattie, 2012a). In spite of empirical evidence for explicit and systematic instruction of letter sound relationships (Canadian Language and Literacy Research Network (CLLRN), 2009; Hempenstall, 2016) resistance is evident to recommendations for a balanced approach to literacy (Moats, 2014a). Balance implies equal weight is given to whole-language practices and the grapho-phonic approach in both school literacy policy and practice, but the issue is that whole-language is not supported by the research (*d = .06)* and deemed one of education's greatest mistakes (Hattie, 2012a). A further deterrent is that teachers face a confusing array of advice about teaching literacy.

EI fits well with proactive, evidence-based practice, as promoted by Buckingham (2018) and the RTI models promoted by Wheldall (2011) that consider the evidence needed to ensure all children succeed at literacy. While the reading wars did not resolve whether analytic or systematic phonics were more effective (Castles et al., 2018), they did prioritise explicit, systematic and direct phonological awareness and phonics for novice readers (Department of Education Science and Training, 2005).

2.2 Policies that Impact on ECE Literacy

Two documents that had a significant impact on literacy in early childhood are the Australian Curriculum and the Early Years Learning Framework (EYLF). Both arose from a paradigm of student-led, social constructivist learning ideologies, but the Australian Curriculum places greater emphasis on attaining academic skills and education for social efficiency (Petriwskyi et al., 2013). The EYLF document places greater emphasis on play, using the term 72 times and "teaching" 23 times (McLaughlin et al., 2016). A lack of consensus on the role and value of play in learning in early childhood remains, but research on play for academic development tends to endorse teacher-directed play (Pyle, DeLuca & Danniels, 2017). However, the academic and social efficiency ideologies differ from child-led learning ideologies of early education and compel teachers to find a balance between these different demands (Petriwskyi et al., 2013).

This thesis argues that there is a fundamental philosophical schism between the intentional, holistic approach to teaching phonics recommended by the Early Years Learning Framework (DEEWR, 2009) and the systematic, direct and explicit approach recommended by the National Inquiry into the Teaching of Literacy (Department of Education Science and Training, 2005). The intentional approach to phonics honours the dominant tradition of play-based, constructivist and facilitative instruction in

WA, and the acute differences between these approaches to literacy makes it difficult for teachers to contemplate, let alone practise EI.

Also known as conceptual play, Fleer (2011) argued the intentional approach was a relatively new pedagogic approach for Australian teachers, borne out of a requirement to take more than a facilitative approach to learning and teaching higher-order concepts (Fleer & Hoban, 2012). The EYLF document defines intentional teaching as:

> Intentional teaching: involves educators being deliberate, purposeful and thoughtful in their decisions and action. 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. 17).

This reference in the EYLF to an intentional teaching approach is significant, because while it includes cognitive strategies in common with EI, they are used in a facilitative manner:

> ...such as modelling and demonstrating, open questioning, speculating, explaining, engaging in shared thinking and problem solving to extend children's thinking and learning. Educators move flexibly in and out of different roles and draw on different strategies as the context changes (DEEWR, 2009, p. 18).

By way of contrast, a teacher using cognitive strategies in EI is expected to teach by using:

> ...active presentation of information, clear organization of presentation, usually in the form of specific steps, step-by-step progression of instruction based on task analysis; use of examples, prompts and demonstration; constant assessment of student understanding; effective use of time; and maintaining student attention (Goeke, 2009, p. 7).

This is important, because EI differs from intentional teaching in its intensity and instructional design. Intentional teaching is not systematic instruction, but rather a moment of instruction embedded in a social context. Conversely, EI is a heavily prescribed, analysed sequence of teaching ideas. Intentional teaching is concerned with "teaching practices that are adaptive and responsive to the individual child" (McLaughlin et al., 2016, p. 191). It allows for open questions and speculation, and "being intentional' does not always mean the educator directly intervenes" (Australian Government Department of Education, 2014, p. 3). In EI questioning is not open, instead the mandate is to teach first, then ask a question. The teacher does not speculate in an EI lesson because the content is presented in a systematic way, moving from easy to difficult. The Early Years Learning

Framework encourages teachers to find a balance between play-based approaches and intentional teaching in order to support "educational achievement rather than development alone" (Grieshaber, 2015, p. 40), while intentional teaching remains a facilitative, play-based and social constructivist approach.

The five learning outcomes detailed in the EYLF are congruent with social constructivist ideology and require children to have a strong sense of identity, be connected with and contribute to their world, have a strong sense of wellbeing, be confident, involved learners and effective communicators (DEEWR, 2009). The language in this document is positive and does not refer to students at risk. Furthermore, these learning outcomes do not match the expected literacy outcomes for pre-primary students in the Australian Curriculum (ACARA, 2012), but impose an expectation on pre-primary teachers to maintain progressive pedagogic approaches and intentional teaching.

The EYLF document clarifies the preferred teaching approach for early childhood teachers as follows:

> They provide a balance between child led, child initiated, and educator supported learning. They create learning environments that encourage children to explore, solve problems, create and construct… They use routines and play experiences to do this. They also recognise spontaneous, teachable moments as they occur and use them to build on children's learning (DEEWR, 2009, p. 17).

While a balanced, integrated or intentional approach to teaching phonemic awareness also teaches phonological awareness in a planned and purposeful way, the use of examples from children's fiction, songs, nursery rhymes, real objects and small group work maintains an emphasis on the context of authentic reading and writing experiences (DEEWR, 2009; Yopp & Yopp, 2000). Teachers are encouraged to promote this learning, for example, "when they sing and chant rhymes, jingles and songs, engaging children in play with words and sounds, talking explicitly about concepts such as rhyme and letters and sounds when sharing texts with children" (DEEWR, 2009, p. 44). While EI itself is content independent, it is usefully supported by a comprehensive scope and sequence and a systematic, explicit approach to phonological awareness controls and sequences the linguistic complexity and positioning of the phonemes within words and syllables. Programmes such as Let's Decode (Formentin, 1993) progress through a specified scope and sequence, reflecting the order of developmental phases in the acquisition of phonological awareness, beginning with identifying one-syllable words in simple sentences and progressing from there (Formentin, 1993). An explicit, systematic approach to phonological awareness in practice also acknowledges the cognitive complexity of what is required from the children.

In terms of the alphabetic principle, teachers are encouraged to "promote this learning, for example when they read and share a range of books and other texts with children, provide a literacy-enriched environment including display print in home languages and Standard Australian English" (DEEWR, 2009, p. 44), for example, when they draw attention to symbols and patterns in their environment and talk about patterns and relationships, including the relationship between letters and sounds, and engaging children in discussions about symbol systems, for example, letters" (DEEWR, 2009, p. 46). EI or direct instruction approaches require that similar visual and auditory letters are separated in instruction; lowercase and more useful letters are introduced first, and only one sound is introduced for each new letter (Carnine, 2006). The achievement standard for pre-primary students in phonics and phonological awareness is that students "know and use the most common sounds represented by most letters… They identify and use rhyme and orally blend and segment sounds in words" (ACARA, 2017a).

The prevailing constructivist approach to early childhood education promoted by Dewey (1859-1952), Piaget (1896-1980) and Vygotsky (1896-1934) is not without foundation. It has been acknowledged that constructivist activities for assessing a child's cognitive level can lead to effective gains, attainment and deep processing strategies (Nie & Lau, 2010). Due to word limits, the expansiveness of constructivist theory cannot be treated with due diligence and respect. However, critics of social constructivism argue that it is best restricted to synthesis and application of knowledge rather than teaching novices or establishing a strong knowledge base (Brophy, 2006). A further difficulty with a facilitative approach, such as intentional method of teaching phonics, is that teachers' understanding of conceptual development is directly related to levels of child-adult interaction (Siraj-Blatchford, 2007). Teachers therefore need knowledge of conceptual development to provide quality student-teacher interactions for stimulating conceptual learning in play-based approaches (Siraj-Blatchford, 2007). This can be problematic if teachers lack the necessary conceptual knowledge and opportunities for sustained shared interaction and thinking (Siraj-Blatchford, 2007). Put simply, the facilitative approach demands considerable skill to do it well. Teachers must keep a sharp focus on how each student is responding to the demands of the skill or concept and intervene appropriately to keep the learning process on an upward trajectory. As with Explicit Instruction and Direct Instruction, recent research in Germany, Switzerland and Finland suggests that constructivist teaching methods can be difficult to implement effectively (Beerenwinkel & von Arx, 2017).

In conclusion, the social constructivist approaches to literacy that underpin the Australian English Curriculum (Petriwskyi et al., 2013) and the EYLF contrast sharply with an explicit, systematic approach, making it difficult for teachers to consider EI. A further problem is identifying and putting the salient features of EI design and delivery into practice.

2.3 Salient Features of Explicit Instruction Design and Delivery

Despite slightly different interpretations in the literature, the salient features of EI design and delivery (Hughes et al., 2017; Rosenshine, 2012) must be upheld in practice. This is because the principles are based on research findings in relation to cognitive effects, teacher effects and neuroscience (Rosenshine, 2012), according to which omission of any one of these principles potentially compromises students' abilities to process new and difficult, abstract information in their working memories and successfully transfer it to long-term memory. This thesis argues that in the absence of task analysis, and "I do", "We do", "You do", otherwise known as "model, lead, test", Analysis of Behaviour and Communication and Knowledge elements (Engelmann & Carnine, 1991), teacher practices cannot be considered EI.

Engelmann and Carnine (1991) argued a learning theory should be based on scientific analysis, and that the environmental variables of communication, behaviour and knowledge can be managed to enable successful learning. An analysis of Communications, Behaviour and Knowledge theories identified the features of instruction that enable successful learning. In practice, Analysis of Communication means avoiding redundancy and task analysis. Analysis of Behaviour emphasises teacher-student interactions, using signals, keeping up a brisk pace, providing motivation to learn from the outset and using a model-lead-test sequence and worked examples. Analysis of Knowledge emphasises the use of clear, unambiguous language and teaching in a sequence from simplest to more complex.

2.4 Theoretical Basis for the Pedagogical Principles of EI

EI is student centred and teacher led (Archer & Hughes, 2011), a difficult concept for teachers to put into practice. Unlike the facilitative, constructivist stance, EI requires a behaviourist approach, whereby the teacher leads the instruction. This teacher-led, behaviourist stance of EI is foreign to early childhood teachers' understandings that are steeped in child-led pedagogy.

Behaviourism is based on the philosophies of Pavlov (1849-1936), Watson (1878-1958), Thorndike (1874-1949), Bandura (1925) and Skinner (1904-1990). As a learning theory, behaviourism is concerned with how teachers provide relevant auditory and visual stimuli for students to demonstrate new learning of knowledge, skills and concepts. Behaviourist principles manifest in very specific EI design and delivery features. For example, behaviourist theory is based on the premise that all students will respond in predictable ways to particular stimuli when their responses are reinforced (Jonassen, 2009); in the case of EI, with feedback and praise (Joseph et al., 2016). In EI, visible student behaviours and learning are managed through teachers' careful selection of examples and non-examples, their use of clear and consistent language, modelling and stimulus control through guided practice (Joseph et al., 2016). The principles hold true for children of all ages, races, cultures and

abilities, with the underlying premise that all children can learn successfully if taught well (Archer & Hughes, 2011; Engelmann & Carnine, 1991; Hollingsworth & Ybarra, 2009; Slavin, 1996). In particular, the principles of EI are useful for teaching maths and literacy to students with and without learning difficulties (Christenson et al., 2016; Gersten et al., 2009; Graham et al., 2012; Hughes et al., 2017; Riccomini et al., 2017; H. Swanson & Deshler, 2003).

Intentional teaching is situated in progressive and constructivist learning theories that emphasise the facilitative and collaborative role of the teacher in co-constructing knowledge. The progressive approach is based on the philosophy of Dewey (1859-1952) and Rosseau (1712-1778) and views learning as dynamic and dependent on individual interpretation and experience. It is aligned with a holistic teaching philosophy described in the Early Years Learning Framework that recognises "the connectedness of mind, body and spirit" (DEEWR, 2009, p. 14). Unlike other constructivist approaches, such as Cooperative Learning (*d = .41)* (Hattie, 2009), intentional teaching is not evidence-based and does not offer a defined protocol for its implementation. This is understandable, because progressivist learning theory is focused on the whole child; background, developmental stage and maturation (DEEWR, 2009), rather than content, teacher delivery and the use of specific design components prescribed by behaviourism. Intentional teaching "requires planned and spontaneous judgements that draw on multiple sources of professional knowledge and knowledge of children... including child and family cultural and personal values and preferences" (McLaughlin et al., 2016, p. 191). It emphasises the need for teachers "to provide meaningful and appropriate curricular experiences for all children in ECE" (McLaughlin et al., 2016, p. 176), firmly placing the teacher in a facilitative, rather than instructional role. For this reason, it is easy for teachers to wander off the behaviourist, teacher-led path of EI lesson design into more familiar, constructivist territory.

According to Engelmann and Carnine's Theory of Instruction (1991), three key factors impact on how children learn. In terms of Analysis of Behaviour, the teacher models and then leads instruction and tests what has been learned at a fast pace, providing multiple opportunities for students to practise and demonstrate what they have learned with continuous guidance from the teacher (Archer & Hughes, 2011, p. 22; Engelmann & Carnine, 1991; Hollingsworth & Ybarra, 2009; Hughes et al., 2017; Rosenshine, 2012). The "I do, We do, You do" sequence is based on cognitive effects, and this instructional design unequivocally characterises EI as a behaviourist approach with a key focus on the response of the student. It is not simply about exposing students to knowledge or skills in instruction, but ensuring they have learned, understood and mastered what has been taught at an accelerated pace. The instructional sequence is designed for students to attain mastery during each lesson by learning only a small percentage of new material at a time (Engelmann, 2007). The required behaviours are subtle, because signals are used to prompt students and maintain an optimal pace,

whereas in Direct Instruction, instruction and reinforcement are combined. Instructional behaviour is targeted at the student's response and the teacher's response to the student: "Each detail of the expert teacher's behaviour can be demonstrated to make a difference in how the children perform" (Engelmann, 2007, p. 83). In essence, direct and explicit instruction are about changing teachers' behaviours so that teaching becomes efficient and effective (Archer & Hughes, 2011).

Teacher-student interactions, the use of signals and gestures, pacing, and the "model-lead-test" sequence must all conform to Direct Instruction's Analysis of Behaviour (Engelmann & Carnine, 1991). The emphasis on "model-lead-test" is shared by both DI and EI (Archer & Hughes, 2011), whereby students are never asked to repeat an answer they have already given, in addition to a shared emphasis on gaining student attention and reviewing prerequisite knowledge, skills and concepts needed for the lesson. Lesson objectives are clearly stated and followed throughout the lesson in a cognitive way. This is achieved by directly teaching factual, conceptual and metacognitive knowledge and checking for understanding using multiple examples, correcting, affirming or elaborating on students' responses, as well as presenting a wide range of examples and non-examples to illustrate the concepts (Hughes et al., 2017). Lesson objectives focus on what the students are expected to know and do by the end of the lesson and sequenced to follow prerequisite knowledge. Synthesis studies have shown, with an overall effect size of $d = 0.56$ (Hattie, 2012a), that goal setting tends to enhance learning (Lipsey & Wilson, 1993), ideally when matched with feedback to bolster the efficacy of both (Marzano, 2007). EI lessons conclude with a final check of understanding this goal, mirroring the initial learning intention, whether stated or not.

The Analysis of Communication presupposes that communication during instruction should carry only one possible interpretation (Engelmann & Carnine, 1991) and is one of the theoretical foundations of Direct Instruction. Engelmann and Carnine (1991) argued that pointless asides are redundant during instruction and wording should be kept to a minimum in order to maintain a focus on the children and their responses to what is being taught (Archer & Hughes, 2011; Engelmann, 2007). Consistency is a key factor in Direct Instruction and assured by scripted lessons. Signals, pointing, students responding in unison, and using teachers' cadence as a cue for successfully or individually co-ordinating responses rather than simply copying others are all included to maintain high levels of engagement (Engelmann, 2007). Rosenshine restricted his communication to teaching skills and new content directly and explicitly with "...clear and detailed instructions and explanations" where necessary (Rosenshine, 1986, p. 62).

Guided practice with feedback, multiple opportunities to demonstrate understanding before moving to independent practice in groups or individually, and use of unambiguous language are all stressed. The emphasis on teaching to mastery is consistent with research on "mastery experiences"

that identified it as the strongest determinant of success in receiving and delivering information (Bandura, 1997). Students' efficacy beliefs are heightened when they are successful, as are teachers' when they succeed in everyday teaching tasks, particularly when they are able to help students with difficulties to learn (Knoblauch & Woolfolk Hoy, 2008). The practice of teaching students concepts in small steps is based on the work of leading educators concerned with teacher effects and the role of instructional design and delivery in school improvements (Brophy, 1986; Gagne et al., 1992; Hunter, 1994; Pollock, 2007; Rosenshine, 1971, 1983). Explicit Direct Instruction (Hollingsworth & Ybarra, 2009) complies with all of this, without explicitly articulating its principles or placing a heavy emphasis on the Analysis of Communication; the task-analysis component of deciding on the big ideas and sequentially breaking knowledge down into skills. Rather, the focus is on analysing the curriculum statements and creating a logical connection between all the skills, concepts and knowledge required. The strength of Direct Instruction lies in this Analysis of Communication, and Explicit Instruction is highly compliant with deciding on major concepts and placing them in a logical sequence of instruction that emphasises task analysis (Hughes et al., 2017). Explicit Direct Instruction (Hollingsworth & Ybarra, 2009) places prominence on checking for understanding rather than repetition, the strength of this model being its emphasis on the teaching process. The content of Explicit Direct Instruction is also aligned with the Analysis of Communication and Behaviour inherent in Direct Instruction.

Analysis of Knowledge in the Theory of Instruction (Engelmann & Carnine, 1991) was largely influenced by Engelmann's background in analytical philosophy. Engelmann stressed the logical analysis and sequencing of the knowledge and skill components, to then be expressed in clear unambiguous language. In this way, task analysis in DI is compressed into logical incremental progressions. The author coupled his classification of cognitive operations (both basic and complex) with instructional procedure so that all forms of knowledge in Direct Instruction pass through adaptations of the same instructional delivery (Engelmann & Carnine, 1991). Rosenshine's (2012) principles of Explicit Instruction placed no emphasis on this detail, focusing instead on presenting small amounts of information at a time to facilitate the limitations of working memory (Rosenshine, 2012). Similarly, Ybarra and Hollingsworth ignored task analysis and emphasised learning objectives and interpretation of curriculum statements and teaching behaviours (Hollingsworth & Ybarra, 2009). Although task analysis in lesson design was given less weight by Archer and Hughes (2011), the authors concurred that there was a significant overlap between DI and Explicit Instruction (Archer & Hughes, 2011; Stein et al., 1998). EI demands that lesson objectives are taught to mastery, with the objective framing the review of prerequisite skills and implying task analysis. Whether the key authors acknowledge it or not, task analysis indicates the necessary steps for the lesson. Neuroscientific

research supports the task analysis inherent in EI, whereby novice learners benefit from sequencing cumulative information in a manner that supports incremental learning (Goswami, 2008a).

In summary, the more scientific, behaviourist stance is difficult for teachers to uphold because it is complex and teacher led (McMullen; Madelaine, 2014). The key principles shared by Direct Instruction and Explicit Instruction revolve around salient features, such as what to teach and the order of presentation, and the way in which teachers control the learning environment by means of pace, structure, student responses and the clarity of their communication. EI encompasses direct instruction, modelling and guided practice with feedback, followed by independent practice (Hock et al., 2000; Marchand-Martella & Martella, 2013; Marchand-Martella et al., 2013), including high levels of student-teacher interaction (Rupley et al., 2009). Seminal authors are in agreement about the salient features of an Explicit or DI lesson – these are shown in Table 2.1.

Table 2.1 *Key Authors' Interpretations of Direct and Explicit Instruction*

	Direct Instruction (Engelmann, 1999; Engelmann & Carnine, 1991)	**Direct Instruction/ Explicit Instruction (Rosenshine, 1986; 2012)**	**Explicit Instruction (Archer & Hughes, 2011)**	**Explicit Direct Instruction (Hollingsworth & Ybarra, 2009)**	**Explicit Instruction (Goeke, 2009)**
Lesson opening	"...Work is distributed so new parts in a lesson account for only 10 to 15% of the total lesson. The rest of the lesson firms up and reviews material and skills presented earlier in the program. The program assumes that nothing is taught in one lesson" (Engelmann, 1999).	Begin a lesson with a short review of previous learning to strengthen previous learning (Rosenshine, 2012, p. 31).	Review prior skills and knowledge before beginning instruction (Archer & Hughes, 2011, p. 2).	Activating prior knowledge explicitly retrieves pertinent information from long-term memory and places it into working memory, so students are now consciously thinking about it (Hollingsworth & Ybarra, 2009, p. 82).	Before beginning a lesson, conduct a very brief review of previously achieved, related learning (Goeke, 2009, p. 65).
Body of lesson (I do)	"...Communications are best if: (1) each step is made overt to provide evidence that the learner is attending to the relevant dimensions of the problem; (2) feedback is provided..." (Engelmann & Carnine, 1991, p. 345).	Present new material in short steps with student practice after each step (Rosenshine, 2012, p. 32).	Provide step-by-step demonstrations (Archer & Hughes, 2011, p. 2).	When you teach procedural knowledge, you are teaching your students how to do something. It is usually taught step-by-step… When you teach declarative knowledge, you facilitate students in understanding and remembering information (Hollingsworth & Ybarra, 2009, p. 100). In EDI there are three methods of delivering content to students: explaining, modelling and demonstrating (Hollingsworth & Ybarra, 2009, p. 101).	The teacher presents the lesson in small steps using the model-lead-test approach (Goeke, 2009, p. 111).

	Direct Instruction (Engelmann, 1999; Engelmann & Carnine, 1991)	Direct Instruction/ Explicit Instruction (Rosenshine, 1986; 2012)	Explicit Instruction (Archer & Hughes, 2011)	Explicit Direct Instruction (Hollingsworth & Ybarra, 2009)	Explicit Instruction (Goeke, 2009)
Formative assessment	"Present the communication to the learner and observe whether the learner actually learns the intended concept or whether the learner has trouble" (Engelmann & Carnine, 1991, p. 3).	"Ask a large number of questions and check the responses of all students" (Rosenshine, 2012, p. 33).	"Requires frequent responses" (Archer & Hughes, 2011, p. 3).	"Checking for understanding is the teacher explicitly verifying that students are learning while they are learning, not after the lesson is over… Teach and check. Teach and check. Teach and check" (Hollingsworth & Ybarra, 2009, p. 16).	"..the teacher checks understanding throughout an EI lesson" (Goeke, 2009, p. 44).
Modelling	"Basic cognitive teaching involves presenting the learner with some examples that will induce a generalization to other examples" (Engelmann & Carnine, 1991, p. 37).	"Provide models to help students learn to solve problems faster" (Rosenshine, 2012, p. 34).	"Model procedures" (Archer & Hughes, 2011, p. 4).	"Modelling is one of the most powerful methods of teaching because you are very clearly revealing the strategic thinking that is used to do something" (Hollingsworth & Ybarra, 2009, p. 102).	"Cognitive modelling" (Goeke, 2009, p. 69).
Guided/Faded practice	"Successful teaching of cognitive problem-solving routines involves 'fading out' the overt steps and 'covertizing' the operation so that the learner performs independently" (Engelmann & Carnine, 1991, p. 25).	"Guide student practice of new material" (Rosenshine, 2012, p. 34).	"Provide guided and supported practice" (Archer & Hughes, 2011, p. 2).	"Guided practice is the 'we do it together' part of an EDI lesson. During guided practice, students perform their initial practice, step by step under your direct guidance using the steps or methods you already presented during skill development" (Hollingsworth & Ybarra, 2009, p. 172).	"Guided practice is most appropriate immediately following cognitive modelling of the skill, strategy, or concept" (Goeke, 2009, p. 74).

	Direct Instruction (Engelmann, 1999; Engelmann & Carnine, 1991)	Direct Instruction/ Explicit Instruction (Rosenshine, 1986; 2012)	Explicit Instruction (Archer & Hughes, 2011)	Explicit Direct Instruction (Hollingsworth & Ybarra, 2009)	Explicit Instruction (Goeke, 2009)
Check for understanding	"The testing principle: To test the learner, juxtapose examples that bear no predictable relationship to each other"(Engelmann & Carnine, 1991, p. 40). "To correct response mistakes, we shape… we give information..." (Engelmann & Carnine, 1991)	"Checking for understanding at each point can help students learn the material with fewer errors" (Rosenshine, 2012, p. 35).	"Monitor student performance closely" (Archer & Hughes, 2011, p. 3).	"The power of checking for understanding is the real-time information it provides you for making instructional decisions during the lesson. It tells you when to speed up, slow down or reteach" (Hollingsworth & Ybarra, 2009, p. 17).	"Monitoring student understanding involves two complementary skills: checking understanding and providing corrective feedback" (Goeke, 2009, p. 44).
High achievement	"Students should be at least 70% correct on anything that is being introduced for the first time… At the end of the lesson, all students should be virtually 100% firm on all tasks and activities" (Engelmann, 1999, pp. 7-8).	"It is important for students to achieve a high success rate during classroom instruction" (Rosenshine, 2012, p. 36).	"Ensure high rates of success" (Archer & Hughes, 2011, p. 4).	"You need to have at least 80% of your students successful in each lesson before you give them independent practice" (Hollingsworth & Ybarra, 2009, p. 190).	"An important corollary to monitoring student understanding is providing appropriate corrective feedback" (Goeke, 2009, p. 45).
Faded practice	"After the learner has mastered the overt routine, the steps are faded or made covert so that the learner processes these steps independently" (Engelmann & Carnine, 1991, p. 32).	"The teacher should provide students with temporary supports and scaffolds to assist them when they learn difficult tasks" (Rosenshine, 2012, pp. 37-38).	"Scaffold instruction" (Archer & Hughes, 2011, p. 5).	"As guided practice proceeds, you gradually release your students to do more and more steps by themselves. By the end of guided practice, students are working successfully on their own without errors" (Hollingsworth & Ybarra, 2009, p. 172).	"As students become more competent, the teacher gradually relinquishes control in favour of student self-direction during independent practice" (Goeke, 2009, p. 73).

	Direct Instruction (Engelmann, 1999; Engelmann & Carnine, 1991)	Direct Instruction/ Explicit Instruction (Rosenshine, 1986; 2012)	Explicit Instruction (Archer & Hughes, 2011)	Explicit Direct Instruction (Hollingsworth & Ybarra, 2009)	Explicit Instruction (Goeke, 2009)
Practice to achieve mastery	"This goal is achieved if teachers teach to mastery. Mastery assures that everything that is supposed to be taught is taught thoroughly and at the time it is introduced in the program" (Engelmann, 1999, p. 4).	"Students need extensive, successful, independent practice in order for skills and knowledge to become automatic" (Rosenshine, 2012, p. 38).	"Independent practice: Have students continue practice until skills are automatic" (Archer & Hughes, 2011, p. 4).	"Independent practice contributes to the consolidation phase. Independent practice or homework provides students the opportunity to practise new content and skills and to internalize concepts or processes" (Hollingsworth & Ybarra, 2009, p. 250).	"Independent practice should be provided in enough different contexts that skills, strategies, and concepts can be generalized into subsequent contexts- not only those in which they were originally learned" (Goeke, 2009, p. 76).
Spaced vs. massed practice	"A pattern of massed practice in the first several lessons and systematic review in subsequent lessons is critical for retention" (Carnine, 2006, p. 22).	"Engage students in weekly and monthly review to develop well-connected and automatic knowledge" (Rosenshine, 2012, p. 39).	"Weekly and monthly reviews" (Archer & Hughes, 2011, p. 4).	"Periodic review" (Hollingsworth & Ybarra, 2009, p. 245).	"Daily review emphasizes the relationships between lessons so that students remember previous knowledge and see new knowledge as a logical extension of content already learned" (Goeke, 2009, p. 64).

Table 2.1 shows that an effective EI lesson is achievable – the experts even disagree that teachers do not have to teach the lesson perfectly for it to be legitimate! (Rosenshine, 2008). Because it is unscripted, EI is necessarily open to some interpretation in terms of how clearly and efficiently concepts are communicated to students, but as agreed by influential authors, certain salient patterns (Rosenshine, 2008) or teaching functions (Hunter, 1994) must be adhered to. The lesson objective needs to be clarified by using success criteria that are reinforced throughout the lesson. The concept, skill or knowledge must first be modelled using small steps and examples, together with clear and concise language that does not digress. The skill or concept should then be led through several examples using guided practice until the teacher is satisfied that most students have understood and are capable of independent practice, with continued monitoring until their skills are fluent. Checking for understanding is a fundamental feature throughout the lesson so that the teacher knows when to stop and reteach. Independent practice is then typically followed by a plenary check for understanding the core skill or concept. In the next section, these salient principles are further explained and evidence of them provided.

2.5 Explanation and Evidence for the Instructional Principles of EI

Studies have shown that EI practices are more effective and efficient both for teaching phonological awareness and decoding to struggling readers than novice readers (Alfieri et al., 2017) and compared to whole-language practices (Ryder et al., 2008). However definitive statements about the efficacy of EI are difficult to make because the use of EI components vary across intervention studies (Hughes et al., 2017). While Cognitive load theory (CLT) does not provide evidence for the effectiveness if EI, it sheds light on the importance of beginning each lesson with a review of previous learning; modelling think-alouds; the use of clear, concise language; faded practice and task analysis – all required to faithfully follow the practice of EI (R. E. Clark et al., 2012; Kirschner et al., 2006). The implication of teaching new and difficult concepts like phonological awareness and phonics is that without due attention to EI's instructional design and guided instruction "this knowledge acquisition is likely to be severely compromised" (Kirschner et al., 2018, p. 3).

Cognitive Load Theory is concerned with instructional design for the efficient and effective transfer of information from working memory to long-term memory (Kirschner et al., 2018; Sweller et al., 1998). It proposes that humans possess both short- and long-term memory (Sweller et al., 1998), and the goal for teachers is to transfer information to long-term memory, because without doing so nothing has been learned (Sweller, 2009). Sweller was a strong proponent of explicit instruction and minimal guidance over constructivist approaches (Kirschner et al., 2006; Sweller, 2016).

CLT is also concerned with the amount of effort expended by working memory when engaged in a learning activity (Sweller et al., 1998). If the amount of information exceeds students' ability to

process it, they will struggle to complete the activity successfully. Learning new and difficult information will be constrained, because the processing power in working memory (or area of the brain responsible for conscious thought) can only process between three and four items of new information at a time (R.E. Clark et al., 2012; Kirschner et al., 2006; Cowan, 2001). For this reason, letter-sound knowledge is most effectively presented in a structured way.

Cognitive load consists of germane, intrinsic and extraneous load (van Merrienboer & Sweller, 2010). In an EI lesson, all the steps taken to help students retain and process new knowledge reduces germane load. Metaphorically, it can be compared to a sturdy wheelbarrow, in that germane load bears the necessary information to create simple schemas and transfer information to long-term memory where more complex schemas are formed. In this sense, catering for germane load is very much about what the teacher does in a lesson. Closely related to intrinsic load (Kirschner et al., 2018) and managed by the teacher, a significant volume of practice enables processing; multiple repetitions of new sounds are accompanied by chanting, gesturing, pulling down the sounds, songs and repetition. In doing so, teachers create a space in working memory for processing to take place and enable children to create simple schemas, gradually expanding them.

Intrinsic load describes the prior knowledge a child brings to a learning task. Novice learners have fewer knowledge structures and weaker connections between items than expert learners (Rosenshine, 1997), and in such cases, reading is unnatural and difficult to acquire because it is not hard-wired in the brain (Seidenberg, 2013, 2018; Sprenger, 2013). Teachers should be aware of what each student brings to the task and compensate for low letter-sound knowledge, poor phonemic awareness or speech difficulties in order to anticipate their needs for extra support with “additional examples, explanation and elaboration to provide additional clarity” (Hollingsworth & Ybarra, 2009, p. 197).

Intrinsic load is also imposed by the complexity of knowledge (Sweller et al., 2011). In EI, teachers manage intrinsic load by purposely accessing prior knowledge through a review of relevant concepts at the beginning of each lesson, and uses task analysis or Analysis of Knowledge (Engelmann & Carnine, 1991) to teach in small steps. Careful use of task analysis and sequencing facilitates moving from simple to more difficult concepts.

Extraneous load is managed by careful presentation (Sweller et al., 2011) and is directly related to how teachers instruct the subject (Westby, 2018). Extraneous load is negative in the sense that it does not assist learning (Westby, 2018), and for this reason teachers’ language needs to be clear, concise and unambiguous, and the “model-lead-test” sequence should comprise modelling, think-alouds and faded instruction (Rosenshine, 1997). In practice, this means that students are at risk of non-pertinent, deviant information flooding their extraneous and intrinsic load that “may be fatal to

learning because working memory may be exceeded" (Westby, 2018, p. 10). It also highlights the benefit of teaching students only one PA skill or phonic sound at a time, and following the same instructional routine.

Cognitive load theory not only supports the development of schemas in long-term memory, but also their automation and freeing up working memory (Sweller, 2011), so that students can master vital mappings between spelling and meaning (Castles et al., 2018). Developing automaticity in letter-sound correspondences and using systematic mappings of phonemes and orthographic components help novice readers decode new words (Ehri, 2014; C. Snow & Juel, 2005) by allowing word-specific sublexial connections to be formed in the brain (Ehri, 2014).

In summary, CLT instructional design and delivery supports the explicit teaching of literacy to novices because literacy is a secondary, not primary knowledge skill (D. Geary, 2008; D. C. Geary & Berch, 2016). Despite half a century of empirical research in favour of CLT for teaching cognitively complex material to novice learners over constructivist methods (Kirschner et al., 2006; Sweller, 2011), education practices continue to disregard human cognitive architecture (Sweller, 2011). One possible difficulty for early childhood teachers' enactment of EI is that they may be wholly unfamiliar with CLT and its significance.

The plethora of research-based principles to be enacted within a single EI lesson further complicates practice. This is because "the terms explicit teaching or direct instruction are summary terms for recent findings on effective teaching, and refer to a systematic method of teaching with an emphasis on proceeding in small steps, checking for students' understanding and achieving active and successful participation by all students" (Rosenshine, 1987, p. 88). The terms "systematic" and "method" are important parts of the message, since the principles of EI design and delivery are supported by the research on neuroscience, cognitive effects and teacher effects (Rosenshine, 2012). Nevertheless, these demands are complex to put into practice. Even for teachers who grasp that the components of EI are part of a systematic pattern of instructional design, the degree to which they implement each one varies depending on student responses, subject matter and the extent to which the relevant component, such as checking for understanding, is effectively implemented by the teacher (Doabler et al., 2017; Hughes et al., 2017).

A further problem is that these research-based components require considerable forethought, preparation of resources and planning for learning in incremental steps. Nonetheless, converging research evidence over the past four decades specifies the design and delivery components for maximising student outcomes as: setting clear learning objectives, explicit and unambiguous presentation, guided and extensive practice of examples, rapid pacing, active student involvement and engagement, data-based instruction and explicit teaching of metacognitive strategies (Hattie,

1992, 2009; Kavale, 2007; Kavale et al., 1999; H. Swanson & Deshler, 2003; H. Swanson et al., 2013; Walberg, 2010; Wang et al., 1987; Wittrock, 1986). This is significant, because there is evidence of increased administrative workloads for teachers in Australia impacting them adversely and "severely threatening to overwhelm teachers' professional focus on teaching and student learning" (McGrath-Camp et al., 2018, p. 2). It is therefore essential for instructional leaders to facilitate a clear policy on teachers' systematic and collective use of EI design and delivery components that influence student learning, because research shows that teachers are the most important school-related factor for student achievement (Hattie, 2009, 2012b; Marzano et al., 2011).

Cognitive research shows that activating prior knowledge at the start of a lesson helps students learn and retain more. The process integrates new learning (Gagné et al., 1988; Kole & Healy, 2007) and provides an important scaffold for learning (Hattie, 2009; Mayer, 2004; Slavin, 2013). Connecting new knowledge with previously stored, related memories allows the brain to transfer new skills, knowledge and concepts from short- to long-term memory by activating meaningful connections (Schneider & Chein, 2003; Shing & Brod, 2016). In the absence of a meaningful connection with prior relational memory, there is a risk that new knowledge will remain in working or short-term memory for only 20 to 30 seconds, before being discarded by the prefrontal cortex (Kirschner et al., 2006; Schneider & Chein, 2003). Pollock summarised the efficacy of activating prior knowledge in the following way: "The beginning of the lesson should fire the students' neurons in anticipation of new information to be learned… In neurological terms, if the right neurons fire, then the information will connect and be more easily retrieved when you need it again" (Pollock, 2007, p. 66).

Research into teacher effects also supports a review of previous learning and starting lessons with a short statement about the lesson objectives or goals (Gagne et al., 1992; Hunter, 1994; Stevens, 1986). Synthesis studies show that goal setting has a tendency to enhance learning (Lipsey & Wilson, 1993; H. Swanson & Deshler, 2003), especially when used together with feedback and corrective instruction (Creemers, 1994; Marzano, 2007; Pollock, 2007). Hattie's meta-analyses of content goal setting showed an overall effect size of $d = .56$, with a greater effect size for more complex and challenging goals ($d = .66$), attributed to successful attainment and clarity around the behaviours needed to achieve the goal (Hattie, 2012a). The implication for EI lessons is not only that the lesson objective is stated, but that it is pursued with task-analysis, with teacher modelling and faded practice. The research on goal setting is complex and indicates that success depends on variables such as task complexity, persistence, strategies and effort (Martin, 2013). With regard to teacher efficacy, the research highlights goal setting as a key characteristic (Cotton, 1995; Creemers, 1994). In EI, lesson objectives should be made clear to the students (Gagne et al., 1992) and pursued throughout the lesson in a cognitive way, directly teaching factual, conceptual, procedural and metacognitive

knowledge to track progress. Frequent assessment of students' learning is also recommended (Dunkin & Biddle, 1974; Hattie, 2012b; Slavin, 2013).

Setting goals and providing feedback go hand in hand (Hattie & Timperley, 2007; Marzano, Pickering, et al., 2005; Timperley, 2013) since feedback must relate to the learning goals for students to improve their learning (Pollock, 2007). Feedback may be understood differently when teachers use a balanced and intentional approach; as advocated in Australia's Early Years Learning Framework (DEEWR, 2009): "when teachers provide authentic experiences... there are opportunities for intentional teaching, opportunities to notice, recognise and respond to particular children and the group… In the course of worthwhile experiences, skills are not seen as an end in themselves" (Lennox, 2012, p. 36).

Feedback and setting objectives were also supported by Marzano's meta-analysis *(d = .61)* (Marzano et al., 2000; Marzano, Pickering, et al., 2005), as well as Kavale's meta-analysis of effective instructional practices for students with learning difficulties *(d = .97*) (Kavale, 2007). While these meta-analyses are important summative tools for deciding which practices are important for classroom practice, they do not provide definitive answers for the practice of phonics or EI in the early years classroom, because they do not relate to combined studies on feedback and setting objectives in the same. However, the way in which feedback is provided and the quality of the feedback can impact its efficacy (Hughes et al., 2017; Shute, 2008), which is why key authors of EI are careful to specify how it should be used (Archer & Hughes, 2011; Hollingsworth & Ybarra, 2009). Feedback that includes explicit guidance raises attainment and self-efficacy and encourages risk taking (Brookhart, 2009; Hattie & Timperley, 2007; Marzano, Pickering, et al., 2005; Shute, 2008). Research also shows that when students are asked to respond in unison or make active responses to teacher questioning, response levels, learning and participation levels are raised compared to single student responses (Gardner et al., 1994). More recent research confirmed greater engagement, academic achievement and on-task behaviour in mathematics classes when students were asked to write and hold up their responses on cards or whiteboards compared to raising their hands (Christle & Schuster, 2003; Heward & Wood, 2015).

Advocates of an intentional approach and the Early Years Learning Framework (DEEWR, 2009) argue that asking groups of children to respond to alphabet flashcards "fails to connect to children's current understandings, knowledge and interests with new understandings and new knowledge in an integrated and holistic way" (Radich, 2012, p. 7). Radich's (2012) position contrasts with research that supports participation, feedback and learning objectives, and misconstrues the use of flashcards and group response in EI.

Research on teacher effects demonstrates that teaching is most effective in small steps and when it follows a "model-lead-test" sequence accompanied by guided practice (Hunter, 1992, 1994; Pollock, 2007; Stevens, 1986). Teaching in small steps is supported by decades of research (Brophy, 1986; Gagne et al., 1992; Hunter, 1994; Rosenshine, 1971; Stevens, 1986). The sequence of explaining and modelling skills and strategies using metacognitive language, scaffolded or guided practice and gradual release, followed by corrective feedback and independent practice (Hattie & Timperley, 2007; Timperley, 2013) is also well established in the research. Modelling skills using think-alouds and clear, concise instruction (Creemers, 1994) is supported by research on cognitive effects (Rosenshine, 1997). Starting with a review of the main concept and repeatedly referring to it during the lesson has been shown to aid both memory and understanding in students (Sprenger, 2013). Neuroscientific research is aligned with task analysis inherent in EI, whereby novice learners benefit from sequencing cumulative information in a carefully considered manner to support incremental learning (Goswami, 2008a). Presenting ideas gradually and progressively allows students to form meaningful concepts and store them in a stable way in long-term memory (Riding, 2002). Once again, this contrasts sharply with the intentional approach, where "the needs and interests of the child must drive the curriculum… and organised learning experiences for children; when an unexpected situation arises" (Radich, 2012, p. 7).

Teaching material in meaningful chunks enhances memory and increases the amount of prefrontal activity when encoding words (Sprenger, 2013). Allowing students to practise these skills in steps before attempting more complex tasks reduces cognitive load and prevents them from feeling overwhelmed by the task (Clarke et al., 2005). This aligns with the principles of mastery learning, where children demonstrate successful learning of small units before proceeding to the next step (Wardle, 2009). Moving students through guided practice lock-step with close monitoring by the teacher means that novice learners can "construct and reconstruct knowledge" (Rosenshine, 1997, p. 203) without practising errors or developing misconceptions (T. Good & Grouws, 1979; Hunter, 1994; Stevens, 1986). Breaking down complex concepts into subskills that students master in a step-by-step fashion and learn in a logical sequence is aimed at reducing strain on working memory and cognitive load, particularly helpful for novice learners (Archer & Hughes, 2011; R. E. Clark et al., 2012; Clarke et al., 2005; Hughes et al., 2017; Mayer et al., 1999; H. Swanson & Deshler, 2003). The emphasis on teaching to mastery is consistent with research on "mastery experiences", the most potent determinant of self-efficacy (Bandura, 1997). Engelmann (1999) observed students' success raised their efficacy beliefs. Teaching to mastery was also identified as a key factor in other research on teacher effectiveness (Creemers, 1994; Hunter, 1994), while strategies such as faded practice, metacognitive strategies (*d = .67*) and use of feedback (*d = .72*) (Hattie, 2009) were considered by

Wolfe (2010, p. 161): “amongst the most powerful strategies to increase retention, understanding, and students’ abilities to apply the concepts they are learning”. Solid-evidence, expressed as an overall effect size was not provided in the meta-analyses because the efficacy of EI was broken down into its component parts. The effect size of DI (*d = .60)* (Hattie, 2009) arguably reflected a well-executed EI lesson. Nevertheless, the difficulty for teachers to execute an unscripted form of direct instruction at the same level of efficacy was raised by Engelmann (2014) in view of DI’s tight curriculum design and “extensive overlap of teaching procedures” (Archer & Hughes, 2011, p. 15).

Liem et al.’s rebuttal claimed that the practices underpinning EI are the same and therefore effective:

> A consistent pattern identified in our previous reviews points to the effectiveness of Direct Instruction (DI), a specific teaching program, and of specific explicit instructional practices underpinning the program (e.g., guided practice, worked examples) in maximising student academic achievement (Liem & Martin, 2013, p. 368).

In summary, since EI is supported by scattered cumulative research on teacher effects (Brophy, 1986, 2010; Hattie, 2009; Hunter, 1994; Kavale, 2007; Rosenshine, 1971, 1986), neuroscience (Rastle & Taylor, 2018; Sousa, 2006; Taylor et al., 2017) and cognitive effects (Ayres & Sweller, 2013; Baddeley, 1998; Bruner, 1977; Gagné, 1977; Gagne et al., 1992; Sweller, 1994, 2009, 2016), it is difficult for teachers and their coaches to appreciate how the research feeds into a clear message about the principles of design and delivery. Principals who understand the research have been able to align this message with a coherent policy on the salient features of EI, which has been shown to raise student attainment in Australian schools (Jensen, 2014; Masters, 2010). In the next section, other issues that influence teachers’ implementation of this complex pedagogy are discussed.

2.6 Issues that Influence Teachers’ Implementation of EI

This thesis argues that the quality of instructional leadership for teachers influences their enactment of EI. Teachers require significant professional learning and ongoing support, in addition to structured conditions for addressing their beliefs, understanding their purpose as early years teachers and expanding their pedagogical content knowledge.

2.6.1 Teacher Beliefs

Although research reviews over the past three decades support the use of explicit instruction in literacy and maths for children with learning difficulties (Christenson et al., 2016; Graham & Harris, 2009; Graham et al., 2012; Kroesbergen & Van Luit, 2016; Kroesbergen et al., 2004; Solis et al., 2012; E. Swanson & Vaughn, 2011; H. Swanson & Sachse-Lee, 2016; Vaughn & Linan-Thompson, 2004) teachers are inclined to seek personal alignment between their values about learning and their

actions, which are in turn, linked to their teacher autonomy and motivation (G. G. Duffy, 1998). Teacher beliefs and values are a form of generalised fact that teachers believe to be true or certain (O'Donnell, 2019). They are important considerations because: “teacher educators see changing the beliefs of teachers as essential to education reform” (O'Donnell, 2019, p. 41). Given that literacy instruction debates have persisted about what constitutes appropriate practice in the early stages of literacy development (Castles et al., 2018; Lewis & Ellis, 2006), teacher beliefs in ECE may not always align with direct instruction (Campbell, 2015). Furthermore, teachers may be sceptical about the relevance of scientific-based approaches to teaching reading (Seidenberg, 2018). A teacher-led stance is therefore challenging for early childhood teachers, because a more widely accepted underlying progressive philosophy is gentler and more palatable. Another factor impacting on early childhood teachers’ acceptance of a teacher-led stance is that the dominant philosophy in early childhood learning theory has been constructivism (Ebbeck & Waniganayake, 2016; Yelland, 2005), and teachers have spent many years refining and embedding constructivist practices (Hammond & Moore, 2018) before adopting EI, a very different pedagogic approach, for teaching phonics and phonological awareness. Early childhood teachers’ understandings and beliefs about teaching and learning are therefore deeply influenced by the progressive and constructivist theories of Piaget and Vygotsky (Stephen, 2012). In practice, this means that teachers struggle to embrace other approaches, due to the dominant philosophical underpinnings in teacher education programs and developmental theories in early childhood education (Yelland, 2005).

For instructional leaders introducing EI this poses a problem, because teachers need to have positive beliefs about their ability to impact on student achievement. Both DI and EI are rooted in a particular ideological standpoint that all children can and should be successful learners regardless of their background (Archer & Hughes, 2011; Engelmann, 2007). The popularity and success of EI in turning around underperforming schools has been attributed to its use by school leaders to change teacher beliefs about students’ abilities to learn, regardless of the odds stacked against them (Slavin, 1996, 2013). Collective teacher efficacy refers to the beliefs held by teachers regarding their ability to raise student attainment (Donohoo, 2017). In view of Bandura’s finding that the perceived collective efficacy of teaching staff has a stronger effect on student attainment than students’ socio-economic backgrounds (Bandura, 1993), this is of particular relevance for instructional leaders introducing EI in schools. Bandura (1977) found effort and behaviour linked to beliefs (Bandura, 1977), and more recently, added mastery experiences, vicarious experiences, social persuasion and affective states as influencers of self-efficacy (Bandura, 1983). Since ideological beliefs are central to teachers’ practice, introducing a new instructional approach requires changing long-held teacher beliefs (Joyce & Showers, 1995), in this case a preference for child-led learning. This has significant implications for

teacher learning (Donohoo, 2017) and perhaps explains why the choice of aligned professional learning structures by some school leaders have impacted successfully on whole-school student attainment. Professional learning that changes existing practice needs to address the inherent value and benefits of changing those practices to encourage widespread adoption (P. S. Westwood & Graham, 2003). Joyce et al. argued that for schools to raise attainment: "Essentially, what is needed is an elevating belief system, one where the idea that schools can increase learning capability is central" (Joyce & Showers, 1995, p. 163). Hattie (2009) categorised teaching practices as effective and ineffective, based on interventions that showed an average gain of *d = 0.40* and above. As shown in Figure 2.2, the average effect size for teacher-led activities, such as providing feedback, have higher effect sizes than Inquiry Based Teaching. Hattie's (2017) research supports the teacher as activator rather than facilitators of knowledge, and calls attention to the need for direct teaching.

Table 2.2 *Factors Influencing Student Achievement (Hattie, 2017)*

Instructor	**Effect Size**	**Facilitator**	**Effect Size**
Reciprocal Teaching	.74	Inquiry Based Teaching	.31
Feedback	.72	Problem-based learning	.15
Metacognitive strategies	.67	Whole language	.06
Direct Instruction	.59	Inductive teaching	.06
Mastery Learning	.56	Student control over learning	0.4

Hattie argued that in order to be effective, teachers need to see themselves as "change agents – not as facilitators, developers or constructivists" (Hattie, 2012b, p. 161) so that student achievement is redirected to pedagogy and the belief that all children can attain. Advocates of teacher-led learning believe all students can learn successfully, that data-driven practice is important and it is no longer acceptable for some children to fail to achieve at school (Archer & Hughes, 2011; Buckingham et al., 2013; Hollingsworth & Ybarra, 2009). This position is problematic for teachers who are typically vocational and less concerned with results, rather focusing on the holistic development of the child (Heilbronn et al., 2015).

It is difficult for early childhood teachers to adopt teacher-led learning because play is recognised as one of the cornerstones of early childhood curriculum. There is an entrenched belief that "this is how children learn" (Ebbeck & Waniganayake, 2016, p. 29) and their emotional wellbeing rests on being allowed to play in early childhood settings (J. A. Johnson & Dinger, 2012; Radich, 2010).

The EYLF understandably emphasises the importance of relationships and wellbeing in early childhood: "wellbeing refers to feeling, being at ease and free of emotional tensions... self-esteem, resilience and a sense of agency" (Ebbeck & Waniganayake, 2016, p. 32). While play-based learning is associated with freedom, pleasure, choice and intrinsic motivation (Ebbeck & Waniganayake, 2016), in EI, the teacher is in complete control and uses a high level of structure (Rupley et al., 2009). These concepts have a powerful impact on how teachers cope with change and how their beliefs inform their teaching practice:

> Beliefs shape expectations of what will happen, and we prepare to respond to events based on those expectations. Teachers act on their beliefs about what good teachers do… Teachers' beliefs are probably the most important factor in determining the success or failure of a new approach to teaching (O'Donnell, 2019, p. 41).

A recent Australian study on early childhood teachers declared: "Almost all educators reported the view that phonics should be taught through play-based and meaningful experiences such as singing, rhymes, dramatic play and shared reading of picture books" (Campbell, 2015, pp. 18-19). What is interesting about Campbell's study is that there was not only division between the early childhood teacher participants who felt that explicit and systematic teaching was best, but that whole-language approaches, child-led and embedded phonics remained so strong in teacher practices and beliefs (Campbell, 2015). Early childhood teachers are familiar with child-centred practices and have had many years to embed them into practice, making it difficult to transition to explicit, systematic practices (Hammond & Moore, 2018).

Barblett et al.'s (2016) study on the erosion of play-based learning approaches in Western Australian early years classrooms found that teachers resented "being directed by principals to teach in ways that clashed with their philosophical beliefs" and were "required to teach not based on how I was trained necessarily or on what I value, but what the school expectations are" (Barblett et al., 2016, p. 40). These are serious concerns that need to be heard by instructional leaders adopting EI.

Perusal of the literature revealed that literacy proponents of DI and EI take a more scientifically verified view than advocates for child-led approaches to phonics (Buckingham et al., 2014; Castles et al., 2018; Foorman & Moats, 2004; Hempenstall, 2016; Moats, 2010, 2016; Reynolds et al., 2010; Wheldall). Some supporters of progressive ideology embrace discourses that elevate the child as a capable learner, regardless of their background or cognitive resources (Barblett et al., 2016; J. A. Johnson & Dinger; Larson & Marsh; Leggett & Ford, 2013; Radich, 2010). On the one hand, EI advocates argue their beliefs stem from a child-centred interest that recognises the child's current knowledge and controls teaching to ensure the child is successful (Archer & Hughes, 2011), and on the other,

proponents of play-based, progressive ideologies argue with noticeably stronger imagery, personal beliefs and emotion in their articles (Barblett et al., 2016; S. Edwards, 2017; Lennox, 2012; Ruscoe et al.). This thesis proposes that progressive ideologies in early childhood education are advantageous due to their positive, emotive stance, and teacher-directed instruction has been shrouded by its association with scientific-based research and the deficit base of students who are at risk of reading difficulties.

The role of the teacher as facilitator has been described in nurturing, natural terms (Adey & Michael, 2013; Gray & MacBlain, 2012; Vygotsky & Cole, 1978), whereas a behaviourist teacher-led stance is typically described as authoritative and factual, emphasising observable behaviours resulting from highly structured teaching experiences (Archer & Hughes, 2011; Engelmann & Carnine, 1991; Hollingsworth & Ybarra, 2009). While intentional approaches provide for play-based methods in the teaching of phonics, there is evidence to suggest that early years teachers struggle with downward pressure to teach phonics as prescribed in the Australian Curriculum (Campbell, 2015) and deviate from centrally mandated PowerPoint slides to take the children outside to play (Barblett et al., 2016). In the same study, another teacher reported a lack of laughter associated with teaching approaches that were not play-based (Barblett et al., 2016), which suggests an interpretation of teacher-led learning as an emotionally unsupportive approach, despite key authors explicitly emphasising high levels of student participation and varying response types to "increase students' interest, attention, and pleasure" (Archer & Hughes, 2011, p. 158) using games, paired work, actions, affirmative feedback and praise (Archer & Hughes, 2011).

These fundamental beliefs create difficulties for fully implementing EI because "the way teachers think about EI influences the way they teach… If teachers believe that EI is boring, rote, meaningless and wrong, they will either dismiss it or implement it half-heartedly" (Goeke, 2009, p. 10). This may seem trivial, but is in fact crucial for instructional leaders and teachers' putting EI into practice in the classroom. Teachers' enthusiasm and passion for teaching and learning have been identified as important attributes of capable teachers (Hattie, 2012b; Steele, 2009), yet partial, rather than fully guided practice has implications for cognitive load and learning (R. E. Clark et al., 2012). Capable teachers believe they are responsible for each student's success and they care and show delight when students are successful (Steele, 2009), attributes keenly emphasised by proponents of EI (Archer & Hughes, 2011; Hollingsworth & Ybarra, 2009). Steele (2009) concluded that helping students enjoy subject matter and the process of learning is part of competent teaching methodology (Steele, 2009). Coupled with a perception that EI cannot be fun, lively, exciting and stimulating (Moats, 2014a) or involves games and hands-on activities frustrates implementation of the full complement of principles in a phonics and phonological awareness lesson. The perception that EI is essentially a

passive method (Goeke, 2009) has also been shown to encourage teachers to include constructivist activities in the "model, lead,test" phases of EI lessons or to abandon those key phases altogether.

If we accept the argument that scientific research backs the explicit, systematic teaching of phonics and phonological awareness to novice or students with literacy difficulties (Chapman & Tunmer, 2011; Connor et al., 2004; Hattie, 2012b), then we must also acknowledge the criticism that randomised controlled field trials are valued over teachers' opinions (Biesta, 2007). Sanderson (2003) argued that teachers will exercise their own professional judgement: "The question for teachers is not simply 'what is effective', but rather, more broadly it is, 'what is appropriate for these children in these circumstances'" (Sanderson, 2003, p. 341). For example, children from lower socio-economic backgrounds are less likely to have had experiences that encourage the acquisition of prerequisite skills such as phonological awareness (Buckingham et al., 2013) and teachers may consider EI more pertinent to those students.

In conclusion, instructional leaders must recognise that giving up long-held beliefs and classroom practices is more difficult than adopting new ones (Fullan & Ballew, 2004). The role of teacher beliefs in resisting the adoption of EI as a signature pedagogy needs further research, as does the impact of teacher beliefs on the principles of EI delivery, because the research keeps coming back to the idea that quality teaching is measured by its impact on student progress.

2.6.2 Pedagogical Content Knowledge

Because EI is difficult to enact in practice, teachers require sophisticated levels of pedagogical content knowledge (PCK) to be successful. Shulman (1986, 1987) solved the debate about whether teachers needed more content or pedagogical knowledge to achieve success (O'Donnell, 2019). He defined PCK as "the blending of content and pedagogy into an understanding of how particular topics, problems or issues are organised, represented, and adapted to the diverse interests and abilities of learners, and presented for instruction" (Shulman, 1987, p. 4). This section examines important issues raised by Shulman (1987, 2004) regarding the complexities of teaching and their pertinence to instructional leadership of EI.

Firstly, Shulman was critical of reductionist interpretations of teaching effectiveness. His (1987) article, republished as part of a compilation of his work in 2004, argued that empirical studies on teacher effectiveness, summarised by Brophy and Good (1986), Gagne (1986) and Rosenshine and Stevens (1986), were used unfairly as checklists for rating teacher competence. Shulman (1987, 2004) was not arguing against empirical findings, but rather their misinterpretation, which is of critical interest because Shulman claimed that when teachers were marked down for not stating a lesson objective "he or she was marked off for failing to demonstrate a desired competency. No effort was made to discover whether the withholding of an objective might have been consistent with the form

of the lesson being organized or delivered" (Shulman & Wilson, 2004, p. 226). In that context, checklist judgements were made against the design and delivery of EI's instructional principles (Hughes et al., 2017; Rosenshine, 2012) with significant implications for learning. An effective coaching system therefore needs to be aligned with professional learning in order to explain why and how the salient principles of EI are important in practice, and coaches should be prepared to model this for teachers.

Secondly, Shulman (1987, 2004) argued that teacher knowledge is complex and necessarily broad. He argued that, at a minimum, teacher knowledge should encompass knowledge of the content, classroom management strategies, scope and sequence of the curriculum, PCK, the individual students, the political and social context of the school, empirical findings as well as an academic knowledge of the philosophy and history of education. There is considerable research on teachers' PCK in science, mathematics and technology (Uzzo et al., 2018), including a study that suggested a link between teachers' content knowledge of mathematics and development of their PCK (Krauss et al., 2008). A more recent study claimed that experienced teachers have greater PCK than preservice teachers (Dobozy & Campbell, 2016). This may be the case in EI, where some teachers have access to EI at undergraduate level, but those who encounter it for the first time in schools need significant support to adapt their practices (Hammond & Moore, 2018).

Support for both pedagogical content knowledge and pedagogical reasoning and action is vital when adopting new pedagogies (Shulman & Shulman, 2004). In terms of content, teachers need sophisticated linguistic knowledge. The difficulty for Australian teachers is that converging research-based evidence demands a considerable amount of knowledge and skill to execute (Gregor, 2013). The extent of this knowledge base is not to be underestimated: it involves not only a paradigm shift for teachers in understanding that reading is a complex process, but is pedagogically demanding in that word identification needs to be taught using semantic, orthographic, phonological and morphological linguistic systems (McEwan-Adkins, 2009). The research concurs that teachers lack this linguistic knowledge (R. A. Cohen et al., 2017; Hammond, 2015; Stark et al., 2016).

Studies have shown that teachers may not themselves have the linguistic understanding required to teach phonics and phonological awareness systematically and explicitly (Moats, 2009), as teaching reading requires a deep understanding of linguistics, knowing how to intervene and correcting misunderstandings (Moats, 1999).

Thirdly, in terms of reasoning, Shulman et al. (2004) argued that teachers need to be able to exercise both judgement and action in transforming subject matter appropriately for their students. This too is pertinent for EI, because without significant support from instructional leadership, teachers may misconstrue it as a passive approach (Goeke, 2009). It is also necessary for teachers to understand the purpose and structure of the discipline, in this case the empirical research behind phonics and

phonological awareness. To develop PCK, Shulman et al. (2004) argued for a model of teacher learning in professional learning communities to allow for both reflection and reasoning. They further argued that accomplished teachers were willing members of professional learning communities (Shulman & Shulman, 2004). In my opinion, this is consistent with the research on instructional leadership in schools that successfully adopted EI. Shulman proposed that in the face of pedagogical change, developing a vision was necessary to align beliefs with practice, garner support from others and provide a clear understanding of the rationale behind practices, in addition to understanding "what must be taught, as well as how to teach it" (Shulman & Shulman, 2004, p. 262).

Finally, while Shulman was critical of reductionist approaches to teacher evaluation, such as using checklists for teacher behaviours, he was positive about signature pedagogies in schools (Shulman, 2005). Louden (2015) reported that two of the four highest achieving schools in his study used EI as their signature pedagogy, but acknowledged that the other two schools had instructed their teachers to use high-leverage practices. While some would argue that effective teaching is not possible "through a one-size-fits-all prescription" (Santrock, 2018, p. 6), it has been widely accepted that effective teachers are caring and have high levels of professional knowledge and skill. Proponents of EI are critical of teachers choosing methods based on ideology rather than research-based practice as expected in other professions (Wheldall, 2005). In adopting EI, teachers need the support of both pedagogical content knowledge and pedagogical reasoning and action (Shulman & Shulman, 2004), as well as a willingness to play the role of teacher as activator of knowledge from start to finish.

Shulman (2005) argued that the value of signature pedagogies lay in their ability to simplify the complexities of teaching "because once they are learned and internalized, we don't have to think about them; we can think with them" (Shulman, 2005, p. 56). An important issue not yet addressed is whether deep PCK is enough to sustain EI practice over the long term, an important consideration for instructional leaders who wish to sustain successful EI practice. The research on effective professional learning and successful instructional leadership in EI are discussed in the next section.

2.6.3 The Importance of Effective Professional Learning

In this section, the four ways in which instructional leaders in Australia have successfully translated EI into practice are discussed. Effective professional learning is important in EI because of its complexity, and merely insisting that early years teachers use empirically-based approaches, such as EI, is not enough. Snow and Juel asserted: "We argue that doing a good, responsive job of explicit phonics teaching... with teaching for meaning requires very high levels of teacher skill, which will only develop with extensive pre-service and in-service support" (C. Snow & Juel, 2013, p. 733). Other researchers went on to say that professional learning in EI must be positive and intensive because "professional learning deals with mastery of new ideas and information and the development of new

skills… and even adjusting some attitudes and beliefs" (Caine & Caine, 2010, pp. 12-13). An extensive review of research studies found that effective professional learning for teachers is intensive and involves between 30 and 100 hours (Darling-Hammond & Richardson, 2009; Yoon et al., 2007). These authors found that effective professional learning is focused on skill sets and provides opportunities for practice in the classroom together with feedback (Darling-Hammond & Richardson, 2009; Yoon et al., 2007). The view that long-lasting change requires intensive, ongoing and deliberately managed transference into the classroom (Darling-Hammond & Richardson, 2009; Guskey & Yoon, 2009) is consistent with EI (Hammond & Moore, 2018). An examination of the literature on schools that have successfully raised attainment in literacy with EI revealed that instructional leaders helped teachers to develop mastery of EI and adjust their skills and beliefs in four ways.

The first of these was using walkthroughs and public praise for reinforcing EI's salient behaviours (Boyd & Higgins, 2018). Weekly visits to every classroom aids alignment and encourages school leaders to get out of their office and into the classroom to focus on the business of teaching and learning (Mooney & Mausbach, 2008). However, Mooney et al. cautioned that unless school leaders understand the powerful teaching and learning practices and focus on them, walkthroughs simply add to the "collective ignorance of the group" (Mooney & Mausbach, 2008, p. 139). Focusing teachers' actions on particular EI strategies, such as "I do, We do, You do", as part of the vision for transferring learning from short to long-term memory were also identified by successful leaders of EI (Boyd & Higgins, 2018). Schools that were successful in implementing EI provided significant professional learning focused on its practices, and celebrated staff that exhibited EI behaviours (Boyd & Higgins, 2018; Fleming & Kleinhenz, 2007). In the same way, Fleming (Fleming & Kleinhenz, 2007) warned that professional development in EI and teacher-led learning needs to be aligned with the school's action plan, consist of teaching practices that can be implemented and evaluated straight away, be implemented in a non-judgmental way in a climate of trust, and conducted so that teachers can share their experiences with others (Fleming & Kleinhenz, 2007).

Secondly, research into successful schools using EI highlighted principals who modelled and coached staff in effective practices (Louden, 2015) as an important variable. Marzano, Waters and McNulty (2005b) explained that effective coaching involves a principal who can "provide a model for the behaviour of the teachers" and who "engages in frequent classroom observations" (pp. 15, 18). Fleming's approach to EI involved active demonstration of relevant teaching practices in the classroom by the leadership team, in addition to coaching and mentoring teachers, with particular emphasis on EI practices and pacing to maintain student focus (Fleming & Kleinhenz, 2007). Fleming's presence as a model and coach is implied rather than stated, but is an important point (Fleming & Kleinhenz, 2007). Robinson et al.'s (2008) first meta-analysis on leadership practices that impact on student

achievement showed a large impact size for leaders who actively encouraged and engaged in professional development themselves (*d = .84*) (Robinson et al., 2008).

Thirdly, effective school leaders of EI provided sustained and intensive instructional coaching and mentoring to every teacher in the school (Fleming & Kleinhenz, 2007; Louden, 2015). Sustained and intensive professional learning is necessary, because the research shows that fewer than 14 hours has little effect on student achievement (Darling-Hammond & Richardson, 2009; Yoon et al., 2007). Studies have also shown that coaching helps teachers to master new skills, transfer them from professional learning into practice and sustain them over time (Joyce & Showers, 2002; Showers, 1982). Coaching supports teachers in the practices they do well and helps them solve problems in practice through feedback sessions following observations (Gabriel, 2005) or detailed, positive written feedback (Hammond & Moore, 2018). Investigations into effective coaching for embedding EI in WA found teachers responded best to coaching that was positive in tone and detailed in feedback, not overwhelming and specific (Hammond & Moore, 2018). Coaching not only offers interpersonal support, but also encourages reflective practice that is central to changing beliefs and maintaining teachers' autonomy in the face of whole-school instructional change. To this end, Zepeda (2013) recommended a pre-observation conference to build the relationship between coach and teacher and establish a focus for the observation. Coaching and mentoring have been used to deliberate on pedagogy, process new teaching methods and enhance reflective practice (Joyce & Showers, 2002). Furthermore, the research confirms that coaching by peers is effective (Joyce & Showers, 2002; Showers, 1984) when the coach has a solid skill set. However, since EI practices are complex and not aligned with teachers' existing constructivist skill set, coaching needs to be intensive and sustained (Joyce & Showers, 2002).

Instructional coaches should be able to model, set goals, gather data, question, explain and give teachers feedback in an atmosphere of trust, good rapport and confidence building (Hammond & Moore, 2018; Knight & van Nieuwerburgh, 2012). Coaching and instructional rounds also serve to iron out any troughs in implementation that occur with any innovation requiring teachers to change their beliefs and behaviours (Fullan & Ballew, 2004). Darling-Hammond and Richardson (2009, p. 49) described effective professional learning as "intensive and sustained over time". However, coaches "are not unproblematic conduits of reform ideas" according to Gallucci et al. (2010, p. 919), which is why there needs to be an aligned message about the key characteristics and features of EI and why. Without this understanding, coaches and mentors cannot model, answer or develop teachers' understanding of EI as they internalise it. Through modelling the practices for teachers, coaches become "a living reference book of teaching" (Mayers et al., 2013, p. 25).

Fourthly, the schools that turned their performance around created coherence and built staff relationships through sustained structures for teachers to interact and learn from one another (Boyd & Higgins, 2018). Effective principals provided ongoing opportunities for teachers to observe others practising EI successfully (Jensen 2014) using a system of instructional rounds, based on the ways in which medical students learn. Instructional rounds have been used in schools to allow teachers to learn by observing skilled practitioners, engaging in a network of teachers and as an improvement strategy (City, 2011). This aspect of instructional leadership provides both a valuable instructional resource and a credible form of in-service training that prioritises teachers' instructional concerns (Marzano, Waters, et al., 2005).

This section examined how professional learning can adjust skills, beliefs and practices to align with deliberate structures and ensure that research-based practices are transferred into the classroom. An important aspect of professional EI learning not yet addressed is whether micro-teaching or videotaping teaching for peer review enable teachers to critically analyse parts of their EI lesson. In the next section, further practices used by instructional leaders to introduce EI are reviewed.

2.6.4 Instructional Leadership

This section discusses the need for instructional leaders to align specific variables in order to alter teachers' will, skills and knowledge for successfully raising attainment with EI as a signature pedagogy. The term "instructional leadership" emerged in the 1980s and has been defined, in part, as "promoting schoolwide reform and ensuring the access of children to effective, scientifically based instructional strategies and challenging academic content" (Zepeda, 2013, p. 4). Instructional leadership in this thesis refers to the management of curriculum, curriculum delivery, and instruction, with a particular emphasis on the impact on student learning. Changing instructional practices requires the development of an instructional vision for the school, a culture of trust, providing support and resources for professional learning, monitoring the impact of instruction and innovation, and a positive climate that supports learning (Spillane et al., 2004). The following section examines how successful instructional leaders have aligned the design of professional learning in very specific ways to ensure student access to EI's research-based strategies and challenging curriculum.

Both the Turning Around Schools: It can be Done Report (Jensen, 2014) and the Teaching and Learning School Improvement Framework Report (Masters, 2010) identified EI as the signature pedagogy in Australian schools largely responsible for turning around performance. The reports also recognised specific instructional leadership design variables for transferring EI's research-based practices into the classroom and raising attainment (Jensen, 2014; Louden, 2015; Masters, 2010). These variables include a positive school-culture, data-driven practice, a shared curriculum, principals who model and coach, ongoing feedback, implementation of clearly defined practices and teacher

collaboration in professional learning (Jensen, 2014; Louden, 2015; Masters, 2010). Although not stated in the reports, these variables correspond with research findings on leadership from the middle and reinforce the failure of top-down and bottom-up reforms (Gross 1971) to raise attainment in literacy and numeracy (Hargreaves & Ainscow, 2015; Schleicher, 2015). Strategies for leading from the middle include developing a sense of collective responsibility for students who struggle, local curriculum design, shared strategies among schools and professional learning communities where same-grade teachers interact with respected peers. Other studies point to staff collaboration, joint planning and teachers accepting collective responsibility for all children's success (Hargreaves et al., 2012).

School leaders who adopt direct or explicit instruction to raise literacy attainment need to do so in a positive school culture that emphasises taking responsibility for the success of all students in the early grades (Slavin, 2005). To this end, some school leaders began by creating a culture of academic success or whole-school vision aligned with successful implementation of EI, high expectations and positive student-teacher relationships (Boyd & Higgins, 2018; Fleming & Kleinhenz, 2007). Changing school culture from a "deficit" to "constructive" theme of successful teaching and learning was also deemed important (Boyd & Higgins, 2018; Fleming & Kleinhenz, 2007). However, Mooney et al. (2008) argued that an intense focus on teaching and learning needs to first be grounded in a vision statement of shared beliefs, values and understanding in order to change the status quo (Mooney & Mausbach, 2008). Articulating a vision of shared beliefs and values is deemed a necessary first step in the literature on transformational school leadership, because school culture is "the sum of... behaviours, norms, beliefs, values and assumptions of the school community, and they influence the ways in which people respond to planning and implementing school improvement" (Zepeda, 2013, p. 24). School leaders adopting EI should first seek to understand the existing school culture or "the way things are done around here" (Barth, 2002, p. 1) before developing that vision (Boyd & Higgins, 2018). Others argue that tapping into the moral purpose of teachers by creating a culture of high expectation within a vision of developing students' full potential is important for making whole-school improvements (MacNeill & Silcox, 2006; Silcox et al., 2015). Developing a vision for teaching and learning generates a sense of urgency when teachers can see the gap between their vision and the reality for students (Mooney & Mausbach, 2008). This sense of urgency and intensified focus is a feature of aligned leadership for improving teaching and learning (Mooney & Mausbach, 2008).

In some Australian schools that adopted EI, aligning efforts for improving teaching and learning was started by setting high expectations for student behaviour and supporting teachers by withdrawing disruptive students so that teachers could teach and students could learn (Boyd & Higgins, 2018; Jensen, 2014). Other Australian schools aligned their efforts by enforcing an

instructional leadership rule of "each change must improve student learning and make teachers' jobs easier" (Jensen, 2014, p. 9). First improving the school culture lays the groundwork for sustainable change (Jensen, 2014) and respects the fact that "resistance is a major factor in the failure of school reforms" (Zimmerman, 2006, p. 246). Indeed, school reforms that end in failure (Fullan & Hargreaves, 1996) should signal to school leaders a need to align their vision with a deliberate plan to ensure teachers experience successful implementation of "high-leverage practices that are proven and powerful" (Knight, 2009, p. 512). Aligning these efforts so that each of these processes affect and improve the most essential work of the school, namely teaching and learning, "makes hard work become smart, efficient work" (Mooney et al., p. 28).

Research shows that strong, supportive leadership is critical for the successful implementation of EDI and has a significant effect on student outcomes (Clinton et al., 2017), consistent with research that shows strong, supportive leadership is vital for implementing any new pedagogic intervention (Barber et al., 2016; Mourshed et al., 2007). The literature differentiates between transformational leaders who focus on staff relationships to inspire students to achieve *(d = .11)* and instructional leaders who focus on the quality of instruction and its impact on student data *(d = .42)* (Robinson et al., 2008). John Fleming, an Australian principal who developed his own model of EI, has been identified in the literature as an instructional leader (Drysdale & Gurr, 2011) and strongly advocates for introducing EI in schools. Effective school leaders focus on two variables: setting high expectations for student achievement and effective classroom instruction (Zigarelli 1996, Wang 1999, Stein & Burger 1999, Barth et al. 1999, Taylor, Pressley 2000). Strong leaders focus on evaluating the impact of teaching on results and data-driven practice (Hattie, 2012b). Some of the Australian schools that used EI as an improvement measure set attainment targets for each student and tracked their progress using data-driven analysis (Louden, 2015). The Fleming approach to EI also recommended tracking each student and setting minimum attainment standards in literacy and numeracy for each year level, with assessment data gathered and analysed by the leadership team each term (Fleming & Kleinhenz, 2007).

Research into schools that used EI to improve their student results showed that data-driven analysis is important at a whole-school level (Louden, 2015) and uncovered an explicit link between teaching and assessment (Boyd & Higgins, 2018). To this end, effective school leaders aligned formats of teaching practices with student learning (Mooney et al, (2008)). In a report on the implementation of DI and EI in remote Australian primary schools, one teacher commented: "The success at our school has been supported by the strong leadership and commitment to the program shown by school administration. It is such a clear expectation that this program will be implemented with fidelity and accuracy that all staff are on board" (Clinton et al., 2017, p. 116). The research shows that the school

leaders who improved their results with EI had clearly defined the teaching practices for student learning and provided a school-wide curriculum stipulating what students would learn and when (Louden, 2015). An aligned or whole-school curriculum enables "a common, concise set of essential curricular standards and teaching them on a roughly common schedule" (Schmoker, 2006, p. 107). A low-variation curriculum is not just a feature of high-performing schools (Jensen, 2014; Marzano, Waters, et al., 2005; Masters, 2010), but also a helpful resource for teachers who need to engage in the difficult task of curriculum analysis or Analysis of Knowledge, essential for EI. A common core curriculum stipulated what was to be learned and when for the whole school on a week by week basis and engaged teachers in coherent planning for learning, allowing for enough repeats of knowledge for it to transfer to long-term memory.

EI practices are particularly important for students of lower ability and raising attainment in early literacy for students at risk. Therefore, raising teacher quality and reducing the variance in teacher effectiveness matters a great deal to attainment (Slater et al., 2012). The impact of a high-effect teacher compared to a low-effect teacher is about *d = .25*, which represents approximately a year's advantage for students (Hattie, 2012b; Slater et al., 2012). Bandura (2000) used the term "collective efficacy" to describe a group's attainment results from shared knowledge, skills, interactions and the ways in which their efforts are coordinated (Bandura, 2000). Leaders should show concern for individual teacher beliefs and understand that changing their beliefs and practices are difficult (Fullan & Ballew, 2004); at the same time "creating a collective culture of efficacy" that requires a high standard of excellence from all teachers (Fullan, 2014, p. 75). Hattie's meta-analyses placed collective teacher efficacy at a high average effect size of *d = 1.57* (Hattie, 2009).

A group of schools adopting EI in WA scheduled meetings with professional learning communities every three weeks to discuss student data, curriculum delivery and work standards that fed back to the school leadership's professional development plan (Boyd & Higgins, 2018). The instructional leaders noted that building collaboration and space for teachers to reflect on their own pedagogy and learning were important for creating a culture that supported EI as a signature pedagogy (Boyd & Higgins, 2018). Meetings with professional learning communities allowed instructional leaders to become familiar with "the concerns of employees" (Marzano, Waters, et al., 2005, p. 16). Yet, others have cautioned against interaction between professional learning communities that "reinforce each other's ineffective practice... in which teachers collaborate to reinvent practice" (Fullan, 2003, p. 13). The presence of a member of the instructional leadership team is therefore important, so that all features are aligned with a few agreed core approaches, teachers are not overwhelmed (Davenport, 2005) and staff work together to successfully implement core instructional practices (Knight, 2009). By doing so, school leadership aligns professional learning with

the four pillars vision of teaching and learning, namely a focus on teacher-led learning, high expectations of students, explicit instruction that moves learning from short to long-term memory and positive pupil-teacher relationships (Boyd & Higgins, 2018; Fleming & Kleinhenz, 2007).

Advocates of intentional teaching of phonics in the early years assert that the adoption of whole-school approaches, such as direct or explicit instruction, disrespects teacher autonomy (Campbell, 2018). High-performing countries, such as Singapore, uphold teacher autonomy by providing release time for lesson planning and teacher collaboration. Interestingly, the schools that effectively raised attainment with EI used a centrally mandated, low-variation curriculum (Louden, 2015; Masters, 2010) and encouraged collaborative lesson planning. A centrally mandated curriculum upholds the analysis of knowledge necessary in EI and supports learning through frequent reviews, building on logically sequenced prior knowledge, and may reduce teacher autonomy as well as workload. In Singapore, for example, students are now encouraged to become more engaged and proactive in the learning process (Ng, 2011), addressing the very argument used by detractors of direct instruction. However, Hattie (2009), who recognised the efficacy of direct instruction, warned that too much can lead to learner dependency, although he had no data to support his assertion. A global, qualitative report on 20 education systems that raised student attainment identified certain core features associated with centralised school systems that moved from poor to fair performance:

> In general, characterized by less skilled educators, tightly controlled teaching and learning processes from the centre because minimizing variation across classrooms and schools is the core driver of performance improvement at this level. In contrast, the systems moving from good to great, characterized by more highly skilled educators, provide only loose guidelines on teaching and learning processes, because peer-led creativity and innovation inside schools becomes the core driver for raising performance at this level (Mourshed et al., 2007, p. 26).

The report acknowledged that successful systems gradually build instructional and leadership capacity (Ng, 2011), but since longitudinal data on the management of EI in Australian schools is not yet available, it is unclear whether teacher autonomy increases as teachers become more skilled at this highly prescribed approach. The report was clear that teacher autonomy increased only when systems and school-wide instructional practices were in place to support high attainment and when teacher collaboration evolved to a level where teachers themselves "set standards to which they hold each other accountable" (Mourshed et al., 2007, p. 44). Critics of the same report argued over scripted lessons, coaching and other resources: "if they are well designed and carefully implemented can drive teacher learning and real change in instructional routines. But equally, there is a real danger of misinterpretation; the scripted lessons, standardised testing and coaching can degenerate into

authoritarian surveillance" (Fleisch, 2011, p. 472). While EI is not scripted, parallel concerns about the loss of teacher autonomy when using "little d.i." to teach phonics in early childhood classrooms are notable (Barblett et al., 2016; Campbell, 2018). In the context of EI, some authors have acknowledged the importance of teacher autonomy in making "well-informed instructional decisions for their students" (Goeke, 2009, p. 10) with the caveat that "there are times when we hold fast to our instructional preferences out of anxiety, fear of change, lack of expertise, or entrenched ideological beliefs" (Goeke, 2009, p. 11). Silcox (2015) concurred with the view that resisting new approaches to teaching is often due to lack of knowledge or a desire to keep on doing things the same way.

While teacher autonomy needs to be taken into account by leaders, Knight (2009) claimed that "respecting teachers' professional autonomy does not mean all teachers have complete freedom to teach in whatever way moves them. There have to be some non-negotiables in schools" (Knight, 2009, pp. 511-512). Principals bear responsibility for maintaining low variations in student achievement between different teachers on their staff (Marzano, Pickering, et al., 2005) as well as achievement gaps between low- and high-achieving students (Fullan, 2003). In short, the principal's role is "to lead the school's teachers in a process of learning to improve their teaching" (Fullan, 2014, p. 75) by maintaining a focus on the instructional core and encouraging teachers to reflect on how their actions impact on student results (Fullan, 2014; Hattie, 2015).

On the subject of signature pedagogies, Shulman (2005) reasoned that professional learning is not for personal understanding alone, but also "preparation for accomplished and responsible practice in the service of others" (Shulman, 2005, p. 53). In light of early childhood teachers' dilemmas about what is best for their students, part of the argument for using EI to teach phonics and phonological awareness is that it represents scientifically proven best practice, allows all children to be successful and prevents reading difficulties (Hempenstall, 2016; Wheldall, 2011). Professional practice by teachers and school leaders includes bearing responsibility for student attainment and serving all students equally. School leaders also face a dilemma, when mandating urgently needed change, of persuading stakeholders where there is a threat of resistance (Mourshed et al., 2007). Raising literacy levels in underperforming schools is urgent, but it should be noted that mandating EI as a non-negotiable signature pedagogy has advantages and disadvantages. One disadvantage is that teachers may resist change, but the advantages include "mandating enables fast action and fidelity of practice across the system" (Mourshed et al., 2007, p. 62). Unless there is significant investment in resourcing supportive mechanisms to build pedagogic content knowledge (Shulman, 1986) and all instructional leadership efforts are focused on supporting EI as the signature pedagogy, this assertion map appear unduly optimistic. However, "one thing is clear: signature pedagogies make a difference" (Shulman,

2005, p. 59) because they form habits. Ultimately, for change to be sustainable, teachers have to internalise the pedagogic practices and alter how they think about teaching (Mourshed et al., 2007).

In summary, the school leaders who raised attainment did so by developing respectful relationships, a culture of trust and respect, and an "intense focus… a laser-like commitment to a task… clearly defined pathways for school improvement" (Mooney & Mausbach, 2008, p. xiv). They aligned their efforts with job-embedded professional learning that was congruent with the school vision, and in some cases, the four pillars of teaching and learning (Boyd & Higgins, 2018). In these ways they used influence, dexterity in interpersonal relationships and an ability to communicate "…the why and the how of a new instructional initiative" (Jones, 2011, p. 84). Elmore (2011) considered necessary ingredients of instructional leadership for improving widespread school instruction as an intense spotlight on the instructional core (teacher plus student and how they relate to the content) and expressed it thus: "... providing the resources, pressure and support to raise the level of content, to expand the knowledge and skill of the teachers and to increase the active engagement of students in their own learning. That's it" (Elmore, 2011, p. 85). Boyd and Higgins (2018) argued that aligning all leadership actions with the four pillars of the school vision drove the cultural shift in their study that, in turn, fed an effective professional learning community. Change and improvement can only be sustained if teachers believe that things have actually improved (Fullan & Ballew, 2004), and by aligning key leadership variables, teachers' environments can be clarified in ways that influence their beliefs. Further research is needed to identify leadership practices conducive for enhancing research-based early years literacy development and examine how instructional leaders model and understand EI.

2.7 Summary and Conceptual Framework

This chapter argued that environmental factors make the practice of EI, in alignment with its salient features, very difficult for pre-primary teachers. As shown in Figure 2.2, Bronfenbrenner's ecological systems theory was drawn upon to conceptualise the factors that framed and influenced the implementation of EI in the pre-primary classrooms.

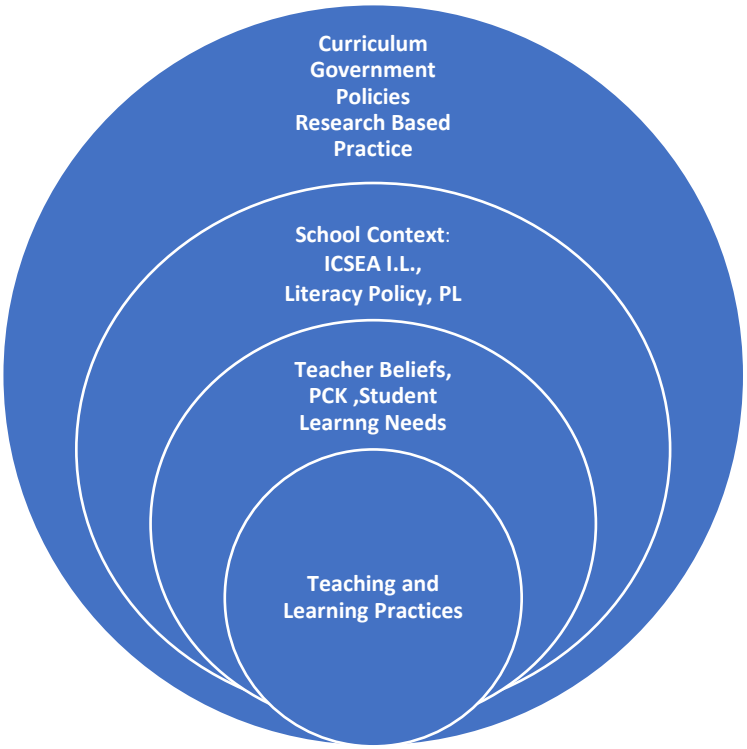


Figure 2.2 Conceptual Framework of Literature Review

The legacy of the balanced approach that emerged from the literacy wars sits uneasily with research-based EI (Department of Education Science and Training, 2005), as does the dominant social-constructivist approach to literacy, as recommended by the Australian Curriculum English (ACARA, 2017a) and the Early Years Learning Framework (DEEWR, 2009). Although the introduction of NAPLAN (Bloxham et al., 2015) placed increased pressure on Australian principals and teachers to achieve national benchmarks for literacy, early years teachers typically consider what is appropriate for their students rather than what is effective (Sanderson, 2003). Students from low socio-economic areas are more likely to be at risk of reading difficulties because, in all likelihood, they've had fewer opportunities to develop phonological awareness (Buckingham et al., 2014). Schools' Index of Community Socio-Educational Advantage (ICSEA) ratings may therefore have a bearing on whether teachers deem EI's instructional design necessary.

The immediate school context shapes the intensity with which instructional leaders define and mandate the salient features of EI in literacy policy, and teachers require high levels of support and intensive, ongoing professional learning, coaching, mentoring and instructional rounds, as well as a curriculum aligned with the principles of EI design and delivery to implement it effectively. Furthermore, the dominance of social constructivism in early childhood education (Stephen, 2012; Yelland, 2005) has created a conflict between teacher-led learning and teacher beliefs, further deterring the practice of EI. Intentional teaching endorses a play-based approach that many early

childhood teachers understandably believe to be a cornerstone of children's learning needs (Ebbeck & Waniganayake, 2016).

EI is also highly complex to implement. Teachers require deep and sophisticated PCK and understanding of the rationale behind the practices to be successful in the classroom (Shulman & Wilson, 2004). Addressing students' learning needs is complex, and teachers need to be aware of the constraints in novice readers' minds (Dehaene, 2009) if they are to understand why an explicit, systematic approach to phonics and phonological awareness are important for beginners (Seidenberg, 2017). Finally, teachers' actions are linked to their beliefs, which renders them central to the success or failure of any new pedagogic approach (O'Donnell, 2019).

Examining the contextual factors that influence the practice of EI in early childhood classrooms directed the case study methodology in this thesis. As shown in Bronfenbrenner's ecological model (Figure 2.2), the practice of individuals is influenced by the context in which they are situated, and a case study approach allowed these contexts to be examined in closer detail (Yin, 2009). Case study also allowed for exploring teachers' practice, observed in their classrooms, and the interaction of complex and multiple environmental factors. This is further explained in the next chapter.

Chapter 3: Methodology

The objective of the case studies was to gain a clearer picture of how three early years teachers enacted a highly prescribed pedagogy, and the conditions that fostered or frustrated their enacted understandings. All three teachers adopted Explicit Instruction in response to a school decision to adopt EI for raising literacy achievement. Qualitative methods were used in this research for their appropriateness in gathering data about the teachers' enacted understandings of EI and their school contexts (Yin, 2010). An inductive approach to data analysis was taken, aligned with developing a theory about the factors that influenced teachers' practice, based on the data collected.

3.1 Epistemology and Theoretical Perspective

A constructivist epistemology (Hatch, 2002) suited the case-study approach for this research, since it entailed making meaning from classroom observations and interviews. Socio-cultural theory served to highlight the social and cultural differences between the school sites and how they affected the ways the individual teachers related to, understood and felt about EI as a highly prescribed pedagogic approach in the early years setting. Bronfenbrenner's (1989) ecological systems theory helped to describe the layers of wider social and cultural factors within the school and the community, and their influence on teachers' beliefs and practices.

Constructivism has its roots in the philosophy of Dewey (1859-1952), Hegel (1807-1949) and Kant (1781-1946) and holds that our reality is personal because we make sense of it through our own experiences. These experiences include cultural setting, our thoughts and interactions, and how we make sense of our experiences and adapt our behaviour according to environmental variables (Garrison, 1997; Gergen, 2000). Von Glaserfeld contended that understanding something new is not a passive process, but rather something that people actively engage with and construct (von Glaserfeld, 1990). This cognition may not result in precise acquisition of knowledge as judged by an objective outsider, nor faithful understanding of the principles of EI; more like an adapted version created partly by previous experiences. Socio-cultural theory (Vygotsky & Cole, 1978) expands by explaining that human learning is mainly a social process, and what we learn is dependent on our interactions with others as well as the culture surrounding us. This concurs with ecological systems theory.

Ecological Systems Theory (EST) (Bronfenbrenner, 1989) was developed from the work of Vygotsky that identified five environmental systems in which the human develops. Bronfenbrenner later added the element of time (Bronfenbrenner, 1995). This theory was useful for describing the complex environmental systems in the individual schools (Johnson 2008) under study.

Bronfenbrenner's (1989) theory was used to frame the coding of the data for the main research questions. Bronfenbrenner (1995) placed the individual, their beliefs and characteristics at the centre; represented in the current study by teachers' beliefs, pedagogical content knowledge (Hashweh, 2005; Shulman & Wilson, 2004), espoused and actual practices (see Figure 3.1). Encircling the individual was the mesosystem (Bronfenbrenner, 1995), comprised of parental expectations, school climate, colleagues, curriculum and school leadership (E. S. Johnson, 2008). In this study, the mesosystem referred to the school climate, professional learning communities, low-variation internal curriculum (Jensen, 2014) and instructional leadership (Hattie, 2015). Next, the exosystem incorporated decisions, policies, national curriculum pressures, performance expectations of the National Assessment Program Literacy and Numeracy (NAPLAN)(Cranston et al., 2010), local economic conditions and government policy (E. S. Johnson, 2008). In the current study it also included the downward pressure imposed by the Australian Curriculum English (ACARA, 2017a; Barblett et al., 2016), the dominance of child-centred pedagogy and the sanctioned use of entrenched, play-based practices to teach PA and phonics (DEEWR, 2009; Doyle et al., 2017) rather than an explicit, systematic approach (Buckingham et al., 2013; Wheldall, 2011). The macrosystem represented the cultural, social, political and economic state of the country as a whole (E. S. Johnson, 2008). In this study, it represented the impact of growing concerns about under attainment in literacy on policy in Australia (Barr et al., 2008).

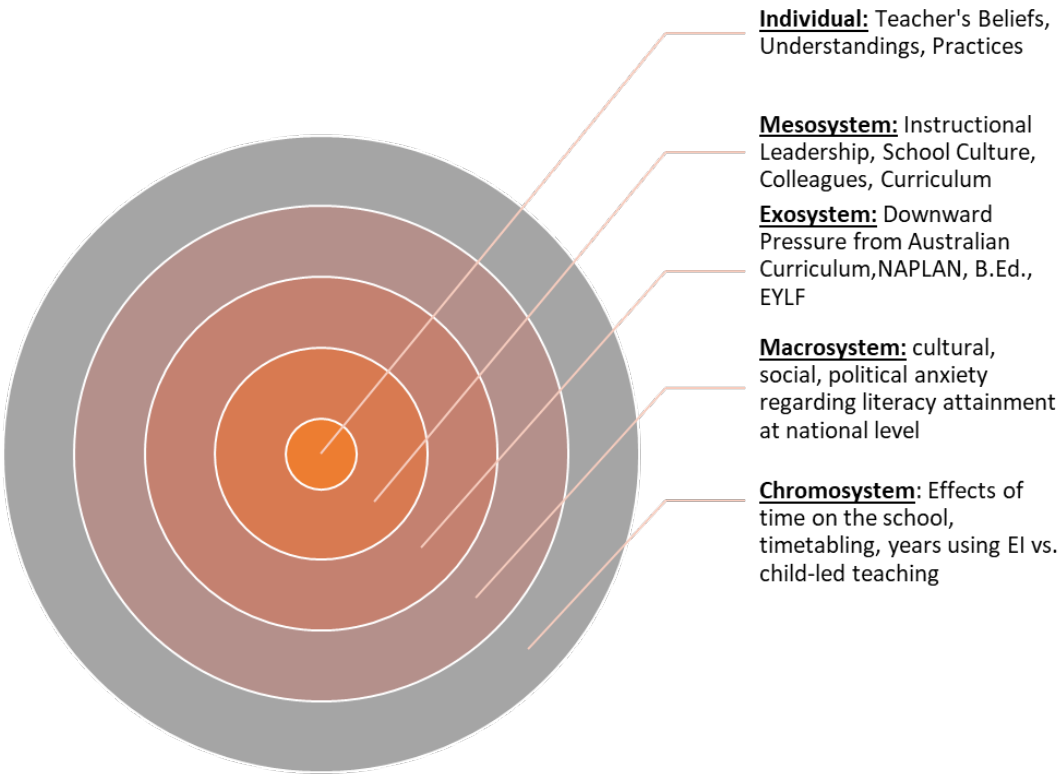


Figure 3.1 Theoretical Framework based on Ecological Systems Theory (adapted from Bronfenbrenner, 1989).

The chronosystem represented the effects of time on the school system, such as day-to-day timetabling, year-to-year decisions, staffing and the number of years that programs had been in operation (E. S. Johnson, 2008). In this research, it also referred to the length of time the teachers had been exposed to child-led practices (Hammond & Moore, 2018). All the layers impact on the individual at its core in multiple and complex ways, and influence or are influenced by the individual's development as a professional (E. S. Johnson, 2008), as illustrated in Figure 3.1.

EST drew attention to the factors that may have impacted on teachers' beliefs about EI, the layers of experiences and influence on their pedagogical content knowledge, and whether or not their actual practice was influenced by their immediate colleagues, not only the principal. The framework of EST (Bronfenbrenner, 1995) (Table 3.1 and Figure 3.1) was highly suited to an examination of the three teachers' adaptation to a new pedagogy.

Table 3.1 *Coding Framed by Ecological Systems Theory*

Individual	**Mesosystem**	**Exosystem**	**Macrosystem**	**Chronosystem**
Beliefs: How do teachers justify the use of EI in ECE?	Principal (Instructional leadership factors that support or inhibit EI)	Australian Curriculum (downward pressure)	NAPLAN testing	Years of experience as a teacher
Pedagogical content knowledge (Shulman, 1986)	School culture: factors that support or inhibit EI	Early Years Learning Framework (DEEWR, 2009)	Government reports (Australian Government, 2013)	Years of experience with EI
Actual EI practices (design, delivery)	Professional Learning Communities	Media	The literacy wars	Duration of professional learning in EI
Constructivist practices evident	Professional learning in EI	B.Ed. Program		

EST provided the means to study school documents, participants, interview transcripts and video footage for the purpose of developing a theory about how teachers constructed their own understanding of EI in relation to the school culture. It also allowed for examination of teachers' interactions with the principles of EI in real-time lessons and identified patterns of interaction between teachers and students in the video footage. Teachers' interactions with instructional leadership were also evident, revealing how they felt about the downward pressure on five-year olds

to know most of their letter-sound correspondences (ACARA, 2012), and their beliefs about learning, data-driven accountability and EI.

EI is difficult for teachers to enact, because unlike DI, there is no script, placing the onus on teachers and schools, as well as providers of professional learning and academic authors to interpret it themselves. How teachers interact with EI depends on how they interpret all the contextual factors. In this study, EST (Bronfenbrenner, 1995) (Figure 3.1) enabled identification of patterns of interaction between individuals, school culture and the professional learning community, and led to a theory on how teachers interpreted EI in their practice.

Using EST and socio-cultural theory, teachers' beliefs about EI were considered through the lens of the broader framework of principles that govern EI's instructional behaviour, communication and thought. EI was situated in the wider social and political contexts of literacy and early childhood education, with all their progressive associations. Consideration was also given to the meaning teachers had attached to the social and cultural effects within their immediate professional learning communities. The study used multiple sources of evidence and triangulation of the data, and found evidence of strikingly different interpretations of EI in schools, dependent on numerous influences.

3.2 Research Approach

This was an exploratory, multiple case study undertaken on three school sites. Teachers' enacted understandings of EI as a new pedagogic approach were scrutinised. The reasons why they selected certain principles of EI design and delivery over others and the ways in which they implemented them were all examined. The rationale for using a case study approach was to explore the complex relationship between the context and the intent underlying teachers' pedagogic actions. One of the intended strengths of using a case study approach was that it aided the study of EI "in its real-world context" (Yin, 2010, p. 17) and led to uncovering subtle, but not insignificant influences. Qualitative research centres on "process, meaning and understanding" (Merriam, 2014, p. 294), and was used in this study to analyse teachers' selective practice of EI. Huberman and Miles (2002) emphasised the usefulness of qualitative data for describing behaviours that should be further read for what they signify.

Each of the schools in this study had chosen Explicit Instruction as a pedagogic approach for improving literacy attainment, and multiple case-study enabled exploration of local factors and how they impacted on a radical pedagogic change, while simultaneously honouring the difficulties involved for the teachers. With this in mind, the variables related to high-fidelity enactment of EI's design were identified, and ecological systems theory used to illuminate the reasons why. Miles and Huberman argued that "events bearing on an individual's behaviour are often quite literally hidden from view" (Huberman & Miles, 2002, p. 108). This was another reason why case study was appropriate for

exploring the relevant variables. Bronfenbrenner's Ecological Systems Theory (Bronfenbrenner, 1989) allowed for unknown issues, variables and relationships to emerge. The research examined the impact of instructional leadership, teachers' buy-in, resources and professional learning on the mesosystem of teacher beliefs, pedagogical content knowledge and practices. This empirical inquiry investigated those understandings in depth, since the boundaries between their enacted understandings and the school sites were not immediately apparent. The findings showed that the contextual conditions in the mesosystem (Bronfenbrenner, 1989) of each site were of prime importance to each individual teacher's interpretation. Bronfenbrenner's framework explained the assumed causal links, such as extensive professional learning and coaching (Boyd & Higgins, 2018; Hammond & Moore, 2018), on the enactment and understanding of EI principles by the three individual teachers.

Ethnographic data-gathering methods were chosen to better understand the perspectives of the individual participants by engaging in "field-based study, lengthy enough to surface people's everyday norms, rituals, and routines in detail" (Yin, 2010, p. 17). This helped to capture the voices and actions of teachers and instructional leaders and shed light on the factors that led to their holistic or partial practice of EI design and delivery components. The three individual teachers' accounts, each with varied experience of teaching EI, showed "how something changes over time" (Merriam, 2014, p. 30) and how EI instructional leadership was interpreted in each school. Essentially, it was a study of how pedagogical content knowledge (Shulman, 1986) shaped individual teachers.

The study was an evaluation in the sense that it weighed information to form judgements on the alignment of EI principles using "thick description" (Hatch, 2002), grounded in real classroom situations to describe the ideological complexities for teachers of young children. Investigating three individuals in three different school sites elicited answers and facilitated interpretation of why, how and where their enacted understandings varied with theoretical alignment.

I chose pre-primary teachers because teaching PA and phonics explicitly and directly prevents reading difficulties and benefits spelling and reading accuracy (Ehri et al., 2001; Suggate, 2016; Torgerson et al., 2006). The choice of pre-primary teachers was also prompted by curiosity about teachers' values, emotions and beliefs and how these factors influenced the adoption of teacher-led whole-school approaches (Barblett et al., 2016). Case study and ethnographic methods revealed that the perspectives, values and beliefs of the teachers sometimes differed from those of the principals, and highlighted marked differences in the schools' policies and practices. Ecological systems theory (Bronfenbrenner, 1989) helped to capture how EI was organised and articulated in the schools under study and the consequences for teachers' practice. The limitations of case-study and ethnographic approaches are acknowledged in light of Atheide and Johnson's (2013, p. 405) conclusion that "our subjects always know more than they can tell us, usually more than they allow us to see; likewise, we

often know far more than we can articulate". Nevertheless, the study design focused attention on the complexities of the respective environments in recognition that multiple realities and different meanings existed in each school due to their unique social construction.

3.3 Sampling

The schools and teachers were purposefully selected, as recommended by Merriam (2014) and Stake (2006). The selection was based on those who were best able to inform the research questions of the study through their roles (teachers of early literacy precursors, mentors and principals), perspectives (who understand early childhood ideology) and experience (who taught in three different schools that subscribed to EI). My principal supervisor, Dr. Lorraine Hammond was familiar with two of the three schools, and influenced both the teachers and principals consent. Pre-Primary represented the first year of formal schooling in Western Australia. These five-year-old students were enrolled to begin this first year of formal schooling in January, 2014. Dove Tree Primary was selected as a "polar type" (Huberman & Miles, 2002, p. 12) because it placed particular emphasis on EI as a signature pedagogy and was likely to "extend the emergent theory" (Huberman & Miles, 2002, p. 13). Three different case studies were selected to "build in variety and create opportunities for intensive study" (Stake, 2006, p. 24).

The three schools were selected because they had an expressed policy of explicit instruction in literacy practice and a similar Index of Community Socio-Educational Advantage (ICSE) value on the My School website, in order to remove the variable of disadvantage that would otherwise confound the study (see Table 3.2).

Table 3.2 *Index of Community Socio-Educational Advantage (ICSEA) Indicating the Distribution of Students in the Case Study Schools compared to the Overall Australian Distribution (ACARA, 2015)*

Distribution of Students Holly Fern Primary	**Bottom quarter**	**Middle quarters**		**Top quarter**
School Distribution	11%	26%	32%	31%
Australian Distribution	25%	25%	25%	25%
Distribution of Students Aster Wood Primary	**Bottom quarter**	**Middle quarters**		**Top quarter**
School Distribution	2%	7%	25%	67%
Australian Distribution	25%	25%	25%	25%
Distribution of Students Dove Tree Primary	**Bottom quarter**	**Middle quarters**		**Top quarter**
School Distribution	14%	23%	30%	33%
Australian Distribution	25%	25%	25%	25%

Note: percentages are rounded and may not add up to 100

Dove Tree Primary was purposely chosen as a special case, as recommended by my principal supervisor, Dr. Lorraine Hammond, in that it illuminated an ideal or extreme situation where EI was clearly defined and understood following extensive professional learning. The second case, Aster Wood Primary, described a teacher who had received some professional development in EI from a university-based provider, but little change in school-based policy. The third, Holly Fern Primary, presented the case of a teacher who had received limited professional learning in EI and was teaching in a school where EI was part of its literacy policy. All the teachers volunteered to participate in the study, giving rise to a risk of subject variance not being representative (Huberman & Miles, 2002) of other early childhood teachers in the school and their understanding of EI.

Concurrent data collection was aimed at reflecting how each case study "predicts contrasting results" (Yin, 2014, p. 57). I used purposeful sampling he researcher to confirm or dispel original expectations related to school leadership factors, and to show whether what teachers said they did mattered less than what they did in practice. Data saturation occurred when it was clear from concurrent analysis of the data, during an iterative cycle of the research, that the fidelity of teachers' EI practice reflected a continuum and no new themes surfaced. The process relied upon developing "strong, plausible, and fair arguments supported by the data" (Yin, 2014, p. 167).

3.4 Research Procedures

Ethnographic methods were used to gather qualitative data that were compiled into three cases, after which a cross-case analysis was conducted to compare and interpret the findings. The teachers were observed and videoed five times over the course of two semesters in 2014, because a smaller sample ran the risk of missing critical patterns. Extensive video observations was the most suitable method for collecting the data without placing too much strain on the teachers involved.

Teachers were interviewed in a number of ways. Semi-structured interviews (Appendices A, B and C) took place at the beginning of semester 1, 2014 and were followed by unstructured interviews (Appendix O) in semester 2, 2014. The teachers were also briefly interviewed before and after each lesson observation, which meant they were interviewed several times during the fieldwork period, as recommended by Saldaña (2011a). This served to triangulate the observations using the teachers' own interpretations of what was happening in each lesson. Interviews were purposively sampled among teachers, their colleagues and administrative staff (Saldaña, 2011b), since the focus was on individual teachers and their immediate spheres of influence, as proposed by ecological systems theory (Bronfenbrenner, 1989). All participants were interviewed face to face at a time and location of their choosing, and took place on the school sites to minimise inconvenience. Participants were interviewed at different points in time for triangulating the sources, comparing their different viewpoints (Denzin & Lincoln, 2005; Patton, 2002) and to ensure deep understanding of their perspectives. The semi-

structured interview protocol was grounded in the research questions and designed in such a way that teachers could offer their own perspectives and beliefs (Saldaña, 2011b) about EI. Interviews were digitally recorded and later transcribed verbatim.

Lessons were video recorded and running records were maintained of the researcher's observations during the lessons. Classroom observation suited the ethnographic approach (Saldaña, 2011b) and facilitated viewing the teachers' interactions with students for later analysis of how objects, resources and space were used, whether there was a definable sequence within and of activities, the rules underlying the interactions, and what didn't happen (Goetz & LeCompte, 1984; Patton, 2002). Initially, handwritten notes were made from the back of the room for fear of intimidating the teachers, switching to a laptop for the final two observations in the interest of speed once trust had been built. This approach to classroom observation balanced practicality with concern for the teachers involved (Saldaña, 2011b). Observation protocols (Appendix N) based on the principles of EI proved useless because they were wooden and stilted and illuminated little of the "what" and none of the "why". The video footage and interview transcripts were the richest sources of data. Field notes were written up in the staffroom after each observation, allowing for interaction with other members of staff and observing changed notices on the staffroom walls. The field notes were written on site so that data analysis and data collection were happening simultaneously (Merriam, 2014). Field notes were written descriptively to bolster their usefulness as a source of data (Saldaña, 2011b) and included impressions (Huberman & Miles, 2002). They also included discoveries and differences between the cases (Huberman & Miles, 2002), as well as sketches of the classroom layouts, noting the "material culture" (Saldaña, 2011b, p. 59) of the surroundings that couldn't be captured by video. The layout of the classrooms and the material on the walls provided clues about teachers' "management and instructional style" (Saldaña, 2011b, p. 60) and consequently, their underlying ideologies.

School documents were gathered and scanned for later analysis (Saldaña, 2011b). They included the literacy policy, professional development records, staff newsletters, archived coaching notes and early intervention policies. Teachers' lesson plan documents and schemes of work were also included where available. Finally, pertinent quotes from the review of the literature during and after data collection were compared with the data to facilitate analysis. In this way, data collection occurred in two phases, as shown in Figure 3.2, so that sufficient evidence could be gathered over time without imposing too great a burden on the schools and the teachers.

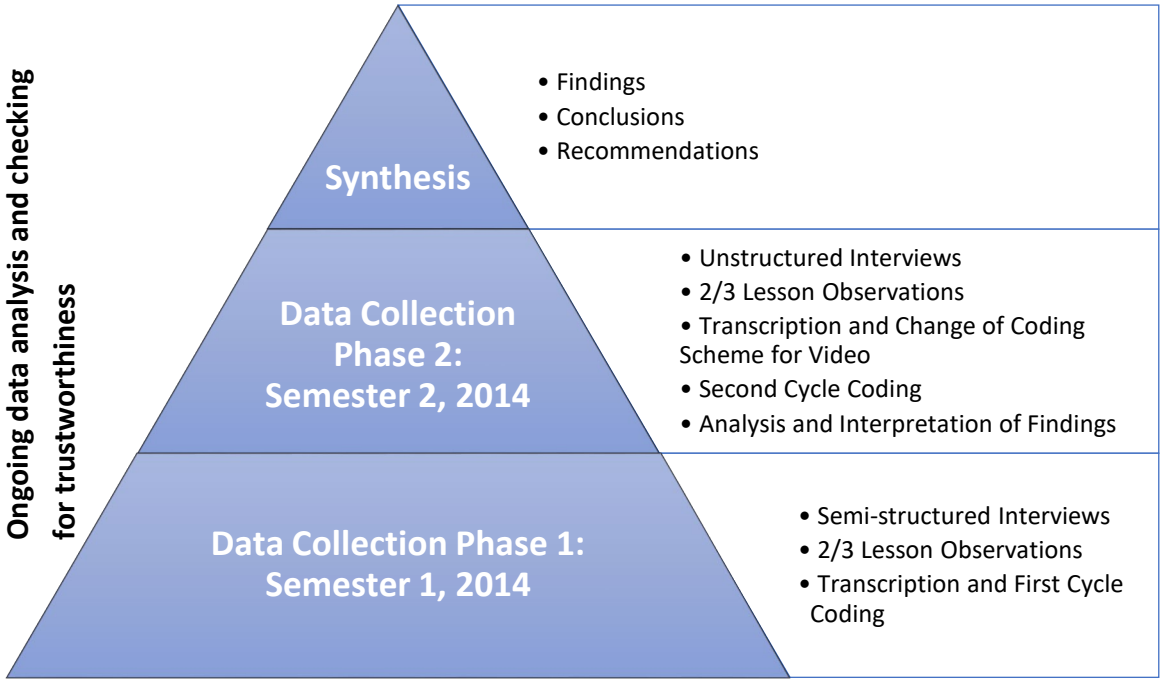


Figure 3.2 Research Design and Timeline Flowchart (adapted from Bloomberg L.D. & Volpe M., 2012, p. 251)

3.5 Data Collection Methods

The teachers' practice of EI was explored through lesson observations, school documents, artefacts, and semi-structured and unstructured interviews with the teachers and others who influenced their practices. Analysis involved searching for patterns and themes in the feedback, as well as common categories across the multiple sites (Merriam, 2014). Data were analysed through descriptions of the individual cases and identifying analytic categories to establish themes and cross-case themes in teacher beliefs, understandings, the balanced curriculum, alignment and messaging.

The research questions were matched to the data-gathering methods and data-analysis tools as shown in Table 3.3.

The cross-case analysis began with an assessment of second-cycle themes and how they featured in each of the three schools (Stake, 2006). The findings were assigned to themes as recommended by multiple case-study design (Stake, 2006). The dominant themes in each school were selected by means of a code-recode strategy (Lincoln & Guba, 1985) and assertions based on the evidence (Stake, 2006) and the literature review. Three final themes formed the second-cycle codes (Merriam, 2014, p. 182): a) pedagogical content knowledge (Shulman, 1986); b) beliefs; and c) instructional leadership.

Table 3.3 *Research Methods*

Research Questions	Data Gathering	Data Analysis	Outcome	Time/ When
How do teachers justify the use of EI as an instructional approach to teaching phonics and PA to pre-primary students? What are the actual practices of the teachers?	Semi-structured interview with the teachers, principals and mentors, followed by further unstructured interviews. Observation and video capture of lessons, debrief interview with teachers, and observation tool lesson plan documents.	Evaluation of alignment to theory of explicit instruction. Descriptive coding and thematic analysis (Goetz & LeCompte, 1984; Merriam, 1988; Patton, 2002; Saldaña, 2009, 2011a) to identify main themes and EI features in the data using Artichoke. A priori and open- node analysis of video footage.	Coded variable and in-depth analysis of the data to support interpretation. Descriptive analysis of the results from coding to provide a plausible interpretation of the research and for internal validity (Merriam, 1988, p. 169).	Semester 1, 2014: First interview in term one, second interview beginning of semester 2, 2014. Repeated observations of the same phenomenon: twice or three times in semester 1 and once or twice in semester 2 for internal validity (Merriam, 1988, p. 169).
What are the school-based instructional leadership factors that support or inhibit the enacted/ understanding of EI?	Semi-structured interview with principal, mentors and teachers, followed by further unstructured interviews. School-based documents, archival records, researcher's journal, field notes and analytic memo.	Coding to identify themes and EI features for descriptive, thematic (Merriam, 1988; Miles & Huberman, 1994) and matrix analysis of data using Excel tables. Data in each cell coded for themes and allocated under Ecological Systems Theory factors of influence (Bronfenbrenner, 1989, 1995).	Descriptive and thematic analysis and matrix analysis.	Semester 1, 2014: First interview in term one, second interview beginning of semester 2, 2014.

3.5.1 Interviews

Open-ended interviews were used to explore the teachers' feelings about using EI in early childhood and their experiences, with a focus on how the participants interpreted those experiences (Merriam, 2014). All 18 interviews were conducted individually and face-to-face on the school sites, as proposed by the ethnographic approach (Hine, 2000). Interviews were used to explore the beliefs of teachers, the principals and the teacher mentors or coaches, and allowed for exploring the motivations of the principals for introducing a behaviourist approach. Unstructured interviews at the end of the research phase facilitated deeper exploration of the emergent patterns and individuals' perspectives of EI to ensure that challenges and difficulties for teachers had been unearthed. Initial semi-structured interviews with the participants took place at the beginning of the research phase in order to clarify teachers' first encounters with EI and the range of supports available to them. During the semi-structured interviews participants' answers could be teased out for greater understanding of the school contexts and common issues across the multiple sites (Merriam, 2014). The unstructured interviews at the end of the research phase enabled further probing with follow-up questions and disclosure of information that the teachers viewed as important or pertinent. The fundamental value of the unstructured interviews was the "insights and understanding" (Merriam, 2014, p. 111) they provided. Analysis of the data during the collection phase also allowed for further informal questioning in the field around items of interest to verify the accuracy of interpretations (Merriam, 2014, p. 217).

3.5.2 Video Analysis, Classroom Observations and Field Notes

The video camera was placed on a small tripod at the back of the classroom to minimise intrusion and allowed the researcher to take field notes in the form of running records throughout the lesson. The camera was directed at the teacher and students, and swivelled to track the teacher as she circulated during independent work. The field of view allowed for analysis of teacher-student interaction, modelling and content on the interactive whiteboard or easel, as well as student responses. Video analysis was chosen as an effective way of keeping "the original record for repeated scrutiny" (Heath et al., 2010, p. 6) and enabled real-time capture of the actual words and events that took place in the classroom. This also proved invaluable for writing up the vignettes. Due to the pace of delivery and complexities of the classroom interactions, that which wasn't captured in the running records was visible in the video footage. Nonetheless, the complex nature of the contents led to challenges with analysis (Plowman & Stephen, 2008), because it required making "principled decisions to guide the choice of representation" (Plowman & Stephen, 2008, p. 542), in this case, the complexities of classroom communication, how phonic and PA knowledge was analysed and the behaviours of the participants. While ethnography has been criticised for its lack of transparency, the

use of video allowed the researcher to scrutinise the observations with her supervisors and discuss analytical decisions (Heath et al., 2010).

Due to centrality of analysis of behaviour, communication and knowledge to EI, predetermined or *a priori* codes were established, based on capturing these themes with open nodes and recording the significance of participants' actions and activities (Heath et al., 2010). Analysing the 30-second video fragments was "concerned with explicating the practices and reasoning, in and through which participants accomplish their activities in concert with others" (Heath et al., 2010, p. 83). Goffman's (1981) participation framework was used for this analysis and focused attention on the ways in which students and teachers engaged with one another to analyse their interactions (Corsaro, 1983; Heath et al., 2010). Goffman (1981) viewed spoken words and the responses of others as having "some sort of participation status relative to it" (Goffman, 1981, p. 3) and argued that human responses needed to be referenced as part of a "sequence of response moves" (Goffman, 1981, p. 52). The idea that both verbal and non-verbal behaviour should be considered in context then focused the examination on what those contexts might be in an EI lesson, where the sequencing of unambiguous and concise communication is paramount for determining teachers' pedagogical content knowledge. The use of Goffman's (1981) participation theory also acknowledged the inherent problem of an ethnographic approach in "recognizing that the objects we find and describe are of our own making" (Hine, 2000, p. 43). For this reason, an ethnographic framework of interpretation that encompassed participants, subtle factors, physical settings, activities and interactions (Goetz & LeCompte, 1984; Patton, 2002) were taken into account in deciding the a priori codes.

Through repeated readings and viewings of the running records, field notes and video footage, points of contrast and emergent patterns and themes began to surface. Each teacher was briefly interviewed after every observed lesson to cross-check observations and triangulate the findings with questions like: "Can you talk me through what you were thinking and what was happening in today's lesson?" Field notes were written up after each observation to include teachers' comments on the researcher's observations, impressions of the lesson and observations of EI documents on the walls of the classrooms and staffrooms. Field notes help to establish plausibility in an ethnographic approach because "the ethnographer has been where the reader cannot or did not go" (Hine, 2000, p. 45). In the current study, they were also used to document the researcher's impressions of the sites "because what you think, feel and do during the entire research process are data as well" (Saldaña, 2011a, p. 32). The field notes were also subjected to descriptive-, pattern- and thematic coding, in acknowledgement of the researcher herself as "the primary data collection instrument" (Saldaña, 2011a, p. 32).

3.5.3 Documents

The documents examined for this research included literacy policies, professional development records, staff newsletters, shared curriculum documents, coaching notes, shared PowerPoint slides and early intervention policies for teachers' understandings of explicit instruction in alignment with EI design and delivery principles. The documents were read and re-read, and notes of interest and questions for participants written in the margins and the researcher's diary, together with repeated patterns and tendencies (Merriam, 2014). These were scrutinised for evidence of supporting and hindering factors in terms of curriculum analysis, systematic sequencing of phonic concepts and alignment with the principles of EI design and delivery. To uphold the integrity of the study, school documents couldn't be accepted as "straightforward truths" (Hine, 2000, p. 51) and were analysed as artefacts of school culture in an ethnographic approach, in anticipation of writing up the research as "a constructive act rather than a straightforward reflection of reality" (Hine, 2000, p. 56).

3.6 Data Analysis

Descriptive or open coding (Merriam, 2014) was used in the first cycle as this suited the broad range of data to be analysed (Miles & Huberman, 1994). Codes are simply labels that researchers attach to the data as they analyse and interpret what they are seeing. The core research questions were used to frame the semi-structured interviews and code the data with open codes (Merriam, 2014, p. 178) or descriptive codes (Saldaña, 2011b). Codes are written as notes or labels in the margins of interview transcripts and comment on or describe concepts pertinent to the research questions or consistent with the literature (Merriam, 2014, p. 178). Open coding is open to anything arising from the data (Merriam, 2014) and the process provided an initial set of descriptive codes for a segment of the data (Saldaña, 2011b). In this way, an early set of directions was forged in answer to the research questions (Merriam, 2014). Every interview transcript, field note and running record from the observations was typed up and coded descriptively, drawing attention to questions for later interviews and on-site observations (Merriam, 2014, p. 171). In the second cycle, the codes or notes in the margins were grouped into similar themes or categories that described emerging themes, patterns and interrelationships, also known as thematic and pattern codes respectively (Saldaña, 2011b, p. 105). This helped to identify interrelated concepts and important themes in the case studies.

Due to the ethnographic approach to data analysis, data were initially coded according to individual school sites, describing the teachers and their interactions with others in the school. A qualitative data analysis program called NVivo was abandoned in favour of short phrases or descriptive codes written in the margins of the interview transcripts, as recommended in qualitative research design (Merriam, 2014). NVivo was discarded because the program narrowed down the codes too

quickly, whereas the descriptive codes in the margins allowed for expanding the themes and categories more widely before reducing them down to six or seven final themes.

Artichoke (Fetherston, 2010), a data-analysis program, was used for video analysis. As mentioned previously, video footage was analysed using a combination of a priori and open codes. A priori codes are pre-determined and derived from the Latin "a priori", meaning "from before" (Cassell's Latin dictionary: Latin-English/English-Latin, 1968, pp. 472-473). By combining pre-determined or a priori codes with open codes, the researcher was able to systematically go through each segment of video and not only label what was happening, but also what it represented in terms of EI design and delivery.

Interview transcripts, school documents, field notes and running records were repeatedly revisited during data analysis for coding and recoding the data (Lincoln & Guba, 1985). This enabled returning to the data and re-coding it where new descriptive or open codes had emerged since the last coding cycle and comparing the results, a strategy used for bolstering consistency (Lincoln & Guba, 1985). Descriptive notes or codes were repeatedly made in the margins of the documents, describing anything of importance to the research questions and concepts that emerged from the literature, such as instructional leadership. A master list of open or descriptive codes was retained and updated when necessary, thereby merging open and descriptive codes into one master list (Merriam, 2014, p. 181). The master list comprised 25 categories and was reduced to emerging patterns and themes in the second cycle of coding (Merriam, 2014) using an Excel spreadsheet for each school and drawing the data together into a database for more intensive analysis (Merriam, 2014; Yin, 2014). In this way, pertinent information was brought into focus and each of the parts were ready for an analysis of patterns and themes (Merriam, 2014, p. 204). In the second cycle of coding, the codes were grouped into eight similar themes and categories that described emerging patterns and interrelationships (Saldaña, 2011b, p. 105). Segments of the data were cut and pasted from interview transcripts, school documents, running records and field notes, and tagged according to the eight different thematic or pattern codes. These gathered the open and descriptive codes or notes under overarching themes or emerging patterns arising from the participants' feedback and the literature (Merriam, 2014, p. 185). They were highlighted to distinguish them from first-cycle codes and involved a lengthy, inductive process, gradually becoming deductive as "saturation" was reached and "no new information, insights or understandings" (Merriam, 2014, p. 183) were emerging.

In-depth analyses by case and across cases examined the practices of the three teachers (Creswell, 2009b, p. 193) by combining the Excel spreadsheets from each separate school, including all meaningful data (Merriam, 2014) from the interview transcripts, school documents, field notes, literature review and running records. The data in each cell were colour coded according to school site

and organised into common categories across the three schools (Merriam, 2014). Each unit of data represented meaningful information that could be interpreted without additional contextual support, being both stimulating and relevant to the case study (Lincoln & Guba, 1985). The data in each cell were labelled according to descriptive pattern codes and thematic categories (Dey, 1993), allowing for comparison with other cells and further reducing the themes. The advantage of using this matrix was that the data cells could be moved and relabelled as the study advanced. Subsequently, each of these units of data were organised under the five factors of influence on pedagogy described by Ecological Systems Theory (Bronfenbrenner, 1995). The final three categories to emerge from the thematic and pattern coding: instructional leadership, beliefs and pedagogical content knowledge (Shulman, 1986) were exhaustive in that every unit of data aligned with these factors. Furthermore, they responded appropriately to all the research questions, were conceptually congruent and mutually exhaustive (Merriam, 2014), in other words, the final three categories were capable of explaining why teacher participants did or did not enact EI with fidelity. Each of the three categories also aligned with the factors that impact on pedagogy as described by Ecological Systems Theory (Bronfenbrenner, 1995) and the conceptual framework of this study.

The data gathered by video were scrutinised separately, using a video analysis program called Artichoke (Fetherston, 2010) that broke up each piece of video footage into 30-second timeframes and assigned them thematic codes. Each segment was coded at a number of levels (Merriam, 2014). Artichoke (Fetherston, 2010) made it possible to play and replay each segment as many times as needed, adding to the rigour of the observation analysis (Merriam, 2014). During the video analysis, the degree to which teachers' practices complied with the principles of EI was assessed, as detailed by Rosenshine (2012), Ybarra and Hollingsworth (2009) and Archer and Hughes (2011). The video footage was initially broken down into the following superordinate thematic codes (Saldaña, 2011b) based on Explicit Direct Instruction (Hollingsworth & Ybarra, 2009): time, talk and lesson design. Time was assigned the following subordinate thematic codes (Saldaña, 2011b): routines, decreased transition time, focused instruction on critical content, brisk pace and organised lesson design. Talk was assigned the following subordinate thematic codes (Saldaña, 2011b): guided and supported practice (explaining, modelling), monitor student performance (watch and listen to their responses, provide feedback), teacher talk with physical cues, teacher talk with visual cues, teacher talk without cues, student responses (singing, speaking, chanting, response in unison, talk with actions, student talk without actions), teachers' use of clear and concise language, and teachers requiring frequent responses (oral, written or action responses). Lesson design was assigned the following subordinate thematic codes (Saldaña, 2011b): visible intent or focus, delivery strategies (providing multiple opportunities to practise the skill), review prior knowledge before beginning instruction, guided

practice, lesson closure, provision of an adequate range of examples and non-examples, step-by-step demonstrations by the teacher, helping students to organise their knowledge, sequencing skills logically and independent practice. However, applying the code-recode strategy (Lincoln & Guba, 1985) to the same video footage every two weeks for comparative purposes proved to be too cumbersome, so video coding was modified to include both a priori and open codes.

The conceptual framework, comprising the principles or critical features of EI, was retained, but the focus shifted instead to the physical setting, the participants, activities, interactions and other subtle factors (Goetz & LeCompte, 1984; Patton, 2002). The framework shown in Table 3.4 was used to create a priori codes and open codes, and was a better reflection of the ethnographic approach to describing what was happening, analysing the relationships between the features and interpreting meaning (Wolcott, 1994).

Table 3.4 *Rationale for Creating a Priori and Open Codes*

Physical setting	**Participants**	**Activities and Interactions**	**Subtle Factors**
How space was used, what kinds of behaviour was the setting used for, what objects and IT were used in the setting (Patton, 2002).	Who was participating and why? Who was not participating? How many were participating? Who was not participating that would be expected to (Patton, 2002)?	What was going on, discernible sequence of activities, how activities were connected and structured, how participants interacted with the activities and each other (Goetz & LeCompte, 1984, p. 113).	Non-verbal and verbal communication, physical cues, informal and unplanned activities, symbolic meaning of words, what did not happen vs. what ought to have happened (Patton, 2002).
A priori coding categories	**A priori coding categories**	**A priori coding categories**	**A priori coding categories**
Teacher is, for example, modelling. Students are, for example, acting pulling down the sounds.	Teacher behaviour e.g., pointing at IWB. Student behaviour e.g., watching.	What's happening e.g., "I do".	Student responses e.g., silent. Responses e.g., unison oral responding.

Video footage was subsequently broken up into 30-second segments using the framework in Table 3.4 and assigned open codes according to the following a priori categories (in brackets): what's happening (factual summary of what was happening in the lesson), teacher behaviour (teacher says,

does), student behaviour (student says, does), teacher is (position in room, either sitting, standing, circulating), students are (sitting, standing, writing, singing in unison etc.), type of student responses (silence, unison oral response, individual response, written response, unison oral and physical response) and actual responses (actual words spoken or written by the students). The combination of a priori coding categories and open codes facilitated exploration of the quality of instruction and Analysis of Knowledge (Engelmann & Carnine, 1991) in terms of whether the teacher defined new concepts or developed skills using steps that students could follow. It also made analysis possible of whether teachers were following steps throughout the "I do, We do" stages of the lesson using signals, pacing, the meaning behind interactions and Analysis of Behaviour and Communication (Engelmann & Carnine, 1991), in addition to a consistent point of reference when checking for understanding.

Coding the school documents and interviews started with NVivo software and the following descriptive codes: curriculum, appropriateness of EI for early childhood, experiences of EI, problems, significance of EI, resources, challenges, expectations and assessment. The descriptive codes represented points of interest underpinning the research questions and were further broken down into case-based themes, namely, curriculum analysis, shared curriculum, research-based approaches, expectations, teacher beliefs, teacher understandings, efficacy, results, play-based learning, creativity, undergraduate study, discovery learning, D.I., shared slides, teacher mentors, coaching, instructional rounds, professional communities, alignment, data-based analysis, clarity, structures, balanced literacy and teacher buy in. Initial descriptive and open codes were aggregated for second cycle themes and pattern codes into three final themes of instructional leadership, beliefs and PCK, as illustrated in Figure 3.3.

NVivo software, obtained from the university library, was abandoned in January 2015 after requiring re-installation every 21 days that interfered with the code-recode strategy. NVivo itself limited the amount of open and descriptive codes (referred to as nodes in NVivo) that could be assigned to the data, since the program was designed to narrow down themes as quickly as possible. The researcher therefore switched to a system of notes in the margins of the documents and pasted extracts onto an Excel spreadsheet, all the while coding and re-coding, until 25 open and descriptive codes emerged from the first cycle. The code-recode process subsequently collapsed the 25 codes into eight second-cycle theme or pattern codes.

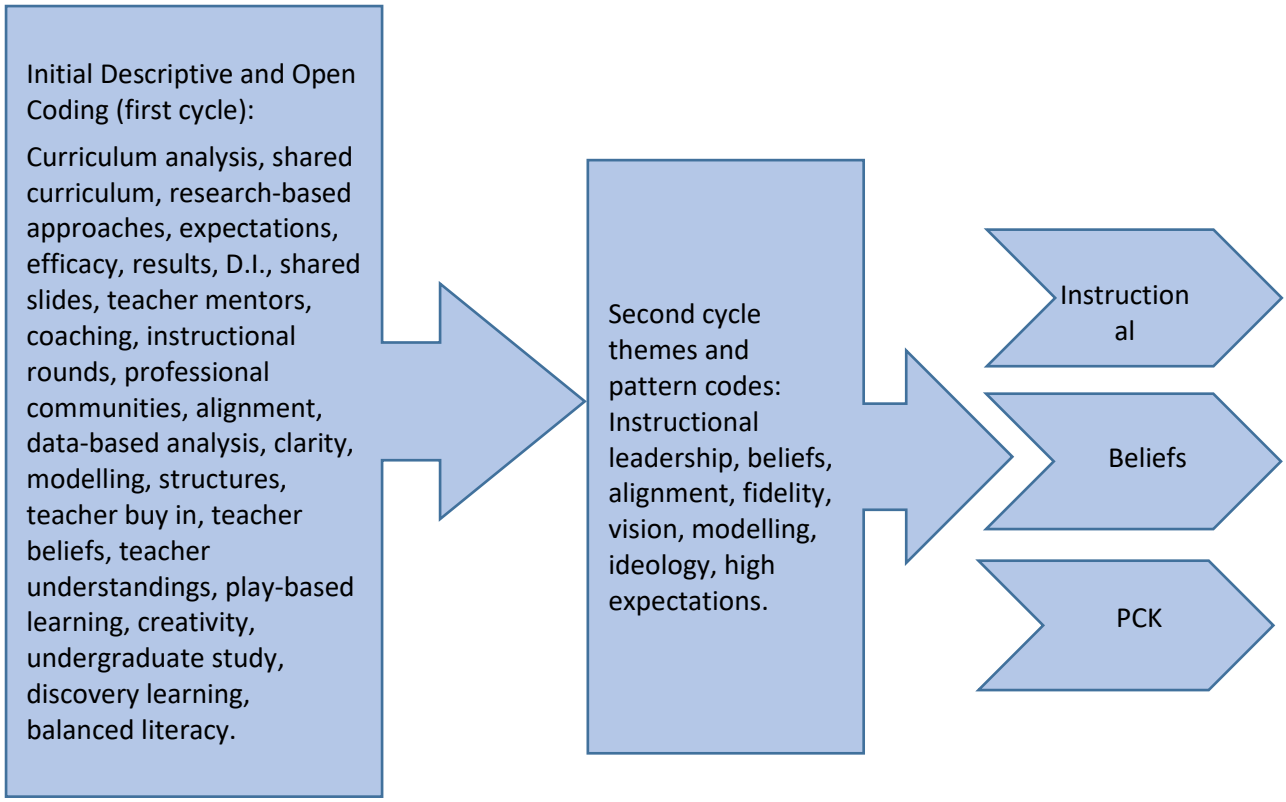


Figure 3.3 Rationale for Creating a Priori and Open Codes

3.7 Research Rigour and Ethics

In qualitative studies, four aspects of trustworthiness must be established, namely confirmability, dependability, credibility and transferability. They were so named because "reliability and validity are terms and constructs of the positivist quantitative paradigm that refer to the replicability and accuracy of measures" (Saldaña, 2011b, p. 134) and supplanted the latter because constructivist ontology views reality as unfixed and constructed by individual perspectives (Hatch, 2002). Validity is a problem for the legitimacy of qualitative research, because the positivist assumptions that underpin quantitative studies do not apply and must be replaced with other ways of establishing the study's authenticity and credibility (Creswell, 2008; Huberman & Miles, 2002). Validity asks the question: "Do the findings capture what is really there?" (Merriam, 2014, p. 213). Given that reality is in a constant state of change in qualitative research, validity is a goal rather than a result. Multiple strategies were used to enhance the authenticity and credibility of the current study. Generalisability or transferability was increased by including multiple sites (Huberman & Miles, 2002) and strict compliance with the ethics requirements of both the ECU Human Research Ethics Department and the policies of the Department of Education and Training in WA.

3.7.1 Confirmability

To increase reflexivity member checks were undertaken of interview transcripts with each of the participants, and an extended period of time over two semesters was spent in the field collecting data. Vignettes have been used to provide rich, thick descriptions for the reader. By simultaneously exploring three cases over two semesters, culminating in detailed analysis of video footage, observation protocols, running records, field notes, documents, lesson artefacts and archived coaching reports, a chain of evidence was established using coding and thematic analysis (Yin 2009). Multiple observations reduced the risk of coincidence or the null hypothesis (Yin, 2014). Given the many possible interpretations of the teachers' pedagogical content knowledge it was impossible to establish reliability in an orthodox sense. Neither can assurances be provided that the study will produce the same results if repeated, since reality is constantly changing, but as concluded by Merriam (2014): "The most important question for qualitative research is whether the results are consistent with the data collected" (Merriam, 2014, p. 221). Therefore, every effort was made to verify that the data are consistent and dependable, for example, the lesson observations were repeated over two semesters with the same method of analysis by following the researcher's diary to create an audit trail of how the answers to the research questions were arrived at. This process is further discussed in the methodology chapter (Merriam, 2014). The evidence in the researcher's diary contained the process of communication, the difficulties encountered and how the data were reflected upon and interpreted, and acknowledged the reflexive nature of interpretations. It also included questions about the data and interpretations that were addressed in the final interviews with participants.

3.7.2 Dependability

According to Merriam (2014), dependability refers to an agreement with the reader that "the results are consistent with the data collected" (Merriam, 2014, p. 221). In the current study, dependability was established in two ways: an audit trail (Merriam, 2014) and use of the code-recode strategy. Dependability rests on verifying that the raw data gathered were interpreted in a way that led to credible findings and conclusions. In other words, if other researchers looked at the data they would find the "results are consistent with the data collected" (Merriam, 2014, p. 221).

An audit trail was maintained in the form of the researcher's diary, containing notes and ideas from qualitative methods books, describing the research tools and why they were chosen, reflections on coding decisions, questions, problems encountered with NVivo, the researcher's impressions of visits to school sites, and ideas (Merriam, 2014) that surfaced when reading the literature that influenced thematic analysis. Content from this researcher's diary was discussed in meetings with my principal supervisor, Dr. Lorraine Hammond, to assist with establishing dependability. It was clear on occasions that my interpretation of leadership decisions or teacher practices within the schools was

incorrect. Dr. Hammond's familiarity with Dove Tree Primary and Aster Wood proved particularly helpful in this regard. For example, Dr. Hammond was able to clarify what was meant by the term 'Plough back', referred to on a policy poster on the enactment of EI in the staff room at Dove Tree Primary. This is not a term used in the literature on EI. This diary also contained notes from courses attended on case study research. In essence, it was an account of "how the study was conducted and how the data were analysed" (Merriam, 2014, p. 223).

Dependability was enhanced by using a code-recode strategy (Lincoln & Guba, 1985), which meant that field notes, school documents and interview transcripts were revisited three times during each coding cycle at monthly intervals. The data were recoded each time they were checked for fit with descriptive codes, bolstering the stability of the findings by repeated observations of the same data over time (Lincoln & Guba, 1985).

3.7.3 Credibility

Credibility in qualitative studies means establishing a clear link between the findings, the interpretations, the conclusions and reality. Also known as internal validity, triangulation and member checking were undertaken to strengthen the findings.

Sources were triangulated by interviewing key participants twice at different times, observing each one five times, and comparing field notes, running records and video footage with pre- and post-observation interviews with the teachers (Creswell, 2009a). Triangulation (Denzin & Lincoln, 2005; Patton, 2002) was also used in the observation data "to gather multiple perspectives about the phenomenon" (Saldaña, 2011a, p. 136), by videoing three different teachers five times over a period of time, analysing the footage for patterns of consistency in teachers' practice and comparing their practice across the three cases. Multiple methods were employed during observation and video footage of the five different lessons to allow for comparisons, cross-checking of teachers' enactment and clarifying teachers' intentions after each observation as recommended by qualitative research methods (Merriam, 2014).

Internal validity was assured by follow-up interviews with participants at the end of the research period (Huberman & Miles, 2002) and respondents' validation, i.e., returning transcripts to the participants and asking whether they wished to change anything (Merriam, 2014), a process of inviting participants to member-check the data gathered and confirm its accuracy (Saldaña, 2011a). Only the principal of Holly Fern altered her interview answers. The data were analysed to saturation point; when it was clear from the observations that little variation was emerging in repeated patterns of behaviour. The research position, based on the principles of EI, were clearly communicated to participants in the researcher's initial approach (Merriam, 2014) and in a letter explaining the research.

Prolonged engagement (Lincoln & Guba, 1985) with the participants provided time for them to become familiar with the presence of the researcher and for checking their perspectives. It also meant that participants became more comfortable about revealing information. In addition, the five different lesson observations over two semesters or "time sampling" allowed for discovery of emerging patterns and changes in teachers' practice.

3.7.4 Transferability

Transferability is synonymous with generalisability or external validity. This is problematic for qualitative case study research, as it requires providing the reader with evidence that the findings can be applied to other contexts (Huberman & Miles, 2002; Lincoln & Guba, 1985; Merriam, 2014). This problem was tackled in two ways: by using "thick description" (Lincoln & Guba, 1985; Merriam, 2014) and multiple sites (Huberman & Miles, 2002).

While each teacher and her context were unique, transferability rests on whether the reader determines the findings of the study applicable to other school situations. To achieve this, the data were depicted in depth so that transferability was theoretically possible due to the "local conditions" being sufficiently described (Merriam, 2014, p. 225). Case studies use "rich, thick description as a strategy to enable transferability, another strength of using a case study approach. It refers to a description of the setting and the participants of the study, as well as detailed description of the findings with adequate evidence presented in the form of quotes from participant interviews, field notes and documents" (Merriam, 2014, p. 227). The data were also used for checking validity and reliability of the schools' respective cultures and social environments (Lincoln & Guba, 1985; Merriam, 2014). Given the considerable variations in the beliefs and pedagogic content knowledge of the teachers, this strengthened the transferability of the study and the theoretical framework. Although generalisability is not a goal of case study research, the diverse study sites enhanced the findings across the range of school cultures represented in the sample. Dove Tree Primary was purposely selected because of its high-profile status in the media related to its EI outcomes: "not only to study what is and what may be, but also to explore possible versions of what could be" (Huberman & Miles, 2002, p. 189).

3.7.5 Ethics

The nature of social and behavioural research requires the researcher to develop a relationship with participants based on "a mutually respectful, win-win relationship in which important and useful knowledge is sought, participants are pleased to respond candidly, valid results are obtained, and the community considers the conclusions constructive" (Bickman & Rog, 2009, p. 107). For these reasons, a strict code of ethics was followed. Concerns about privacy, voluntary consent and respecting anonymity for all participants were carefully and unobtrusively addressed in the schools during the

teachers' working day by conducting the research at times that suited them. The teachers were involved in checking the accuracy of the reporting in a climate of respect for the expectations and perspectives of the participants, as proposed by applied social research methods (Bickman & Rog, 2009). The study was carefully planned and clearly communicated, and took into account the potential risks to participants (Bickman & Rog, 2009). The benefit for participating schools was the establishment of a valuable relationship with the research team and a summary of results that provided a foundation for future professional learning policy.

3.7.6 Anonymity and Confidentiality

The names of all participants and unique identifiers for the schools were removed from the data and coded so that only the researcher and her supervisors were aware of the participants' identities. In line with university policy, all research data remained confidential and interview transcripts, field notes and electronic files containing video and audio recordings have been stored securely for destruction seven years after submission of the thesis in the case of teacher-related data, and until student participants are 25 years old.

3.7.7 Informed Consent

Voluntary informed consent was sought from every participant after explaining the research in language that they could understand, including all the details "that a reasonable person would want to know" (Bickman & Rog, 2009, p. 110). The consent procedure for the students was carefully considered and expressed in a way that they could easily understand (Bickman & Rog, 2009). Separate letters were sent to principals, teachers, parents and their children (Appendices D, E, F) informing them how the data would be gathered, analysed and reported, as well as the potential uses of the data. Parents were asked to ensure that their children understood the consent forms (Appendix G) and discuss the letter with them. The letters also clarified the potential risks, such as the need to erase video footage or audio recordings of interviews. The researcher met with the teachers and the principals to explain why the study was being undertaken, what they would be "likely to experience, including the time required and how many sessions are involved" (Bickman & Rog, 2009, p. 111), as well as the required artefacts. The meetings were conducted in an open and friendly manner to ensure participants felt comfortable asking further questions and clarify concerns so they could judge for themselves whether to participate or not.

3.7.8 Withdrawal Rights

Participants were treated with respect and professionalism and were able to withdraw up until the 31st December 2014, when data analysis was completed. Every participant was given the researcher's contact details (Merriam, 2014), including the parents of the children involved. It was

made clear that participation was voluntary, and a decision not to participate would not affect the family's relationship with their child's teacher, nor would any child miss out on the lesson if consent was not provided.

3.8 Summary

This chapter described the use of a case study approach to explore the complex relationships between three different school contexts and the intent behind the pedagogic actions of three teachers. Ecological systems theory (Bronfenbrenner, 1989) helped to capture how EI was organised and articulated in the schools and the consequences of teachers' practice. Ethnographic methods were used to gather qualitative data that were subsequently compiled into cases. A cross-case analysis compared the findings of the three cases and the implications of previous findings. The teachers were observed five times over the course of two semesters in 2014; their enactment of EI explored through lesson observations, school documents, artefacts and semi-structured and unstructured interviews with the individuals and those who influenced their practices. These were coded using open and descriptive codes. Video footage was coded according to a priori and open codes. Four aspects of trustworthiness were established: confirmability, dependability, credibility and transferability, by using member-checks, prolonged time in the field and a code-recode strategy. Case study was chosen due to its widely accepted approach for evaluating new and complex changes in educational settings (Simons, 2009). The following chapter presents the first case study of Katie at Dove Tree Primary School.

Chapter 4: Dove Tree Primary School

This case study examined the educational philosophy of Dove Tree Primary School and the practice of Katie, a pre-primary teacher in the school. Five of Katie's Explicit Instruction lessons (Archer & Hughes, 2011; Hollingsworth & Ybarra, 2009; Rosenshine, 2012) on phonological awareness and phonics were videoed and analysed. This chapter, the first of three case studies, examines school context, teacher background, philosophy and an analysis of Katie's pedagogy, concluding with a summary of the main findings.

4.1 School Context

Dove Tree Primary School is an independent public primary school situated in the Perth metropolitan area, catering for students from kindergarten to Year 7. The school was built in the early 1960s, and was strongly committed to research-based Explicit Instruction, assessment and data-driven planning for teaching. Dove Tree Primary School has been the recipient of awards for excellence in the provision of public education and professional development for teaching, and was proud of its status as one of the highest performers in NAPLAN testing for similar schools in WA and Australia. At the time of the research, the My School website (ACARA, 2015) indicated that 444 students were enrolled at the school, comprising no Indigenous students and 28% from a language background other than English. There were 33 teaching staff and 18 non-teaching staff, the latter equating to 12.8 FTE.

The ICSEA rating for Dove Tree Primary School was 1095 compared to the national average of 1000, and the distribution of students (see Table 4.1) shows that its school population was more advantaged than the Australian average.

Table 4.1 *Index of Community Socio-Economic Advantage (ICSEA) Indicating the Distribution of Students in Dove Tree Primary compared to the Overall Australian Distribution (ACARA, 2015)*

Distribution of Students	Bottom quarter	Middle quarters		Top quarter
School distribution	14%	23%	30%	33%
Australian Distribution	25%	25%	25%	25%

Note: Percentages are rounded and may not add up to 100.

Dove Tree Primary's NAPLAN data for literacy indicates that the school's literacy results steadily improved from 2008 to 2010 (ACARA, 2015), having introduced Explicit Instruction in 2009. Table 4.2 shows Dove Tree's average NAPLAN Year 3 reading results, and the school's average Year 3 reading

results compared to all Australian Schools (ALL) and statistically similar schools (SIM). To protect the identity of the schools only the Year 3 reading averages are shown.

Key Finding 4.1 – Dove Tree School Context

Dove Tree Primary School is located in metropolitan Perth and caters for children from pre-primary to Year 7. The school has been the recipient of awards for excellence in the provision of public education and professional development for teaching, and was proud of its status as one of the highest performers in NAPLAN testing for like schools within WA and Australia. The school's ICSEA score indicates that it served an above-average socio-economic population.

Table 4.2 *Dove Tree P.S. Average NAPLAN Results Compared to Similar and All Schools*

Year	**2010**		**2011**		**2012**		**2013**		**2014**	
Average Y3 NAPLAN Reading Score	447		426		440		361		405	
	SIM	ALL	SIM	ALL	SIM	ALL	SIM	ALL	SIM	ALL
	416	414	415	416	425	420	426	419	432	418

The data revealed that, between 2010 and 2014, the school consistently performed above the Australian national average (ALL) and above statistically similar schools (SIM), until 2013/2014, when the reading score dropped against schools with a similar ICSEA rating and the average for all Australian Schools. The reasons for the decline in NAPLAN scores were not apparent.

School Policy Documents

The school policy document on Explicit Instruction focused on lesson format – a representation is shown (ad verbatim) in Figure 4.1.

Key Finding 4.2 – Dove Tree School Context

The school policy document on the format of an Explicit Instruction lesson reflected a structure that agreed with key authors' expectations. The term "plough-back" comes from professional development in Explicit Instruction received by the school from John Fleming.

Review and Drill	**<u>Preparation</u>** 1. Review and Drill – Strategies to commit to long term memory. ***Develop Instant Recall**	
I DO	**<u>Teacher introduces skill or concept</u>** **I Do - You listen** 1. Define skills to be taught 2. Demonstrate / model skills 3. Clearly explain step by step - think aloud strategy **I Do - You Help (teacher still has control)** Demonstrate again with students' help (questioning students for understanding) **Always check for understanding to verify student learning**	**CHECK FOR UNDERSTANDING**
WE DO	**<u>Guided Practice</u>** **We do —I help** 1. Work through class examples step by step to ensure students understand 2. Students practice skill taught **Teacher provides feedback, checks for understanding** Closure (80% - 100% of students must demonstrate understanding before moving on) *** CORRECTION AND FEEDBACK ***	**PLOUGH BACK**
YOU DO	**<u>Independent Practice</u>** **You Do - Independently** 1. Students work independently on skill 2. Teacher marks 3. Teacher provides feedback 4. Plough back, revise if required 5. **In class intervention** - pull out students who need extra help. Works with the individual while other students complete Independent Practice. Opportunity for extension. **Closure**	

Figure 4.1 Dove Tree Primary School Explicit Instruction Lesson Format

Dove Tree Primary also had a policy document with an explicit weekly teaching schedule for pre-primary teachers in the school and across their coalition schools that fed into learning targets for the students in every year. Teachers were held accountable for meeting high learning expectations. Figure 4.2 is an extract from the foundation year plan for the explicit teaching of phonological awareness and phonics. Similar documents were available for other areas of literacy and mathematics.

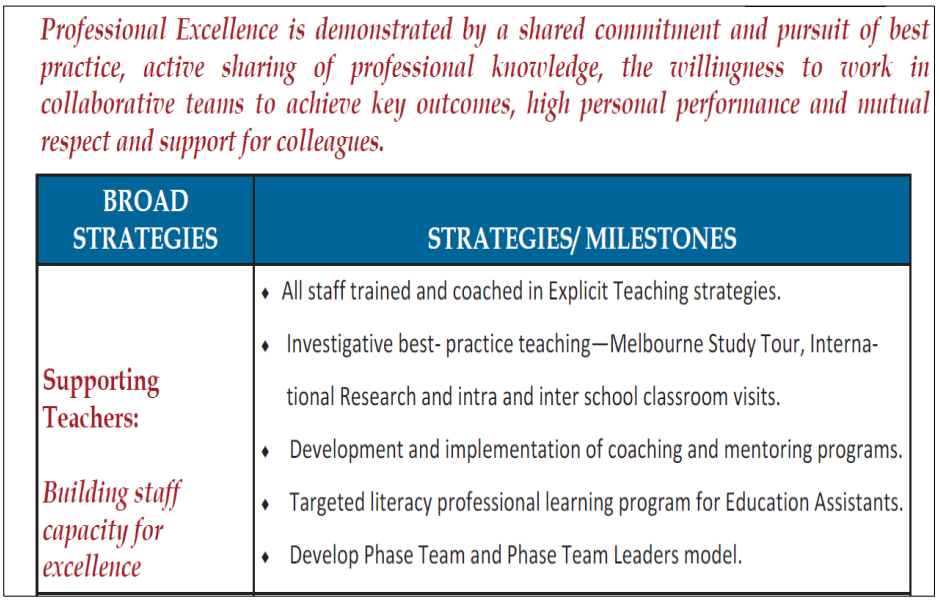
FOUNDATION EXPLICIT LITERACY PROGRAM

TERM 1 Week	Phonological Awareness	Jolly Phonics Common Rime	Magic 100 Words	Grammar	Reading/Writing (Word Level)	Reading/Writing (Sentence Level)
		FOCUS: Know all 43 phonemes (letters & sound recognition)	FOCUS: Recognise by sight the most frequently used 100 words.	FOCUS: Speak and write grammatically correct simple sentences.	**FOCUS:** Recognizing CVC Words Recognizing Magic Sight Words.	**FOCUS:** Writing simple sentences. Using capital letters and full stops correctly.
1	Identify initial, middle and end sound. Revise onset rime using word families from Wk2	Revise single letters				
2	Segmenting and blending at a phoneme level *(CVC only, see word families)* **Identify number of syllables in a word. Segment and blend words at a syllable level.** *Delete and manipulate initial sounds in a CVC word to generate new words (onset-rime).* *Identify No of words in a sentence. Segment words in a sentence.*	***s,a, t, i, p, n*** ***Sit, it, spat, pan, tap, pit, tip, pip, sip, sat, at, tin, in, spin, nap, tan, ant, tap, nip, sap, an, pat.*** at ap Cat, mat, hat, bat, rat, fat, pat, Nat, sat, . Cap, gap, lap, map, nap, rap, sap, tap, yap.	***Revise/ Introduce 12 Golden words*** Practise daily with flash cards, games in learning centres. *a, and, be, I, in, is,*	Alphabet Song Full Stops Capital Letters Sentences	Read and Write CVC Words (Match written word to a picture & write a CVC word to match a picture). Use Onset-Rime to read and write words in the 'at' and 'ap' families.	* Write a simple sentence . *A tap and a pin.* *An ant and a pip.* *A pit and a tin.* *A tip and a pan.* (Sentences need to be spoken at an oral level first. If using hoops/tokens point out the spaces between each hoop/token and make the correlation between spaces left on the page.) * Correctly order words in a sentence. *It is a tap.*
3	Segmenting and blending at a phoneme level *(CVC only, see word families)* **Identify number of syllables in a word. Segment and blend words at a syllable level.** *Delete and manipulate initial sounds in a CVC word to generate new words (onset-rime).* *Identify No of words in a sentence. Segment words in a sentence.*	***c/k, e, h, r*** man, map, ham, mat, dip, gap, dad, dam met, get, pig, log, ram rug, dug, mug, mat, met, mad, Sam, him, rim, Tim, dim, am, Pam, log, leg, lap, lick, lid, Tom, miss ***et en*** ***Bet, get, jet, let, met, net, pet, set, vet, wet, yet.*** ***Ben, den, hen, Jen, Ken, men, pen, ten, when.***	Practise daily with flash cards. *it, of, that, the, to, was.*	'The' song t, h ,e! T, h, e! The, the, the! Full Stops Capital Letters Sentences	Read and Write CVC Words (Match written word to a picture & write a CVC word to match a picture). Use Onset-Rime to read and write words in the 'et' and 'en' families.	* Write a simple sentence. *It is a can.* *It is a mat.* *It is a pen.* *It is a hat.* (Sentences need to be spoken at an oral level first. If using hoops/tokens point out the spaces between each hoop/token and make the correlation between spaces left on the page.) * Correctly order words in a sentence. *The man is hot.*

Figure 4.2 Dove Tree Pre-Primary Explicit Literacy Program

Key Finding 4.3 – Dove Tree School Context
Dove Tree Primary had an Explicit Instruction Literacy Program that detailed what was to be taught in literacy each week of the school year, including phonological awareness and phonics. This literacy program was designed for all pre-primary teachers across the coalition schools and removed the requirement for teachers to plan their own scope and sequence in relation to the curriculum.

The Dove Tree Primary School Business Plan reflected the commitment of the school to "professional excellence" in their teaching. The excerpt below details the school's policy for supporting teachers' enactment of Explicit Instruction.



Professional Excellence is demonstrated by a shared commitment and pursuit of best practice, active sharing of professional knowledge, the willingness to work in collaborative teams to achieve key outcomes, high personal performance and mutual respect and support for colleagues.

BROAD STRATEGIES	STRATEGIES/ MILESTONES
Supporting Teachers: *Building staff capacity for excellence*	♦ All staff trained and coached in Explicit Teaching strategies. ♦ Investigative best- practice teaching—Melbourne Study Tour, International Research and intra and inter school classroom visits. ♦ Development and implementation of coaching and mentoring programs. ♦ Targeted literacy professional learning program for Education Assistants. ♦ Develop Phase Team and Phase Team Leaders model.

Figure 4.3 Dove Tree Primary School Business Plan

Coaching and Mentoring

The following is an extract from the pre-primary teacher, Katie's feedback on a previous coaching session. It was provided by her coach, the deputy principal, and is ad verbatim:

> I know you are aware of extension and this was evident in your planning. For students like Emily always consider other examples that you could question her for. E.g. '…because you will miss the train' – '…or you will miss the train' – '...otherwise you will miss the train'. This will extend all students vocab and challenge your brighter students thinking.
>
> When you move from word level to sentence level consider multiple modelling first. (I DO again) This is a small thing but it took some of them a while to pick up the sentence level example, "We laughed when…" For the uncertain students this can lead to a sense

of 'I can't do it'. Having said that, your use of multiple examples did get them all on track, so well done!

Key Finding 4.4 – Dove Tree School Context
Dove Tree Primary's Business Plan supported implementation of Explicit Instruction by all their teachers with a policy that all staff be trained, coached and mentored, and observe other teachers implementing Explicit Instruction, both within and beyond the school boundaries. This policy was framed within "pursuit of best practice" and "building staff capacity for excellence".

In this way, Katie's use of EI design and delivery was validated, while other parts of her coaching documents reinforced her development of positive student-teacher relationships to set and meet high expectations for behaviour, work presentation and individual achievements. The school policy document represented below was used to prepare teachers for their coaching sessions.

All staff will be involved in the coaching program from 2013. Your coach will observe a full literacy and numeracy block on 2 separate occasions. The model is as follows:

Step 1: Coach observes a literacy or numeracy block
Step 2: Coach meets with teacher (same day) and discusses observations/ provides feedback (Explicit Teaching Focus)
Step 3: Agreed goals set
Step 4: Informal touch base to identify how teacher is progressing in relation to goals.
Step 5: Second formal coaching session following steps above.

TEACHER'S ROLE:

- Engage in ongoing reflection about their current teaching practice.
- Provide a Coaching Lesson Plan (see attached) prior to formal coaching session.

Make modifications to current teaching practice based on advice/support provided.

COACH'S ROLE:

- Provide positive, specific and targeted feedback with regard to the delivery of Explicit Teaching lessons.
- Identify and provide support in specific areas (i.e. modelling strategies).
- Allocate time to debrief immediately after lesson observations.
- Provide opportunities for informal and formal coaching.

Recognise individual starting points and ensure that coaching plans are individualised and based on the specific needs of the teacher.

TEACHER & COACH:

- Identify specific strengths and weaknesses (including further support required).
- Engage in open and honest discussion in regards to teaching and learning.
- Set goals and devise clear time frames in regards to achievement of goals.

Figure 4.4 Dove Tree Primary School Coaching Policy

Key Finding 4.5 – Dove Tree School Context
Dove Tree Primary had a policy for coaching and mentoring teachers in Explicit Instruction. There was documented evidence of feedback from coaching sessions for Katie in official school records.

Interview with the Principal

When asked how the school first became involved with Explicit Instruction, the principal replied:

> Okay, well, probably initially when I first came here I taught Year Seven maths because I wanted to get a feel of what our kids could do, what had been through our School where they were at, whether there was an area of weakness where there shouldn't have been. After doing that for a year it was very clear we had very bright kids, very capable kids, they had no basic skills, em, very limited in their recall of maths facts and knowledge and so trying to teach them higher level concepts that was difficult because they were always struggling to do the basic maths. So, that was the first thing and the second thing was our early childhood centre. It was completely play based and not play based in that it was play based that was trying to teach them literacy and numeracy, it was play based in that at ten o'clock in the morning the teacher could still be out with a coffee in her hand and the kids were in the sandpit. So, my first step down there was to try to produce a consistent approach to teaching PA and phonics and that's where it started.

I asked the principal what he thought was significant about Explicit Instruction from the teachers' perspectives, to which he responded:

> I think, if they get it right – clear objective about what they're trying to teach the kids makes the lesson very clearly intentioned, clear objective for the kids so the kids know what they're going to be learning about that day and what they need to be able to do at the end of the lesson- so that's their success criteria. I think if you get those two things right teachers are clear on what they are teaching, kids are clear on what they're currently learning and they're clear about what they have to be able to do in order to demonstrate that. So, you've a very clear goal for the lesson and I think the next part is the teacher knowing how to break that down into consumable chunks for the kids and having a clear understanding of the prerequisite skills and knowledge to be able to do it. And I think those things are fundamental and when the teacher gets that right, understands that and puts it into a lesson so that it's quite sequential, that gradual release I suppose of responsibility, um, checking for understanding, I mean that's been huge for us. Some of the teachers were going through the process of an explicit direct instruction lesson, but

their checking for understanding was missing, so in that process of checking for understanding and that's why we've moved to whiteboards across the School, so the teacher looks at every child and sees the response from every child and getting a gauge of you know, have I got to eighty or ninety per cent of my kids have got this? And if not, not moving on. So, that and understanding you need to teach to mastery.

I asked the principal if there was a link in his previous response to John Hattie and he responded:

Absolutely, I mean look what we've based and what we do in our School is linked to not just John Hattie, all the evidence that we've been able to find throughout the world on what high performing Schools, high performing systems, high performing teachers do. So, certainly a lot of what we do is based around Hattie and Williams for assessment, Dillon Williams for assessment em, yeah.

I asked what other texts had informed his thinking, to which he replied:

Well I first started with Hollingsworth and Ybarra, which started down the track of trying to be more explicit in what we did, and I found Hollingsworth and Ybarra, read it, loved it and that's become the staple text for every teacher that comes in here, every teacher gets a copy of Hollingsworth and Ybarra and it also informs a lot of our professional learning – so I think I spoke to you before about our three-year professional learning plan. So, that's in place and a lot of those sessions are based on that and on Archer and Hughes another one we've used a lot of yeah.

When asked what he thought teachers needed to know, do and understand for Explicit Instruction to be effective, he replied:

It's a long list. As I said earlier you've got to be very clear about I guess where the kids are at, and where they want to take them to, so where they're at and where you're going to take them to. Um, very clear objective.

They've got to understand that objective and how important that objective is. How important that success criteria is for kids. And then as I said earlier, breaking it down into those chunks that kids will understand, you know that step by step, multiple exposures, getting rid of trying to get information out of the kids, understanding that they are the teacher, that they that they've got to give the kids, the easiest way for the kids to learn that they do it multiple times before they ask the kids to do it, em that's huge and checking for understanding, that's massive. Hollingsworth says that if you don't do

anything else other than improve checking for understanding in your classroom then you get results. That's how important it is. But I think that's a big part of formative assessment. It's the ongoing formative assessment in your teaching lesson to give, and again it comes back to the Hattie stuff, um about giving feedback at point of error. So, it fits in beautifully so if you've given the information to the kids, you've given them multiple exposures, they've had multiple times to practise it, and so they're going to respond and you check every child, that feedback at point of error which is one of the highest effect sizes in Hattie's meta-analysis, I think that's massive.

Key Finding 4.6 – Dove Tree Primary Principal
The principal viewed Explicit Instruction as a way of ensuring that students learned concepts and knowledge in a comprehensive, systematic and sequential manner.

When asked what, in his experience, were the biggest challenges for teachers implementing Explicit Instruction and how he supported them, the principal replied:

I think the initial biggest challenge is a philosophical belief. Many of our teachers come through a university system that teaches a constructivist approach and I think moving them away from that constructivist belief to an instructivist approach is a bit of a challenge for some initially. Um, and I think it's not so much that they are resistant, I don't think they have an understanding of what they are doing in the classroom. They don't understand that what you're actually doing is asking them to construct their own knowledge and information, you haven't actually given them anything, and one of the examples that we use is, if you're teaching a three or four year old to tie their shoelaces - and this is very simplistic – but I think it highlights it, you wouldn't give them four sets of shoes and say now go and work out how to do it. You'd very clearly go through it and show them and model it for them and demonstrate it for them, and if they weren't doing it right you'd say "No, do it this way" and show them, and really effectively that's what we've got to get our teachers to understand, that's what explicit teaching is, it's not drilling the kids, it's not rote learning, it's just very clearly stepped-out lessons that we can show, demonstrate, model if we need materials, whatever it needs to be, so that the kids understand it and get a chance to practise it.

Key Finding 4.7 Dove Tree Primary Principal
The principal viewed the biggest challenges in the implementation of Explicit Instruction for teachers as overcoming the misunderstanding that it is not drill or rote learning, but an opportunity to teach in a way that students can understand and practice the concepts.

I asked the principal what he'd expect to see if he was observing a pre-primary teacher teaching phonics and PA using Explicit Instruction. He responded as follows:

> Um, well obviously, it would have to be a sequential approach. So, I'd want to see a program that is very clear about going through those important sounds, that sat, pin sort of thing to start with at the very beginning those important sounds. Um, I'd want to see a lot of aural work, obviously around PA where they're covering those sounds with the kids where it's repetitious where the kids maybe use mnemonics to practice them, little games to practise them, really embedding those sounds, they've got initial sounds, maybe diagraphs, and then moving on to being able to segment, blend aurally in PA. I think that's really important.

When asked how he went about making decisions about which program to use, he said:

> Eh, Look I think we went *Jolly Phonics* for a number of reasons, one I think there was good research on it. Um, I had seen previously a number of little boys fall in love with it. And not that the girls didn't, because they did, but probably a few little boys who had perhaps been a bit disengaged. Em, where the actions really helped them and it seemed to really hook them in, we could have gone, we could have gone with Diana Rigg, we really could have, but I really loved the resources that went with *Jolly Phonics* for my teachers.

Key Finding 4.8 – Dove Tree Primary Principal
The principal supported the use of research-based programs for PA and phonics and expected a sequential approach with overlearning at pre-primary level.

I asked the principal to tell me more about the work of the coalition of schools on the curriculum within the context of the new Australian Curriculum. He answered:

> Yes, well we made a decision about four years ago that we needed it. We really needed a safety net if you like. And what we were finding in all the Schools, and not in any bad sense, kids were getting through certain grades and there's gaps in their learning. And that gap could be because the concept hasn't been taught well, it could be that the child

really struggles with learning or it could be because it hasn't been covered at all. And we thought the first step has to be to make sure we cover every part of the curriculum. And so rather than leaving it to choose your own adventure, the teachers, we were quite explicit about this is the curriculum, this is mandated this has to be covered in this year level. If you want to do things to top it, great, but these things must be covered. So, we set out, I think it was in writing initially, writing and spelling we developed a curriculum from K to Year Seven. It's week by week, so in Term 1, week 1 it tells the teachers these are the concepts you have to cover, and it's got a link to resources you can use to support you in doing that and we've been through it and reviewed all those resources and we make sure they are in line with what, what, yeah, they're good resources and many of them are evidence-based, so I should clarify that, what is evidence-based because a lot of people make that claim and evidence meaning that it's been put into place with large numbers of kids and there's been some tests done on their improvement. Because other resources might be linked to the evidence, and they've created a resource linked to the evidence but there's a big difference between those 2, one's tested in the field and one's just claiming to be linked to what the evidence suggests. Does that make sense? It's had both. It's been through that process of looking at what does all the evidence say about high performing Schools, high performing systems, high performing teachers do and you can see the direct links with that but there's also been into the field with thousands of schools, hundreds of thousands of kids and been tested on them.

Key Finding 4.9 – Dove Tree Primary Principal
The management team of the coalition of schools provided the class teachers with a comprehensive week-by-week curriculum for literacy and mathematics, in addition to evidence-based resources, to ensure all areas were comprehensively covered.

When asked his opinion on the appropriateness of using Explicit Instruction to teach phonics to pre-primary or early childhood students, he responded:

Eh, they probably don't have any concept of what EDI is. Because I think that if you see EDI done well at that level what you will see is kids loving learning, what you will see is kids playing little games, you will see kids chanting and I just don't buy into the thing that everything's got to be a free for all, and laissez faire and kids will learn on their own. The truth is I absolutely believe, the evidence is clear about it that things that are difficult to learn, like literacy and numeracy em, the constructivist approach doesn't work. You need to teach the kids those things and that's all we do. And some belief that the kids are sitting in rows and filling out worksheets and being drilled rote learning, it's just, it's a

fallacy. And you need to see a classroom that's doing it well before you judge EDI. I could make a judgement about co-operative learning where the teacher just lets the kids do a free for all and I have a very poor opinion about co-operative learning, my opinion about co-operative learning is not going to be great anyway, but I have seen some teachers who do it a lot better than others and get some results so...

I asked him what he thought the main difficulties or problems with Explicit Instruction were. The principal replied:

Em, I'll talk about our context in WA. A system that doesn't support it, from a system level. So, whilst there's claims made that we should be doing Explicit Instruction from the top the truth about that is there's no understanding about that. If you go and look at the plan for the whole year, there won't be one piece of professional learning provided, on explicit, direct instruction. It will all be around Kagan, co-operative learning, so from the system level there's no support, no understanding, that's my belief- very little understanding. I think the universities struggle with EDI and some universities do very little of it, perhaps in a year, they might do very little of it, pick some up. Most of our graduate students come through knowing nothing about it, and one of the other challenges is the vast difference between what different Schools do. So if you go to one Schools where it really is as a teacher, choose your own venture, there's your classroom, have a really great year, gee I hope you do a really good job, we'll catch up at the end of the year, to a School where it's structured and there's a strong, firm belief culturally across the School where everyone supports each other, using similar methods, that's a huge chasm and when someone comes from one of those Schools where it's very open ended, do what you like, very challenging when you come to a School where there's accountability, where we measure outcomes not inputs.

Key Finding 4.10 – Dove Tree Principal
The principal believed that Explicit Instruction was widely misunderstood in WA. He believed that difficult knowledge required an explicit, rather than a constructivist approach. He found the lack of support for Explicit Instruction at undergraduate level and in-service professional development in WA problematic.

I asked what he considered a good and worthwhile PD for a teacher, to which he responded:

I think that the best PDs for teachers is going into expert teachers, spending time watching them teach, and then debriefing afterwards. Now we do that in a couple of ways. I think coaching is really valuable as well. I think mostly external PDs, dig a hole,

bury your money, throw it away - we know the transfer rate is minimal, em, it doesn't bring about change in Schools. But I think seeing expert teachers do something really well and then having the opportunity to talk to them about that and reflect on your own practice and going away with even a couple of little things that you are going to put in place. Reading about it is great, but seeing it, seeing the pace of a lesson, seeing the multiple exposures the children get, seeing the checking for understanding, I think they're valuable PDs. So one for me would be going to other teacher's classrooms and seeing it and the other would be going to another School. It could be what we call structural rounds, what we've been doing for four years now, where we pull teachers out, we take them to a classroom, we sit with them, we watch that teacher, we come away we talk about that. We talk about what they are going to input in the classroom, and then about a week later we touch base with them and a formal visit, the teacher knows we're coming in, they write us up a bit of a plan of what we're going to do it, what prior teaching has been done on the lesson, what prior knowledge the kids have, what the objectives are, what the success criteria is and we sit and watch. It could be for an hour and a half. We watch them take a couple of lessons, then we meet with them afterward and we go through and give them feedback. Every teacher. When I introduced it, it was done on a voluntary basis… so my initial coaching was full of praise, it was, you know, talking about all the great things they were doing and edifying them over and over and over again. My initial start always is, still is today, "How did you think that went?" and what's interesting about that in coaching is almost always, the things that I would raise with the teacher, the teacher has already self-reflected on and they raise it before I have to. So if I have three things that I think are important and they raise two of them, I'm on a roll (laughs) it's a nice place to be (laughs).

Key Finding 4.11 – Dove Tree Primary Principal
The principal considered the most successful professional development for teachers was watching expert teachers teach, followed by coaching and feedback.

I asked the principal how the teachers responded to having a mandated curriculum. This was his reply:

That's a really good question, because when we first started about giving them the curriculum, there was a little bit of resistance there I think. But like everything, I think it's

about how you put it to the teachers and my position on it has always been, I was in the classroom for 15 years, so my position has always been, how many units did you do at uni on curriculum design? And they all say none, and my position has always been, we are not curriculum designers, teachers are not curriculum designers. And I talk about reducing teacher workload because I have a strong belief that teachers work too hard. And I think the drop out numbers in teaching clearly supports that, and until we put supports in place, that can reduce their workload a little bit, and let them focus on what they need to focus on, which is teaching in the classroom every day, we'll keep getting those dropout rates so, and so that's my position on it. And when we first put it in place, there were a few who were, uh, yeah okay (mimes facial reluctance), once they had it for a month they started saying "When's reading coming in?" because they could see, oh, it's all here for me, here's the resource, and they've already given it to us. No, I think if you come from a place of genuine support for teachers, it's not just a place of 'We are telling you what to do', it is a place of saying 'Look if we do it this way, you're putting in all this work and effort and my advice is always committed and work hard, but these are the average results we're getting, and my advice to you would be if you're going to put in all that work and effort, let's get some results for all our hard work. And if we can reduce your workload, we should be reducing your workload.

Key Finding 4.12 – Dove Tree Primary Principal
The coalition of schools' management team provided teachers with a shared annual curriculum to reduce workload and facilitate curriculum analysis.

In the final interview, I asked the principal what were the most significant barriers and success factors in establishing an explicit approach in the school. He said:

I'd say the biggest barriers were the staff's exposure and belief in co-operative learning. So, it was going from a, moving teachers from an absolute belief in a constructivist approach, to having an understanding of an instructivist approach, and the difference between the two and the different outcomes they can both achieve. So, one of the things we really had to do was focus on research, evidence and data, looking at successful Schools that had implemented an explicit approach, and improvements that they had made, to try and get people on board, so that we've got that buy in. Yeah, so that was probably the biggest challenge. And I think the other thing was getting teachers to believe that you could have high expectations, the belief that kids can perform at a much higher

level than they were and that it wasn't down to the children it was down to the pedagogy, that it actually was down to the teaching, and that with really good pedagogy we could actually teach the kids at a higher level, and, and all the kids could get it. That's an ongoing challenge (smiles).

Key Finding 4.13 – Dove Tree Primary Principal
The principal found the most significant barriers to establishing an explicit approach in the school were shifting teachers' absolute beliefs in a constructivist approach to understanding a direct instruction approach, and making the link between high quality pedagogy and high achievement levels.

I asked the principal how often the teachers were coached in this school, to which he replied:

> Not as often as I'd like. I've been planning to get them at least one coaching session at least once a semester, so twice a year. But some of our newer teachers get more than that, so if we've got a graduate or someone new to the School, they might get em, a formal session in their first semester, that's a long session of coaching. They might also get some informals, which might be ten or fifteen minutes long in terms of viewing them, and some feedback. So, it depends on where they are at. And if you include instructional rounds as coaching, so they have a full coaching session and instructional rounds once a semester.

Key Finding 4.14 – Dove Tree Primary Principal
The principal advised that all teachers in Dove Tree Primary received one full coaching session and instructional rounds each semester.

I asked the principal how he knew that the teachers were teaching explicitly. He answered:

> There's a couple of ways, I mean obviously there's our formal coaching, there's also our informal coaching, where we go in and maybe only spend ten or fifteen minutes in their classroom, but also just by those daily walks around the School, going into classrooms and they're a lot more powerful than what some people might think, and what I sometimes do with our newer teachers, because I don't want them to feel pressured and stressed, I might walk past their classroom and actually just stop and actually just listen for 2 or three minutes and I can actually tell what they're doing and how they're going, I don't have to listen to them for an hour or two for what type of teaching they're actually

doing, whether they're on track or off track. You pull those things together; you look at the kids results. Results are huge. So, when we start getting teachers coming to us with groups of kids that are failing or that they're not happy with, I've got some, I've got some concerns with how explicit teaching is being taught and about how the model of explicit teaching is, because there's explicit teaching and there's explicit teaching and so what we often find when teachers come to us with major concerns about groups of kids, when you go and watch them, you'll say 'Okay, this is what you're doing.' And it might be that they're doing a really good job at checking for understanding, they're doing a good go at letting the kids work independently, so it might be that the explicit teaching part of it has been fast-tracked and the kids haven't got it. So, we can pick something out in the pedagogy.

Key Finding 4.15 – Dove Tree Primary Principal
The principal used a combination of formal coaching, informal coaching, classroom walk-arounds and results analysis to ensure that quality Explicit Instruction was being enacted by the teachers in the school.

In response to assessments in pre-primary, the principal responded:

> Well we used to use PIPS, but we dropped it but only because I felt we weren't using the data well enough for the time put into it, which was a lot, and we weren't using the data well enough, which might sound like a bit of a cop out but we they do ongoing assessments for phonics and PA and of course we've got our whole School curriculum, that every kid should be doing, so that's being recorded regularly, so that if kids aren't meeting the benchmarks, the benchmarks that are set for them, that teacher will know that that child is not on track for the benchmark and part of their performance management is coming to us with that data and information.

I asked the principal how he developed a climate where teachers can develop their pedagogic skills on an ongoing basis. He replied:

> I think a huge part of it is culture, I think a huge part of it is you have to have a culture of improvement, and you've got to have a culture of inquiry, and so to develop those things you could spend hours talking about that, but I think teachers have to see that we are collectively responsible for every child, so that the responsibility for a child who's struggling, or a child who's whiz bang and needs education support as well, so it's not just the teacher's responsibility. We're also collectively responsible as well, so that's, they

have to see us going through that process as well, 'Okay, what can we do for that child?' Moving resources into those areas, buying resources, purchasing resources always helps for those kids and then the structures in our School to sort of working collaboratively for teachers, so we will always try timetabling so teachers with a year level will always have time to collaborate - we have phase meetings, we will do professional learning that's targeted at certain phases so, not just everyone does this for professional learning, it could be with ECU, what we're going to do for, so it's very, very targeted and what we're hoping to do, we've also got a professional reading group, so what we do with that is get our teachers hooked into a culture of inquiry, it might be finding out about what kids do well, it might be what best practice looks like, supporting each other in achieving better results, and that's also supported by, we have a centralised system for all sorts of things so that our teaching planning our flipcharts, so what we're trying to do is lighten the load for teachers, because I want them to have time to put energy into improving what they do, not just in doing, you know teachers can spend hours in preparing and if we can get some sharing going on there and we have some teachers that might plan literacy for one week while the other teacher plans the numeracy and the following week they swap over, so all the interactive white board flipcharts are all centrally stored so that they can all share and it's just the basic template, and so we have teachers going into other teachers classrooms and so we have a teacher who might be uncertain about how they are going so let's say in guided reading, and one of the other teachers is making a really good go of it so in their DOTT time they can go in and have a look, so hopefully, we're developing that supportive culture of 'We're all here together, collectively responsible and we all support each other to get better at what we do.'

Key Finding 4.16 – Dove Tree Primary Principal
The principal viewed a culture of collaborative responsibility for individual students central to creating a climate where teachers could continuously improve their pedagogic skills. He provided release time so that teachers at the same year level could collaborate to enhance a culture of inquiry. The coalition of schools encouraged a centralised system of PowerPoint slides for teachers to share their preparation and observation experiences.

When asked how he managed to get across a concern for NAPLAN results, for example, and maintain high standards without stressing the teachers, the principal replied:

I, yeah, one of the most challenging things that I've had in an Independent School like here, one that I didn't realise, it's a good point that you've picked up on, is that when you

can select your own people on merit, when you are left with sometimes or quite often is a big group of people who perform at a high level. That sounds wonderful, except that it can create quite a few problems because they can actually become quite competitive, not in a horrible way, not in a horrible way, but in that they are pushing each other and we've actually had to be really mindful of saying to our teachers to do less. I'm not encouraging my teachers to do more, let me be frank about that, I encourage our teachers to do less because my view is that teachers work too hard, so I guess the message from us mainly is, we're trying to reduce workload, we're trying to reduce workload. And I do say to them, 'Remember you can spend hours at home, at night, at the weekends but it's what you do every second, every minute, every day in front of those kids that really counts, and if you blow yourself out at weekends or if you burn yourself out working to ten or eleven on weeknights and you're exhausted when you walk into the classroom, you're not going to give those kids what they need. And you're not in a sprint, this is a career, and we want to keep you here. So we try and put, yes of course we've got high expectations, but if you can do it, if you've got good pedagogy and you've got a really strong curriculum, and you're doing all those things that work in education, in, in helping kids learn, you know feedback at point of error, checking for understanding, you don't need to worry about NAPLAN. We don't need to worry about results. If we are pitching the curriculum high, high expectations. What's happened over the last four years is that's actually been proven true, and if you do all those things, you get great results. And my greatest concern now is teachers who are saying 'Oh, I'm really worried about this child, this child is not getting reading, he's weak.' And I'm saying 'Well, hang on, this child is actually performing at year level (both laugh). He's one of the weak kids, and he's performing at year level, pick yourself up. The child's not performing at three or four years behind year level, he's performing at year level and they're one of your weakest kids.

Key Finding 4.17 – Dove Tree Primary Principal
The principal encouraged teachers to focus on the quality of their pedagogic delivery in Explicit Instruction to deliver high quality results, rather than focusing on the results themselves.

Interview with the Deputy Principal (Teacher Mentor)

I asked the deputy principal if she could tell me something about her personal role in Explicit Instruction in the school. She responded:

> Since being here since last July, my role as Deputy is to coach teachers, so to go and watch their lessons. Before I watch their lesson, they give me a copy of their lesson outline, em so they clearly state what their lesson intention is, what's going to be in their warm-up, what's in their 'I do' section, what's in their 'We do' section, what's in their 'You do' section, and I comment on those sections and give them some guidance on their, or ideas for improvement on my observations. And also I am here to mentor, we've got two new graduate teachers here this year, so I'm in their classroom quite a lot, checking that they understand the model, checking for student understanding and that they're following the model.

I asked her what features of instruction she would expect to see in a lesson if she was observing a pre-primary teacher using Explicit Instruction to teach phonics and PA. She responded:

> Okay, I would expect to see lots of student engagement and response. I would expect to see some movement with actions for the initial sounds, some rhymes, some songs. I'd expect to see some *Let's Decode* strategies at word level, at sentence level, some rhyming words, some nonsense words, revision of diagraphs, blends, initial sounds, and lots of checking for understanding, independently as well as a group.

I asked the deputy principal what she thought was significant about Explicit Instruction from the teachers' perspectives. She said:

> I think from the teacher's point of view, the think I really noticed when I first introduced it was improved focus, improved attention levels, improved behaviour, and the School I was at, that was much more challenging than here, the student behaviour really improved. I also think that a lot of graduate teachers when they had a direct instruction program they could think more about what they're actually teaching and how they're actually teaching it, rather than what do I teach next, what do I teach next, because it was laid out for them, so they could think more about the lesson delivery and the pacing and checking for understanding. I think it's very, I think it's quite supportive for graduate teachers.

When asked what she thought teachers needed to know and understand about Explicit Instruction to be effective at teaching it, she replied:

I think they need to know about the research. The research states that it's really good for children with learning disabilities, therefore it works for children who don't have learning disabilities. I think they need to be aware of the two components of the lesson, so as to in the warm-up section, how you revise concepts, yeah concepts, to embed it to their long-term knowledge. They need to have an understanding of the prior knowledge that kids need to know before they can introduce a new concept. They need to be able to break it down into really, really small parts, so they can teach one little bit at a time, and they can tell by checking for understanding, checking for understanding if kids haven't got that part, not to move onto the next part, to reteach it, to present it in a different way, before they can move on. So breaking things down into small parts, is really, really important. Em, they need to have high expectations of students' participation levels. They need to make sure that they're, that the lesson is fast paced, because if it's very slow, the kids can become disengaged. They need to have an understanding of an explicit lesson has an 'I do' where there's a gradual release of responsibility, where the teacher does the modelling, the demonstrating, the introducing and the children are invited to practise examples with the teacher. When the teacher is confident that the children can do it, then they have independent practice. So, the independent practice then becomes quite a small part of the lesson. Which is quite opposed to other methods of teaching, where independent practice takes up the majority of the lesson.

Key Finding 4.18 – Dove Tree Primary Teacher Mentor
The deputy principal provided specific guidance on the stages of an Explicit Instruction lesson in her coaching and mentoring sessions. She emphasised checking for understanding, pacing, modelling, student engagement, multiple practice opportunities and step-by-step analysis of the skill being taught. She clarified that the independent practice phase was a small part of a lesson.

I asked the deputy principal what she thought teachers might find difficult or problematic about Explicit Instruction, and she responded:

Okay. Em, I think that one of our biggest problems is that, and this is nothing against universities but there's no training for teachers, for direct instruction. So for teachers coming to our Coalition Schools, for many it's their first time that they've seen direct instruction. Em, they're taught about collaborative learning strategies, or constructivist learning strategies. So for many of them they haven't been exposed to direct instruction, so we have to train them in the method and help them by, um, we've got videos that they can watch other teachers, we have instructional rounds where they go and watch their

peers teach, em, yes and obviously we give them lots and lots of feedback on their lessons. I think the fact that they haven't had any training in Explicit Instruction is a problem, and the fact that there isn't lots of good role models for them to watch in the community, so when they're on their pracs, they're not likely to see it in the classrooms. I think years ago it was mainly used like *Spelling Mastery*, for example was only used for children with learning difficulties or in Ed. Support centres and places like that. Yeah.

I asked the deputy principal what else was available in the school to help teachers with Explicit Instruction, to which she replied:

Okay. We have lots of D.I. programs in the School that are across the whole School. So, for example we have *Spelling Mastery*, we have *Cars and Stars*, we have *JEMM and EMM*, which is *Junior Elementary Maths Mastery and Elementary Maths Mastery*, which is across the whole School, and so therefore the children are used to the format, they're used to the language that is used in those Direct Instruction programs so when they transfer from one year to the next, the children are used to it, they're not starting fresh, as if they'd never been given a Direct Instruction lesson before. At least the kids are used to it. As I said before, they can go and watch other people, I can model lessons. I'm actually going to model a lesson for the Year 1 teacher, like this week. In intervention, we also have *Mini Lit* and *Connecting Maths Concepts* which are also direct instruction programs that our Education Assistants implement. They've all had training in those programs. The Education Assistants have also had training in implementing *Spelling Mastery* as well, so they can assist class teachers if they need to split their class into smaller groups.

Key Finding 4.19 – Dove Tree Primary Teacher Mentor
The school provided commercial resources highly aligned to the Direct Instruction and Explicit Instruction approach: Spelling Mastery, Cars and Stars, Elementary Maths Mastery, Mini Lit and Connecting Maths Concepts.

Asked what she thought the main difficulties were when introducing Explicit Instruction to a school, the deputy principal responded:

I think, because I was at White Oak when we introduced it, there were some people who were reluctant to change, they'd been teaching a certain way for a long time, the old 'you know I've always got good results and I believe I do a good job', em, so there are some

people who are reluctant to change, or they might do little bits at a time and I think that was a really good way for us to go, we just implemented small parts at a time, so we started off with just some flashcards for revision just for a warm-up, and everyone on staff was happy to do that, and then we looked more closely at breaking up the lesson into 'I do, We do, You do' and a lot of older teachers, myself included, said 'You know, that's exactly how I teach' but my self-reflection on that was that I didn't spend enough time on the 'I do and the We do, that was the biggest self-reflection that I found that I really needed to extend that and you know we don't let the children have independent practice until ninety per cent of them can do it. So whereas before you sent them to their seats and half the class have their hands up 'I don't know what to do, I can't', but that doesn't happen anymore, so that was I think the biggest difficulty, was people who had been doing things for a long way, and it wasn't necessarily a huge change for them, it was just making them be more reflective, and being more conscious about what they were doing and being more conscious of what the kids can actually do, just asking the kids with their hands up, you know no hands up, is a strategy that we use, I think it's in Hollingsworth and Ybarra, it's also in Doug Lemov's book as well, it's called 'No Opt Out' where you ask children who don't have their hands up, and then they have to remain engaged because they don't know when you're going to ask them a question, and if they don't know the answer that's perfectly okay, they realise that you're going to come back to them after you've asked somebody else, and that holds you accountable.

Key Finding 4.20 – Dove Tree Primary Teacher Mentor
The deputy principal felt the biggest difficulty with introducing Explicit Instruction in a school was initially convincing teachers of the need to change their practice and be more deliberate and reflective in their practices.

When asked if there was anything else that she'd like to add, the Deputy Principal said:

No, I'm really glad that our three Schools made this change, em, I'm really proud to be part of that change too. We have lots of other Schools come in and watch us teach. Once a term we open the School, we've got thirty teachers coming in teachers in Australia coming in, every term's the same, and they come in and we allocate them different classes to go to watch a literacy block, to watch a numeracy block, and it's great to see the same Schools coming back, they're sending more staff, yeah, they send another lot of staff, another lot of staff, em, because they want to make the changes in their School.

Key Finding 4.21 – Dove Tree Primary Teacher Mentor
Dove Tree Primary School had developed a culture of teaching expertise in Explicit Instruction. The deputy principal reported that they opened the school to 30 teachers each term to observe literacy and numeracy blocks.

The deputy principal added:

> In early childhood, the on-entry assessment that we have to do is mandated at the beginning of Pre-Primary, it's not mandated at the end of Pre-Primary, if you look at the analysis of children are expected to be on 'one' at the end of Pre-Primary, but the things that the 'one' incorporates are the skills and the concepts that they need to have, they need to be taught explicitly. So your child is not going to reach that on entry assessment level if you haven't taught them explicitly those things. They're not gonna learn those, not just recognising their sounds, recognising their sounds, being able to write sentences, being able to read sentences and comprehend sentences. They're not going to be able to do that by the end of Pre-Primary if they spent the whole year playing, and that is something that is mandated in Western Australia. So, that's another reason why you should be teaching explicitly. It's quite interesting actually with our data that a lot of our Pre-Primary children are close to that mark already at the beginning of the year. So, we've got some who are actually functioning at 2.9, 1.7, 2.9 so if you're only supposed to be a '1' at the end of Pre-Primary, we are way ahead of that, which is fantastic. But because we have some children who are new to the School, or who didn't do Kindergarten, and they're only at a 0 not a point 1, so they've got a long way to go. And then that information tells us to target those kids, they are someone we really need to work on and give them some PA intervention to make sure they get where they need to be.

Key Finding 4.22 – Dove Tree Primary Teacher Mentor
The deputy principal noted the downward pressure for attainment imposed by the new Australian Curriculum was an added factor in the use of Explicit Instruction in early childhood classrooms. She revealed that the use of Explicit Instruction in kindergarten at Dove Tree Primary meant that some students were out-performing state mandated expectations on entry to pre-primary.

I asked the deputy principal about the school's contact with John Fleming, to which she replied:

> Every term, so four times a year, John Fleming there's a conference at a city hotel. Each time with a different topic, and there's usually about 200 people at these conferences, and a lot of those Schools who go to those conferences, who then come into our Coalition Schools and then watch it in practice. They want to come into the classrooms and see what he's talking about actually in practice. So, then he comes to do our School. He's coming twice this year. So, he's coming actually this term and he will coach three teachers that we choose, then he'll sit with admin and provide us with feedback on that teacher and we'll look at our coaching notes and the things that we've suggested to that teacher to make sure that we're following the same kind of path and then he'll give that teacher feedback. So we still have contact with John Fleming, not as close contact as we used to, we're now actually in line with some Schools in South Australia and some Schools in New South Wales who are coming here to watch our Schools, em because, even though it's closer for them to go to Melbourne, they have come across with their teachers and saying 'Well, Haileybury is a very expensive School, and they only have 16 children in the class and they don't have behaviour problems, they have so many resources of course they're going to get amazing results so the Principals have said 'Okay, we'll go to WA and we'll go to three Schools that don't have those amazing resources, they have children with behaviour problems, that have children with learning difficulties em, let's go there and see it implemented in a real situation.

I asked the deputy principal about her reference to John Hattie. She replied:

> Effect size and Direct Instruction has a really high effect size. Obviously, the teacher and the impact that the teacher has on the classroom has the largest effect size, so all the teacher does is incredibly important, and how the teacher delivers the concepts to the children is incredibly important, those effect sizes. Marzano's books are great for looking at self-reflection which is really important and part of the coaching is first of all for the teachers to say first of all how they thought the lesson went and to have that self-reflection.

Key Finding 4.23 – Dove Tree Primary Teacher Mentor
Dove Tree Primary's practice of Explicit Instruction was underpinned by John Fleming's professional development and research-based practice informed by authors such as Marzano (2007) and Hattie (2012).

4.2 Teacher Background and Philosophy

When asked how she had first come across Explicit Instruction, Katie replied:

> I came across it teaching here at Dove Tree, so in my second year the School here became involved with John Fleming. And we had teachers here visit to his School over in Victoria, and then that's when they started pushing us to implement things that they had seen in Melbourne. So that's how I got involved just in coming here. Uni didn't teach us that (laughs), so that's it pretty much.

Key Finding 4.24 – Dove Tree Primary Pre-Primary Teacher
Katie had worked at Dove Tree Primary for six years and taught Explicit Instruction for five years. Dove Tree Primary was her first teaching appointment after graduation.

I asked Katie what she thought was important or significant about Explicit Instruction from her perspective and experience, and she replied:

> Yeah. I think it's fantastic because, you're actually teaching the kids what they need to know. And you have to- you know you're teaching them, so they're not finding out for themselves and I think it's great for most kids because they, there is a lot of different strategies you can use and you are always checking for understanding and the most important part about it is you make sure that it's moving from the short term to the long term memory and you have a good idea of what the kids are actually doing and they know and it's very structured so the kids know what's expected and you know what to expect from them. Yeah.

Key Finding 4.25 – Dove Tree Primary Pre-Primary Teacher
Katie found Explicit Instruction an effective pedagogic approach, structured, varied and effective from a neurological perspective.

Asked what would be needed to understand and teach a good lesson in phonological awareness and phonics to pre-primary students using Explicit Instruction, Katie replied:

You'd need to know the basic skills and where they need to start from. You need to be able to break the skills down so, you know looking at a certain skill like reading a word and what do they need to be able to do in order to be able to read a word they need to be able to hear the sounds in words they need to know the sounds and things like that. Yeah, basically knowing how to break it down and knowing where to start from, getting the basic skills right first, like the PA skills and the rhyming and the syllables and all the oral stuff before you move on to the phonics, but first they need to know sounds before they can do the PA stuff so yeah, just knowing those steps to take.

Key Finding 4.26 – Dove Tree Primary Pre-Primary Teacher
Katie was able to articulate the task analysis necessary in an Explicit Instruction approach to teaching phonics and phonological awareness at pre-primary level.

When asked what resources she had available to her in the school to enable teaching with Explicit Instruction, Katie answered:

We have a curriculum. The School gives us, has given us, gives us a year by year curriculum, so Pre-Primary has a curriculum in literacy and maths so we know what skills and what concepts we have to teach. And we've got the interactive whiteboards which help us. We've got access to programs like *Jolly Phonics* and *Jolly Grammar* and *Cars and Stars* and *Spelling Mastery.* We've got new resources like mini whiteboards and stuff like that for helping us for checking for understanding. Yeah.

Asked to elaborate on the provided curriculum, Katie said:

It's term by term. They've based the curriculum on the programs of like *Jolly Phonics* and *Jolly Grammar*, especially in literacy, em this year in pre-primary our literacy program is based around *Jolly Grammar 1*. So it's given us our sound focus and our grammar focus for the week. We also have part of the pre-primary curriculum that's got the sounds and the PA stuff so the stuff that we need to include every day that they've learned in Kindy but that we revise every day like the syllables, the rhyming, the word families, yeah and it breaks it down into word level, sentence level, and text level of what we need to be covering week by week. Em, a couple of years ago one of the pre-primary teachers wrote it. X wrote it, well she was a big part of writing it, so I'm not sure of anyone else who was involved. I'm assuming someone in admin was involved as well. But this year we've moved to *Jolly Grammar 1* as our focus. They've moved it down from year 1, so that's our big focus this year (researcher looks impressed, Katie laughs) so, yeah.

Asked how it fitted in with the new Australian Curriculum, Katie replied:

> Em, the curriculum we've been given, we've been told that it's matching the Australian Curriculum so we haven't specifically looked at the Australian Curriculum because the Australian Curriculum we're already doing with admin is what's needed. So, I haven't actually specifically looked at it (laughs), which is a bit naughty, but because we've already got our curriculum and we've been told it matches that.

Key Finding 4.27 – Dove Tree Primary Pre-Primary Teacher
Katie advised that the coalition's curriculum was both comprehensive and ambitious and that pre-primary was following Jolly Grammar 1, a systematic grammar program designed for Year 1. Katie admitted that she had not looked at the new Australian Curriculum.

Asked about the view of some people on teaching phonics and PA to pre-primary students using Explicit Instruction as an inappropriate instructional approach, Katie said:

> I would say to them, have a look at what the kids can do when you do Explicit Instruction. They are capable of doing it and they can do it. And if you expect it, most of them obviously there's those kids who don't achieve as high as you would want them to but they can achieve if you give them the opportunity and through Explicit Instruction you can do that, whereas if they are like finding out by themselves, a lot of them don't pick it up so, yeah.

I asked Katie what difficulties she faced as a teacher when using Explicit Instruction, to which she replied:

> Em sometimes you find the difficulties in catering. I mean you can cater to everyone but obviously sometimes it the gap like does get too big, so you do have to have like groups so that difficulties - I don't know that you face many with them - as long as you've got enough strategies that you can keep the kids engaged for the amount of time that you need to and stuff. I don't really face any difficulties with it so. In my class we've got the small group that are behind the other kids in literacy. They are reading and writing but they are at the very simple level where the other kids have moved on. So we have a small group that my EA takes in the morning for half an hour and I call it early intervention, but they're just doing the same kind of activities but at the lower level, so where these kids are now, the other kids started at the start of term so most of the kids came with their single sounds but these kids didn't know all of their single sounds and they just needed

support with the segmenting and blending whereas the other kids didn't need as much support so they are going out doing blending and segmenting activities and their sound activities, making sure that they've got all their sounds to catch them up to the skills that the other kids have and so I use my assistant for that.

I asked Katie if she personally found it difficult to change the way she taught and make the transition to Explicit Instruction. She responded:

> Well it was only my second year of teaching so I didn't have that difficulty. I mean it was, you had to get a lot of resources made and stuff like that, making flashcards and stuff like that, having the interactive whiteboard makes it a whole lot easier but at the start we didn't have that so I had to make a lot of resources, but I didn't really have to change my style of teaching because of my being starting here, but I do know that some other teachers did but I because it was my second year I was going with what I was told and so I was fine with it. So yeah (laughs).

Key Finding 4.28 – Dove Tree Primary Pre-Primary Teacher
Katie found the initial transition from constructivist practice to Explicit Instruction relatively easy as she only had one year of teaching experience at the time. Her only difficulty implementing Explicit Instruction was differentiating the weaker students who had fallen significantly behind the rest of the class.

In a subsequent interview in August 2014, I asked Katie if she had been instructed to run her phonics lesson in this way. I asked whether it was her design or something that's expected of all pre-primary teachers in the school. She replied:

> We've been instructed to do it the "I do, We do, You do". The way I do it is what I've, suits me. So I make sure it's 'I do, We do.' The way I do it won't be the same as.., yes, it's not standard across, but as long as it's got 'I do, We do' that's what's expected. We have our planning together; we all use the same sheets. We have a shared drive which we put everything onto, and we use the same slide shows, the same flipcharts, and sheets to just make sure it's consistent across all classes.

Key Finding 4.29 – Dove Tree Primary Pre-Primary Teacher
Katie said the teachers at Dove Tree Primary were instructed to follow the steps "I do, We do, You do" in every Explicit lesson. They were supported by shared PowerPoint slides, flipcharts and worksheets on a shared drive and retained teacher autonomy in terms of how they executed their lesson within the mandatory lesson structure.

I asked Katie whether she had done a coaching session or professional development in the time that I had been in the school. She responded:

> Em, I haven't had a like a coaching session, but I have had schools visit, so they've watched me teach, and the principal's been sitting in on that at the same time. Guided reading, we've done PD in vocab. And the John Fleming one, yeah, yeah.

When asked if she had done anything on the Early Years Learning Framework, she responded:

> No. Not yet. Alright. Just on that Early Years Framework, how do you think that fits in with Explicit Instruction? To be honest, I haven't looked at it closely, because our curriculum is ahead of it, so obviously, it's being referred to, but our curriculum is ahead of it, so I don't have a close look at it.

Key Finding 4.30 – Dove Tree Primary Pre-Primary Teacher
Katie said she had not examined the Early Years Learning Framework closely as the coalition's shared curriculum was "ahead" of it.

I asked if she had altered her explicit lesson planning in any way while I was observing her and she said:

> No. I haven't altered it, but it's made me ensure that I have that 'I do, We do, You do' in it. So, I haven't necessarily. I haven't altered, but it made me reflect to make sure that I actually was having the clear 'I do, We do, You do.'

I asked her roughly how often she was coached in a year. Katie said:

> We're supposed to be coached twice in a year, once a semester. And admin have been really busy and haven't coached everyone yet, but they're putting a plan in this semester so that everyone is coached so not everyone has been coached this year, but apparently it will happen this semester, because everyone has been really busy.

When I asked Katie what "I do, We do, You do" looked like in a lesson, she responded:

> The 'I do' is to me the teacher, it's the teacher explaining, it's the teacher telling the spelling rules, it's just the teacher, kids listening, teacher talking, em, giving the aim of the lesson in there as well, em the we do is gradually getting the children involved, so we're doing it together and so it's guided and towards the end of the 'We do' I give more freedom to the or time for them to do it by themselves so when we're writing words as the 'We do ' goes on, I won't be sounding out the words, they'll be doing it and writing down what they hear, and they end up doing a test where they do one all by themselves, so that's my checking for understanding there. Then the 'You do' is them showing their knowledge, you do to me is the shortest part, it's usually only five minutes, ten minutes at the most, yeah, but that's where we differentiate as well so the sheets are different.

Key Finding 4.31 – Dove Tree Primary Pre-Primary Teacher
Katie could explain the different parts of an Explicit Instruction lesson and identified the independent practice phase of the lesson as the shortest, differentiated component.

In reply to how many years she had been teaching, Katie said:

> Em, this is my sixth year.

Asked how many years she had been doing Explicit Instruction, Katie said:

> Five, because the first year here, I didn't have it. They had just started, my second year here was when they were working, yeah.

In reply to how long it had taken her to perfect, Katie said:

> Oh, probably over the last five years, it's been, probably only in the last two years I felt confident with the process down pat, so I would say at least three years of learning and getting your head around and getting that structure clear in your mind. Yeah, the last 2 years have been, where it was most clear to me.

When I asked her what the hardest part was, Katie answered:

> The hard part for me was finding ways to do the 'We do', in all different ways that suited the children and not just doing the same all the time, thinking of different ways to do 'We do'. Em, that's to me what I found the hardest part, getting the 'We do' part not the same all the time.

I asked Katie what she found most helpful while she was learning the Explicit Instruction approach. She said:

> Watching other people, watching other people, like Dinah, people like her. Em, going over to Melbourne and watching, yeah. I've been twice to Haileybury, I've been twice, yeah. Yeah, when did we go last? Two years ago, I think, and then the year before that.

When asked where her knowledge of PA and phonics came from, Katie answered:

> From PDs, so the initial PDs that we've done and just being in pre-primary and seeing all that and then you, you finally learn yourself as well what kids need to know before they need to do stuff. PD's was the initial ways and experience has built on that.

Key Finding 4.32 – Dove Tree Primary Pre- Primary Teacher
It took Katie three years to learn the Explicit Instruction process and she found varying the 'We do' component of the lesson the most difficult. She found watching other expert teachers most useful for learning Explicit Instruction. She had flown to Melbourne twice to observe Explicit Instruction at Haileybury.

I asked Katie what she would choose if she wasn't compelled to teach Explicit Instruction, and she replied:

> If I wasn't teaching explicitly… I couldn't. I don't know, to me explicit is all I've known as a teacher, and I know it works, I, I, I wouldn't know. Yeah, if I could do explicit teaching I would love to continue that, that option, because that's what I see as beneficial. I mean I know there are other processes, but I've never experienced them enough to have a good opinion on them.

I asked Katie how the explicit model aligned with what she learned at university about early childhood education, and she said:

> Totally opposite to what uni taught us. We were taught play based, children finding out for themselves, cooperative learning, so my uni hasn't been relevant to this. What was the other part to the question?

I asked if she felt the need to reconcile the two approaches, to which she responded:

> I found I tried to find the balance, so I've, I think I've found quite a good balance in my class of the explicit and still the play based, so I always treat the afternoons with our

integrated learning as I, I call it my pre-primary time, where they're doing the, the kids are getting the free time to play and we're doing the arts and the crafts, we're still doing the writing time too, but it's in the small group, but that's my integrated activity time. So I've really aimed for that balance, where they're not just sitting, listening, doing for the whole day, 'cos they're still young, and they still need that pre-primary time.

Key Finding 4.33 – Dove Tree Primary Pre- Primary Teacher
Katie was comfortable with Explicit Instruction because she felt it was all she had ever known as a teacher. Katie said that play-based and discovery learning were what she had been taught at under-graduate level. She combined the different pedagogic approaches by timetabling integrated learning for the afternoons and reserving Explicit Instruction for the periods before lunch.

4.3 Analysis of Pedagogy

This section explores the patterns, consistencies and variations in Katie's five lessons observed over the course of two terms in 2014. The data were derived from the video analysis, observation sheets and running records of the observed lessons and organised into a report on the five phases of Explicit Instruction lessons, a review of prerequisite skills "I do, We do, You do", and the concluding session.

4.3.1 Review of Prerequisite Skills and Concepts

At the start of each lesson, Katie gained the students' attention, stated the goal of the lesson, and reviewed the prerequisite skills (Archer & Hughes, 2011) and general literacy knowledge. Gaining the students' attention began with a "Days of the Week" song, then moving swiftly into a lengthy warm-up. Video records of the third lesson observed in May 2014 demonstrate how Katie used her warm-up time, as illustrated in the following vignette:

Katie says: 'Eyes to the screen please- days of the week. Hold on Sonja, you're too quick for me. Let's go!' Katie gains student attention for the start of the warm-up by singing 'Days of the Week with them. Katie says: 'Good job, let's read them. Saturday.' The children respond: 'Saturday.' Katie says: 'Monday'. Katie keeps clicking through the PowerPoint slides of the days of the week through to Sunday, with the children repeating each day after her. Katie suddenly stands and says: 'Standing up please. Let's go. Months of the year. Let's go!' Katie and students say in unison with body actions: 'January, February, March, April, May, June, July, August, September, October, November, December.' They touch their heads, shoulders, knees and toes as they go through each month. Katie says: 'Well done, turn and face the toilets, let's go again.'
The children and the students repeat the months of the year in unison once more with body actions, this time without looking at the corresponding PowerPoint slides. Katie says: 'Turn and face me please. Let's do the syllables for January. Let's go!' Katie and students clap the syllables for January (4)

together in unison. Katie says: 'Let's do the syllables for April.' Katie and students clap the 2 syllables for April together. Katie says: 'Let's do the syllables for March. Let's go! 'Katie and students clap the single syllable for March together in unison. Katie says: 'Good job. Seasons, let's go.' Katie and students in unison say: 'Summer, Autumn, Winter, Spring' with the same actions. Katie says: 'I need you to do the seasons again. Let's go!' Katie and students in unison say: 'Summer, Autumn, Winter, Spring' with the same actions. Katie says: 'Quickly!' Katie and students in unison say: 'Summer, Autumn, Winter, Spring' very quickly with actions. Katie says: 'Quietly!' They all repeat them quietly. Katie says: 'Sit. Let's do some rhyming!' Katie sits to the right of the Smartboard and the screen shows slide that says 'Rhyming'. Katie bends and gets out Let's Decode manual. Katie says: 'Today we're going to rhyme some words.' She holds up her hand in a Let's Decode/D.I. signal for them to listen. Katie says: 'Okay, today we're going to rhyme some words that end with -ip. My turn. Rhymes with -ip and starts with d, dip. Rhymes with *-ip*, starts with k, kip. Rhymes with *-ip*, starts with p, pip. Rhymes with *-ip* starts with r, rip. Let's do it together!' Katie says: 'Rhymes with *-ip* starts with d!' Katie hand signals the D.I. response. The children answer in unison: 'Dip.' Katie says: 'Rhymes with *-ip* starts with j'. She hand signals to the students and the children respond: 'Jip!' Katie continues with six more *-ip* words, pausing to praise one child.

Katie says: 'Do these words rhyme?' She changes the slide. 'Saying yes or no. Block and dock?'

The children respond: 'Yes!' Katie says: 'Nice and quick, glitter and flipper!' The children respond: 'Yes', with some nos audible. Katie says: 'Listen carefully, glitter, flipper!' The children respond: 'Yes' with some no's. Katie says: 'No, one's glitter, one's flipper. Do these rhymes? Sneaker, speaker!' The children respond: 'Yes.' Katie continues with 'Toy, spoil.' The children respond: 'No'. Katie says: 'Dress, guess'. The children respond: 'Yes'. Katie says: 'Fish leash.' The children respond: 'Yes' with some no's. Katie says: Listen again: 'Fish, leash.' The children respond: 'No.' Katie says: 'No'.

Katie says: 'Stand up, find a partner' The slide changes to 'Find a partner'. Katie stands: 'Let's go. Five, four, three, 2, one (children are now standing in pairs) Jane, come over and be my partner, please, there you go.' Katie says: 'Can you touch your partner's *h/ea/d, h/ea/d*?' The children respond physically, touching each other's heads. Katie says: 'Can you touch your partner's *f/oo/t, f/oo/t?*' The children respond physically, touching each other's feet. Katie says: 'Can you touch your partner's *kn/ee, kn/ee*?' She continues with t/u/mm/y, *n/o/se* and ends with: 'Can you give your partner a big *h/u/g, h/u/g*?' Katie continues: 'And standing on your carpet's, five, four, three, 2, one. Tell me what's in a sentence. Let's go!' The children respond, looking at the new slide in unison: 'A sentence starts with a capital letter and ends with a full stop and must make sense.' They shout the last part of the statement emphatically. Katie says: 'Sit on your bottoms, please.' Katie returns to her seat and puts a *Let's Decode* slide up and raises her hand in a DI listening signal.

Katie says: 'Okay, we're going to clap the words. When I say a word, I'll clap. It's my turn first. Okay. The bag is red.' Katie claps each word as she says it. 'Get your hands, let's do it together!'

The children respond: 'The bag is red' (clapping along with the Katie, who also says the sentence and claps with them). Katie says: 'I'm going to do it again and you're not going to say it. Let's go.' The bag is red (she claps). The children respond by clapping along with her. Katie says: 'Good job, this one let's go. Look at the cat!' The children respond by clapping along with her but do not repeat her words. Katie says: 'Good listening, make sure you listen Robin! The dog is on the log.' The children respond by clapping along with her. Katie says: 'We're moving along to the last one, let's go. Go and get the big toy box.' The children respond by clapping along with her. Katie says: 'Well done, you guys are too good today.'

Katie says: 'Let's see our sounds. She goes to YouTube and the drill begins. Katie says: 'Did you bring

your singing voices with you today?' The children respond: 'Yeah.' Katie says: 'Oh, we've got an ad. today, that's tricky!' The children on the mat chatter about a scary ghost. Katie says: 'Okay, beautiful singing voices, let's see who's going to get a point today.' 'The Letter Sounds' appears on the screen. Children and Katie sing in unison, while making *Jolly Phonics* actions to each letter slide: *A makes ah, b makes buh, c makes cuh, d makes duh, e makes eh, …, y makes yuh, z makes zzz,* and that's the end of the song.' Katie says: 'Remember n is not *nuh, nuh, nuh, nuh*, it's *nnnnn*.' The children say in unison: '*Nnnn*'. The children and Katie start the same song again singing in unison, while making *Jolly Phonics* actions to each slide. Katie says: 'That's that and Wesley, you can have the point today for singing, well done. Let's do our sounds. Let's go!' The PowerPoint slide shows more letters in the *Jolly Phonics* sequence this time. The children and Katie say in unison with *Jolly Phonics* actions, letter names first three times, followed by the letter sound three times each: '*s,s,s, sss, sss,sss, a, a,a, ah, ah, ah, t, t, t, tuh, tuh, tuh, p, p, p, puh, puh,puh, i,i, i, ih, ih,ih, n, n, n, nnn, nnn, nnn, c, c, c, kuh, kuh, kuh, k, k, k, kuh, kuh, kuh, e, e, e, eh, eh, eh, h, h, h, huh, huh,huh, r, r,r, rrr, rrr, rrr, m,m,m, mmmm, mmm, mmm, d, d, d, duh, duh, duh,'* Katie says: 'Come on Sonja.' The children and Katie continue to say in unison with *Jolly Phonics* actions, letter names the first three times, followed by the letter sound, three times each: '*g, g, g, guh, guh, guh, o, o, o, oh, oh, oh, u, u, u, uh, uh, uh*,'

Katie says: 'Let's go faster.'

They all continue at a brisker pace: '*l, l, l, lll, lll, lll, f, f, f,fff, fff, fff, b, b, b, buh, buh, buh, j, j,j, juh, juh, juh, z, z, z, zzz, zzz, zzz, v,v,v,vvv, vvv,vvv, y,y,y, yuh, yuh, yuh, x,x,x,cks, cks, cks,*

(qu appears on the screen) q, q, q, qwuh, qwuh, qwuh,' Katie says: 'Say after me, wherever there's a q, there's always a u!' The children repeat in unison: 'Wherever there's a q, there's always a u.' The screen changes to show the definition of a digraph. Katie says: 'Right, copy me, a digraph is.' The children repeat in unison: 'A digraph is.' Katie says: '2 letters that make one sound.' The children repeat in unison: '2 letters that make one sound.' Katie clicks the mouse and the diagraph *ai* appears on the screen. Katie says: 'Copy me, let's go *ai, ai, a, a, a.'*

The children repeat in unison: *ai ai a,a,a*

(*or* appears on the screen)

Katie says: '*o, r,o, r, or, or, or'*

The children repeat in unison: '*o,r, o, r, or, or, or'*

The education assistant interrupts with a question, and the Katie gives directions to her.

(*oa* appears on the screen)

Katie says: 'Let's go, *o,a, o, a, o, o, o*.' The digraph drill continues in this manner with the following: *oa, oo, oo, ch, er, ng, sh, ar, th, th, ie, ue, eu, ou, oi*.

The definition of a blend appears on the screen. Katie says: 'Okay, repeat after me. A blend is'

The children repeat in unison: 'A blend is'

Katie says: '2 letters'

Children repeat in unison: '2 letters'

Katie says: 'that make 2 sounds.'

The children repeat in unison: 'that make 2 sounds.' Katie picks up a pile of blend flashcards

Katie holds up a sl flashcard. Katie says: 'Eyes up here please. Let's go. *sss, llll, slll'*

The children repeat in unison: '*sss,llll, slllll'* Katie continues with the following blends: *dr, tw, gl, pl, sw*.'

The children repeat in each in unison after her. Katie says: 'Good job, let's stand up please. Now, what's a compound please?' (She claps)

The students and Katie repeat in unison: '2 small words put together to make a bigger word.'

Katie praises: 'Good job, Jane. We have got (she clicks to change slide on screen) we have got

lighthouse. Let's go.' Katie and children sway and clap and say in unison: 'light plus house makes lighthouse'. Katie says: 'Take 'house' away, what's left?'
The children answer in unison: 'light.'
Katie says: 'Take light away, what's left?'
The children answer in unison: 'house'
Katie says: 'Jane, take *llll* away from lighthouse, what does it say?'
Jane answers: '*ighthouse*'
Katie affirms correct answer and poses another question: '*ighthouse*, Georgia put *sh* in front of it what does it say?'
Georgia answers: '*shighthouse*'
Katie nods and poses another question, Jane and Jacinta put a *guh* in front of it, what does it say?
Jane and Jacinta answer in unison: '*gighthouse*.'
Katie affirms and poses another question: 'Good. Sara, put a *nnn* front of it, what does it say?'
Sara pauses, unsure and answers incorrectly: '*lighhouse*.'
Katie repeats the question: 'Put a *nnn* in front of it, what does it say?'
Sara falls silent, unsure.
Katie whispers: 'What does it say, *nighthouse?*'
Sara: '*nighthouse*.'
Katie says: '*Nighthouse*, good job. Let's do cupcake, let's go.'
Children answer in unison, swaying and clapping: 'Cup plus cake makes cupcake.'
Katie says: 'Okay, everyone take the cake away.'
Children answer in unison: 'Cup.'
Katie says: "Take the cup away?'
Children answer in unison: 'Cake.'
Katie says: 'Ewan, take the *cuh* away from cupcake, what does it say?'
Ewan answers: '*Upcake*.'
Katie says: *'Upcake* good, Greg, put a *sh* in front of it, what does it say?'
Greg: '*Shupcak*e.'
Katie nods. Katie says: 'Ellen, put a *th* in front of it, what does it say?'
Ellen: '*Thupcake*.'
Katie says: '*Thupcake*, good job, let's do basketball, let's go.'
Children respond in unison, swaying and clapping: 'Basket plus ball makes basketball.'
Katie says: 'Take the ball away, what's left?'
The children respond: 'Basket.'
Katie says: 'Basket, take the basket away, what's left?'
The children respond: 'Ball.'
Katie says: 'Edward that the *buh* away from the beginning of basketball, what does it say?'
Edward responds: '*asketball'*
Katie affirms: '*asketball*, good Anita put a *nn* in front of it, what does it say?'
Anita responds: '*nasketball*.'
Katie affirms: 'Good, Tom, here's a tricky one, put a *kkk* in front of it, what does it say?'
Tom answers: '*Kasketball*.'
Katie says: 'Pardon?'
Tom repeats: '*Kkkasketball*.'
Katie affirms: 'Oh good, Lisa, put a *lll* in front of it, what does it say?'

Leah: '*Lasketball*.'
Katie affirms: '*Lasketball.* Good job.'
Katie clicks the screen and the words 'Pretend to be' appear on it.
Katie: 'This time, I want you to pretend to be a *m/ouse, a m/ouse*.'
The children respond physically, by pretending to be mice and squeak on the mat.
Katie says: 'I want you to pretend to be a *f/ish, a f/ish*.'
The children respond physically, by pretending to swim.
Katie says: 'I want you to pretend to be a *sh/ar/k, sh/ar/k*.'
The children respond physically by swimming with hands like fins and snapping jaws.
Katie says: 'I want you to pretend to be *a t/r/ee, t/r/ee*.'
The children respond by miming being trees.
Katie says: 'And back on your cross. Let's go, five, four, three, 2, one.' The children move back to their places on the mat. The screen changes to show the words 'Magic Words'
She takes out a bundle of sight word flashcards. Katie says: 'And eyes up here, let's go, nice and quick.' She shows the flashcards of common sight words one by one. The children respond in unison by repeating each word three times. She leads saying it with them: it, of, in, and, to, is, a, be, the.' Katie pauses to make them spell 'the' in unison. She continues the sight word drill with them: 'that, I, was.'
Katie says: 'It should say *waz* but we say was.'
The children respond: 'It should say *waz* but we say was.'
Katie says: 'Let's go: w a s (spells it) let's go.'
The children respond in unison to flashcard: 'w a s (spelling it after her).'
Katie continues with the following sight word drill: 'his, you, her, with, we, said, so, on, for, are, but, at.' Katie pauses and says: 'bat bet bit bot but, let's go.'
The children respond: 'bat bet bit bot but.'
Katie continues with the flashcard drill, leading them: 'as, at, or, run, not, they, he, has, up, my, for, if, an, go, by, do.' Katie pauses: 'Spell it.'
Katie and the children sing in unison: D,o what shall I do? D,o, what shall I do? D,o, what shall I do? My little card says do do.' Katie continues to lead them in unison: me, no.'
Katie says: 'Stand up, let's go.'
Children stand up and shout and stamp: 'N,o spells no.'
Katie says: 'Sit down on your bottoms please, let's go, she, new, now, who, off, 2.'
The children respond in unison to each flashcard, repeating each three times.
Katie says: 'This is the...'
The children respond in unison to flashcard: 'Number 2.'
Katie says: 'Good, our, see, old, has, our'. The children respond in unison to the flashcards with her, repeating each one three times.
Katie says: 'See, get, did, can, be, him.'
Katie says: 'We made our three words, now we've got our challenge words, let's go, saying them after me.' She brings up the word 'rose' and then 'happy' on the screen.'
Katie says: Happy
The children respond: Happy
Katie shows the word last on the screen: last
The children respond: last
Katie continues to lead the children by reading the following words, the children reading them after her: 'Small, first, police, inside, while, father, month, air, mother, beach, felt, something, please, land,

began, hear, suddenly, myself.'
Katie changes the screen to show the definition of a syllable.
Katie says: 'Stand up Ellen please. Now as fast as you can.'
Ellen reads the words as she goes back through the challenge words, changing the slides quickly on the screen.
Ellen: 'Happy, last, small, start, police, inside, while, father, month, air, mother, beach.'
Katie says: What's that one? (She shows her 'felt').
Ellen pauses and responds: 'Felt, something, land, began, hear, suddenly, myself.'
Katie says: 'Well done, pat on the back.'
The children say in unison: 'Pat on the back, pat on the back, pat on the back, clap clap clap.'
Katie says: 'Make a circle please' and puts up the syllables of the following words on the screen: Feb-ru-ar-y, mu-se-um, air-plane. 'Let's go.'
The children stand up and sing in unison: 'Make a circle, make a circle, big and round, big and round, everybody hold hands, everybody hold hands, now sit down, now sit down.'
Katie says: 'Okay put your hands like me, a syllable is.'
Children repeat in unison: 'A syllable is...'
Katie says: 'a small part,'
Children repeat in unison: 'a small part,'
Katie says: '.of a big word.'
Children repeat in unison: 'of a big word.'
Katie says: 'Let's go hands up, the first one is February, let's go.'
The children and Katie say in unison, while clapping the syllables and looking at the screen: '*Feb-ru-ary*.'
Katie says: 'And now please, museum.'
The children and the Katie say in unison, while clapping the syllables and looking at the screen: *Mu-se-um*
Katie says: Our next one is airplane, let's go
The children and the Katie say in unison, while clapping the syllables and looking at the screen: '*Air-plane*.' (Some children say air plane skies)
Katie says: 'Oooh, what is it?'
Katie and children say in unison, while clapping the syllables and looking at the screen: 'Air-plane.'
Katie says: 'Our next one is calendar, let's go.'
The children and the Katie say in unison, while clapping the syllables and looking at the screen: '*Cal-en-dar*.'
Katie says: 'Now let's do Saturday.'
The children and the Katie say in unison, while clapping the syllables and looking at the screen: '*Sat-ur-day*.'
Katie says: 'Our next one is apple.'
The children and the Katie say in unison, while clapping the syllables and looking at the screen: '*A-pple*.'
Katie says: 'Tom come up here. You're being a superstar. 'She lets him pick a pair of pom-poms from a bag. 'Pat, can you do calendar please?'
Pat stands and shakes the pom-poms three times as he sounds out the syllables: '*Cal-en-dar*.'
Katie affirms: '*Cal-en-dar*. How many syllables are in calendar?'
Tom shakes his pom-pom and says *cal-en-dar,* while counting on one hand, 'Three.'

Katie affirms: 'Sure thing. Tom can you give it to Noah please? Noah you are going to do Saturday.'
Ned stands and shakes the pom-poms three times while saying, '*Sat-ur-day*.'
Katie says: 'How many syllables are in Saturday?'
Noah: '*Sat- ur- day*.' He counts on his fingers.
Katie says: '*Sat-ur-day.* How many?'
Noah: 'Three.'
Katie affirms: 'Three, good job. Give it to Jasmine please, Jasmine can you do apple?'
Jasmine shakes the pom-poms twice and says '*A-pple*.'
Katie says: 'How many syllables in apple?'
Jasmine checks on her fingers, '2'.
Katie says: '2, good good girl. Moving Ellen across, five, four, three, 2 one. *Let's Decode* is on the screen, Katie raises her hand in D.I signal to listen, she puts the *Let's Decode* manual on her knee. 'I'm going to say the words for you. You say the words fast, let's go. *qu/i/t*.' She signals with her hand for an answer from them.
The children respond: 'Quit.'
Katie says: '*Qu/i/z*' She signals with her hand for an answer.
The children respond: 'Quiz.'
Katie says: '*Qu/i/n*.' She signals with her hand for an answer.
The children respond: 'Quin.'
Katie says: 'Listen to this one, *s/qu/i/d*.'
The children respond: 'Squid.'
Katie says: 'Next one, *qu/ai/l*.'
The children respond: 'Quail.'
Katie says: 'Standing up, let's be robots please.' The screen changes to 'Robot Time Segmenting Sounds.'
Katie says: 'Our first one is quit, my turn *qu/i/t,* your turn.' The children respond in unison, moving like robots: '*Qu/i/t*.'
Katie says: 'Our word is queen, *qu/ee/n*, your turn.'
The children respond in unison, moving like robots: '*Qu/ee/n*.'
Katie says: 'Our word is quail, *qu/ai/*l, your turn.'
The children respond in unison, moving like robots, '*Qu/ai/l*.'
Katie says: 'Our word is quack, *qu/a/ck*, your turn.'
The children respond in unison, moving like robots, *'Qu/a/ck*.'
Katie says: 'Okay, moving back to your cross please, stamping on your cross, let's go.' The screen changes to 'What is a verb?' from YouTube. Katie continues: 'Right, five, four, three, 2, one.' The children hurry back to their places on the mat.
Katie says: 'Saying after me a verb is,'
The children respond: 'A verb is,'
Katie says: 'a doing word.'
The children respond: 'a doing word.'
Katie says: 'Let's do three, Sara tell me one.'
Sara: 'Kiss.'
The children and the Katie respond by miming kissing
Katie says: 'Ellen tell me one.'
Ellen: 'Cook'.

Katie says: ’Cook.’
Katie and children respond by miming cooking.
Katie says: ‘One more Ryan.’
Ryan says: ‘Jump.’
Katie says: ‘Jump, everyone, jump.’
The children and Katie respond by jumping
Katie says: ‘Quick sitting on the floor.’ (The screen changes to ‘What is a noun?’) Katie continues: ‘Saying after me, A noun is,’
The children respond: ‘A noun is,’
Katie says: ‘A person place or thing.’
The children respond: ‘A person, place or thing.’
Katie says: ‘Hold up a finger, when I count to three, point to a noun, one, 2 three, point to a noun.’
The children respond silently in unison, pointing to nouns in the classroom.
Katie says: ‘Right, get your finger again, point to a different noun, one, 2 three.’
Children respond silently in unison, pointing to nouns in the classroom.
Katie says: ‘What was your noun, Saul?’
Saul: ‘People.’
Katie says: ‘People? Is that your noun? What's your noun Georgia?’
Georgia: ‘The pencils.’
Katie affirms answer: ‘The pencils, well done, hands in your laps.’ The screen changes to vowels. Katie says: ‘Okay, say after me, 'A vowel is in every word.’
The children respond: ‘A vowel is in every word’.
Coloured balls with the vowels appear on the screen.
Katie says: ‘Okay, *a,e,i, o, u*, let's say it.’
The children respond: ‘*a e i o u*.’ Letter names.
Katie says: ‘Right then, short vowel sounds, let's go.’
Children and Katie respond in unison: ‘*ah, eh, ih, oh, uh*.’
Katie says: ‘Long vowel sounds?’
Children respond in unison with her: ‘*a e i o u*.’
Katie says: ‘Vowel, single sounds let's go.’
The children respond with a song to the tune of Bingo: ‘*a e i o u, a e i o u, a e i o u* are the short vowels that we use. A vowel is in every word, every word, every word, a vowel is in every word, a *e i o u, a e i o u, a e i o u*, and a vowel is what we use.’
Katie says: ‘Ava, you can have my dot, well done.’ The screen changes to show *a-st, e-st, i-st, o-st, u-st*.. Katie says: ‘Now, we've got *a st, e st, i st, o st, u st,* let's go.’
The children respond in unison as she points to the screen: ‘*ast est ist ost ust’*
Katie says: ‘Boys, your turn.’
The boys respond in unison: ‘*ast est ist ost ust’*
Katie says: ‘You got that right, girls, your turn.’
Girls respond in unison: ‘*ast est ist ost ust’*
Katie says: ‘Good, what's this sound here?’ She points to a new slide. ‘We've got *qu-a. qu-e, qu-i, qu-o, qu-o.* Let's go.’
The children respond: ‘*qu-a, qu-e, qu-i, qu-o, qu-u*.’
Katie says: ‘Boys your turn.’
Boys respond in unison: ‘*qu-a, qu-e, qu-i, qu-o, qu-u*.’

Katie says: 'Girls, your turn.'
Girls respond in unison: '*qu-a, qu-e, qu-i, qu-o, qu-u*.'
Katie says: 'Standing up please. I've got long vowel sounds.' She holds her arms above her head, 'I've got short vowel sound.' Katie puts her arms down by her side. 'See if I can trick you today. Let's go. *i i i,'* She makes the *Jolly Phonics* gesture. The children respond in unison silently and physically, by crouching down to indicate a short vowel sound.
Katie says: 'Good. And standing up. *o, o*'. She makes the *Jolly Phonics* gesture).
The children respond in unison, silently and physically by stretching up high to indicate a long vowel sound. Katie says: 'You guys are too good, hands by your side, *a a a a'*. She makes the Jolly Phonics gesture. The children respond in unison, silently and physically by crouching down low to indicate a short vowel sound. Katie continues in this vein, testing for a unison physical response to long a and short o, before revising digraphs, prior to her introduction of the *qu* digraph, which is central to the lesson.

The warm up at the start of each lesson deviated from key authors' articulation of a short review of prior knowledge (Archer & Hughes, 2011, p. 82; Hollingsworth & Ybarra, 2009) in that it took 20 minutes and included a review to consolidate literacy knowledge. Displayed on PowerPoint slides, co-authored and shared among the three coalition schools, the warm up changed twice a term in order to expand on other literacy skills and remove ones that had been learned. This interpretation of a warm up was derived from John Fleming's professional development in Explicit Instruction and included all the prerequisites for the teachers' subsequent phonics and PA lessons. Katie used the warm up time to teach the precursor reading and systematic decoding instruction formats from Let's Decode (Formentin, 1993) and review the key skills of blending, segmentation and rhyming during each warm up. Let's Decode (Formentin, 1993) is a series of teaching formats from Instruction Reading (Carnine et al., 2010) based on the Direct Instruction approach. Katie followed the "model-lead-test" steps in the warm ups, as it related to her goals of having the children write words using the phonic skill objective by sounding out each word and following the new sound rule. By reviewing the sound-letter correspondences in this manner, using repetition, recite and recall, YouTube songs and accompanying Jolly Phonics actions along with PA skills, Katie was performing a subskill review (Hollingsworth & Ybarra, 2009, p. 85). On average, her warm up contained 22 different elements and lasted between 18 and 22 minutes, as shown in Table 4.3.

Table 4.3 *Contents of Katie's Introduction or Warm-Up Phase over the Five Observed Lessons*

Lesson 1 **Warm up**	**Lesson 2** **Warm up**	**Lesson 3** **Warm up**	**Lesson 4** **Warm up**	**Lesson 5** **Warm up**
Good morning song, calendar. Days of the week song and chant. Months of the Year, Seasons.	Good Morning song, calendar. Days of the week song and chant. Months of the Year, Seasons.	Good Morning song, calendar. Days of the week song and chant. Months of the Year, Seasons.	Good Morning song, calendar. Days of the week song and chant. Months of the Year, Seasons.	Good Morning song, calendar. Days of the week song and chant. Months of the Year, Seasons.
PA *Let's Decode* Rhyming Segmentation Word Level	PA *Let's Decode* Rhyming Segmentation Auditory blending	PA *Let's Decode* Rhyming Segmentation Auditory blending	PA rhyming Segmentation and auditory blending	PA *Let's Decode* Rhyming, segmenting and auditory blending
YouTube Letter sounds song Letter Sound correspondence drill	Define a sentence YouTube Letter sounds song Letter Sound correspondence drill	Define a sentence YouTube Letter sounds song Letter Sound correspondence drill	Define a sentence YouTube Letter sounds song Letter Sound correspondence drill	Define a sentence YouTube Letter sounds song Letter Sound correspondence drill
Defining digraphs Digraph sound drill	Defining digraphs Digraph sound drill	Defining digraphs Digraph sound drill	Defining digraphs Digraph sound drill	Defining digraphs Digraph sound drill
Defining blends Blends drill	Defining blends Blends drill	Defining blends Blends drill	Defining blends Blends drill	Defining blends Blends drill
Defining compound words Compound words revision	Defining compound words Compound words revision	Defining compound words Compound words sound deletion testing	Defining compound words Compound words sound deletion testing	Defining compound words Compound words sound deletion testing
PA segmentation actions	PA segmentation actions	PA segmentation actions	PA segmentation actions	PA segmentation actions
Common sight words drill	Common sight words drill with challenge words	Common sight words drill with challenge words	Common sight words drill with challenge words	Common sight words drill with challenge words
Define syllables PA syllables *Let's Decode* auditory blending	Define syllables PA syllables Auditory blending and segmenting with pom poms	Define syllables PA syllables Auditory blending and segmenting with pom poms	Define syllables PA syllables *Let's Decode* Auditory blending and segmenting	Define syllables PA syllables Auditory blending and segmenting with pom poms
Define verbs Action verbs	Define verbs Action verbs	Define verbs Action verbs	Define verbs Action verbs	Define verbs Action verbs
Short and long vowel revision Blending vowels and digraphs	Define common nouns Point to a noun	Define common and proper Point to a proper noun	Define common and proper Point to a proper noun	Define common and proper Point to a proper noun

Lesson 1 Warm up	Lesson 2 Warm up	Lesson 3 Warm up	Lesson 4 Warm up	Lesson 5 Warm up
	Short and long vowel revision Blending vowels and digraphs	Short and long vowel revision Blending vowels and digraphs	Short and long vowel revision Blending vowels and digraphs	Short and long vowel revision Blending vowels and digraphs
			Sentence comprehension: Who? How? What?	Sentence comprehension: Who? How? What? When? Why?

It was clear that Katie made increasing demands in her warm ups over the course of the five observed lessons, progressively becoming more difficult in terms of PA blending, segmentation and the level of questioning on concepts such as compound words using sound deletion.

The lesson objective and relevance were not stated in any of her lessons, as Katie preferred to practise the skill and objective using unambiguous language, according to the Direct Instruction model whereby the teacher is expected to practise the skill rather than explain it. Katie appeared to assume that applying the phonics skill of sounding out words and writing them down would make the relevance of the target skill obvious to her students. Nor did she check for understanding of the lesson objective in the opening phase of the lesson, instead using checking for understanding of the objective throughout the "I do, We do, You do" and plenary phases. Other relevant subskills reviewed included definitions of common nouns and verbs that were used as key phonic words for the children to write independently. Her warm up was consistently visual, auditory and kinaesthetic (VAK), and while she varied her sight word reviews between flashcards and the IWB, the PowerPoint slides provided the scope and sequence of the warm up. Pacing and continuous use of VAK strategies meant that students remained focused. Katie's warm up was more of a content review than a review of prerequisite skills as understood by key EI authors. It complied with the coalition schools' interpretation of a literacy warm up and always covered the necessary subskills.

Table 4.4 shows Katie's warm ups dominated her lessons (see %) and were almost matched by the average length of the "We do" phase. Table 4.4 also demonstrates how Katie interpreted independent practice by consistently keeping the "You do" phase comparatively short and allowing the "I do" and "We do" phases to dominate. Table 4.5 shows the key teacher behaviours observed in the introduction phase of Katie's lessons (shaded cells).

Table 4.4 *Contents of the Five Lesson Phases*

Minutes spent in the lesson	Lesson 1 %	Lesson 2 %	Lesson 3 %	Lesson 4 %	Lesson 5 %	Average %
Warm-up	37	32	37	35	38	35.8
I do	14	4	10	4	7	7.8
We do	32	23	32	29	23	27.8
You do/ testing	12	21	14	8	11	13.2
Plenary	4	9	3	9	11	7.2
Transition	1	11	4	15	10	8.2
Total	G min	51 min	53.5 min	58.5 min	56.5 min	53.9

Table 4.5 *Key Teacher Behaviours in Introductory Phase of Lessons (Indicated by Shaded Cells)*

Introduction	Lesson 1	Lesson 2	Lesson 3	Lesson 4	Lesson 5
Gains student attention					
Presents learning objective and/ or clarifies its importance					
Reviews prerequisite skills or concepts in warm-up using VAK stimuli					
Teacher checks all students for understanding of lesson prerequisites					

Key Finding 4.34 – Analysis of Pedagogy: Review of Prerequisite Skills
At the start of each lesson Katie reviewed prerequisite skills (Archer & Hughes, 2011) in addition to general literacy knowledge.
Key Finding 4.35 – Analysis of Pedagogy: Review of Prerequisite Skills
The warm up at the start of each lesson deviated from key authors' understanding of a short review of prior knowledge (Archer & Hughes, 2011, p. 82; Hollingsworth & Ybarra, 2009) in that it lasted for 20 minutes and consolidated literacy knowledge on PowerPoint slides, co-authored and shared among the three coalition schools.
Key Finding 4.36 – Analysis of Pedagogy: Review of Prerequisite Skills
Katie used the warm up time to teach from the Let's Decode (Formentin, 1993) PA program and reviewed the key skills of blending, segmentation and rhyming during each of the warm ups.
Key Finding 4.37 – Analysis of Pedagogy: Review of Prerequisite Skills
Katie followed the model-lead-test steps, even in the warm ups.

Key Finding 4.38 – Analysis of Pedagogy: Review of Prerequisite Skills
Over the five observed lessons, Katie made increasing demands in her warm ups, becoming progressively more difficult in terms of PA blending, segmentation and the level of questioning on concepts such as compound words using sound deletion.
Key Finding 4.39 – Analysis of Pedagogy: Review of Prerequisite Skills
Katie did not verbalise the lesson objective or discuss the relevance of the target skill in any of the observed lessons, preferring instead to demonstrate the skill and the objective using taut, unambiguous language. This was interesting, because by demonstrating the skill and the objective she was following a Direct Instruction Model of relevance to her pre-primary students. In Direct Instruction, the teacher is expected to practise the skill rather than explain it.
Key Finding 4.40 – Analysis of Pedagogy: Review of Prerequisite Skills
Katie didn't check for understanding of the lesson objective itself in the opening phase of the lesson, but checked for understanding the objective throughout the "I do, We do, You do" and plenary phases.
Key Finding 4.41 – Analysis of Pedagogy: Review of Prerequisite Skills
Katie's warm up was consistently visual, auditory and kinaesthetic (VAK), and while she varied her sight word review between flashcards and the IWB, the PowerPoint slides provided the scope and sequence of the warm up. Pacing the warm up and continuous use of VAK strategies kept student attention focused.

4.3.2 The Body of the Lesson: I do, We do, You do

Katie consistently modelled the metacognitive strategies necessary for sounding out the six key words in the body of each lesson that were later tested on independent worksheets. She did this by directing student attention to the whiteboard and restating the phonic rule, followed by gesturing, pulling down each sound in the word and writing them down one by one. Once each sound had been written, she reviewed the word and the sounds she had already written. The students were involved by helping her physically "pull down the next sound" (Lloyd, ,1992) in the word before she wrote it. Her language was consistently clear and concise as she repeated the phonic rule and confined her speech to the metacognitive task at hand.

Katie moved swiftly into the "We do" part of the lesson by asking the students to form a circle on the mat and having individual whiteboards, felt pens and cloths in each of the five lessons observed. Every student was required to pull down the sounds in the key words and write them one by one. Students were expected to wait for the next sound and asked to erase any letter they had written down ahead of the others. In this way, the students were held together in guided practice, their hands were raised to the ceiling as they pulled down the next sound in the key word with the teacher, and then they recorded it on their whiteboards. Katie paced around the circle, checking each whiteboard and correcting errors by asking any student who had written a reversal to erase the letter and rewrite it. Katie made consistent use of faded support, by first telling them what to do with the initial two key

words, then asking them what to do with the next two examples, and finally, reminding them what to do with the final key word, suggesting that Katie had reached pedagogic automaticity in her craft of EI or a stage of proficiency that "teachers with an ingrained set of skills will be able to teach automatically..." (Pollock, 2007, p. 60). Writing the final key word was always presented as a test, the final check allowing all students to apply the metacognitive strategies necessary for sounding out the word with the key digraph or long vowel sound. Again, Katie's language was concise and confined to the task at hand. She maintained the pace so that students didn't become distracted, and all students were expected to respond in unison as they repeated the phonic rule or pulled down the next sound.

The independent practice phase of the lesson consistently began with an explanation of the different worksheets the students would find at their places. She asked the students to return the whiteboards, felt pens and cloths to their separate tubs and gather around the small whiteboard where she showed them the worksheets they would encounter. The worksheets were differentiated for weaker students who were given the worked examples they had just written on their whiteboards, while others were given a mix of known examples and new words containing the key phonic rule. The worksheets simply comprised a list of black and white pictures on the left-hand side of an A4 sheet, prompting the students to write the key phonic words or words containing the phonic rule. Katie ensured that each child understood what the picture depicted before sending them to do independent practice at their desks. She circulated the room throughout this time, pausing to correct or praise a child, hurry them along, encouraging them to pull down the next sound or erase and correct the word. These independent practices were brief and typically lasted no longer than ten minutes. They concluded with Katie asking the students to write their names on the back of their worksheets and return to the mat. The following vignette from her fourth observed lesson on a-e (a magic e) demonstrates how Katie approached the "I do, We do, You do" phase.

Katie stands and walks to the Smartboard: 'Sitting down please, saying after me, a digraph is 2 letters that make 2 sounds.' The children respond in unison. Katie continues: 'We've got; ai ai?' The children respond in chant: 'a..a..a.' Katie continues: 'So when 2 vowels go out walking?' The children respond in unison: 'the first one does the talking.' Katie continues: 'Now the ai happens in the?' The children answer: 'middle of the word.' Katie affirms, and writes on the board: 'We have ai in the middle and ay at the end of words, but if we have a word like cake we write cake like this and we don't write rake like this, because there's another sound that happens in the? Over here we have an a then we have a space, then we have an e. I've got the little bossy e at the end of the word and makes the short vowel sound into the long vowel sound. So, we're going to call this bossy e because he has a magic power. He makes the a say the long vowel sound, so we're going to say a bossy e, a bossy e, a bossy e, a a a...' The children respond: 'a bossy e, a bossy e, a bossy e, a a a.' Katie continues: 'Let's do it one more time: a bossy e, a bossy e, a bossy e, a a a. So the job of the bossy e is to jump over the letter and make the short vowel sound into a? So, let's do the short vowel sounds first of all: a e i o u, let's do the long vowel sounds: ah eh ih oh uh.' The children repeat them after her. Katie continues: 'a long

vowel sound, what's its job?' The children reply: 'to make the short vowel into a long vowel sound.' Katie asks an individual child, who responds correctly. Katie continues: 'Let's look at some a-e words, I'm going to say them, you're going to say them nice and fast. cake snake day made shake whale tail cupcake, let's do it again cake snail.' The children repeat them after her. Katie continues: 'Because the e is so bossy we need a consonant in between to protect the a. So the e is going to jump over the consonant and turn the a into a long vowel sound. Have a look at 'snake' the consonant is k, so that's why the word says snake, if we took away the bossy e and the word said 'snak', the word would say snak. But we want it to say snake so we put in the bossy e to make the short vowel into a long vowel sound. She circles the k in cake and the k in snake. She demonstrates snak and then snake and explains the difference. What's the consonant in whale?' The children respond: 'i, l.' Katie continues: 'a bossy e, a bossy e, a bossy e a a a.' The children repeat this after her. Katie continues: 'I'm going to practise writing some words today, practising using my a bossy e sound to make the a sound. Can you make a circle please?' The children jump up and make a circle, singing as they do so. The children sit in a circle and Katie bends to them: 'We need a whiteboard, a texter and a cloth. Boys get a whiteboard please.' The boys go and get their whiteboards and return to their place. The girls do likewise when asked. Katie returns to the whiteboard: 'a bossy e a bossy e a bossy e a a a, let's go, so the job of the bossy e is to jump over to make the short vowel sound into a...?' The children respond: 'long vowel sound.' Katie paces and continues: 'In the middle of the word, so our trick is to know which words have a-e in them and which words have ai in the middle of the word. I'm going to write the first word, face this way please. So, if I was going to write the word 'cake' If I was going to write the word 'cake', I'm going to put my hands to the sky and pull down the sounds c/ a/ke, then I'm going to do one sound at a time because I'm pulling the sounds apart. So we are going to go c/a kuh, now because it's a long vowel sound I'm going to… I'm not going to use ck in cake, because ck only happens after a? So, c/a/ke and in cake it's a big k, now at the moment my word says cak, c/a/k. I want it to say cake so I'm going to add my bossy e to the end of the word so that my bossy e can jump over and turn that short vowel sound into a? The children respond: 'long vowel sound.' Katie continues: 'My word says cake. If I want to do the word rake, let's do this one together, let's pull the sounds down, let's go. You're not writing just me. I'm going to pull down my first sound r, hands back up pull down the next sounds, so I'm just going to write the a today.' The children pull down the sound with their hands and shout: 'a.' Katie continues: 'r/a pull down the last sound.' The children respond: 'kuh.' Katie says: 'Now, it's a long vowel sound, am I going to use ck? no, because that only happens after a?' The children respond: 'short vowel sound.' Katie continues: 'it's like cake it's got a k. R/a/k, at the moment my word says rak, what does it say?' The children respond: 'rak.' Katie says: 'So I'm going to add my? bossy e to the end of the word.' Katie continues: 'what's the job of the bossy e? Let's practise writing words. The first word we're going to write is snake.' Katie guides them through writing the words snake, encouraging them to pull down each sound before writing it on their own whiteboards: 'Pull down the sounds in snake. Let's do it again.' The children say: 'The children respond: 'sn/a/ke, sn/a/ke, sn/a/ke.' Pull down the first sound, write it on your board please.' The children say: 's.' and Katie watches them as they write it: 'we've done s, what's the next sound? n, write it down, now we have a blend sound, what's the blend sound?' One child responds: 'sn' Katie praises her and continues: 'What's the next sound? a, just write the a.' The children write it. Katie says: 'We've done s/n/a/ what's the next sound?' The children respond: 'kuh.' Katie says: 'It's a long vowel sound so you only need the letter k. At the moment, your word says 'snak' you need to add the bossy e to the end of your word please to make it say snake.' The children write. Katie leads the children through the writing of flame, whale and cupcake in the exact same manner. Katie checks both individuals and the group for understanding as

they write. She circulates within the circle so that she can see each child's whiteboard and then does a final check for understanding before releasing them to their individual worksheets: 'well done, saying after me a bossy e, a bossy e, a bossy e, a a a. Time for a test. Our word is made, hands to the sky pull down the sounds in made.' The children respond: 'made, m/a/de.' Katie continues: 'I made a cake. Let's do the sounds in made again.' The children respond: 'm/a/de.' Katie continues: 'Thinking about the a bossy e sound.' The children write and Katie circulates: 'Hide your board, so others can't see it. a what's the next sound? why do you have a cuh sound in made?' She bends to help a child: 'm/a/d? what's the sound? Show me your word made, well done. Good, what's the job of the bossy e?' Katie continues testing individuals: 'Good job what's the job of the bossy e? Katie turns to the board and models a copy of the worksheet: 'Have a seat so you can see the pictures. T. is ready. We're going to write words today with a bossy e a bossy e a bossy e a a a. The job of the bossy is to jump over and make the a say? Looking at the pictures saying them after me so that you know what they are, cake snake flame whale cupcake. Or you might have this one, whale cupcake pavement lemonade flame.' She points to the pictures on the worksheets and makes the children repeat the nouns after her. Katie then models the writing of each of the words on the worksheet, involving the children in each step: 'So if I was going to do cake, pull the sounds down in cake, let's go. One at a time? Now the cake starts with a c. Pull down the next sound. Now I am just going to write down the a. Pull down the next sound.' She encourages the children to pull down each sound before she writes it. Katie finally dismisses them to their worksheets: 'You are going to try this all by yourself.' Katie circulates to help them: 'What makes the wh sound in whale? h. Cupcake the cup comes first. You've finished fantastic, what's the job of the bossy e, to make the a?' Some children are on a differentiated worksheet: whale, cupcake, pavement, lemonade, flame. Others are doing a sheet with the following: cake, snake, flame, whale, cupcake. After five minutes, Katie called them back to the mat for the plenary check for understanding.

The above vignette shows that Katie involved the children in the "I do" session, maintained clear and concise language and used visual, auditory and kinaesthetic prompts throughout. She modelled and did a final check for understanding before releasing them to independent practice. Katie then circulated and monitored their progress until she called them back for a plenary session.

Key Finding 4.42 – Analysis of Pedagogy: Body of the Lesson
Katie consistently modelled the six key words needed for independent practice in the "I do, We do" phase of the lesson.
Key Finding 4.43 – Analysis of Pedagogy: Body of the Lesson
Katie consistently checked for understanding by all students, referring to the phonic rule in her feedback.
Key Finding 4.44 – Analysis of Pedagogy: Body of the Lesson
Katie consistently used clear, concise language and a visual, auditory, kinaesthetic strategy to teach the phonic rule in all five lessons.

Table 4.6 *Key Teacher Behaviours in the Body of the Lessons (Indicated by the Shaded Cells)*

Key Teacher Behaviours	Lesson 1	Lesson 2	Lesson 3	Lesson 4	Lesson 5
I do					
Clear, consistent and concise language					
We do					
Guided practice					
CFU and feedback at high frequency					
Uses prompts of the strategy					
Delivers lesson at brisk pace					
Uses visual or auditory hand signals to prompt student response					
You do					
Checks for all students' understanding					

4.3.3 Plenary Phase of the Lesson

The plenary phase of the lesson always took place on the mat, with Katie asking students to chant the phonic rule they had learned and checking individual students' understanding. This was typically brief, less than three minutes. She then asked them to return to their desks to start Spelling Mastery (Dixon et al., 1980), signalling the end of the phonic and PA lesson. Katie's lessons typically ran from 8.30 to 9.30, with some deviation at either end. Katie did not preview the content of the next lesson, but used her plenary sessions to undertake a final check of understanding the key phonic skill that had been taught. Following extensive guided practice, independent practice was always incorporated as part of the lesson so that she could monitor student practice and correct at point of error. Independent practice was always restricted to the key phonic rule and the metacognitive strategies for applying the rule to writing key words. Table 4.4 shows Katie was consistent in her final check for understanding.

Table 4.7 Key Teacher Behaviours Evident in Plenary Phase of Lessons (Indicated by Shaded Cells)

Key Teacher Behaviours	Lesson 1	Lesson 2	Lesson 3	Lesson 4	Lesson 5
Final check for understanding					
Short interactive review of what was learned					
Elicits response from students with evidence of high success rate					
Preview of what will be learned the next day					

The above table indicates Katie's review of learning did not include a preview of what was to be learned the next day. Coupled with her monitoring of guided practice and independent practice, the plenary session assured Katie that her students had achieved the lesson objective. This final vignette below shows how Katie ran her plenary check, typical of her practice, and indicates her final check for understanding was short and involved all the children.

Katie stands in front of the Smartboard and holds her hand over the final *e* in 'wide'. She addresses the class sitting on the mat: 'What would it say to us? What if we put the *bossy e* there what would it say? With the i, what would it say?' The children respond in unison: 'wide'. Katie praises: '*w/i/de* well done. Come and circle a word, everyone say after me *i bossy i bossy e i bossy e i i i.*' One child steps forward and circles a magic e word. The children respond in unison: '*i bossy e i bossy e i bossy e i i i*'. Katie continues, holding her hand over the final e in 'nine': 'You say it. This word says nine, if I take the bossy e away what would it say?' The children respond in unison: '*Nin*'. Katie praises: 'Good job standing up please, Simon says *j/u/mp, c/l/ap, d/an/ce, sh/ak/e, s/t/op*. Simon says *h/o/p sh/ake* sit. Okay eyes up here. Today for *Spelling Mastery*.' Katie begins to teach *Spelling Mastery*.

Key Finding 4.45 – Analysis of Pedagogy: Plenary Phase
Katie undertook a final check for understanding of the phonic rule in each of her five lessons, with a high success rate.
Key Finding 4.46 – Analysis of Pedagogy: Plenary Phase
Katie did not preview what was to be learned the next day in any of her lessons.

4.4 Chapter Summary

Dove Tree Primary served a socio-economic population above the Australian national average. The school had introduced Explicit Instruction in 2009 to raise numeracy and literacy levels. The Year 3 NAPLAN data showed the school performed above the Australian national average in literacy until 2013/2014, when it dropped below the national average. The school conformed strictly to the principles of Explicit Instruction in its choice of curriculum resources, curriculum analysis and policy documents.

Interviews with the principal revealed a highly supportive attitude towards Explicit Instruction in terms of instructional leadership, curriculum support and school policy on coaching and mentoring. The principal justified the use of EI as a research and evidence-based approach to pedagogy and a key feature of high-performing schools (Jensen, 2014).

Katie felt that Explicit Instruction was an effective approach from a neurological perspective and found the transition from a constructivist approach relatively easy, having practised Explicit Instruction for five out of her six years of teaching. She retained her autonomy through choosing how to execute the "I do, We do, You do" elements of her lessons. Katie balanced play-based or discovery learning with Explicit Instruction in her class by timetabling play-based pedagogy for the afternoons.

Katie's practice of Explicit Instruction consistently included all elements, except for explicitly presenting the lesson objective and concluding lessons with a review of what was to be taught the following day. In line with school practice, the warm up deviated from a short review of prerequisite skills to a review of learning. Katie's "We do" comprised an average of 27.8% of the lesson compared with "You do", at an average of 13.2%, and illustrates her commitment to guided practice and checking for understanding. In conclusion, Katie's practice of Explicit Instruction was highly compliant with within the wider, supportive environment of a highly committed school.

Chapter 5: Holly Fern Primary School

This was the second of three case studies that examined the educational philosophy of a particular school and pre-primary teacher. The chapter outlines the context of Holly Fern Primary School and Emma's practices of Explicit Instruction (Archer & Hughes, 2011; Hollingsworth & Ybarra, 2009; Rosenshine, 2012) in five phonological awareness and phonics lessons. The chapter has been organised into three main sections, namely school context, teacher background and philosophy, and also provides an analysis of Emma's pedagogy. A summary of the case study concludes the chapter.

5.1 School Context

Holly Fern Primary School is an Independent Public School situated in the Perth metropolitan area, catering for students from kindergarten to Year 7. This government school was built in a new suburb during the last decade and introduced Explicit Instruction three years ago to raise NAPLAN results, as the principal felt students were not fulfilling their potential. The school aims for excellence in academic, sports and arts achievement. At the time of the research, the My School website (ACARA, 2015) indicated that approximately 680 students were enrolled at the school, of which 1% were Indigenous and 13% were from a language background other than English. There were 46 teaching staff and 26 non-teaching staff.

The Index of Community Socio-Economic Advantage rating for Holly Fern Primary School (see Table 5.1) was 1061 compared to the national average ICSEA value of 1000, indicating that this school's students were more educationally and socially advantaged than the Australian average.

Table 5.1 *Index of Community Socio-Economic Advantage (ICSEA) Indicating the Distribution of Students in Holly Fern Primary compared to the Overall Australian Distribution (ACARA, 2015)*

Distribution of Students	Bottom quarter	Middle quarters		Top quarter
School distribution	11%	26%	32%	31%
Australian Distribution	25%	25%	25%	25%

Note: percentages are rounded and may not add up to 100

Holly Fern's NAPLAN data for literacy indicates the school's reading results were below average to average between 2010 and 2014 (ACARA, n.d). Holly Fern Primary introduced Explicit Instruction in 2012. Table 5.2 shows Holly Fern's Year 3 average NAPLAN reading results compared to all Australian Schools (ALL) and statistically similar Schools (SIM). To protect the identity of the school only the Year 3 reading averages are shown.

Table 5.2 *Holly Fern P.S. Average NAPLAN Results Compared to Similar and All Schools*

Year	2010		2011		2012		2013		2014	
Average Y3 NAPLAN Reading Score	397		402		431		411		422	
	SIM	ALL	SIM	ALL	SIM	ALL	SIM	ALL	SIM	ALL
	424	414	425	416	432	420	431	419	435	418

The data show that between 2010 and 2014 the school consistently underperformed in comparison to schools with a similar ICSEA rating; in some years the school's reading scores were lower than the average for all Australian Schools.

Key Finding 5.1 – Holly Fern School Context

Holly Fern Primary School is in metropolitan Perth and serves children from pre-primary to Year 7. The school emphasises achievement in all areas of a broad curriculum. The ICSEA score indicates that the school population is above average in socio-economic terms. The NAPLAN data indicate the school was underperforming in reading compared to similar schools, in some years also compared to the average for all Australian schools.

School Policy Documents

The only school policy document on Explicit Instruction focused on lesson format, as shown below.

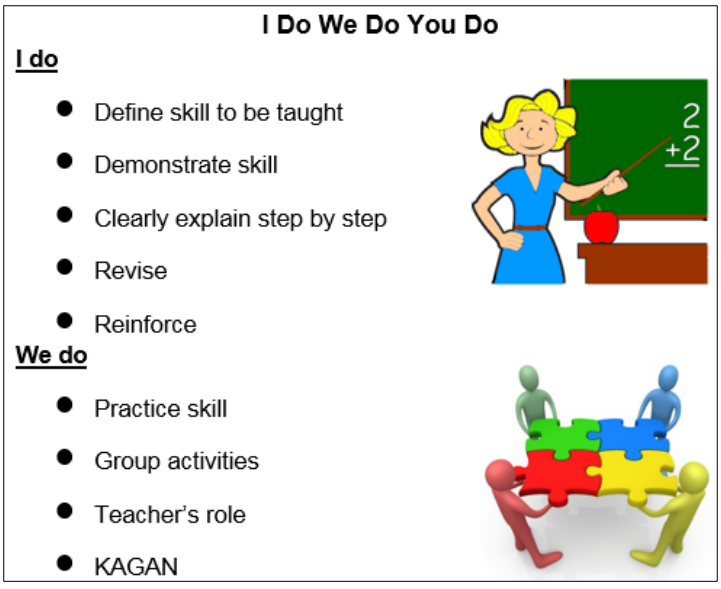


Figure 5.1 Holly Fern School Policy on Explicit Instruction

Key Finding 5.2 – Holly Fern School Context
The only school policy document on Explicit Instruction revealed a hybrid understanding of what might feature in the "We do" section of the lesson. Kagan's approach to activities is based on a constructivist philosophy and requires students to find the answers themselves.

Interview with the Principal

In an interview in April 2014, I asked the principal, Jean, how the school became involved with Explicit Instruction, to which she responded:

> Our NAPLAN results weren't where they should be. Plus, when we dug deeper with some our standardised testing, em, we could see a need for looking at something different… And also running at that time was the knowledge that we needed some consistency across the school. For example, we had different phonics programs being used in ECE.

When asked about how Explicit Instruction had affected the school's approach to literacy, the principal replied:

> I mean there has been the Australian Curriculum come along. And we were sort of well ahead of that. We were looking at that back in 2011 and 2010 and we could see the difference in what was expected of Kindy and Pre-Primary teachers in the Australian Curriculum as what's in our curriculum. So, it sort of blended in nicely with the explicit teaching and some focus in on the phonemic awareness, phonics and things like that, so that we could actually blend all of that together but still keep the consistency and the common language as we came up.

Key Finding 5.3 – Holly Fern School Principal
The principal of Holly Fern introduced Explicit Instruction to raise literacy results and provide a more consistent approach to teaching literacy across their early childhood education classes. The principal of Holly Fern viewed Explicit Instruction as an enabling pedagogy for meeting the higher standards demanded by the Australian Curriculum for kindergarten and pre-primary levels.

The principal stated she had a consultant working in the school with the early childhood education teachers:

> And now we've had for 2013 and this year got another consultant Polly, working with us. She's come from England and she's fully trained in explicit teaching and everything around it. So, she has continued to build on the KP (Year) 1 and now she's growing it into (Year) two.

Key Finding 5.4 – Holly Fern School Principal
The principal had engaged a consultant, Polly, to work with the early childhood education teachers and believed Polly was fully trained in explicit teaching.

The principal reported that Explicit Instruction had provided a common focus and cohesion in the literacy block for early childhood teachers:

> So the collaboration around the literacy program has improved, it's just so strong now. And we've worked very hard at getting structure into our literacy blocks. So, we're making sure that all of the elements are being covered. We've been strong with warm-ups, we've been strong with gradual release, you know with the teacher modelling doing and the kids having a go and then working through to the independence and then of course the constant checking for understanding, and assessment of that. I mean that's a very general outline, but I think that that's common across the School, particularly in ECE. I would say that that's what you're going to see, those areas all the way through.

Key Finding 5.5 – Holly Fern School Principal
The principal believed that all the elements of an Explicit Instruction lesson were enacted in the pre-primary classroom. However, the language used in her description of an Explicit Lesson presented a compromised understanding of enactment.

The principal acknowledged that there were some initial ideological difficulties with implementing Explicit Instruction in early childhood education:

> ...So there was that sense of 'Is this too direct?' you know 'Is it too explicit?' 'Shouldn't they sort of just be sort of learning and so it was working though that balance. That it can all happen through that balance and we've got through that… It just didn't work so we completely changed the teachers down there and we actually selected teachers that were able to reflect collaborate and we put a strong leader down there in Emma and they have just gone from strength to strength and I think that helps support them We've had our consultants in there to support them, because it has been a big shift in pedagogy for them. In getting that balance… But I'd love to get Polly and spread her support over all the classes, but I just can't afford it. She's very, very good. Polly gives me my bedtime reading! She's developed an observation sheet but because she's helping me and keeping me informed, you see I don't directly line manage the early childhood but she's keeps me informed so she's shared everything that she's shared with them.

When asked what the most significant success factors and barriers were to establishing an explicit approach, the principal responded:

> ...We had no barriers at all as regards staff not wanting to do it, because they recognised the importance of explicit teaching at point of need, and I think that's crucial, having that balance at point of need. And it was just a matter for them to clarify how explicit teaching comes into the program in the 'I do, We do, You do' process, which was very much influenced by John Fleming. So, we didn't actually see any barriers. I guess for staff the upskilling themselves in some of his strategies like *Cars and Stars,* like Warm-ups, there was some barriers there, but only in the fact that, someone needs to help me learn how to do this, if that's a barrier, we don't see that as a barrier, we see that as a hurdle we have to go around or through, so we used a number of strategies to support that. So I wouldn't say there were any real barriers. We had no opposition, because basically every staff member to the T, recognised the importance of explicit teaching in the learning process.

Key Finding 5.6 – Holly Fern School Principal
The principal believed the ideological difficulties encountered by Early Childhood Education staff had been resolved by a change in staff and the provision of targeted support, including Emma's ability as a strong leader and Polly's (the hired consultant) coaching, observation and mentoring. The principal advised she did not directly line manage the early childhood teachers.

The principal provided indirect instructional leadership in the school through professional development, the consultant and a system of executive learning committees:

> Because the executive is a strong support group for our School. It involves about 17 people. But every team has a leader and they attend the executive. Every learning area- so literacy numeracy etc. So every learning area has a leader, they attend. Plus, the three members of the admin. And one lead EA and we meet as an executive twice a term, and in that meeting we might do a bit of professional learning but it's obviously around making some decisions, strategic decisions, completely about directions in literacy and numeracy. Things like that. So a lot of our conversations have been around the Australian Curriculum, over the last year or so, about how we implement that. Em, there have been some conversations about explicit teaching. Em, you know, do we want to continue with John Fleming? Unanimously 'Yes'. Em, teachers find his professional learning very motivating. And it comes back and it impacts on their passion and energy to continue to

develop their explicit teaching skills. So I've forgotten the question now. I'm a bit all over the place.

Researcher: No that's fascinating, very interesting. So, the members of your executives are all teachers?

Jean: Three admin members - two deputies and a Principal, leading teachers across the School. Because we have a very strong shared leadership, distributed leadership role here, so the decisions about what the literacy looks like in our School belong to the, the literacy learning committee. They don't belong to me. And that's very strong. So they have two meetings. No one meeting a term, but they often call extraordinary meetings if it's something specific. So they, run the whole literacy program. They have the review and assessment cycle where information comes back to the literacy committee from across the School, they make decisions on how we're going. They're reflecting. They are looking at things like how are we going with *Cars and Stars*. How are we going with Dibbles, which is another program we're running in the School for fluency and accuracy in reading? How are we going with phonics and phonemic awareness and all of those type of things? So, it's the literacy committee that hold all that knowledge.

When asked how often the teachers were coached, the principal's response was uncertain:

It's hard to put a definitive figure on that because, um, we've had one literacy-based consultant, who we've had now, it will be two years at the end of this year.

I asked the principal how she knew that the teachers were teaching explicitly. She responded:

I have constant conversations with Ray (Deputy Principal), whom I've delegated the early childhood and curriculum and teaching and professional learning community too, so he's a part of all their professional learning as part of a team or individually. He has regular meetings with Polly and (a consultant) and I have regular conversations with Polly and K.N. so I'm always aware of what's going on. I try to get to as many of their PDs as possible...

The principal reported they had engaged with John Hattie's professional development during the research period and discovered that feedback needed attention:

Well, our explicit teaching has become a more embedded, natural process across the School, and the early childhood are probably doing it better than others because of the

extra support they've been given. We've focused on teacher pedagogy and we haven't focused on what the kids are actually learning, so the students' voice. And one of the big parts of it is the feedback. Whether it's feedback that teachers elicit from students or whether it's feedback the teachers are giving to students, or whether it's students giving feedback to students, his process goes through everything, because you look at the effect sizes, what really makes a difference to kids learning, and things like children setting their own goals, children having expectations and teachers having high expectations, plus discussions, cooperative strategies, all of these things have the biggest impact size. Feedback is right up there in the top 10. So, that's probably the biggest change but it's not taking away from explicit teaching at all. In fact, you're sitting at *Visible Learning* and you're thinking, 'Oh! Touché. That's John Fleming.'

Key Finding 5.7 – Holly Fern School Principal
The principal's instructional leadership was based on a consensual executive committee for literacy as well as reports from the external consultant and the deputy principal. Decisions such as whether to continue with John Fleming's Model of Explicit Instruction were unanimously supported by vote, as well as decisions about what Explicit Instruction teaching resources and assessments to use. Professional learning focused on developing research-based practice.

The principal justified the use of Explicit Instruction for teaching phonics and phonological awareness to pre-primary students as representing research-based, balanced and consultative reflective teaching practice:

Because I've seen the results and the impact. We're very much evidence-based here, so like I mentioned before Cars and Stars things like that, with DIBELS, we trial it, we have a look, what impact has it had, before we use something. And because we've got strong leadership structures, strong learning areas with our explicit teaching with the phonics we have constant reflection on that and looking at how we're going and is it working and is it balanced and that comes back to the literacy committee… So everything that we do, is based on what works for us and what makes a difference to our kids' outcomes, so when at the end of the day I would say I love explicit teaching, as long as it's not all explicit teaching. I mean, to me it's all about balance, I'd hate to think of kids just all day being exposed to only one strategy, it's all about balance. But kids need, they love routine. They love repetition, moving that stuff from short term memory to long term memory is really important, they need practise. And it's the teachers' skill that determines when that

practise has got it in the long-term memory and when they move on to something else, and it is all different for all kids, of course.

The principal responded to the question: "if you were observing a pre-primary teacher teaching phonics and phonological awareness using an Explicit Instruction approach, what would you expect to see?" as follows:

> Okay. I would expect to see some relevance to what they've already taught, so some strategies that the teacher uses to link to what they've already taught. I would expect to see practise of what they've taught. Warm up. In the warm up some intention to challenge the kids that need challenging. Because we've got to focus on that now, in our warm-ups so that it's got 30% challenge in it. So I would expect to see that. I would expect to see the teacher model, introduce, whatever word you want to use, the new letter sound. Whatever their focus is at that point. And do some work with the children directly. I would expect to see some practising on that with some differentiated group activities. Covering not only differentiation in their individual but also differentiation in what they apply to what they've learned. And then I would expect to see some sort of form of reflection, whether that's talking through what they've learned as a group, what did we just learn, what did we just do? Some strategy to bring it back together. And I would expect to see the teacher with the other adults in the room checking for understanding. Throughout the whole session, because that information is going to inform what follows next. In that program, in that focus, whether they're going onto something new or whether they've got some children that need more work, em all of those type of things. I want to see that sort of gradual release across that session. If you are looking over a week, day four might look different to day one, whereas day four or five may be far more of a 'You' and less of a direct instruction. You still might have a few children for whom you're doing a real strong modelling and direct explicit teaching, but I would want to see more of the 'You', by the end of the week. If that's how they plan it, you know. Sometimes its two days, sometimes it's three, sometimes its five days. It will depend. I don't know the intricacies of how they do that but then those are the type of things I would expect to see in a pre-primary room or a Kindy room, or a year one room, or a year two room.

Key Finding 5.8 – Holly Fern School Principal
The principal's beliefs about Explicit Instruction did not map across to the principles described in the literature (Archer & Hughes, 2011; Hollingsworth & Ybarra, 2009; Rosenshine, 2012) and represented a combination of Explicit Instruction elements and constructivist views.

Interview with the Deputy Principal

In an interview with the deputy principal in August 2014, he confirmed that his role in managing the early childhood teachers and the external consultant had been quite direct:

> Well, em so I'm the line manager for the early years' program, so facilitating any problems that might arise with them and liaising with the early years' teachers. That's pretty much my role at this stage, and em, also sort of line manage the learning community. We have Polly who is the literacy consultant for the School and who's sort of working with the early years literacy team and Explicit Instruction, so I then liaise with Polly with her role and what she's been doing in terms of her observations with the classroom teachers and so Explicit Instruction overall, the overall sort of early years program is pedagogy I suppose for want of a better word, em so we sort of discuss the Early Years Learning Framework how it links in to the Australian Curriculum, I'll be talking to them this week about the National Quality Standards, we're going to have a PD about that and about sort of how all three tie in and how we can ensure that how the early years at our School is working effectively and is sort of accountable to all of those different frameworks.

When asked how often the early childhood teachers were coached, the deputy principal responded:

> Coached? Well again it's sort of a little bit fluid. They have peer assessment which we try and get them to peer observe at least once a term. It's kind of the idea each semester. Polly also tries to watch them a bit more on a needs sort of basis. She's almost finished seeing everybody at least once. She's about to go around for her second round to discuss with the teachers, basically where to next. So yeah, there's a couple of different observation methods going on at the moment.

When asked how he knew that the teachers were teaching explicitly, the deputy principal responded:

> Well some of it obviously is a little bit of trust, but also through the peer mentoring and through Polly… so I guess we sort of monitor it that way.

I asked the deputy principal how he saw the Early Years Framework, the Australian Curriculum and the National Standards fitting in with Explicit Instruction, to which he replied:

> Well I think that Explicit Instruction is generally pretty good practice em and that's backed up by lots of quality research. I guess if we're talking specifically early years, you need to get the balance right between explicitly teaching in a formal sense and then enabling that directed play-based learning to occur so that we can really make use of the spontaneous teaching and learning that can occur during those sessions, so whilst explicit teaching is obviously highly, highly valued and super important to ensure the kids get the best benefit and the best opportunities to learn we just need to be careful that the balance is right, that they're not just sitting there, sitting like older kids, because developmentally they're not just ready for it. So it's really the balance is going to be, it's going to be an interesting time because I'm not sure that we've had the balance right over the last couple of years, cause we've, my initial em, you know I've only done this for a little while, my gut feeling is we need to get that balance swinging a little back, em we're getting a little bit more of an understanding that we've allowing the teachers with that Early Years Framework PD, not enabled, there's just been better opportunities are starting to come up and also with the National Quality Standards, it's reinforcing that there's that link between the Australian Curriculum, the Early Years Framework and the standards and that we'll support the idea of the direct play-based outdoor, indoor environments. That's probably it's just getting the balance then of the explicit teaching to mirror and match where needed.

The deputy principal's response revealed an important ideological conflict within the school about his understanding of Explicit Instruction within the context of early childhood education. This also extended to concerns about assessment. Finally, when asked about Dynamic Indicators of Basic Early Literacy Skills (DIBELS) assessment in early childhood education, Ray confessed that there had been ideological difficulties that had been resolved with consultation:

> Probably not so well to be honest. There's quite a bit of conjecture at the moment and certainly Polly and Emma have been having quite a few discussions, probably the inappropriateness of *DIBELS* down in that area. It has certainly been brought up at the literacy committee a number of times and Polly just last week has developed a new assessment guideline that's a bit more, well not a bit more, it's more relevant to the stage of development that those kids are at. Yeah, there's been a little bit of I guess testiness, because the literacy committee didn't quite have that understanding of the development side of literacy down at that end. So that's been an inexperience thing and certainly

having strong people on board like Emma who really knows her stuff, perhaps with the help of Polly, probably having that mediation point where we can then get things right.

Dynamic Indicators of Basic Early Literacy Sills (DIBELS) is a system of assessment for monitoring student progress in precursor and decoding skills, undertaken on a weekly or fortnightly basis. It allows early years teachers to identify, plan and evaluate support for students' early literacy skills. Teachers give a series of short one-minute probes on reading comprehension, vocabulary, the alphabetic principle, phonemic awareness, fluency and accuracy in connected text, keep a record of students' achievement and modify their instruction accordingly. This is contrary to the view espoused by the National Quality Standards and the Early Years Learning Framework in that it does not focus on formal assessment.

Key Finding 5.9 – Holly Fern School Context
The deputy principal was a sympathetic line manager who listened to the ideological concerns of the early childhood teachers, and with the help of the external consultant, successfully negotiated changes to assessment. The deputy principal took an informal approach to management, stating that the schedule of coaching for teachers was fluid.

Interview with the External Consultant

The external consultant, Polly, was responsible for helping implement *Letters and Sounds* with the early childhood teachers, as well as coaching and mentoring them in Explicit Instruction:

I started that as my very specific role working alongside teachers to introduce Letters and Sounds and then that has just broadened so when you're in a situation you can see where the other areas of need are though I've also worked with them on Guided Reading, I've worked with them on developing writing, role play centres, early years play-based curriculum basically. So, that's where I am and then last term I was asked if I would like to become involved with their explicit teaching, em coaching and mentoring alongside that really and doing the observations for teachers' em which we would then take on board some of the aspects that came out of that, and em, yeah, so that's where we are, actually just half way through that process. I've still a couple of observations to do and I haven't yet had the time or the, because I'm just in one day a week, I haven't yet had the time or the opportunities yet to be able to work on action plans but that's the next step.

The Letters and Sounds systematic phonics program was published by the British Department of Education and Skills in 2007 to develop children's speaking, listening and phonic skills. The consultant was involved in helping the early childhood teachers link the explicit teaching model to the Early Years Framework guidelines.

> And then what I've tried to do, so linking that explicit teaching model to the Early Years Framework Guidelines which are coming through and they're obviously having to work around. So, that's where we are.

I asked the consultant which key authors she was referring to when she spoke about the explicit learning model and she responded:

> I haven't got any. This is purely through practice. I've done no research myself so this is purely through practice.

Key Finding 5.10 – Holly Fern School Context
The external consultant, who coached, mentored and observed teachers using the explicit teaching model had not read any of the key authors and possessed only a generic understanding of Explicit Instruction which had evolved through her own practice.

I asked the consultant what she would expect to see if she was observing and coaching a teacher in an explicit lesson in phonics and phonological awareness at pre-primary level. She responded:

> So the 'What Are we Learning Today?' would be something along the lines of 'Today we are learning to use these two letters and I'm looking for children who can, and I'm doing that in child-speak, so what I'm looking for the teacher, the children who can use the digraph and we use the terminology digraph like that as well, who can use that language who can hear it, who can use it, who can apply it. So that we would be using like model the teacher is then giving the model for the children and we do that and using that model in the practical tasks in the whole variety of ways so that yes, and giving them the application, so this is the word we would then use, can you think of some words, can you put them into a sentence and so on… I'd like to see that certainly with pre-primary children that they're experimenting with print or it might not be writing some might be making print with play dough or with paint or whatever so we'd see that coming across in a very broad range. We're not looking at sort of they can do 28 worksheets by the end of the lesson or anything like that, so they're having the opportunities having been in that

experiential mat situation to then go off and apply that knowledge to a whole variety of tasks which would be given to them to do that.

Key Finding 5.11 – Holly Fern School Context
The external consultant held beliefs about an EI lesson that did not align directly with the principles of Explicit Instruction as described in the literature and included constructivist practice of eliciting responses from students.

Asked if she felt that Letters and Sounds combined well with the Jolly Phonics that Emma was using, the external consultant responded:

> I think it works very well, the two can be used. I'd still see Letters and Sounds as the main teaching program and *Jolly Phonics* can be slotted and weaved into that. So certainly, some of the strategies that *Jolly Phonics* is using, I think there's much more, you know those sort of gestures and hand signs for the children, I think those can be very important in terms of different learning styles, so it's something I certainly don't ask them to throw that out of the window, some of those strategies and some of the tasks and activities I'd use too, I mean the actual progression is slightly different, isn't it, in terms of the introduction, but yeah, no it's something they can weave in quite happily.

Letters and Sounds and Jolly Phonics use an active, multi-sensory, systematic and direct approach to teaching phonics. Both cover pre-primary (reception) to Year 2, but Jolly Phonics extends its program to Year 6. Unlike Letters and Sounds, Jolly Phonics provides daily lesson plans. It is more demanding in terms of blending and segmenting, introduces the 42 letter sounds at a faster pace and the graphemes are taught in a different order and at a different stage.

When asked what she thought the main barriers were to the introduction of explicit teaching of phonics in the school, the consultant responded:

> I think that teachers are often threatened by any new system and it's yet another new system, and I'd been doing Diana Rigg and it had been working alright for me... So I think that having that consistent approach isn't always easy, sometimes you've got to swallow it and get on with it...

The school had been using a systematic and explicit phonics program created by Diana Rigg, a Western Australian speech therapist with a background in education. Diana Rigg works as an educational consultant in Western Australia and provides resources for an integrated and research-

based approach to literacy, namely oral language, literacy skills, movement and motor skills. Diana Riggs's approach to phonological awareness and phonics could have been integrated with Explicit Instruction but may not have corresponded as easily as Jolly Phonics to Letters and Sounds, preferred by the consultant. She also articulated difficulties with assessment, stating:

> ...Interestingly, we've got a clash coming here and one which is a conversation at the moment here in terms of the testing and so that is actually giving the clash because the testing is looking at elements that this particular program isn't actually delivering in the early stages, so we've got to be looking at... the *DIBELS* one, which is the American one, so it's very American based and also *Letters and Sounds* is *Letters and Sounds* so our teachers are very much focused in the early years on teaching the sounds and naming of letters goes alongside that but the main focus is on teaching the sounds and DIBELS testing is also looking at the naming of letters, you know and it's also looking at speed, now that's not an element of *Letters and Sounds*, how quickly you can bark at print.

Key Finding 5.13 – Holly Fern School Context
The consultant revealed that the early years teachers were teaching phonics programs that did not emphasise speedy recognition of letter sound correspondences. In contrast, DIBELS uses one-minute fluency measures to regularly monitor the development of early literacy skills, namely phonemic awareness, the alphabetic principle, accuracy and fluency with connected text, vocabulary and comprehension. The consultant exhibited a fundamental misunderstanding of DIBELS. Her use of pejorative language (how quickly you can bark at print) signalling a misunderstanding about the purpose of DIBELS fluency testing.

Interview with Pre-Primary Teacher, Zara (Emma's Mentor)

In an interview with Zara in May 2014, she described her role as a pre-primary teacher of Explicit Instruction as one of mutual support on the early childhood teaching team:

> So, we're part of a School based learning community, so all the teachers in the School have been given explicit teaching as a focus and then we are developing ways we want to incorporate that into our teaching so basically for our team we are bringing what we already know to a conscious level and really structuring it so we're using the 'What Are we Learning Today?' and the 'What I Learned Today' and all those sorts of things but also developing what the School wants us to do with warm- ups and things and adapting it to our needs of our children. So basically, my personal role is just a) to up-skill myself and also work with my team to up-skill each other and do some peer observations and things like that.

Key Finding 5.14 – Holly Fern School Context
Zara explained that her role was to develop both her own skills and those of others as they developed ways of integrating Explicit Instruction into their practice through team work and peer observations.

Zara divulged some reservations about the use of Explicit Instruction as a pedagogy at pre-primary level. When asked what she used Explicit Instruction for, she stated:

> For pretty much everything. So we're developing what it looks like in our class, so the School's got a big push on John Fleming and warm-ups and drilling them with warm-ups, but sitting down for 15-20 minutes with pre-primary kids on the floor (laughs)… is not quite (hesitates) the best pedagogy but we're adapting that so we might play some games in there as well to, you know, things like the Kagan strategy the 'Quiz, Quiz, Trade' where they've got cards and they're having to they have success so we make sure they know the card is that the go and quiz their partner, they've got the answer and if they don't know the answer of the card that their partner's got they tell them, so they've always got that safe place to share, so you know, so we're incorporating games like that because sitting down chanting for pre-primary's (laughs) is not very cool.

Key Finding 5.15 – Holly Fern School Context
Zara had some reservations about the Fleming Model of Explicit Instruction with regard to the length of the warm up. The early childhood team was adapting the Fleming Model of Explicit Instruction with constructivist practices to bolster student engagement.

When asked what she thought teachers needed to know and do to be effective with Explicit Instruction, Zara stated:

> Em, I guess, do their own research. So, for example you know we've been told John Fleming is the guru. Everyone has to do John Fleming. So, we were going down the John Fleming path. I went to one of his PDs thinking 'Oh my goodness, you know, just barks warm-ups, but he actually opened my mind a little bit. So, we had this misconception that explicit teaching was all about sitting the kids on the mat, chanting, barking, you know doing all those sorts of things, but he said as long as you've got direction and an outcome that's explicit. So sometimes it just pays to do a little bit of research I think. And yeah, to have a go, just to play around with it. You know, what works for one teacher might not work for another teacher in their class.

Key Finding 5.16 – Holly Fern School Context
Zara believed that, with explicit teaching directions and outcomes, teachers could adapt the fundamental structure of an explicit lesson. This was a significant finding, as Zara was Emma's mentor. Her use of pejorative language ('just barks warm ups') indicated a misunderstanding of Explicit Instruction.

When I asked her what she meant by research, she responded:

> Yeah. I mean. Just even like today for example I just had a quick look at explicit teaching (gestures at computer monitor with her hands) just to see, I know what it is, but I was just having a look, and they said just really that systematic approach and having structure and just by giving them the outcomes it can be as simple as that, whereas I think from what we were sort of told, you need to have warm-ups, you need to have the I do, We do, You do, you need to have it in this sort of structure, everyone was sort of a bit overwhelmed thinking 'Oh, how am I going to incorporate that into my classroom,' but then if you do a quick Google search or you talk to others it actually can make your job a bit easier. So now I'm sort of going with the mindset of 'Oh, okay, as long as something's got a purpose and an outcome I can do it,' I don't have to do the warm-ups, you've got to revise, but I'm finding in my class at the moment a lot of behavioural problems and I'm thinking 'Um, what's going on?' and they are, they're sitting on the mat for too long, because of that misconception that you have to have warm-ups on the Smart board. That's not necessarily driven from the School, that's just the misconception as teachers, you know, em, so last year we did a learning community and we did it on PA, phonological awareness so I know that the learning communities really help so now doing the Explicit Instruction...

Asked what the main difficulties were with Explicit Instruction for early childhood teachers, Zara said:

> I guess right now for us, the warm-ups and getting a balance... (Hesitates) between playing games for example and having hands-on and getting them to sit down for half an hour. But I think there's now a shift in the thinking. Last year and the year before it was very much now everyone's going to sit and listen and it's this and it's whole class and you are going to be sergeant major (laughs) you're going to listen to me. And it's shifting now, it's you know what we actually do need to bring in play and needs to be purposeful and it needs to have you know the purpose and the outcome… So, when I first started it was

a lot of chanting, it was a lot of content getting the vocab behind, so now I would say 'What is a word?" "A word is made up of letters." We will do an example. I might get pictures out, and show them the picture and then we'll say what the word is, so again it's engaging and then I've got *Jolly Phonics* songs, so whilst they're learning and when the songs come up I get them to say 'a, a' they sing the song, 'b, b', but they're still getting that explicit, but they're learning through a fun means. So, I've kind of brought it back to having a bit more fun, a bit of singing songs, whereas before the last couple of years if someone came in to your classroom and saw you doing songs they would like say 'This is fluff'. You know and if they saw you playing games like quiz, quiz, trade, 'This is fluff.' But I think it's just being creative with what you do.

Key Finding 5.17 – Holly Fern School Context
Zara was struggling to untangle notions of EI and embrace a more generic understanding of Explicit Instruction. She reported that the Fleming Model of Explicit Instruction was being interpreted more loosely than when it was originally adopted by the school and teachers were not monitored regularly or required to follow a tightly defined whole-school interpretation.

Later in the interview Zara claimed that she had not used Explicit Instruction for some weeks: "Em, I haven't, to be honest. I haven't done a lot of Explicit Instruction in the last few weeks, we've had our assembly and it's been crazy, we've had a bit of not so much of a routine..."

Key Finding 5.18 – Holly Fern School Context
Zara advised that she hadn't yet observed or mentored Emma. She resolved difficulties with Explicit Instruction using internet research and consultation with her early childhood colleagues in the pre-primary learning community, significant because Emma was part of that learning community.

Asked how often she got to observe the other early childhood teachers, Zara stated:

So, I guess also we've just had so much on we haven't had a chance to do it. But there is I think, we have to do at least one observation by the end of the term, possibly two I think, but again, one's probably doable… within our little pre-primary cluster. So, we've got the whole School doing the explicit teaching focus… so who you can just decide who you want to work with and what your focus is.

I asked Zara what was available in the school to help teachers with Explicit Instruction. She explained:

I guess the collaborative teams, to bounce ideas. Em, admin. So, the deputy and the Principal can shed some light into different things. We're very lucky, we've got a lady working with us, who will come in and mentor us and watch lessons as well, so that's very good… because we worked so closely with her last year, she knows our teaching style, she knows what we do, she hasn't come in yet. But again that whole recording would then allow the three of us plus her to be watching and then reflecting... And then Yeah, but she's come in to give a lesson for another teacher in the School, which I watched, and that was a writing lesson and she very explicitly was showing us through it so she came up with the 'What am I Learning Today' and 'What I Learned Today' and things… So she put what was expected, them, and when they did their activity and came back and they reflected if they did it. So, it can be as simple as that, you don't need to have the terminology of 'What Am I Learning Today' and 'What I Learned Today' but she's there to support us. Um, but other than that, sort of left to your own devices.

5.2 Teacher Background and Philosophy

I asked Emma how she first came across Explicit Instruction, to which she replied:

I guess I first came across it about six or seven years when I did some postgraduate studies. Yep. And I did a unit looking at Explicit Instruction, instruction in teaching reading and reading strategies and then when I came to this School, it is a big focus for them and we've done a lot of professional development around it and our PD days so I guess my understandings have grown and there is an expectation that it would be used when we're teaching in this School.

Key Finding 5.19 – Holly Fern School Pre-Primary Teacher
Emma had studied Explicit Instruction and literacy at postgraduate level.

I asked what was available at the school to help teachers with Explicit Instruction, to which Emma replied:

...Em, we have worked with one of our consultants at the School has given us a lot of PD on Explicit Instruction and I've also had the opportunity to go to a *Visible Learning* series of professional development. And I guess that sort of ties in with the, em with the Explicit Instruction too, em the School has had sort of a big focus on John Fleming. I haven't personally gone to any of those professional developments, but other teachers have and then we sort of share that information, so it was sort of through that that the em, that

the School began doing the warm-ups and then having that focus on the structure of the lesson um, that they wanted us to follow with the Explicit Instruction.

Key Finding 5.20 – Holly Fern Pre-Primary Teacher
Emma had received professional learning on Explicit Instruction at the school from both peers and the external consultant.

I asked Emma what she thought was significant about Explicit Instruction. She responded:

> I guess I see it's important to use it, because, um, if you don't explicitly teach the children you don't sort of, you can't hope that they might come to the knowledge um through exploring or investigative type play or things like that. Um, if it's explicitly taught you can sort of be assured that the children have been given exposure to it. I think there's a much better chance that they're going to like learn and take that knowledge on if it's presented explicitly. If it's explicitly taught they understand what you want them to learn from the lesson, and yeah, it's not sort of an unknown of... there're not sort of just guessing at what they're meant to know, you are making it very clear to them what you want them to learn.

I asked Emma what she thought about the view that using Explicit Instruction to teach pre-primary students was inappropriate. She responded:

> What I would say is that it is a part of a balanced learning program. The Explicit Instruction isn't our entire literacy block, in fact, it's a small part of it. So, with this planning that I showed you here, this sort of section, I spent about 10 minutes working on that and that's all sort of aural responses - then I would spend probably about another 10 minutes working through activities looking at letter sounds and sort of using our smart board. It is like a multi-sensory approach as well, so we've got them singing, we've got them doing actions and then we break up and then we go away and do activities related to what we've just explicitly taught down to during our mat session. And during those sessions we're actually very focused on playing, play-based learning, using our outdoor area, getting them using our multi-sensory activities and making it fun for them so it's not as though they were spending two hours having them sitting chanting on the mat or something like that, you know it's balanced and you know the Explicit Instruction is a small part and you know an important part, …I actually think that the Australian Curriculum was actually a driving force in the changes because the expectations for this

foundation year had changed, so what had previously been done was not going to meet those expectations.

Key Finding 5.21 – Holly Fern Pre-Primary Teacher
Emma justified the use of Explicit Instruction to teach pre-primary students as part of a "balanced" learning program when restricted to a small part of the literacy block. She also viewed Explicit Instruction as a pedagogic approach that enabled teachers to meet raised expectations in the foundation stage of the Australian Curriculum.

I asked Emma what difficulties, if any, she experienced with Explicit Instruction:

> I guess one thing that often comes up when we're talking about our literacy blocks and that session down there is maintaining their focus which is why it has to be very short and sharp and it can't be drawn out sort of session or section of your lesson and if you want to have a long, sorry if you want to have a lot of content in there for that day you probably need to break it up and not have them sitting on the mat for such a long time, so you need sort of a sit on the mat for a short time with your Explicit Instruction you need to break it up, or do something else. You have a sensory break where you move it around, you come back you do some more of it, so sustaining attention is one thing, and I guess people also maybe criticise it because it's sort of stifling of creativity and things like that and as I was saying before there are all these opportunities to, for all those things to happen in the lesson so after you've had your Explicit Instruction block.

Key Finding 5.22 – Holly Fern Pre-Primary Teacher
Emma experienced difficulties maintaining her students' attention during Explicit Instruction. She believed there was a need for short periods of Explicit Instruction to be broken up by periods of physical activity.

Emma added that she found Explicit Instruction effective:

> I can see that this is effective. I see that there's good progress made. I see that children who come in who are quite weak make progress using this model. So yeah, I believe it's effective and our results show that, so...

Emma was satisfied with the combination of Jolly Phonics and Letters and Sounds for teaching phonological awareness and phonics:

> Okay so we use *Letters and Sounds* that guides our phonics program as well so I should also mention that and we also use *Jolly Phonics* but not as the program. We use the songs

and actions to support our *Letters and Sounds* sequence and that we find, that combination is very effective.

Key Finding 5.23 – Holly Fern Pre-Primary Teacher
Emma found Explicit Instruction effective and was satisfied with both the Jolly Phonics and Letters and Sounds programs.

In a further interview with Emma in August 2014, she conveyed that she and the other early childhood teachers were experiencing difficulties meeting the expectations of various Australian government policies:

> Even though we have our Australian Curriculum, we still have to look at the Early Years Learning Framework and attempt to incorporate those things into the way we deliver our programs as well. So we've got those issues, external issues that are impacting on us and we have the [pause] we have the expectations that we'll meet certain... that students will meet certain standards, so we feel that there's a... a pressure to... to formalise and to get them to a certain skill level and it's, we're trying to find the balance of delivering those... those skills, oh sorry, delivering a program that will help those children develop those skills in a developmentally appropriate way. Those pressures are coming within, well, they come from within our School but then they're being fed down from above as well, we're trying to lift the standards of, ah, children in WA Schools, so there's those... that dual pressure that we need to be doing a program that's developmentally appropriate but we still need to make sure that we're... that the children are reaching a certain skill level.

Key Finding 5.24 – Holly Fern Pre-Primary Teacher
Emma experienced conflicting pressure in meeting the expectations of academic standards and delivering a program that was developmentally appropriate for her students.

I asked Emma whether she saw a clash between Explicit Instruction at pre-primary level and meeting the developmental needs of children. She responded:

> I think that we have to find the balance and we're working really hard at trying to do that. We have to make sure that those sessions of Explicit Instruction are short, sharp bursts and that there's lots of opportunities for learning in other situations. So, umm, after a short session of Explicit Instruction that we move into different activities where we're giving them opportunities to have that, those play-based opportunities that we're having a range of learning styles catered for in the activities that follow on from our Explicit

> Instruction. So I think there's been a [sighs], umm, we've sort of embraced Explicit Instruction in some ways and gone with it so far to one extent that we're needing to just bring it back and make sure while we're still teaching these skills explicitly that we're doing it in a timely... in a timely manner so that we're sustaining the children's attention, because what we find is at that age they lose their attention very quickly and they're... they're actually more engaged when we work with them in small groups with activities where they're using their different senses and things like that and we can actually be, sort of having teaching and learning experiences in those small settings rather than whole-class Explicit Instruction. So, while we still see that's important we need to get that balance right and have shorter sessions of whole-class delivery and then sort of making sure that we're really focussing on having high-quality activities that follow-up where they're having teacher-directed play opportunities and things of that nature.

Key Finding 5.25 – Holly Fern Pre-Primary Teacher
Emma did not believe that whole-class, teacher-led lessons using Explicit Instruction could sustain students' attention for long periods, and felt high-quality, multi-sensory activities, including different learning styles and teacher-directed play opportunities were best alternating with short, sharp bursts of Explicit Instruction.

Emma added later in the interview:

> I still... I mean, I think there is a place for Explicit Instruction as long as it's not, umm, at the expense of those other, um, learning opportunities for the children, so I think what I said previously is just getting that balance right and making sure that it... that it just has a small place in the day and short sharp bursts rather than big long sessions, you know, if we have to have two or three of those sessions within your two-hour literacy block rather than having one very large one where you're sort of losing the... their focus and it becomes sort of... it becomes not as productive when they're there for a very long time, they're not really getting a lot out of it after they've sat there for 15 to 20 minutes.

I followed up her response by asking: "So in its purest form an Explicit Instruction lesson would be a warm up followed by 'I do, We do, You do'. So how would that fit in with small short sharp bursts, as you say?" She responded:

> When you mentioned the 'I do, We do, You do' I think we have to be careful that when we have... whilst that's important, the model, the 'I do, We do, You do', we have to give opportunities for the children to be creative, and if we're constantly supplying the 'I do,

We do, You do' we strip them of that opportunity to show their creativity and to show us what they're actually capable of doing, and then you sort of end up teaching to the middle a little bit and, ah, and not giving those children who, even though it might be a small number, those children who can show you that they're actually much more advanced than where you're pitching it at.

Key Finding 5.26 – Holly Fern Pre-Primary Teacher
Emma had ideological concerns about the limitations of Explicit Instruction, which she resolved by supplementing EI lessons with opportunities for creativity, differentiation and constructivist approaches. She was concerned about the implications of constantly applying the "I do, We do, You do".

Emma solved her concerns about opportunities for creativity with her early childhood teacher colleagues in the following way:

So, I find, obviously in that Explicit Instruction it's not. So obviously, we look to those activities that follow on from our Explicit Instruction session. We look to incorporate activities where they can be creative in those small group activities… Yeah. So perhaps that, that 'I do, umm, You, sorry, [laughs] the 'I do, We do, You do' can then have its place outside of that whole... sort of whole-class instruction session, that then you can work on it in small group situations and be incorporating different sort of materials and things like that so it's not just a case of sitting there, like sort of being quite receptive and just listening for a long period of time, we're actually getting them more engaged.

I asked her how she executed an "I do, We do, You do" in a small group situation, to which she responded:

Well, um, I guess, if I had them in that small group situation we might be using, being able to use different mediums. Like we might have little whiteboards out, which I tried on the mat and I found that's a little bit more difficult to manage with 25 children, but if you've four to six children they can have their whiteboards out, their whiteboard markers, they could have magnetic letters, and because they're having that opportunity to actually be *actively* involved I think you maintain their attention better, you have a short burst of, "Okay, this is what I want you to do. Let's have a go together. Now you do one. You have a go at writing one on your own or making a word on your own.

Key Finding 5.27 – Holly Fern Pre-Primary Teacher
Emma did not believe it was possible to engage a pre-primary class for the full duration of an Explicit Instruction lesson and that guided practice was more attainable as part of small-group work.

I asked Emma how often she had been coached by Polly:

> I've had Polly come and work with me once this year and then last year she worked with me, um, probably three or four times, came into the classroom and worked with me.

I asked her about peer mentoring and opportunities to observe her early childhood colleagues, to which Emma replied:

> That's something that we want to do but, obviously, the difficulty in Schools with these ideas, which it's great in theory that we'll go and watch each other, it's time. It's... it's a budgetary issue that we haven't got someone to come and take our class while we go and watch a colleague, ah, teaching in their classroom and because we all have, like, common DOTT time we can't utilise our DOTT time in that way so it boils down to an issue of manpower.

> Asked what the role was of Ray, the deputy principal, in early childhood education, Emma said:

> So he, in his role as deputy, oversees our K, P, 1, 2 teachers and he's been, um, he's been fantastic really in ... in investigating what's going on in... for early childhood with the Nationally... National Quality Standards and the Early Years Learning Framework and sort of helping us to get more information really, and helping guide us to the, um, to the information that we need… Um, yeah, it's probably more at that level of... that I just said, sort of, not so much in the classroom. He, I don't know if Jean mentioned that he hasn't come from an early childhood background himself, so, yeah.

Key Finding 5.28 – Holly Fern Pre-Primary Teacher
Emma had received coaching from Polly, the external consultant, approximately five times, but had not yet engaged in peer observation and mentoring with her early years colleagues. Support from the deputy principal was provided at policy level.

I asked Emma what had changed in the school over the research period. She responded:

> Okay, so in that period of time we have been looking at *Visible Learning*, which I think I mentioned to you last time, so that's sort of... that fits quite well with Explicit Instruction

in many ways. What it sort of has prompted us to do is try and make the learning intentions very clear to the children, what they need to do to be successful and what the teacher's looking for from them so that they really understand what's expected of them, and then at the end sort of ploughing back and making sure, "Well, were you successful? Did you achieve what you were meant to achieve from our ... our lesson. The other thing that has sort of flowed from the *Visible Learning* is the importance of the children understanding their, um, their progression and what they need to do to progress, so we're trying to work on, um, providing some frameworks at that level for five-year-olds to understand. I'm... 'I know these high-frequency words. To move up to the next level I need to try and master learning these ones here.' So giving them something at a level that they can actually take some meaning from.

Key Finding 5.29 – Holly Fern Pre-Primary Teacher
Emma's use of explicit learning intentions with her students was prompted by John Hattie's "Visible Learning" professional development.

5.3 Analysis of Pedagogy

This section explores the patterns, consistencies and variations in Emma's five lessons observed over the course of two terms in 2014. It draws from the video analysis, observation sheets and running records of the observed lessons. The data are organised into the five phases of Explicit Instruction lessons, the review of prerequisite skills, "I do, We do, You do" and the plenary session. Emma's two final lessons proved to be the best exemplars of Explicit Instruction, so these have been analysed detail.

5.3.1 Review of Prerequisite Skills and Concepts

Emma started all her lessons on time and successfully gained her students' attention at the beginning of her warm ups, but this was not sustained throughout the lesson review or introductory phase of any of the five lessons observed. Her fourth and fifth lessons showed a marked variation in her lesson introduction, as she explicitly stated the learning objective and explained the success criteria. Presenting a learning objective did not feature in her first three lessons. On the 5 August 2014 my running records show:

Teacher sitting to left of IWB. Calls for attention. What are we learning today? Today we are going to practise reading and writing words with the new sound. Lee, can you remember what that new sound was? (Lee doesn't know). What I am looking for slide

comes up and she explains what she wants them to be able to do at the end of the lesson. Success criteria are explained. Children getting restless.

Emma did not begin by saying: "Today we will read and write words with '*ai*'". No child was asked to repeat the new sound and Lee was unable to recall what the new sound was. The "What Are We Learning Today" PowerPoint slide on 5 August read:

> Today we are going to practise reading and writing words with the *ai* and *ay* digraph. We are going to learn some rhyming pairs that feature the *ai* sound. Knowing these digraphs will help you to read more fluently and make writing easier for you to complete and other people to understand.

This PowerPoint slide was read out loud by Emma. She did not check for understanding so it was unclear whether the students understood what was meant by the words "digraph", "read more fluently" or "complete". The subsequent "What I am Looking for" PowerPoint slide read:

> You can tell me a rhyming pair with the *ai* sound and tell me if the pair don't rhyme. You are correctly forming each letter using our Peggy Lego cues. You can read a sentence with some *ai* words and some of the high frequency words we have learned. You can write words with four sounds using the *ai* digraph. You are using the correct letter formation.

Emma also read this lengthy and complex slide aloud but did not check for understanding. It was therefore not clear whether the students understood the terms "Peggy Lego", "rhyming pair", "high frequency words" or "correct letter formation".

Key Finding 5.30 – Analysis of Pedagogy: Review of Prerequisite Skills
Emma introduced learning objectives and success criteria in her fourth and fifth lessons but did not check for understanding of these lesson objectives.

A logical review of prerequisite skills in the fourth lesson would have included a definition of digraphs, a review of short and long vowel sounds and a review of previously learned high-frequency words. Table 5.3 shows the content of the warm ups across the five lessons. It can be seen that the review of skills did not follow a line of development over the course of the observations, nor did they involve the basic instructional format of "model-lead-test", but rather a distinctive pattern of using the review of prerequisite skills for testing. Table 5.3 indicates a pattern of improvement in that the lesson objectives stated in lessons four and five correlate with the review of prerequisite skills. In the

fifth lesson, Emma also included a definition of digraphs. Table 5.3 should be read down the columns to follow the lesson development steps.

Table 5.3 *Contents of Emma's Introduction or Warm-Up Phase over the Five Observed Lessons*

Lesson One Warm up	**Lesson Two Warm up**	**Lesson Three Warm up**	**Lesson Four Warm up**	**Lesson Five Warm up**
Defining words: PA word identification **(No model, lead, test)**	Defining words: PA word identification **(No model, lead, test)**	PA Testing rhyming: find a body part that rhymes with...	Elicits new sound: *ai/ay* digraph, lesson objective stated: to read and write words with *ai/ay* in them	Lesson objective presented: blending and segmenting words with a '*s'* blend'.
Defining syllables: PA segmenting syllables **(No model, lead, test)**	Defining rhyming: PA identify the word that does not rhyme	PA testing how many syllables in a word	Single letter sound correspondences drill	Single letter sound correspondence drill
PA defines rhyming words: identifying rhyming words thumbs up thumbs down **(No model, lead, test)**	PA defining syllables: breaking words into syllables **(No model, lead, test)**	Testing PA segmenting picnic basket nouns	Testing writing *a, g, d, b* on whiteboards followed by correction and letter formation cues	Defines digraphs, digraph drill: *sh ch ng th (voiced) ee oo ai ay or sl*
Identifying medial short vowel **(No model, lead, test)**	PA blending and segmenting robot words **(No model, lead, test)**	Letter sound correspondences drill	Testing sight words	Testing digraphs: *sl, sp, sm, sn, st*
PA segmenting robot walking **(No model, lead, test)**	Letter sound correspondence drill **(No model, lead, test)**	YouTube songs: digraphs: *sh, ch, ng, th.*	Testing digraphs: *sh, ch, th, ee, oo, oo, ai, ay*	PA testing segmenting of *sl, sp, sm, sn* words
Blending cvc words **(No model, lead, test)**	*Sh* sound eliciting by withdrawing '*sh'* nouns from a box, repeating 'sh' words **(No model, lead, test)**	Introduces '*ee*' digraph, reads *ee* words, YouTube '*ee*' song, testing blending/ reading of '*ee*' words	Blending *ai/ay* words	Testing writing of: spot, smock, snail, storm on individual whiteboards
	Defines a digraph, *Jolly Phonics* '*sh*' song	Group activities: testing making *ee/ng/sh/ct* words	Testing writing of ai words on whiteboards: rain, Spain, testing	Testing reading/blending of *sl,sp, st, sn, st* words

Lesson One Warm up	Lesson Two Warm up	Lesson Three Warm up	Lesson Four Warm up	Lesson Five Warm up
		on magnetic whiteboards	writing of rhyming *ai* words	
	Blending '*sh*' words on IWB **(No model, lead, test)**		PA testing*: ai* words, do they rhyme?	Testing reading of a sentence: Can you spot the snail in the storm?
	Geraldine the Giraffe *sh* YouTube video		Testing reading of *ai/ay* words and sentences	*Jolly Phonics* song: *qu*
	Explains Gruffalo worksheet: writing toes, knobbly knees, sharp claws		*Jolly Phonics* song *ai/ay* on YouTube.	
	Activity groups: testing making *sh* words on magnetic whiteboards			

In lessons one and two, Emma checked the understanding of some students' prerequisite skills, but as she did not insist on unison choral response or choosing non-volunteers, it did not represent a comprehensive check of all students. This pattern was discernible in all her reviews.

Key Finding 5.31 – Analysis of Pedagogy: Review of Prerequisite Skills

Emma's review of prerequisite skills did not follow a line of development over the course of the observations, nor did they involve the basic instructional format of "model, lead, test". Instead, there was a distinctive pattern of using the review of prerequisite skills for testing.

Emma was strongly committed to the review of prerequisite skills phase of her Explicit Instruction lessons, as shown in Table 5.4. In the first, second and third lessons, the warm up phase consumed most of the lesson time. In the fourth lesson, Emma began her lesson by stating the learning objective – this was not done in the first three lessons and represented a significant change, as it was followed by a plenary check for understanding.

Table 5.4 *Phases of the Five Lessons*

Minutes spent in the lesson	Lesson 1 %	Lesson 2 %	Lesson 3 %	Lesson 4 %	Lesson 5 %	Average %
Warm up	97.1	67.7	84.0	11.4	30.7	53.6
I do	0	6.6	0	0	0	2.3
We do	0	0	0	0	0	0
You do/ testing	0	17.7	9.0	50	48.0	27.5
Plenary	2.8	0	0	21.4	9.6	7.08
Transition	0	7.7	6.8	17.1	11.5	9.62
Total	17.5 min	45 min	22 min	35 min	26 min	29.1 min

The following vignette illustrates how Emma introduced her fourth lesson:

Emma sat to the left of the interactive white board and brought up a learning objective slide. The children sat in front of her on the floor. Emma glanced at the board and said: 'What are we learning today? 'So today we are going to be reading and writing words with the new sound that we learned yesterday. Lee, can you tell me the sound that we learned yesterday?' Lee did not respond. Emma waited patiently and then prompted him: 'Does this remind you?' She indicated the objective on the interactive white board. Lee remained silent. Emma looked at the class: 'Can anyone help Lee out?' Some children responded 'ay' in a scattered manner. Emma prompted them: 'Do the action.' Some did a hand movement. Emma turned back to the interactive whiteboard: 'Okay so today we are going to practise reading and writing words with the *ay* digraph, and we're also going to do a little bit of work, give me that,' She bent down and removed a whiteboard pen from a distracted child, placing it on her table. She sat down again and continued: 'on rhyming pairs that have the *ay/ai* sound in it.' The children were becoming restless. Emma persisted: 'The reason that we're going to do this is because it's going to help you a lot if you can recognise the *ay/ai* sound when you're reading words, so that you're reading more fluently and it's going to help with your writing to write more easily and make it more easy for me to understand your writing.' Emma glanced at her students. She clicked and brought up the next PowerPoint slide, explaining: 'Okay this is what I'm looking for today. At the end of our little session on the mat, I want you to be able to tell me a pair of words that rhyme, and have the *ay* sound, and I also want you to be able to tell me if they don't rhyme.' Emma paused to reprimand another restless student, who was also playing with a whiteboard pen: 'That's a bit sad Mattie, thank you.' She bent to remove the pen from Mattie. She continued: 'I also want to see that you're correctly forming your letters using our cues. So, when I say write the letter a, I want to see you starting with a click, up and around, short man down. So, I want to see the correct letter formation.' Emma gestured the letter in the air loosely with her hand, continuing: 'And the other thing I'm looking for, is that you can read a sentence with some of the *ay/ai* words in it and some of the high frequency words that we have been practising.' The children shuffled on the mat. Emma indicated the next PowerPoint slide: 'Alright so that you will know that you have been successful, that you've been a great learner if you can write me a word with four sounds in it, a word with the *ay/ai* digraph.' Emma raised her voice as

the children continued to shift restlessly: 'You'll also know that you've been successful if you are forming your letters the right way and not getting any back to front and you'll also know you've been successful if you can read me a sentence with some *ay/ai* words and some high frequency words.' Emma increased her pace slightly as the children continued to shuffle on the mat, fiddling with the whiteboard markers: 'So really quickly, we need to be really quick with this, take the texters out of your hands, so you're going to tell me the sounds of this.' Emma turned back to the interactive whiteboard, clicked on a series of PowerPoint slides' and tested the following sound correspondences. The children responded in partial unison, with some hesitancy: '*y, yuh, ksss, uh, zz, wuh, juh, quh, vv, cuh, rrr, buh, puh, ih, ah, ah, guh, duh, eh, huh, kuh, lll, tuh, fff, mmm, sss, nnn, oh'*.

The above vignette shows Emma introduced complex and lengthy lesson objectives and outcomes in the fourth lesson. She did not check for understanding and the students struggled to maintain attention. In contrast, Emma's review of prerequisite skills was brief and based on the "You do" aspect or testing the writing of letters with some correction of errors. The next vignette illustrates the start of Emma's fifth lesson in August, where she began the lesson by clarifying what the students were learning:

The students came in from recess and sat on the mat in front of the whiteboard. Emma sat to the left of the whiteboard and read from her PowerPoint slide: 'Today we are going to be blending and segmenting words with an s blended with another letter. And we are also going to be reading and writing words that have the '*ll*' digraph, and the reason that we're doing this is because these blends and digraphs help you to read more fluently, not like a robot and it will help you with your writing so that your writing will be easier for other people to understand.' The students shifted restlessly, some whispered to each other and two girls clap each other's hands. Emma continued: 'This is what I am looking to see that you can blend up the sounds in words that have four sounds in them and I might even throw in some words that have five sounds in them and I am also looking to see if you can blend words so that means we will blend them aurally and right at the end I have a sentence for you and if you can read that sentence with blends and 'll' words, Maddie!' She paused and continued: 'and high frequency words, then you know you've been successful today. Matthew! Girls are you ready? Luke!' Emma clicked on the next slide and began the warm-up by testing them on the following letter sounds *y, x, u, z, w, j*' Emma called out: 'Jasper, turn around.' The students continue to call out the sounds: 'q, u, r,' Emma called out 'Ray!' to an inattentive student and continued testing: '*b, l, p, g, d, e, k, p, l, t, f, m, s, n, o.*' Emma then said 'Good what is a digraph?'. Some of them shout out: 'Two letters that make one sound.' Emma said, 'Good. Emma then tested them on the following digraphs: '*sh, ch, ng, th, th'* (voiced). Emma redirects an inattentive child: 'Lee, do that one for me. Lee answers: '*th*'. Emma affirmed the answer by echoing it, then said: 'There are a couple of people doing things they shouldn't be doing, Matt put it down, put it down, all eyes on me.' The children continue: '*ee, oo, ai, ay, or, sl'*. Emma said: 'Kirsty, we are going to do our sums later today' to redirect a child from doing maths on her small whiteboard. Emma stopped and said 'When the letter s comes together with a consonant, they make a blend. I will show you some now and I want you to tell me what sound you think it will make.' She then tested them on the following digraphs: '*sl, sp, sm'*. Emma paused to correct them, saying 'Okay someone's calling out '*sim*'. What's this one- say it for me. It's not *sim* it's *sm*'. Some

children repeated this after her. Another child shouted out 'It's Maddie!' and there was some dispersed chatter. Emma ignored this and continued to test them on the digraphs *sn* and *st*.
Emma said, 'Now I will give you some words that have those blends in them and use your fingers to show me all the sounds in the word.' She led them through the following PowerPoint slides by segmenting these words. They responded at the same time as her and counted out the number of sounds on their fingers as they segmented the following: *Sl/i/p/ slip sl/i/de s/l/ee/p sp/ad/e s/p/o/t s/p ar/k/le. s/m/oc/k*. Emma interrupted: 'Harley, turn around'. They continued slowly: 's*/m/a/ck smack s/n/ak/e snake s/n/ai/l*. Emma stopped, 'That's right, Sarah, try and ignore Matt.' They continue *s/t/or/m s/t/ic/k.* Emma then stopped her warm-up to begin a test in writing s blend words: 'Okay, so now I'm going to ask you to pick up your texter now, and we're going to have a go at writing down the sounds *s/l/ip*.' The children pick up their mini-whiteboards and begin to write. Emma calls out: 'That one's back to front, Lucy.'

Emma's clarification of lesson objectives and outcomes was lengthy and complex. Students struggled to maintain attention and Emma did not check for understanding. She used her warm up to test knowledge and did not follow a "model-lead-test" format, most notably when introducing s blends. Once again, her warm-up phase was followed immediately by the "You do" or testing phase of the lesson, without prior modelling and checking for understanding.

The pattern of Emma's introductory phase to her lessons deviated markedly in the final two lessons. The presentation of lesson objectives and their importance demonstrated an improvement in her Explicit Instruction lessons, but was diminished by the complexity of language and the amount of time spent delivering them. Emma did not check for understanding of these objectives and outcomes and it was unclear to what extent her students understood them. Video analysis showed that 2% of the lesson time in lesson four was spent presenting the learning objective, with 5% of the time in lesson 5 spent on this. Emma was consistently good at gaining her students' attention at the beginning of her lessons, but struggled to maintain it. One of the contributing factors was poor pacing in her delivery. Her review of prerequisite skills consumed an average of 53.6% of her lessons, but was compromised by checking for understanding, which she only did with a few students in the first (11%) and second (5%) lessons. An important feature of Explicit Instruction is that all students' understanding of the prerequisite skills be checked before introducing a new concept or skill. Table 5.5 shows the key teacher behaviours observed in the introductory phase of Emma's lessons.

Table 5.5 *Emma: Key Teacher Behaviours in the Beginning of the Lesson (Indicated by Shaded Cells)*

Introduction	Lesson 1	Lesson 2	Lesson 3	Lesson 4	Lesson 5
Gains student attention					
Presents Learning objective and/or clarifies its importance					
Reviews prerequisite skills or concepts in warm up using VAK stimuli					
Teacher checks all students for understanding of lesson prerequisites					

Key Finding 5.32 – Analysis of Pedagogy: Review of Prerequisite Skills
Emma's warm up was consistently present in each of the observed lessons, and on average, lasted half the lesson. The notable deviation in the introductory phase of her lessons over the research period was that Emma included lesson objectives and success criteria in her fourth and fifth observed lessons. Emma did not teach the precursor knowledge of letter sounds to mastery and her checking for understanding was inconsistent in her lessons.
Key Finding 5.33 – Analysis of Pedagogy: Review of Prerequisite Skills
Emma's language was not clear and concise and the phonic rule in her lessons was not modelled or explained. This was important as some lessons addressed more than one complex concept at a time.

5.3.2 The Body of the Lesson: I do, You do, We do

The body of the lesson was entirely absent in the first lesson observed. In the second lesson, Emma showed some evidence of an "I do" phase by describing a worksheet on the "Gruffalo". The following vignette from 3 June shows Emma did model writing the body parts on the worksheet.

Emma stood up and moved to the flipchart. The children remained seated on the floor. She showed them an enlarged copy of a worksheet. One child called out excitedly; 'It's the Gruffalo'. Emma replied: It is the Gruffalo, you might need to move back, fold your legs, I love your listening. Just one more minute. So, at the writing one you are going to be doing this all on your own. Your job is to write actually to label parts of the Gruffalo's body. You have done this once before so this should be getting easier for you. I might start by writing down these are his toes, *t/o/es*.' The children sat and watched her. Some children helped her by sounding out *t/o/es*, as Emma leaned forward and wrote toes on the worksheet. She then bent and pointed to the Gruffalo's knees and said: 'What are these?' The

children responded: 'Knobbly knees.' Emma affirmed: 'Knobbly knees, if you are really clever you might remember that this starts with a silent letter. Hands up who remembers what sound they actually start with? Sarah? K they do start with a k. That's right, if you don't remember that's okay, what sound do you hear first?' One child responded 'Oh'. Emma corrected her: 'No, what sound do you hear first? She elicits the response '*nn*'. Emma responded: '*Nn*... knobbly so if you just have a *nn* that's okay, but if you remember it has a silent k that's okay. Knobbly knees and what are these?' Some children respond: 'Sharp claws'. Emma affirmed: 'You could write sharp claws. How am I going to write sharp?' The children responded: *Sh/ ar/p cl/a/w/s*.' Emma sounded out the words with them and wrote it on the worksheet. Then she turned to them: 'So your job is to go through and label the parts of the Gruffalo, all the other groups will have an adult with them, Lee, you're still not looking.' Emma moved over to sit on her chair and riffled through sheets on her knee: 'When you go to iPads we're going to be doing reading one or reading two. Let's turn on our ears, Luke I liked the way you turned them on without any noise.' She divided them into six groups. The two-minute transition was noisy with chatter and laughter and children moving about. Emma spoke over them, telling which children to go where. Emma moved about the classroom and then returned to her chair, saying to three children on the mat at her feet. All there pick up miniature magnetic whiteboards with magnetic letters on them. Emma bent forward: 'And you come and have a seat with me. What I want you to do is write words that make the *sh* sound. Write the *sh* sound, ship, listen to the sounds say them with me *sh/i/p*, say it with me.' The rest of the class were speaking loudly in their groups and it was difficult to hear. Emma said 'You need to take that with you. This time I want you to sound out *sh/o/p*, but before you do it, let's just say the sounds out, *sh/o/p. Sh/o/p* sound it out, good, oh oh, okay this time we're going to make a short word fish it's *f/i/sh, f/i/sh*. Okay. Get rid of all the other letters, just do fish ready *f/i/sh*'. The children form the words correctly using their magnetic letters. One girl does it before she has finished sounding it out. She says, '*fish* okay*, wish*, ready *w/i/sh,* good, alright you're missing something, *sh* together make *sh*, show me your board.' Emma glanced at the small whiteboard and said: 'That's a *sh*, this time I would like you to make shop. *Sh/e/d*, that's right, okay you can go, okay I want you to try and write for me ship, you go and try and write the word ship.' Emma then rose and walked away from the small group, leaving them to write the word ship.

This marked the end of the lesson. The above vignette indicates that while Emma did indeed model the Gruffalo worksheet, her prime teaching instinct was to elicit answers from the students.

In the third observed lesson, the warm up was followed by a brief transition and the "You do" phase. The vignette below describes what happened after the warm up.

Emma continued to sit on her chair at the side of the whiteboard. She turned away from the interactive whiteboard and spoke to the students: 'Okay, what we might do when we get to it, we are going to blend these words together on your bottom please Rob, so that Alan can see, Rob, smoothly I might choose a friend out of the jar to read this one. We are going to concentrate on blending these words together smoothly. Okay, what we might do when we get to it, we are going to blend these words together on your bottom please Rod, so that Alan can see, Rod, smoothly I might choose a friend out of the jar to read this one.' Emma said: 'Have a go at blending this one.' She selects a non-volunteer and the child responds: 'b/ee bee'. Emma responded: 'Good and altogether,' The whole class responded: 'Bee'. Emma selected a name stick from the jar: 'and Edward.' Edward responded: tr/ee

tree. Then Emma prompts the remainder of the class to read: 'Bee, tree.' She then said 'When there's two *ee*s's together what do they say? Eva' The children call out: '*ee'*. Emma said: 'Thanks, I was asking Eva.' Eva responded: '*ee*.' Emma said: 'Rena'. Rena said: 'teeth'. Emma said: 'Good, and altogether.' Some students responded: 'teeth.' Emma then selected another student who responded: 'sh/ee/p sheep'. Emma praised her and said: 'Altogether'. Some students responded: 'Sheep'. Emma selected another name stick from her jar: 'Lara.' Lara read: 'Keep.' Emma said: 'I like how you read that. Everyone altogether.' The students on the mat responded: 'Keep.' Emma selected another name: "Ricky'. Ricky responded: 'Shed'. Emma said: 'And altogether. The children responded: 'shed.' Emma chose another name: 'Ethan'. Ethan struggled to decode the word 'teeth'. Emma prompted him: 'Remember Ethan, when there's two vowels together what does it say?' Ethan responded: '*sh*'. Emma said: 'So, try again.' Ethan responded: 'Sh/ee/d. Sheed.' Emma responded: 'It should be sheet, so everyone altogether.' Some children repeated: 'Sheet'. Others are talking and walking around. Emma, noting the restlessness said: 'Okay, hands on heads, hands on heads, shoulders, laps. Okay, we are going to break up into our groups now and some of you will be working with Mrs B and you will be making words that have the double *ee* in them. Some of you will be finishing off the work you did yesterday. Sorry.' Emma indicated to me to stop recording the lesson.

The above vignette shows that Emma tested or elicited answers on how to read words with the *ee* blend, without prior teaching of the vowel digraph rule. Emma chose non-volunteers to read the words. She asked the class what happens when two *ee*'s come together, and instead of explaining the rule, accepted the students' response of *ee*. This lack of clarity around phonic rules continued when Emma tried to help Ethan read the word sheet. Emma said: "Remember Ethan, when there's two vowels together what does it say?" Ethan responded: *sh*, indicating that he wasn't able to distinguish a vowel digraph from a consonant digraph. Emma responded to his error by saying: "It should be sheet, so everyone altogether". Emma supplied him with the correct sight word that he had tried to read, but made no attempt to stop and teach. One group left with the education assistant to work with *ee*, *sh, ct* and *ng* sounds on the bottom of the magnetic boards.

In the fourth lesson, following a brief introduction and review of skills, Emma went straight to "You do".

Emma began by distributing mini whiteboards to the children on the mat. She stood to explain the formation of the letters that she wanted them to write: 'I'm going to ask you to pick your texter up and I'm going to tell you a sound and I want you to have a go at writing it on your board.' One child interrupted: 'I don't have a texter.' Emma said brightly: 'That doesn't matter, just take that one. Now the first one I'm going to ask you to write is the letter or the sound ah.' Emma paused with her finger in the air and asked them: 'Now when we do that, what do we need to do?' The children did not respond. Emma stood and demonstrated with her finger in the air: 'Start with a click, up and around, short man down'. Some children tried to respond with her. She drew the letter a in the air. The children sat and watched. Emma said: 'Take your lid off your texter and write for me an ah. Then turn it around on your laps so that I can see your ah. Lucy interrupted: 'How many times do we write it?' Emma responded: 'Just once, Lucy. Don't hold it up over your heads, just on your lap, so that I can see

everyone's. Jane can you show me your ah?' Emma noticed Jane's and corrected her: 'That's a capital ah. Can you show me a lower-case ah? That's an upper-case ah. Alan can you show me a lower-case ah?' One child said: 'Did I do it right?' Emma responded: 'Turn it around and show me Clare.' Another child called out: 'I copied it off Alan.' Emma ignored this and said: "Okay I am loving the care that I am seeing you taking writing your ah, Alan, I still can't see your lower-case ah. Alright everybody else the next one that I want you writing is the *guh.* Can you tell me how to write a *guh*?' The children respond in partial unison with Emma, who demonstrates with her finger in the air: 'Start with a click go up and around, go under the dirt and show me a hook.' Emma praised them as she watched them writing the letter g: 'Good work. Okay the next one I want you to do, okay, listening, is duh. How are we going to do *duh*?' The children responded in partial unison with Emma, who demonstrated writing the letter d in the air: 'Start with a click, up and around, all the way to the top, tall man down.' She bent to correct Alan: 'It is this way Alan, start with a click, it is this way around.' Emma straightened up: 'Now people often get this wrong because they start at the wrong place.' Emma corrected Ryan: 'Ryan, yours is the wrong way around. Ryan look at my finger. Put your finger in the air and follow me. Start with a click, up and around, all the way to the top and tall man down. Good Ryan.' One little girl called out: 'I am never tricked.' Emma ignored her and continued: 'Now the next one I want you to do, oh, someone's talking, Alan stop! The *buh*. Can someone tell me where we're going to start *buh?*' Some children respond in unison with Emma who drew it in the air: 'Up the top, tall man down, half way up and a big fat belly. So we don't get to the bottom and come around that way. We start at the top, come all the way to the bottom, then come back up half way, big fat belly. Ryan show me your *buh*! Start with the tall man!' One little girl interrupted to correct her neighbour: 'It is just like a d, but you have to do it the other way.' Emma ignored her and said: 'Alan that's a capital, can you show me a lower case? Okay. The next letter we're going to try, listening up Leah, *puh*! Where are we going to start *puh*? Not at the top, in the middle. We are doing the lower-case *puh*.' Emma demonstrated writing the letter p in the air: 'Start in the middle, pull down to under the *puh*, back to the middle and a big fat belly. Just try it one more time with a big fat belly, it has to go back to the top. She corrected Leah's reversed p: 'Leah turn your *puh* around when you've done it! Show me your *puh* Jane! Yours is back to front Maddie, so have another go.' Some children at the back hold up their boards for Emma to check, but Emma did not look at them. The children in the back row, lowered their whiteboards uncertainly. Emma said: 'Okay what you can do now is put your lid on your texter.' One child interrupted: 'Is mine the right way?' Emma hurriedly replied: 'Yes, it is, rub your board clean, put your texter onto your whiteboard.' The children stop writing and rub out their work. Yours is back to front Maddie so have another go. Okay what you can do now is put your lid on your texter.' Another student interrupted: 'Is mine the right way?' Emma glanced at his board and quickly said: 'Yes, it is. Rub your board clean, put your texter onto your whiteboard. So, when I get to zero you need to be sitting up nicely, ready to start again. So, boards on the floor! Four, three, two, one, zero.' The children sit up straighter on the mat with their whiteboards in front of them on the floor. Still sitting on her chair to the left of the whiteboard, Emma explained: 'Okay, with our high frequency words, remember yesterday, I said some of these words everyone should know. And then some of them are a little bit more of a challenge. So the words with an orange background like this one, what does this one say?' The children respond in unison: 'the'. Emma continued: 'The orange words I want everyone to know. Then when we get to the purple words, they're our challenge words and I know a lot of you have, now some of you have, some of you Alan are still learning them. Ryan, put your lid on your texter! Put it on the floor!' Ryan stops drawing on his whiteboard and puts it back on the floor. Emma continues: 'Okay, let's go! What's this one? I think that's our last orange one. Here come our challenges. The children read quickly as

Emma flicks through the PowerPoint slides: 'the, to, I, no, go, into, will that is.' Emma said: 'Okay, here come our challenges!' The children read: 'they, then, with, see, for, now, down, look, to, he, she, we, me, be, was, you.' Emma praised them: 'Was, well done!' The children read: 'They'. Emma said: 'This one says they, put that down Matt!' Matt stops drawing on his whiteboard and puts it on the floor in front of him. The children continue to read: 'they, all, all, are, my, her, her digraphs.' Emma said: 'These ones are digraphs. You guys are doing so well.' She smiles at them. You did pretty well with those high frequency words. If you want to set yourself a challenge, your challenge would be to know all of those words all on your own, by the end of this term. I think we might have to put some trickier words in there. Give me two thumbs up if you think you already know all of those words. No calling out, two thumbs up. Now, so I'll add some more challenges. Put some new words in there for some of you who need a challenge. We're not going to listen to our songs just now, we're going to quickly go through our digraphs.' Some children groan in disappointment. Emma continues: 'Then at the end, we'll sing all of our songs. Altogether then! What sound does this one make?' Emma prompts them to make the response that she wants, noticing that some of the students are just saying the sound: 'Show me the action. Show me the action. The sound, altogether, and the action', she explains. Emma clicks on the following digraph PowerPoint slides and tested them on the sounds, encouraging them to recall the *Jolly Phonics* action that went with each one:

'*Sh* show me the action, *ch*, show me the action, *ng* sound all together, let's try again, *ng*.' She stands to remove a whiteboard from a student when Evan complains 'Cassie is not doing it!' Emma replies: 'Evan, all that you have to worry about is that you are doing it!' She returns to her chair and the PowerPoint slides: 'What's that one?' The children respond: '*th*'. Emma says: 'Quiet and voiced' The children respond: '*th, ee*.' Emma said: '*ee* show me the action'. She clicks the next slide and the children respond: '*oo* and *oo*, *ai*'. Emma said: 'That's our new one this week show me the action, there's another *ay*. Now remember yesterday that I told you that this is one way of making an ay, but there's also another. What does this one make? So this one's ay as well.' She notices that Luke is drawing. 'Luke put your texter down! Evan responded: 'Why didn't we learn that?' Emma said: 'We did Evan. We learned yesterday that we can make the sound ay with an *ai* or an *ay*. And these are some of the words that have an *ay* sound, so you can say them after me!' Emma reads the following slides: 'Train, rain, tray, chain, snail, play, clay!' The children repeat them after her. Emma continued: 'Now we're going to have a go at reading some of these words and we're going to try really hard to blend those sounds together so they're making the whole word. We don't want, Thomas, Matt and Thomas!' The boys are wrestling each other. The children read the following from the slides: 'R/ai/n, rain, p/ai/n, pain, w/ai/t, wait, s/n/ai/l.' Emma stopped to correct Alan: 'Hold your legs please, Alan. Please, texter!' Emma clicked on the next set of slides and the children continued: 'Train, *ch*, day.' Emma praised: 'But that's great Ethan! That's what we're aiming for, that you can just look at it and blend it without having to blend it together slowly.' The children continue to read the slides: 'Snail, train, chain, day, play, play, stay, tray.' Emma then told them: 'Okay, so listen to what we're doing, you can pick up your texter now, and on your board, I want you to write the ay digraph, *ai* write that on your board, no, no we're doing *ai*!' She corrects a child who is writing incorrectly: 'Start with a. No, no you don't want it too big, because we're going to add things to it, that's too big Ryan! That's fine. Right at the end of your word, sorry not your word, at the end of your digraph *ai*, add the letter n, *nnn*, then put your hand up if you know we've got *ai*, put an n on the end, hand up!' She notices that children are confused and writing the word incorrectly: 'No, no listen! Hand up if you know what sound you've created. Jake! *ain*, can everyone say that? Alright, now it's not a word yet, but we're going to add something to the beginning to make it a word.' She bends to correct some children: 'Add

to the end, sorry, add to the beginning the sound rrr. We've got *ai,* put an n on the end, hand up! Some children interrupt to read out what they think they have written. 'No, no listen. Hand up if you know what sound you've created! Okay, now what I want you to do, is think of a word that rhymes with rain and, now remember.' One child calls out: 'train'. Emma responds: 'Don't call out.' Another child calls out: 'train'. Emma responds: 'Don't call out. Remember, for it to rhyme with rain, it has to end with ain.' One child calls out: 'Pain!' Emma responds: 'Harry, what did I say? Don't call out! In fact don't put your hand up! Write it down on your board. If you, if you've got a word that rhymes with rain, write it on your board. What sounds begin *tr, tr*?' One child calls out: 'train!' Emma responds: 'That's one, yeah! Remember that to rhyme with rain, we've got to finish with *ain*, what can we put in here instead of r? Write the word on your board and then turn it round. Don't call out. Turn it round so I can see some of your ideas. Edel, we're not writing ape, we're writing *ain, ain*. Alright put your boards down and put your hands up if you've got a word you want to share with us that rhymes with *ain*, Henry? Does pain rhyme with rain? Yes, because it's got *ain* at the end, rain, pain, what did you get Roy? Tell me how you wrote that?' Ray does not respond. Emma asks: 'What letters did you write?' Roy responds: 'R'. Emma replies: 'Yeah. Is Roy right? Does chain rhyme with rain? Yes, it's got the ain at the end. It does rhyme, well done Roy!' Matt calls out: 'Bain.' Emma responds: 'Don't call out Matt! Hand up please, Leah. What's your word? Leah responds: 'Train.' Emma asks: 'Tell me how you spelt it.' Leah responds: 't-r-ain'. Emma responds: 'Okay, does train rhyme with rain? Yes, it finishes with *ain*. Okay Rachel. Let's make sure we are still using nice manners for the people who are still getting ideas! Rachel is calling out. Emma asks: 'Alan, what did you come up with? Alan responds: 'Paint!' Emma says: 'Oh, rain, paint, do they rhyme do you think? Even though it's got ain, paint actually ends with aint, so there's a bit more of a sound, so that one doesn't rhyme. Could you write, it just has to end in *ain*! Emma turns to another child: 'What did you come up with Ethan? Big voice?' Ethan replies: 'Bain.' Emma responds: 'Bain, bain, rain, they rhyme! What did you come up with Lucy? Lucy responds: 'Main'. Emma replies: 'Tell me how you spelt that?' Lucy responds: 'm/ai/n'. Does main, rain rhyme? Some children respond: 'Yeah'. The overall noise level of chatter rises. Emma remains seated on her chair: 'Quick one!' A student responds: 'Snake.' Emma replies: 'Okay. I'm going to ask you if you think snake rhymes as well. Remember I asked everyone to write a word that rhymes with *ain*.' The general noise of chatter rises. Emma says: 'Come on, listen, rain, snake do they rhyme? What does snake finish with? *Ake*, is *ake* and *ain* the same, no so that one doesn't rhyme! Now, put your lid onto your texter and put it onto your whiteboard. When I get to zero you should have your things down on the mat, well done Jane. I can see you're ready. Five four, yeah, put it down Ethan. We're ready to move on, that's good, five four three two one and zero, who's ready? Rachel, is ready well done.' A child holds up her whiteboard for Emma to look at. Emma responds: 'You wrote them all down, that's good.' Emma looks at the class, remaining seated in her chair: 'Okay, I'm going to say two words to you now and you've got to give me a thumbs up, yes they rhyme, or a thumbs down no they don't. No, you don't have to write anything.' Emma pulls up a PowerPoint slide with two pictures on it and asks: 'Grain, chain? There is a scattered response of: 'Yes'. Emma affirms: 'Yes, they both finish with *ain*. Get your thumbs ready, next one.' Another child interrupts by showing Emma her whiteboard. Emma acknowledges her: 'You wrote them all down, that's good.' She returns to a PowerPoint Slide showing what about ail, ail? We've got one more there. Snail, rain, do they rhyme, we've got snail and rain.' Some children respond: 'No'. Emma affirms their answer: 'They're different. Okay, we're going to come back to that in just a second and what I'm going to ask you to do, in a moment I'm going to call your row to go and put away your whiteboard and your whiteboard marker. Then we're going to come back and finish off with our last little bit to check if you were successful with the things you were

meant to learn today. Okay row four move, and row one you can go and pack away.' The children move into a transition of putting away their whiteboards and markers, shouting 'Liar, liar, pants on fire!' and jostling each other.

The above vignette shows that Emma did not explain or model the requirements for smooth blending. Emma did not teach "continuous sounds or stop sounds" (Carnine, 2006, p. 66) as one might expect of an explicit lesson on blending. Neither did she teach positional frequency (O'Brien, 2014), where one might typically find the 'ai' digraph in words. Emma set her students the task of making up words that rhyme with '*ain*' without modelling examples, defining rhyming, leading with shared practice or checking for understanding, moving straight to the plenary phase of the lesson.

Table 5.6 *Emma: Key Teacher Behaviours in the Body of the Lessons (Indicated by the Shaded Cells)*

Key Teacher Behaviours	Lesson 1	Lesson 2	Lesson 3	Lesson 4	Lesson 5
I do					
Consistently clear, concise language					
We do					
Guided practice					
CFU and Feedback at high frequency					
Uses prompts of the strategy					
Delivers lesson at brisk pace					
Uses visual or auditory hand signals to prompt student response					
You do					
Check for understanding by all students					

Key Finding 5.34 – Analysis of Pedagogy: Body of Lessons
Emma did not follow the "model-lead-test" sequence or consistently correct errors in the body of her lessons.
Key Finding 5.35 Analysis of Pedagogy: Body of Lessons
Emma did not have an engagement strategy such as "place it under your chin" for individual work on the small whiteboards, which meant she did not always see errors.
Key Finding 5.36 Analysis of Pedagogy: Body of Lessons
Explicit Instruction asks teachers to teach to mastery before introducing the next component of knowledge, strategy or rule. This was not evident in Emma's practice.

Key Finding 5.37 Analysis of Pedagogy: Body of Lessons
Emma consistently failed to check for understanding and did not appear to change her teaching to reflect students' misconceptions, as evidenced from their answers.

5.3.3 The Plenary Phase of the Lessons

The plenary phase in the first observed lesson featured Emma searching for a YouTube alphabet song. There was no plenary session in either the second or third observed lessons. Emma began the plenary phase in the fourth lesson by asking the children to read *"ai"* words silently from the interactive whiteboard. This was a significant variation, as Emma was linking lesson objectives with a plenary check for understanding.

Emma returned to her seat beside the interactive white board. She gathered the children back to the mat for the plenary session: 'Show me your Jack in the beanstalk, show me jelly on the plate, jumping beans, baked beans. Back on the floor.' The children responded with actions and returned to the mat. Emma continued: 'Sitting up, legs folded, pop on your spot. On your bottoms onto your spot. No, Aaron, on your bottoms onto your spot. Legs folded. Everyone sitting. No Jake. What's wrong Janet? Now we said at the start of our session that we were going to be successful this morning if you could be able to read some words in your ai sound. I want you to look at the words on the screen, then we will call some names out to read them. Do it in your head first, look at the words that come up on the screen and see if you can read them. We'll pick three friends to read them. First of all, I want you all to check in and see if you can do them on your own.' One child calls out: 'rain'. Emma responds: 'Don't call out. Who did that? You just lost a magic star. That's a bit sad Eden. Don't do that again. You're doing it in your head. You can give me a thumbs up when you have finished. Put your thumbs up if you think you were able to read them. Some of you are really quick. I will give you five more seconds and then I am going to hear from someone. Okay?' The children sit and silently puzzle out the test words on the PowerPoint slide. It reads: rain, train, day, wait. Emma points to the first row of words and says: 'Tara, could you have a go at reading these four words here starting at the top?' Tara responds, reading slowly and hesitantly: 'rain, train, day, wait?' Emma praises her: 'Good girl, okay lets everyone read these first four. Okay, well done.' The children read correctly in unison. Emma says: 'Well done Tara, you can give yourself a pat on the back. Rachel, can you read these four in the middle?' Rachel reads without difficulty: 'Wait, snail, play, say.' Emma praises: 'Give yourself a pat on the back you have been very successful. Let's read them all together.' Emma stands and points to the second row of words as the children read them in unison. Emma choses another student: 'Ryan can you have a go at the last four please? Are you ready to go? What does the first one say?' Ryan: 'Pain.' Emma responds: 'What does the next one say?' Ryan replies: 'I didn't read them.' Emma responds: 'That's okay. It's a bit longer, what's the first sound?' Ryan reads: *'b/r/ai/n'.* Emma helps him: 'Good work, go Ryan. Point to your brain for me, where does the brain live?' Ryan points to his head. Other boys point to his bottom. Emma reprimands: 'No, stop, guys, that's not nice!' Emma points to the next word and helps Ryan to decode: 'The next one?' Ryan responds*: p/a'*. Emma guides him: 'Not quite, it has an *ll* in it *puh/l.*' Ryan sounds out: '*P/l/ay*.' Emma praises him: 'Give yourself a pat on the back, Ryan, good work. Alright, altogether let's read these last four.' The children read in unison: 'train, brain, tray, bray'. Emma continues: 'Have a think, were you successful today? I don't want you to say

anything. Were you able to read all or most of these words? Just have a think to yourself so that you know. Okay the next thing we're going to do, I've got two sentences, have a go in your head at trying to work out what that first sentence says.' Emma pulls up a PowerPoint slide that reads: I will wait for the train. The snail is in the rain. Emma says: 'Don't call out. Thumbs up. Leah, you read this one for us.' Leah responds correctly by reading: 'I will wait for the train.' She read it hesitantly and Emma prompted her: I will wait to get, on the *tr?*'. Emma responded: 'Okay well done, give yourself a pat on the back Leah. Everybody let's read that together. The children responded in unison: 'I will wait to get on the train.' She then directed the students' attention to the last sentence: 'Lucky last go at reading the sentence on your own. Stop, in your head, thumbs up when you think you know it. Put your hands down. Lucy, would you like to read?' Lucy read: 'The snail is in the rain.' Emma asked the students to reflect on whether they were able to read the sentences: 'Were you successful today. Were you able to have a go at reading the sentences? You don't have to put your hands up; you can just think to yourselves.' She finished by putting on a *Jolly Phonics* song for the children to sing.

While the above vignette demonstrates a variation in Emma's teaching that linked learning objectives to a final check for understanding, she chose volunteers with their hands up in the plenary session of her lesson, rather than non-volunteers, and did not find out how many students had achieved the lesson objectives.

In the fifth lesson, Emma also went straight from the warm up to "You do", which involved testing written words containing digraphs:

Emma stood up and distributed whiteboard markers to the children on the mat. Emma said, 'This is a game and I'm going to ask you to pick up your texters and we're going to have a go at writing these ones, the first one I'm going to ask you to write is slip, have a go, that one's back to front Lucy. When you think you've got it turn it around on your lap and then I can have a look.' One child asks: In lower case?' Emma affirms: 'Just use lower case. Looking good, next one spot.' The children all try to write spot. Emma said 'Turn it around for me to have a look.' The children turn their whiteboards. Emma responded: 'Well done, your s is back to front Corey, okay, looking pretty good, well done, next one, oh interesting to see if you remember the rule at the end of this word, smock, have a go at writing smock. Have a go in writing it, when the '*ck*' sound comes after a short vowel we need a c and a k.' Emma remained seated in her chair but checked their written responses on their whiteboards, saying 'Well done you remembered it.' She corrected Eva: 'Look again at your word you are missing a vowel. The next one I would like you to do...' She paused to correct another child: 'Leah, *s/m/o/ck*, good work, in your word smock you need to turn that into a m, you're missing your vowel there.' Emma continued: 'The next one has a digraph that we haven't learned: sn/ai/l.' One child interrupts: 'Has it a double *ll*?' Emma did not respond. She allows them to write it down and said, 'Ethan, you missed at the start, what should come after the ss, Jenny, your a is back to front.' Another child interrupts: 'Is mine back to front?' Emma responded: 'Yes, it is.' Emma praised another child: 'You're a star. Another one for you that has this week's digraph in it is storm. *St/o/rm*. Who can remember *s/t/or/m* what makes an or sound? They write it down. Emma said: 'It's the other way around, when you think you've got it turn it around on your lap, well done, you've got all the sounds but we don't need a capital l in there Ethan. The chatter is loud in the room. Emma said: 'okay, let's listen to the sounds Matt!

S/t/or/k, okay!' The children are restless and ignore her. One child asks: 'How do you write stork?' There is some writing but the children are restless. Emma calls: '1, 2,3 eyes on me.' The children respond: '1,2,3, eyes on you!' One child says: 'Do we wipe it clean?' Emma glances at the whiteboards and says: 'Stop and put your eyes on me, back row you are looking beautiful. What I want you to do now is take your whiteboard and go and put it away on the bookcase, texters back into the box, make sure you wipe it clean before it goes. Back row you can put your boards away.' Emma rose from her chair to help the noisy transition. All of the children are up and talking loudly. Emma moved back to her chair, saying: 'When I get to zero you need to be back on the mat: ten, nine, eight, seven, six, five, four, three, that was a silly thing to do!' The noise increases: 'Two, one and zero. Alan, you will lose a magic stone if you're not very quickly back in you spot, we just have a couple of more things. Lucy, I love that you're being really helpful but can you come and sit in your spot. Jake leave that and come to your spot. Just make sure you are sitting in the right way. Make sure your brains are switched on. This time you tell me what the word is.' The children continue to chatter loudly. Emma ignores them and said: '*sp/a/de.'* The children respond: 'Spade'. Some children continue to return. Emma continues to segment: '*S/p/o/t*.' The children respond: 'Spot.' Emma said: 'Next one *s/n/ai/l*.' The children respond: 'Snail.' One child calls out: stick. Emma corrects her behaviour as the others call out: 'Please wait till you've heard them all Maddie, don't just guess.' Emma continues over the noise: *S/t/i/ck*.' The children respond: 'Stick'. Emma said: '*Sn/o/w'*. The children respond: 'Snow.' She then continued over the noise: 'Pre-Primaries, look what I've got for you up on the board. Now look what I've got some of these words for you to blend. Let's read them together 'The children read in ragged unison with Emma from the PowerPoint slides: 'Slip *s/l/i/p* slip *s/la/p slap sl/u/g,* slug' Emma interrupts them: 'I feel I can hear a lot of noise, don't bang that Ethan. Okay, a slug, Evan, is like a snail without a shell. Alright next one*, s/p/o/t s/p/or/t* sport, okay hands up if you think you know what it says? *S/p/o/t*, spot, *s/p/or/t*, sport. Emma stops again: 'Ryan? Not snake, try again, you need to put your hand up, take away a magic stone Matthew! snail, I need you to make some great choices so you can get your magic stone back, *st/or/m* storm Okay next one *s/m/a/ck,* smack, *sn/ai/l,* storm, fork.' Some students were becoming restless and disengaged. The level of noise rises. Emma fiddles with the slides, but continues to sit on her chair: 'Okay, 1,2,3 eyes on me. We're just going to quickly go through and read some or words now some of you were away yesterday and missed when we learned this digraph 'When o and r go together they make or sound. Go!' The students read these words in ragged unison: 'corn, fork, sport, storm, cork, stork, port, born, cord.' Emma moved to the next slide which read: Can you spot the snail in the storm? Emma said: 'Without calling out, I want you in your head have a go at seeing if you can read that sentence and when you think you can do what it says. Don't call out, we'll give everyone else about twenty seconds, and then we'll pull a name out the jar.' She dipped into a jar of names and said, 'Lucky dip Mattie?' Mattie read the sentence correctly. Emma praised her: 'Give her a big clap.' Emma then addressed the others. 'Give me a little thumbs up if you could work it out yourself, then you know you've been successful. I am pleased to see so many thumbs up. If you were able to read those words with the s blends and the 'or' words, then you know you have been successful today'. The majority of the class put their thumbs up. Emma continued: 'Put your hand up if you can read some of the high frequency words in that sentence.' Some children raise their hands. Emma picks three different volunteers who read 'the, you,' and 'in' respectively. She praises them and then searches for a digraph song on YouTube. She indicates to me that the lesson is over and to cut the video camera.

This vignette shows consistency in Emma's determination to elicit knowledge about digraphs from the children. Many answered correctly but others struggled, and Emma spent 1% of the "You do" phase of her lesson correcting errors and 9% of this lesson phase correcting behaviour. It is important to note that the children did not have the support of a preceding "I do" or "We do" before testing. Table 5.7 illustrates Emma's final check for understanding in the last two lessons.

Table 5.7 *Key Teacher Behaviours Evident in Plenary Phase of Lessons (Indicated by Shaded Cells)*

Key Teacher Behaviours	Lesson 1	Lesson 2	Lesson 3	Lesson 4	Lesson 5
Final check for understanding					
Short interactive review of what was learned					
Elicits response from students with evidence of high success rate					
Preview of what will be learned next day					

The above table shows Emma's review of learning was comparatively long (comprising 21.4% of lesson four and 9.6% of lesson five respectively) and did not include a preview of what was to be learned the next day, attesting to some students' achievements rather than whole-class success.

Key Finding 5.38 – Analysis of Pedagogy: Plenary Phase of Lessons
Emma did not consistently include a plenary or short interactive review in the five observed lessons.
Key Finding 5.39 – Analysis of Pedagogy: Plenary Phase of Lessons
Emma's clearly stated learning objectives in the fourth and fifth lessons were compromised by poor checking for understanding techniques in the plenary stage of those lessons.

5.4 Chapter Summary

Holly Fern Primary School served a population with a socio-economic status above the Australian national average. Explicit Instruction was introduced in the school in 2012 to meet the higher academic standards demanded by the Australian Curriculum and to raise literacy standards. NAPLAN data indicates the school had moved from below average Year 3 literacy results to meeting the national average. The only school policy document on Explicit Instruction in the classroom indicated constructivist understandings of the "We do" phase of the lesson.

Feedback from the principal, the deputy principal, Emma's early childhood colleague, Zara, and the external consultant indicated that the model of Explicit Instruction in the school did not map across to the EI steps described in the literature, and was linked to constructivist principles. The instructional

leadership in the school was informal and consensual, and there was an informal schedule for coaching, mentoring and observing practice in place. The principal believed at the time of the research that all the elements of an Explicit Instruction lesson would be visible in Emma's literacy lessons, and the external consultant who was hired to coach, mentor and observe the early childhood teachers in Explicit Instruction was fully trained and familiar with EI. This proved not to be the case. The principal revealed that the teachers had voted unanimously to continue using John Fleming's model of Explicit Instruction. Feedback in the interviews indicated that this consent was undermined by teachers' beliefs, misunderstandings, misaligned pedagogic policies, coaching, mentoring and a lack of opportunities to observe master teachers.

Emma had studied Explicit Instruction and literacy at postgraduate level. She'd also received five coaching sessions in Explicit Instruction from an external consultant with a generic understanding, but no training in Explicit Instruction. She was conflicted by pressure to achieve academic standards and deliver a developmentally appropriate curriculum and "balanced" literacy program. Emma also expressed the view that although Explicit Instruction was necessary for delivering high academic outcomes as demanded by the Australian Curriculum, the pedagogy was not inclusive of learning styles, creativity or differentiation. She did not believe it was possible to sustain student attention for the entire five phases of an explicit lesson and concluded that EI was best delivered in "short, sharp bursts".

The patterns that emerged from Emma's practice signalled a preoccupation with testing during the review of prerequisite skills in the five observed lessons and the "You do" phase in lessons two, three, four and five. She was able to consistently gain students' attention at the start of the lessons but unable to sustain it. There was a consistent lack of "I do, We do, You do" in her teaching. The warm up or review of prerequisite skills was consistently present across the five lessons and there was a pattern of checking for understanding, but this was compromised by lack of familiarity with EI delivery techniques.

Emma's practice improved over the research period. She presented the learning objective and clarified its importance in lessons four and five, although this was overly complex and lengthy in delivery. She also followed through with a final check for understanding in lessons 4 and 5, although it was not inclusive of all students. This was a key variation in her practice and stemmed from professional learning of John Hattie's Visible Learning, reinforcing the tendency of the school to adopt a hybrid version of Explicit Instruction. The only other variation was a brief "I do" phase in the second lesson, lasting only three minutes. Modelling a worksheet on the "Gruffalo" was somewhat compromised at the time by eliciting answers from the children rather than involving them as she sounded out the writing of the words.

Chapter 6: Aster Wood Primary School

This is the third chapter examining the educational philosophy of a school. It involves Aster Wood Primary School (pseudonym) and the practice of Vanessa (pseudonym), a pre-primary teacher in the school. Five of Vanessa's Explicit Instruction lessons (Archer & Hughes, 2011; Hollingsworth & Ybarra, 2009; Rosenshine, 2012) on phonics and phonological awareness were observed and analysed. This chapter examines the school context, teacher's background and philosophy, and presents an analysis of Vanessa's pedagogy, concluding with a summary of the findings.

6.1 School Context

Aster Wood Primary School is an independent public primary school situated in the Perth metropolitan area and caters for students from kindergarten to Year 7. Built in the early 20th century, the school is highly committed to research-based Explicit Instruction and assessment as well as data-driven planning for teaching. The school places heavy emphasis on excellence and holistic education, environmental education and sustainability. At the time of the research, the My School website (ACARA, 2015) indicated there were roughly 520 students enrolled at the school, of whom none were Indigenous and 24% were from a language background other than English. There were 36 teaching staff and 22 non-teaching staff, equating to 15.7 full-time equivalent non-teaching staff.

The Index of Community Socio-Economic Advantage (ICSEA) rating for Aster Wood Primary School was 1152 compared to the national average of 1000. The distribution of students, compared with average Australian distribution figures, shows that Aster Wood Primary School students were more socially and educationally advantaged than the average Australian.

Table 6.1 *Index of Community Socio-Educational Advantage (ICSEA) Indicating the Distribution of Students at Aster Wood Primary compared to the Overall Australian Distribution (ACARA, 2015)*

Distribution of Students	**Bottom quarter**	**Middle quarters**		**Top quarter**
School distribution	2%	7%	25%	67%
Australian Distribution	25%	25%	25%	25%

Note: Percentages are rounded and may not add up to 100

Aster Wood's NAPLAN data for literacy from 2008 to 2014 indicates that the school's literacy results had been substantially above the Australian average since 2012 (ACARA, 2015). While the three case study schools have a similar ICSEA index (deliberately), Aster Wood has a different profile from the other two case study schools in that it has a much higher percentage in the top quartile. Aster

Wood Primary introduced Explicit Instruction in 2012. Table 6.2 shows Aster Wood's average NAPLAN Year 3 reading results compared to all Australian schools (ALL) and statistically similar schools (SIM). To protect the identity of the school only the Year 3 reading averages are shown.

Table 6.2 *Aster Wood P.S. Average NAPLAN Reading Results Compared to Similar and All Schools*

Year	**2010**		**2011**		**2012**		**2013**		**2014**	
Average Y3 NAPLAN Reading Score	445		441		476		465		475	
	SIM	**ALL**	**SIM**	**ALL**	**SIM**	**ALL**	**SIM**	**ALL**	**SIM**	**ALL**
	461	414	461	416	466	420	472	419	473	418

The data show that between 2010 and 2014 the school performed above the Australian national average (ALL) but underperformed in relation to statistically similar schools (SIM) until 2012 to 2014, when the reading scores were comparable to schools with a similar ICSEA rating and substantially above the average for all Australian schools.

Key Finding 6.1 – Aster Wood Primary School

Aster Wood Primary School is in metropolitan Perth and caters for children from pre-primary to Year 7. The school has a tradition of outstanding academic achievement and boasts award-winning teachers who use "leading edge" practices in pedagogic methods. The ICSEA score indicates that the school serves an above-average socio-economic population, and parents come from above-average educational backgrounds. The NAPLAN data indicate that since 2012, the school performed well in reading compared to similar schools and out-performed the average for all Australian schools in all years.

School Policy Documents

The only school planning document on phonics and phonological awareness (PA) featured an explicit approach to PA, using Let's Decode (Formentin, 1993) and a synthetic, explicit approach to phonics in the Diana Rigg Program.

The school policy document on literacy planning for pre-primary classes indicated a shared scope and sequence for phonics and phonological awareness. Although there was no reference to Explicit Instruction, the resources were aligned with EI in terms of their focus on semi- and fully-scripted Direct Instruction resources. No other school policy document mentioned Explicit Instruction.

	Letter sounds **DIANA RIGG**	**Word/ Sentence Awareness** **JOLLY PHONICS**	**Auditory Blending ORALLY** **LET'S DECODE**	**Rhyming** **LET'S DECODE**	**Segmenting using theme words and diagraph words**	**Sounding out words** **LET'S DECODE**
TERM 1	s, a, t, p, l, n, c/k, e, h, r, m, d, g, o, u, l, f, b, j, z, v, y, x, qu (married), sh, th, ch (initial and final)	Hoop hopping - up to 7 words in a sentence Compound Words Alliteration	CVCC and CCVC with stop sounds. Use theme words	in, at, ap	VC – in, at CVC- cat	VC & CVC Easy words am & hug
TERM 2	Revise ALL sounds. Vowels- short and long. Magic "e". Two vowel rule. <u>A LONG Vowel</u>- ai, a-e, ay, y as in i. <u>O LONG Vowel</u>- oa, o-e, ow	Nouns Adjectives Synonyms Antonyms	Continuous (e.g. Feet) and stop sounds (e.g. Crust) * increase length and complexity.	ip, op, an, ad	CVC- cat CVCC-fast CCVC- stop	CCVC Continuous / Easy
TERM 3	Two Vowel Rule <u>I LONG VOWEL</u>- ie, i-e, y, igh <u>E LONG VOWEL</u>- ee, ea Little and long "oo", wh, all, ll	Verbs Conjunction Words Adverbs	Continuous (e.g. Flag) and stop sounds (e.g. Pond) * increase length and complexity.	eep, ate, oon	CVC- cat CVCC-fast CCVC- stop	CVC – Stop sounds (big) CCVCC – (drums) dr-u-m-s
TERM 4	<u>U LONG VOWEL</u>- u-e, ue er – ir,ur Revise all diagraphs	Revise all sentence rules	Continuous (e.g. slug) & stop sounds (e.g. queen)* increase length and complexity.	Revision of all	CCVCCC- branch	CCACCVV- shampoo
PRE-PRIMARY OVERVIEW 2013						
ASSESSMENT: Twice a term – Week 5 and Week 10.						
READING: Let's Decode stories - Holborn Reading Test.						
SPELLING MASTERY: Start term 2 Week 5 – Every day first thing.						
DICTATION: Every day after Spelling Mastery. Using individual whiteboards.						
GAMMAR RULES: Revise every day in the morning.						

Figure 6.1 Aster Wood's Pre-Primary Phonological Awareness and Phonics Planning Documents

Key Finding 6.2 – Aster Wood PS
The literacy overview document from Aster Wood showed alignment with Direct Instruction regarding Spelling Mastery (Dixon et al., 1980) and Let's Decode (Formentin, 1993). No school document expressly mentioned Explicit Instruction.

The ambiguous stance of the school with regard to its implementation of Explicit Instruction was apparent in the interviews with the principal and the pre-primary teacher.

Interview with the Principal

In May 2014 the principal, Ben, explained how the school had become involved with Explicit Instruction:

> I believe it started this way, I went to a presentation by Mary Rohl, she's a professor at the time at UWA and she presented 'Teaching for Growth', a research document that she and Professor Bill Louden had been developing, and it showed how, how much gain can be made through explicit teaching, in early literacy, in pre-primary and Year 1, and then that got me thinking and I had conversations with my staff around you know, what the explicit teachers were doing that made the difference versus teachers who were not explicit in certain areas and the explicitness was around, you know, explanation of word, explanation of sentence, explanation of text, and from that we got very interested in phonological awareness and did some work with the state wide speech and language service and from that we got involved in an innovation grant that included Dr Lorraine Hammond and it just seemed to grow from there. So my staff saw the benefits, understood the research, saw the research and what it was saying, saw the benefits and thought 'Oh, gosh I didn't know I could do that' and so it grew from there. So, we have this sort of, this sort of em, ethos and this sort of attitude that they welcome research and work that helps them become more effective and a lot of that is around explicit teaching, so that's the culture that's down there.

The principal stated that Explicit Instruction had been introduced to the early childhood classes first:

> It started in early childhood, and we've been, and it was a great place to start, every other teacher, every other year level was NAPLAN centred, there was lots of data to say this is what you need to do and make a difference and so on and so forth. Whereas there was always this sort of disconnect with early childhood, and we latched on down there did the explicit teaching, came up with great sequences of how to teach sounds, etcetera,

and how to lead into reading and writing and em, and we kept celebrating and promoting the great work that was coming through there. And so, this wave of rigour and explicit teaching, expectation is permeating right across the School, and it's a work in progress.

Key Finding 6.3 – Aster Wood Primary School Principal
The principal introduced Explicit Instruction in the early childhood classes as a research-based approach to improve teacher efficacy and rigour. The principal was confident that Explicit Instruction was being used across the entire school.

When asked what he thought was significant about Explicit Instruction from the teachers' point of view the principal responded:

I think there's a few things that matter most. One is, they need to be really confident in how to, in understanding how kids learn. How they learn to write, how they learn to read, all that sort of thing. So therefore, their Explicit Instruction has got sequential purpose and development, and that's the number one. And then they need the skills of explicit teaching, as opposed to just doing activities and just doing things in an ad hoc fashion. So how to can be very, how to enunciate words correctly, et cetera, sounds and so on. So, understanding that sequence is important. The content, the sequence, how to teach it. I think they're paramount. But what's reinforcing it is the collaboration, the connection with our experts, the modelling, the sharing, and the celebrating. I think that's all. But above all there's this belief that they can see the difference that it makes and that sort of fires them up to keep going.

Key Finding 6.4 – Aster Wood Primary School Principal
The principal believed that an understanding of how children learn, an understanding of the sequence of Explicit Instruction and the skills of Explicit Instruction were important for teachers to know and apply in the classroom.

I asked the principal what he thought teachers needed to know and understand about Explicit Instruction to be effective:

The change we've made, everything is research based. So as opposed to being, oh, you know, another good idea that someone picked up at a PD, the Principal's got this brainwave or whatever, it's research based.

Asked how he introduced research-based practice in the school, the principal replied:

So, we were, along the way, we built the capacity of the staff through level three teacher roles, so we tied in these projects with people having time, and that was an important factor, so someone down, someone out there in the junior primary land, owned part of the program implementation. So it's not so much owned, but they coordinated, they supported, they drove it and them, they encouraged and cheered their colleagues along, and just made it easier for them, and that's how we got everyone on board, and then I sort of coached and encouraged and supported them. And I think that's critical, the role of the Principal, if I didn't, if I wasn't out there championing it, if I didn't bring it into the School, if I didn't support it with resources and time and all that sort of thing, and with some expectation, I don't think it would have got off the ground.

Key Finding 6.5 – Aster Wood Primary School Principal
The principal viewed his role in instructional leadership vital for introducing research-based practice. The principal said he achieved this by supporting, coaching and supplying extra resources.

When asked about the challenges they faced implementing Explicit Instruction the principal responded:

Okay, the biggest challenge was convincing them that what they've always done was valuable and it was great, but it may not have been the best or necessarily everything. So valuing what they did, but saying "Hang on guys, did you know we could do it this way as well?" and then allowing them to let go of past practices, whilst adopting new ones. That was the challenge, and that takes time. And that was a little bit of push and pull. So, that was a big challenge… A few times there were egos involved. "Oh, I've always done it this way and I've never had a problem before". So yeah, and some people get on better, sort of collaborate and share and be part of that learning community and be more willing and more free than others, so that's always something… I had to, I mean that's a very expensive way of doing it, so I actually developed that as part of the role of one of my deputies, that she would go in and do class release, so that this lecturer could meet with that teacher and they could talk and do a bit of professional learning. The other challenge and this has kind of morphed into, is this whole notion of peer observation. And so, they've gone and watched each other teaching and pick it up that way, but again there's a time element attached to it.

Key Finding 6.6 – Aster Wood Primary School Principal
The principal found the biggest challenge introducing Explicit Instruction was getting the teachers to let go of past practices. He provided release time from class so that teachers could meet with the school mentor and arranged peer observations.

When asked what he would expect to see in an Explicit Instruction lesson on phonics and phonological awareness at pre-primary level, the principal said:

> I would expect to see very clear instructions, very clear structure to the lesson, and I'd expect to see strong engagement from the students and lots of practice, you know I'd expect to see lots of aural, a bit of written, maybe a bit of them having a go, you know, this is where I come unstuck because I'm not an early childhood expert, but you know, if it's Explicit Instruction I would expect to see things along the lines of something to build fluency. I would expect to see something along the lines of what is the purpose of this lesson, maybe then telling the kids today they were going to learn about and this is what it links to and this is where we're going to go so the kids have some expectation about what they're doing. I would expect to see activities, learning activities that capture the new skill so they can practice it lots of times, maybe also picking up on prior learning from previous lessons and then I'd also expect to see at the end of the lesson, some sort of plenary, something that ties it altogether. Now within that there may be lots of different groups doing different things and good utilisation of the aide and so on and so forth and the kids might have not one long drawn out laborious session but one that's very integrated and engaging in lots of different ways.

Key Finding 6.7 – Aster Wood Primary School Principal
The principal had a hybrid understanding of Explicit Instruction that included constructivist practices in an explicit lesson.

When asked his view on the controversy of using Explicit Instruction to teach phonics at pre-primary level, the principal stated:

> We've had that challenge too, in that there's this play-based versus explicit teaching camp and we acknowledge a couple of things in that the first thing is that the kids are a little bit older than they used to be. And this is all around 'readiness' and by, so we do aim for a balance, we're not one and we're not the other, we try to keep a balance as much as we can and it's tough. But one telling factor that probably tells us we're doing

the right thing, is monitoring how the kids feel about it. Um, and the parents. When we, prior to us engaging in all of this, our poorest attendance rates were in pre-primary. Subsequent to doing this, our highest attendance rates are in pre-primary. So, the kids value what's happening, they love to learn. We had a culture of children not wanting to take risks at anything, particularly in pre-primary where they were sort of doing this 'pretending to write' and the teacher was pretending to read it. When the kids discovered my pretend write didn't convey meaning to anyone else they felt, there was almost this sense of betrayal. If that doesn't make sense, then I'm not going to expose myself anymore. So that created this culture of kids not wanting to take any more risks and it's through the School. So now what we're doing is we're teaching kids how to read, how to write, how to make sentences, how to make words, and at a very quick and early stage they are able to do that and feel the joy of their own learning, and get a buzz out of being able to communicate well to each other and to other people. And so, that's self-fulfilling. So, they like to take more risks. They value making mistakes. Their parents see how excited and engaged these kids are, they want to come to the School. So, I put that on the table and say why would we ever go back to play based? But having said that, my staff, particularly the kindy staff will say, "There's just no time for home play, for creative play" and so that's something we, and so I'll say "Well what can you take out of your program?' and I'm at that stage with her, because she's still hanging on to a few things and I'm thinking, well why are you doing that?" And so, that's a challenge we're working through.

Key Finding 6.8 – Aster Wood Primary School Principal
The principal resolved the tension between play-based learning and Explicit Instruction by asking teachers what could be removed from their programs to make time for creative play and encouraging them to aim for a balanced program.
Key Finding 6.9 – Aster Wood Primary School Principal
The principal stated that prior to the introduction of Explicit Instruction, pre-primary had the worst attendance rates in the school. Following the introduction of EI, pre-primary attendance rates were the highest in the school.

I asked the principal how Explicit Instruction related to the new Australian Curriculum. He replied:

My view is and look to be honest, I've not engaged in great detail around this question at that level, my feeling is that there are elements across the curriculum em, around all the learning areas that are more rigorous or demanding or new for junior, for junior year

levels. And so we feel well placed to be addressing new Australian Curriculum at those junior levels because of the work we have been doing in the explicit teaching.

Key Finding 6.10 – Aster Wood Primary School Principal
The principal believed that Explicit Instruction helped the school meet the higher demands of the Australian Curriculum in the early years classrooms.

I asked the principal which key authors informed his focus on research-based practice in the school, to which he responded:

> Well we have contacts. In the past we have worked with Curtin University. In the present we work with Edith Cowan University and we've built this relationship, I do know Professor Chris Brook particularly well. I do know Dr Lorraine Hammond and Dr Deb Calcott. We've also worked closely with Dr Paul Swann, and some of his support staff. So, look that's who we go to, but in terms of science my, some of my staff are running a teacher development School with a focus in early childhood science, so they're networked beyond, it might be UWA, it might be the Science Teachers Association. I encourage my staff and I support them to network beyond the school.

Key Finding 6.11 – Aster Wood Primary School Principal
The principal emphasised links with university staff and networking with other organisations, rather than particular authors in the pursuit of research-based practice.

In a further interview in August 2014 I asked the principal what he considered the most significant barriers and success factors in establishing an explicit approach:

> Yeah, em, the first problem we had was marrying the data with the appropriate research programme that would respond adequately. So, once we found that it was then presenting it in a way that convinced teachers that explicit teaching programme that we need to address that data and then getting them to be developed and being conversant with it, so that they gave it a good go, and it was that bit that was important. Because that coaching, that supporting, that getting the programme to have classroom traction matters most. And so, we did lots of feedback back, lots of collegial group sharing, lots of leadership support, so that we got the results and said, "Hey, this works", once we had the results that worked and they were supported and they were confident in the programme, they changed their belief.

I asked him which programs he started with, to which he replied:

> So, it's been the Let's Decode, it's been the Moving on with Literacy, it's been in the cracking the code. There's been the Good Start Maths, and these are all the early childhood programs, but all followed similar model. Critical bit to get the explicit teaching, because what you're really looking at is a change in practice, for teachers to change their practice, it has to meet their need, their need being it's going to make their results better, the kids better learners or, or and then they've got to believe it.

Key Finding 6.12 – Aster Wood Primary School Principal
The principal said that teachers changed their beliefs once it was clear from the testing data that an Explicit program was having an impact. He used extensive coaching, feedback, collegial group support and leadership support, as well as commercially produced Direct Instruction programs to enable Explicit Instruction to gain traction in the classroom.

I asked the principal how often the teachers in the school were coached:

> Depends when you ask me (laughs). When you ask me today, look and it def, what is coaching? Because we're facing a series of budget cuts, coaching has involved me sitting one on one, I'm the level three classroom teacher, I know the School data, and I know we need to tighten up a few things in your phase of learning. So, I'd go in, show the data, I'd do some planning, I'd do some modelling and then I'd start coaching you through some new strategies to help improve kids' data. That happened a lot. That happened in all the key learning areas weekly last year. With the budget cuts this year, we've had to re-tweak things and so our coaching has been a little less explicit, so a little less structured maybe, so that what we now have is staff meeting time, five a term, where we are actually working in teams so, where we P and C have been great where we, each teacher gets two days a year, half a day in numeracy, half a day in literacy, so we have that twice each semester. We present them with a new lot of data, talk about the trends, the patterns em and then they develop a year level plan, they may give back in staff meetings to share their practice, where they're coaching one another, they go and watch one another, so they, peer observation where they, but that kind of collaborative team bonding where we've improved that cohort data, is what we're working on, doing stuff so that we're always presenting new stuff on staff development day, so it's ongoing all of the time, but if you were to ask me how often is that teacher coached, it's difficult to say. Some need more coaching than others. Graduates get a lot.

Key Finding 6.13 – Aster Wood Primary School Principal
The school's approach to coaching was informally timetabled. The principal coached using planning and modelling of new strategies to improve students' test results. The principal also reported that teachers were released from their classrooms twice a semester to collaborate, plan, engage in coaching each other and undertake peer observation.

I asked the principal how he knew the teachers were teaching explicitly:

> I knew last year and in the previous years, the level three teachers were, I would meet with them to talk about the data, where we'd ask them to approach these staff to work with and they'd model it and there'd be that gradual release so they'd watching their colleagues become explicit in their practices, at changing their practices. Now what we do, is we get them to in their year level team and we have staff meetings on Tuesday afternoons, to, last staff meeting was let's look at our literacy data, let's look at what high effect strategies you were doing, did it work for you? And they were sharing. Now part of that sharing could be, well could I come have a look? And so, they're actually having to account back to the team what did you do and how did it work, because they'd already talked about the high effect strategies that they were going to use and how they were going to make their lessons more explicit. The whole School intention was this is the learning purpose, this is what this lesson is about, so at the end of it when we do our plenary, it ties back, so along the way they've got some explicit teaching activities. So, that's been a specific change for us. So, that bit about supporting teacher practices they now have to tell their colleagues in their groups what they're doing and put evidence of that on the table. And I just come and join different groups and listen in and we also see it in practice around the School.

He later added:

> Now it may have made a difference in teacher practice, teacher beliefs, and it may have made a difference in student results (sounds hesitant), but it's made a huge difference, in, I believe, in the collegiality and promoting that feeling of that improvement (door knocks) that strives to get better. I wouldn't be at all surprised if it has made a difference in results but certainly in teacher practice.

Key Finding 6.14 – Aster Wood Primary School Principal
The principal said there was a system of peer accountability in the staff meetings, where teachers would feed back to their colleagues on the explicit strategies they had used and set up observations with their colleagues. The principal listened in on these conversations.

When asked how he created a climate for teachers to develop their pedagogic skills, he said:

> In essence it's about here's the need okay, so, if that need is so great then maybe we need to look at doing things differently, so and here's how I can help you so. Then I can help you with, this is research, these strategies these programmes we believe are going to make a difference. And then the important thing about helping teachers improve their pedagogy is that support, is that transition from theory into practice , that's the key to it, and if you can, cos they can all be believers on the day that you're delivering it, but when they walk out of that room, that's where a lot of people fall down, it's they're too busy to reinvent things, so you support them, so we have lots of little team meetings, where there's been leadership input, resources, expectations and support and then they come back and account, and having to account to their year level colleagues, and look it was just a wonderful tone at our last staff meeting where they you know some people had been to a PETA conference and they brought back these great strategies that they were going to input into improving their writing for example and the others were just 'Can I have a look at this? Can I try that?' Okay, so let's bring that back to our next table meeting. So, that's the supportive culture of reflection and improvement.

Key Finding 6.15 – Aster Wood Primary School Principal
The principal believed the peer discussion in weekly staff meetings was important for transferring professional learning into practice.

6.2 Teacher Background and Philosophy

I interviewed Vanessa in the principal's office in April 2014 and asked about her experiences with Explicit Instruction:

> My experience with EDI has (pauses) completely changed the way I run my program now. I'm teaching more structured, like in a pedagogy-more explicit and direct. I first came across it informally with the Fremantle Speech and Language with Martin, and then formally with Dr Lorraine Hammond from ECU, who was using the 'Let's Decode' program. Through the speech and language with Martin and Lorraine, I kind of developed

my explicit literacy program and also not so much through literacy I also came across it through Paul Swann in maths. Paul is very much DI in maths, so it just brought everything together and reassured me that I am doing everything correctly both in maths and literacy. I had Martin P. come in and sit with me one on one to go through sequential steps that children needed to know and then with Lorraine Hammond I had the 'Let's Decode' program. She would come out and assessed my teaching, critique it, gave me feedback. I also had lots of other teachers from other Schools come and watch me teach as well. So, that was obviously reassuring that I was doing it right, with Dr Lorraine asking other teachers to come in and watch me teach my 'Let's Decode' DI program.

Vanessa viewed Explicit Instruction as a positive pedagogic approach for early years teachers:

But for *Let's Decode* first of all it was just the pre-primary teachers. Then we saw what great success the *Let's Decode* and the explicit teaching outcome was the drive the children had, the outcome, the expectations just rose - they could achieve everything. The Principal Ben said 'Well, let's get the Kindy teacher now on board and inside plus the year one teacher plus the year two teachers. So, Lorraine came back and we did it again with those years and it's actually pretty good because it's using the same language and that's what I think is the critical part of DI is the language, we're all using the same language, we're all on the same page, we all know the sequential steps that are involved in, in learning literacy, and it's really, really good. It's because it's just across the board, it's really beneficial for the children. It's not just isolated in the School. So, we've got, Kindy up to year two. I even think year three have now boarded on and we've seen such great, because of the direct instruction, way down in Kindy up to year three, the NAPLAN results are just awesome as well- they've just gone through the roof. And also, with Explicit Instruction, because of the program, you can really pick out where the children are falling down. It's really clear, so you can tell if they've got it or they haven't got it. So, you think 'Right. Have they got it? No, they haven't after you've been through your lesson and whatnot, so you know what to revise on. So, it's really good and it also, it also- the teachers in the next year know what we've done in the previous years, so they're not just revising what they already know, they already know that they've got that step, they've all got that step let's just take it from there and just keep going up in the pedagogy, you know let's, it's a great little platform you know, a stairway up.

I asked Vanessa what she thought was significant about Explicit Instruction from a teacher's perspective:

Well, first of all, all children need to know what they're learning. So, I've got the approach, you know, I do, We do, You do. So, we obviously we all do it together. It is obviously highly teacher directed. It's scripted, so the children learn the language, you know because it is kind of a new language to them, and they get into the rhythm of it, you know, as well, you know. You know, deletion, and then segmentation and rhyming. So, they know the script of the rhyming section, they know the script of the deletion section, they know the script of the blending section - script means the actual wording that you use. Then children pick it up really quickly, because it is same script embedded into their head, and therefore the Year one teachers do the same scripting for blending, the Year twos do the same script for deletion and manipulation and so forth and the Kindy teacher does the same scripting for rhyming, so all the teachers are on the same page. That's so we're all on the same page, that's the key thing, you've got to work as a team when you have a D.I. program. If one room uses it, I don't think it's efficient because then they can't relate to the next teacher, who teaches the same thing but with different words. So, it just flows. So, I think that it's very important that all of the teachers are on the same page.

Key Finding 6.16 – Aster Wood Primary School Teacher
Vanessa viewed Explicit Instruction as a positive pedagogic approach for early years teachers that raised NAPLAN results and enabled teachers to both sequence and check for learning. Vanessa also viewed it as a way of providing consistent instructional language and said that Explicit Instruction was used in the School up as far as Year Three.

When asked what a pre-primary teacher would need to know, do and understand to teach Explicit Instruction effectively, Vanessa responded:

First of all, you would need to understand the pedagogy. You would need to understand all the segments that make up the phonics program. You know I have blended so many programs. I have blended *Let's Decode*. I have blended *Jolly Phonics*. I have blended Diana Rigg's. I have blended the Oxford Word List, which is what the whole school uses. So, I have pretty much blended about four programs to my whole phonics program. I mean we all use *Let's Decode*. We all use Jolly Phonics. We all use Diana Rigg and we all use *Oxford Word List* for our sight words. So they need to be familiar with those four programs in the school to teach efficiently and... (trails off into silence). Yeah, so they need to understand the pedagogy and they need to start at the foundation level obviously, l, and gradually build higher, so obviously the kindies and then the pre's. Also for the year level you need to talk to the teacher who taught the year beforehand,

because we don't want to be wasting time. We don't have time to waste time these days, as we know. So, we need to have that transition with the other teacher and so we need to say "Okay, these are the children in my class. What are they up to? What do they know?" We are using the same language, which is good with DI. So, she will say "You know they are great with their rhyming, you know rhymes with 'ip starts with blah, blah, but they are still not getting their deletion, their manipulation so transition into each year is very important from the pre-primary year's teacher because we do not have time to waste these days. We get straight into it unfortunately (laughs). We don't have time to waste so you've got to know exactly where the kids are at. So, at our School we do make the time. Ben, the principal, makes the time for the teachers to know the class for the following year, sit down and talk about it, which I think is the best. It's really good. So, you also really need to understand that you've got the I do, We do, You do approach. And you also need to understand that in direct instruction everyone's engaging - it's quite fast paced some of the steps but I find the fast pacing gains the children's attention - they don't have time to switch off. And with the fast pacing it's good. And of course, with the fast pacing and the DI you know the children that are struggling, you know the children that are excelling. So you can quickly throw them those harder words (snaps fingers) or throw them those easier words, after you've done the 'I do, We do', yeah, 'I do, We do' and then when they go to the 'You do', you can give them those easier or harder words.

Key Finding 6.17 – Aster Wood Primary School Teacher
Vanessa understood that in order to teach phonics and phonological awareness effectively using Explicit Instruction a teacher needs to understand the pedagogic approach, use the structure of clarifying the learning objective, followed by I do, We do, You do, maintain a brisk pace, check for understanding and differentiate.

Asked what was available in the school to enable teachers to implement Explicit Instruction, Vanessa said:

The principal is very supportive. He is up to date with everything. He is always looking out for PD's for us to do. Or we have people come in and tell us the latest research based, we're definitely into the research based, we don't have time to assume this is a good approach we need to make sure that it is research based. And we have a lot of collaboration between our teachers. And we also have a lot of teachers in Schools coming in to watch us teach and to talk. Ben (the Principal) always allows us to go to network meetings. And that's really good. We like that because it's very informal, over a cup of

coffee, and we just talk about the programs we use and I find that that's really beneficial rather than this is what we're doing, this is what we're doing if we say we still really need to have a chat about programs, that's really what we need to know. We still talk a lot about direct instruction or play based, because that's a big thing, because that's obviously the next question, the next step. You know there's got to be a balance between direct instruction and child-centred learning. I must admit it is hard. It is really hard but when we teach I have like little stations and I have my explicit teaching station and then I have the art station and then I have an independent station, so I do make sure that there is a balance between play and or not play or child centred learning or independent learning and direct instruction or Explicit Instruction I should say.

Vanessa stated earlier in the interview that the principal had supported her with professional learning when she told him she was experiencing difficulties with teaching phonics and phonological awareness:

It was Ben the principal. Yeah, I was having difficulties with some of the children. I wasn't quite knowing how to, not correct it, but I wasn't experienced enough. And I said to Ben, I just need to know I think I need to know more about this language concept. And so, he knows Martin, and he contacted Martin and that's when he came out to help and guide me through, a little bit more hence you know I was unaware of, I wasn't aware of all this on the piece of paper here (indicates planning page of word components). I didn't know if you're aware of. I didn't know that there was words, syllables, onsets, rimes, phonemes and they've just got to know all these things you just think you *aa, buh, cuh*, you know. That's how you taught, but you've got to do the pre-requisites before you started teaching the phonics, you know, they've got to know what a word is, what a syllable is, and I wasn't aware of that. And therefore, that's what comes into teacher knowledge is crucial. If the teacher doesn't know - like I didn't know - that's why I was stuck. I thought "Oh, gosh what am I going to do? Now I know that I've got to cover all this first and then children will be able to do it. And of course, this is all orally. You can't expect them to start writing. They've got to do the oral, oral part if I can say part, the oral part first before they start writing. You've got to start orally and then work on the writing parts. And I just didn't know that all of this existed. And so, it's really helped me understand, you know direct instruction and help with my literacy program.

Key Finding 6.18 – Aster Wood Primary School Teacher
Vanessa found the principal's provision of research-based professional learning and teaching release time to network and talk with other teachers most beneficial. She resolved the conflict between play-based, child-centred learning and Explicit Instruction by providing a combination of stations in her classroom that reflected a "balance" between the two approaches.

I asked Vanessa how she responded to claims that teaching phonics and phonological awareness to pre-primary students using an explicit approach was inappropriate:

> Have they seen the research? (Laughs). Go look at the research. Yeah, I mean they are sponges at this age. I mean at this age group they are amazing. They pick up so much. I think people assume that they are dumb or they are too young. They're not. They are so clever. And really once you get into the swing of the language being used for the Explicit Instruction, it's just like, it's just like a first language to them. They don't even know that they are learning. And like a lot of the time I do my maths session and my Explicit Instruction session and in transition between the mat and recess we just follow up and they say 'Oh can we do the compound words? Or can we do the deletion thing again? And so, you go "Yeah, sure let's do it again wash your hands, so they really do enjoy it. I think it's how you deliver it. Delivery is very important and also em...your rapport, your rapport with children. You know if you've got a great rapport with kids they're going to absorb just everything that you give them, but with the instructional approach I think it works. It works as long as you've got the balance. I think as long as you've got the balance between you know your play based and your Explicit Instruction, I don't think you can ask for more. I think that's a whole rounded program. Because they've got to learn to explore, they've got to learn to paint, they've got to learn to design their Easter bonnets (laughs). But then again the curriculum has come down so much.

Key Finding 6.19 – Aster Wood Primary School Teacher
Vanessa felt there was no difficulty with learning if there was a sufficient balance between play-based learning and Explicit Instruction at pre-primary level and children had a good rapport with the teacher. Vanessa justified her approach with the students' enjoyment and affective needs research and the results it produced. She said her students often asked for more because they enjoyed Explicit Instruction.

Vanessa stated that the Australian Curriculum had led to higher standards and made greater demands on early years teachers:

> And you know when I was at school, my year one, what was my year one is pre-primary, so it's actually gone down. So yeah, they're pushing it all down. But you know I think the kids can cope, but I think it is to do with the rapport that you have with the kids. And if you don't get that rapport and you don't get that warm environment and your classroom atmosphere then you can't achieve half as much as what you can achieve if you've got this awesome environment. You know you and your aide are bouncing off each other. You know if you've got that lovely relaxed atmosphere and comfortable and then you can achieve anything with kids. I think that's the most important thing.

Key Finding 6.20 – Aster Wood Primary School Teacher
Vanessa said the Australian Curriculum demanded higher standards. She believed that a relaxed atmosphere and good rapport with students was of primary importance in realising student achievement.

I asked Vanessa if she had experienced any problems or difficulties with Explicit Instruction. She responded:

> Em, I don't think so. I just think probably the biggest challenge for the teacher, I've probably gone up to the question there, is to learn how the language, is to learn how to deliver it properly. I think that once you've got that down pat, you can pretty much deliver anything (laughs). And it is nerve wracking - I mean when Lorraine came in, I'm like, I didn't sleep the week before but you know she is just so lovely, she was just pretending she was marking some assignments but she was listening, so she was making it as comfortable as she could, but you know, that's what you need. You know teachers don't want people to come in and judge them, because it's like no this is my room. It's like go away. But again, once the teacher has that knowledge of how to deliver their lesson, then, yeah, it's very effective, yeah.

Key Finding 6.21 – Aster Wood Primary School Teacher
Vanessa reported that she initially experienced difficulties with delivery and adapting her language to an Explicit Instruction approach, but felt that once a teacher had mastered delivery of the lesson Explicit Instruction was very effective.

In a subsequent interview in August 2014, I asked Vanessa if she had been instructed to teach phonics in a particular way. Vanessa responded:

> First of all I designed it myself, and then I wasn't too sure if I was doing the right thing, so then I took it to the other pre-primary teachers and to Barry and to the literacy coordinator and we had a run through and had a look at it. A few modifications throughout the year, and throughout the years, I should say, and now we're quite happy with the lesson and how it's run.

I asked whether she had been observed, mentored or coached during the observation period. Vanessa said:

> No, not really. But we do have a new teacher, a new pre-primary from the Fremantle State and Language Centre and she's come up with some fantastic resources that she's used, so it's great to bounce off her and incorporate her ideas and her games and her strategies into our phonics lessons. So not through the principal, but definitely through another teacher, yeah.

I asked Vanessa if she had changed anything in her Explicit Instruction lessons over the observation periods, to which she replied:

> Yes, I have. Just to make sure I'm doing it right and if it's the right things you... I'm, yeah, if it's... if it's, yeah, if I'm doing it right and if it's what you're looking for.

Asked about the impact of my observation on her teaching, Vanessa replied:

> To make sure I looked lovely. [Laughter]. To make sure I'm not fluffing around. So, if I'm organised. Anyway, I'll just keep going. No. Just to make sure that I'm doing it right and to also have the impact, to have a variety of techniques and different strategies is what I wanted to show you, not just the one-way strategy, just diff... like games, whiteboards, interaction and things like that. So, I wanted to give you a variety of different strategies that I use when teaching my phonics program.

In response to a question about whether she had shared PowerPoint slides with any other teachers, she said:

> Oh, definitely, yes. Through the other teacher, who has a speech... who is from the Speech and Language Centre from Fremantle, so definitely. We meet every Thursday morning, all the pre-primary teachers, the three of us and we share ideas and we run through our phonics program for the following week, so we're all on the same page and we just share our ideas that way.

Key Finding 6.22 – Aster Wood Primary School Teacher
There was no central mandate or format for Explicit Instruction lessons at Aster Wood, but a clear culture of teacher collaboration and sharing of resources, activities and strategies amongst the pre-primary teachers.

I asked Vanessa how often she was coached:

> No. No. It doesn't really come into it. I normally... it's either peer mentoring me or if I feel like I need to have a PD too, I'll ask Barry, or the principal.

Vanessa reported that she had not attended any professional learning on the Early Years Framework or any other subject during the observation period:

> No, I didn't. I couldn't get into that one, it was all booked out. But they've got another one coming up shortly in October. So, I've booked in for that one.

Key Finding 6.23 – Aster Wood Primary School Teacher
Vanessa received peer mentoring rather than coaching. She felt able to request professional learning from a supportive principal.

I asked Vanessa if she observed any parallels between D.I and Explicit Instruction:

> Definitely. I can definitely... I mean it's always... it's guided by the teacher, it's focused. You've got to make sure the children have their fluency, and the lessons are both organised, and focused lessons. So, you know, I make sure that we have the *Magic E* game for fluency, have a rap song for fluency, sight words for fluency, and also, the language. The language for DI and Explicit Instruction, they've both got their own language and you've got to make sure you follow that language, especially with the other pre-primary classes so everybody's on the same page. So, DI have their own language and Explicit Instruction have their language so they've got very clear and concise language.

I asked Vanessa what "I do, We do, You do" looked like in a lesson:

> Okay. Well, there's lots of modelling and group work, activities, hands-on, very much hands-on for the pre-primaries, so you'll model it first and then, you know, I'm... some ... you've got to have sometimes worksheets but definitely games. I like the games. Hopping 'I' the hoops, the Magic E game, looking at different poetry with the long 'i' sound in it. So, it's, yeah, and then obviously once you've done that, consolidate again, as a group,

and then they go off and they can play the game by themselves, or they can go do the worksheet by themselves. So, it's that, yeah, very much how I like to run my lesson.

Key Finding 6.24 – Aster Wood Primary School Teacher
Vanessa understood that Explicit Instruction required organised and focused lessons and use of clear and concise language. She understood the model-lead-test concept and that Explicit Instruction could include games.

Vanessa had 15 years of teaching experience and held a leadership position at Aster Wood:

> I've been teaching for, I think I wrote 15 years. About 15, and I've been teaching Explicit Instruction for five. I had no idea. No idea. It was whole language. It always used to be just the whole language, play-based that was it really. So the leadership role, so definitely mentoring the other pre-primary teachers. Also, very importantly, it's come up lately, is make sure that I have a firm – or the year one teachers – have a firm understanding of what has been taught in pre-primary these days. The year one teachers need to know exactly what we've taught and what we've covered and what language we've used, so... And also your kindy teacher needs to know what we're teaching and I need to know what she's teaching. So, then we can just follow it through and not just backtracking and going, you know, starting at pre-primary with the single sounds. They've already done that in pre-primary. The year one teacher knows not to start with single sounds. We've done that so it's... I need to communicate with the kindy teacher and the year one teacher very importantly these days so they know what we've covered and how we're delivering as well. How we're delivering our language and our lessons. And the fastness of our lessons too [clicking fingers] you know, to keep them engaged, so it's definitely keeping up with the kindy, in contact, sorry, with the kindy and the year one teacher. Um, and also, allowing, you know, um, oh it's, um, prac students come in and also other teachers come in to observe my teaching. Um, that was not so much this year, but definitely a couple of years ago when, you know, DI and Explicit Instruction was coming in. I had a lot of teachers come into my classroom and watch me teach explicitly. So, and like yesterday we went to a network meeting at Rook Hill, so we do network meetings with a lot, with the cohort in the area, and that's every term on a Thursday...

Vanessa stated that networking meetings occurred once a term:

> And the fastness of our lessons too [clicking fingers] you know, to keep them engaged, so it's definitely keeping up with the kindy, in contact, sorry, with the kindy and the year one

teacher. Um, and also, allowing, you know, um, oh it's, um, prac students come in and also other teachers come in to observe my teaching. Um, that was not so much this year, but definitely a couple of years ago when, you know, DI and Explicit Instruction was coming in. I had a lot of teachers come into my classroom and watch me teach explicitly. So, and like yesterday we went to a network meeting at Rook Hill, so we do network meetings with a lot, with the cohort in the area, and that's every term on a Thursday... And I'm also just representing the pre-primary at the principal's meeting. Telling the principal and the P&C what is happening down in the early childhood, pre-primary, kindy, year one area.

I asked Vanessa about her role mentoring other teachers:

They come... they come in on my DOTT day and I will... I will politely ask the DOTT lady, who's taking my class, if I could just quickly do a lesson, which is no problem, and then we sit down, like you and I, and we go through why I did it, what the goals were, what the plenary was. And things like that, and then sometimes they can't make it so I have to do it in my time and Barry gives me time, like half an hour afterwards to sit with them while somebody relieves my class.

Key Finding 6.25 – Aster Wood Primary School Teacher
Vanessa had 15 years teaching experience and five years' experience teaching Explicit Instruction and Direct Instruction. She held a leadership role in the school as Head of Early Learning and provided instructional leadership and mentoring for other teachers in and beyond the school through modelling Explicit Instruction lessons.

Vanessa said her knowledge of phonics and Explicit Instruction was derived from a variety of sources:

Yeah. And of course, Dianna Rigg. I've done, yeah, I've done a couple of PDs with Dianna Rigg as well. So, she was actually my foundation. Um, pretty much comes from, pretty much Lorraine, Lorraine Hammond. Yeah. She's really guided me and... and then with that format she's given me then I've branched off, I've made my own, um, lesson plans and direct instruction, sorry, Explicit Instruction, um, with my own themes and my own words, and my own, um, input, and I used to e-mail them to her to make sure that they were correct. And she always found the time to... to check my e-mail, make sure I'm doing it right "Shall I get, make..." "That's fine" or "No, that's not quite right. You need to have

done it this way, or tweak it this way." So Lorraine Hammond was a really big help with me at the start of doing this.

Key Finding 6.26 – Aster Wood Primary School Teacher
Vanessa had received professional learning and coaching in phonics and Explicit Instruction from Dianna Rigg and Dr Lorraine Hammond.

I asked Vanessa if she thought Explicit Instruction fitted in with the Early Years Framework, to which she replied:

> Not really. It's very play-based, very, very play-based, but when we were talking, when we were coming over here, it does involve making the children feel comfortable and... and, um, and I believe that when they're comfortable you can teach them anything. If it's explicit and direct and formative and formal, they will pick up. So, the early learning frameworks makes the children, you need to make them feel comfortable, so if you've got that, the early learning framework sorted and make them comfortable, make them secure, have the relationship with them, then you can teach them explicit, explicitly. Oh, I... I... you know, you've got your explicit teaching and then you've got your play-based, you've got to make sure you've got a... you've got a bit of both. You've got a bit of both. Basically, the Explicit Instruction and teaching is in the morning and your play-based and, you know, your play-based, yeah, yeah, your structured play-based is more in the afternoon because they get so tired. So, you do your explicit teaching in the morning and then you kind of have your early years' frameworks in the afternoon.

Asked if she thought the teachers who followed a child-centred approach to teaching could implement an explicit approach, she replied:

> Oh, I think you've got to have that balance and I think that's what I've tried. You know, you do your, you know, your explicit teaching in the morning and then you have your play-based things in the afternoon. Um, and I think that works quite well. I just don't... with the curriculum and what's demanding [sic] of us, and we don't go by NAPLAN but we already think of NAPLAN down in pre-primary, which is ridiculous and, you know, the pressure is on us, you know, and we've just got to, unfortunately teach what is expected of us and if, you know, of course if we don't do that we look like a bad teacher. And we look like we're not teaching them anything. So really we're kind of under the thumb by the... the curriculum. You know, you need to have a balance. You can't just do all curriculum, you've got to have the early years' frameworks and the... you know, the play-

based and the child, you know, the centred approach and things like that. So it's really a balance and it's hard to get that balance. It really is. You know, you're always adjusting your programs, thinking "Am I being too explicit? Are they sitting at their desks too much? Am I drilling them too much?" you know, and you think, like yesterday we just had a finishing off day and I put the easels out, the paints out, and Jen, I said to Jen, "When was the last time we put the paints out," and I said, "Right. You can draw a space picture," so that was kind of, they had painting but they were told to draw a painting about space. I didn't tell them anything because we've done space for so long, so we had rockets, we had everything, we had, you know, everything. We had stars. We had planets and blah, blah, and then I said "The next picture, once you've done that, if you want to do the next picture, you can do whatever you like to draw," so we had some beautiful butterflies, we had a mum and a dad in the garden with the flowers, so, because sometimes you've just got to stop. When you can read the kids and think "Nup, they're just tired" especially week, what are we in, week now, so I said to Jen "Nup, we're just going to finish off, going to get the easels out" got the iPads out, we got some collage table activities out, you know, the art, the milk carton, you know what it's like, the construction and they... we had a lovely time yesterday because sometimes you've just got to stop...

Key Finding 6.27 – Aster Wood Primary School Teacher
Vanessa balanced play-based learning and Explicit Instruction by timetabling her Explicit Instruction in the morning and play-based learning in the afternoons. She also had a flexible approach to teaching, allowing for spur-of-the moment art activities.

About assessment, Vanessa said:

> We've got the on-entry assessment and I've got on the thumb drive, which I've got in the classroom, the assessments that we use. So, we use some [M-PAST], we use *Holborn* testing, so we use a few. To be honest, not too many, not too many, because we've got our own checklists of, you know, they know the sight words, do you know, so we don't actually have the packaged, commercial assessments, but we have our own assessments, that's what we're doing. So, that we've made up, the pre-primary teachers have made up, so we assess them all throughout the year and then we do... obviously look at the start and then at the end, but the ones that are challenged and the ones that aren't making too much progress we do reassess quite often.

Key Finding 6.28 – Aster Wood Primary School Teacher
Aster Wood pre-primary teachers used a variety of formative and quantitative assessment methods for checking progress.

6.3 Analysis of Pedagogy

The patterns, variations and consistencies observed in Vanessa's five lessons over two terms in 2014 are examined in the next section. The data were derived from video analysis, running records and observation forms and were examined according to the five phases of an explicit lesson. Vanessa's fourth and fifth lessons represented the best exemplars of Explicit Instruction and are detailed in the form of vignettes.

6.3.1 Review of Prerequisite Skills and Concepts

Vanessa consistently started her lessons with social activities in the form of songs and greetings, typically followed by a lengthy warm up phase. She chose not to state lesson goals, but consistently gained student attention at the start of the lesson. Vanessa's review of prerequisite skills and knowledge did not follow a specific format and it was unclear how the Spelling Mastery (Dixon et al., 1980) lessons related to the original lesson objectives.

The grid below shows the contents of the warm ups across the five lessons and indicates that a review of skills did not follow a line of development over the course of the observation or include the fundamental instructional format of "model-lead-test", but rather a strong tendency to review prerequisite skills for testing and eliciting. Table 6.3 should be read down the columns to follow the lesson development steps.

Table 6.3 *Contents of Vanessa's Introduction or Warm-Up Phase over the Five Observed Lessons*

Lesson One Warm-up	**Lesson Two Warm-up**	**Lesson Three Warm-up**	**Lesson Four Warm-up**	**Lesson Five Warm-up**
Testing reading of a sentence about a planned baking session for Mother's Day **(No model, lead, test)**	Eliciting antonyms, singing antonyms song **(No model, lead, test)**	Eliciting synonyms and antonyms **(No model, lead, test)**	Eliciting antonyms and synonyms **(No model, lead, test)**	Identifying feelings - Good morning song
Eliciting grammar, punctuation and spelling mistakes in the sentence about baking. **(No model, lead, test)**	Testing sight words game **(No model, lead, test)**	Revision of short and long vowels with a song, YouTube synonyms song, Synonyms card game **(No model, lead, test)**	Testing sight words flashcards game **(No model, lead, test)** Sight words game with fly swatter	Expanding a sentence with adjectives **(No model, lead, test)**
Testing sight words **(No model, lead, test)**	Revising nouns with a song **(No model, lead, test)**	Testing common sight words flashcard drill **(No model, lead, test)** Sight words game with fly swatter	*Spelling Mastery* Lesson 12 Segmenting: hat, map, ham, mat, ham, mat Spelling tap, sap, am, at.	YouTube *magic e* song
Short and long vowel song	Testing sight words **(No model, lead, test)**	Lesson 6 *Spelling Mastery,* spelling mop, he, am segmenting had, met, sad, pet	Long a sound rap: *ai* and *ae* words **(No model, lead, test)**	Flashcard drill common sight words. Fly swatter game. **(No model, lead, test)**
Testing sight words game **(No model, lead, test)**	Testing reading sentences, identifying nouns Montessori game **(No model lead test)**	YouTube songs: vowel digraph rule Eliciting the *long a* sound rule, rap song *long a* sound	Eliciting definition of nouns, adjectives. Testing recognition of nouns and adjectives with a hoop game **(No model, lead, test)**	Independent work **(No model, lead, test)**
PA segmenting game with hoops **(No model lead test)**	Lesson 3 *Spelling Mastery* vc and cvc words short vowels (Not following the DI script)	Eliciting the *long e* sound rule	*Magic e* card game, testing reading of *magic e* words **(No model, lead, test)**	
Let's Decode PA rhyming **(No model, lead, test)**	*Let's Decode PA* Testing rhyming **(No model, lead, test)**	*Long e* game sorting cards under *ee, ea, y* categories, testing sounding out of the same	Independent work: word detectives searching for h words using environmental print	
Testing sounding out *sh* digraph	Singing *magic e* song	End of lesson	Independent work persuasive writing Dreamtime stories	

Lesson One Warm-up	Lesson Two Warm-up	Lesson Three Warm-up	Lesson Four Warm-up	Lesson Five Warm-up
words **(No model, lead, test)**				
Let's Decode auditory blending **(No model, lead, test)**	Testing *magic e* rule and reading magic e words **(No model, lead, test)**			
Matching digraph words to picture cards game **(No model, lead, test)**	*Long a* sound card game *ai* digraphs and *a-e* **(No model, lead, test)**			
Plenary: Organising Mother's Day card making	Introducing *ai* worksheet, eliciting responses			

Vanessa checked understanding of students' prerequisite skills for phonics and grammar in a discernible pattern in all her reviews. It was unclear why she placed Spelling Mastery (Dixon et al., 1980) lessons in the middle of her warm ups, and Vanessa did not follow the DI script. In the third observed lesson, her warm up consisted entirely of testing and eliciting knowledge from the children. There was no evidence of model-lead-test in any of the elements, and she went straight from the warm up to Spelling Mastery (Dixon et al., 1980).

Key Finding 6.29 – Aster Wood Primary School Teacher

Vanessa's review of prerequisite skills did not involve the basic instructional model-lead- test-sequence. Rather, she followed a clear pattern of using the review of prerequisite skills for testing grammar and phonics rules that did not generally follow through to independent practice.

Vanessa was strongly committed to the review of prerequisite skills phase of her Explicit Instruction lessons, as shown in Table 6.4. The introduction (7%) and warm-up phases (47.2%) made up the majority of each lesson. The "I do" and "We do" phases were not an important feature of Vanessa's pedagogy, whereas testing, eliciting and "You do" were important components of her practice. In three of the lessons Spelling Mastery (Dixon et al., 1980) occurred during the warm-up phase, although Vanessa chose not to follow the D.I. script and the lessons did not relate to the lesson objectives.

Table 6.4 *Contents of the Five Lesson Phases*

Minutes in the lesson	Lesson 1 %	Lesson 2 %	Lesson 3 %	Lesson 4 %	Lesson 5 %	Average %
Introduction	13	10	0	7	5	7
Warm-up	82	33	42	53	26	47.2
I do	0	2	21	0	6	5.8
We do	0	0	0	0	3	0.6
You do testing	0	48 (Spelling Mastery)	28 (Spelling Mastery)	23 (Spelling Mastery)	47	29.2
Plenary	0.6	0.6	0	0	0	0.24
Transition	4.4	6.4	9	17	13	9.96
Total	48 min	89 min	26 min	53.5 min	74.5 min	58.2 min

The fourth lesson comprised an introductory phase followed by a Spelling Mastery (Dixon et al., 1980) warm up with a brief transition in the middle. There was no "I do, We do, You do" phase in the lesson. The vignette below describes what happened after the morning greetings song.

Vanessa sat on a stool in front of the interactive whiteboard. The children are sitting on the mat in front of her. She addressed the children, smiling: "Good morning. I did two antonyms. What two antonyms did I do when I sang the good morning song?" A child answers: "Quick and slow." Vanessa responds: "Quick and slow and what was the other antonym?" Another child responds: "Loud and soft." Vanessa responds: "Loud and soft fantastic, does anyone know what antonyms are?" Some of the children respond: "Opposites." Vanessa responds: "Exactly. Who can tell me what a synonym is?" Luke responds: "The same." Vanessa says: "Yeah, so can you give me an example?" One child responds: large and big. Vanessa nods: "Large and big, it was a large drink. Synonym means different words but they mean the same thing, can you give me another synonym?" Another child responds: "Loud and noisy." Vanessa affirms: "Loud and no? Noisy, yes who can remember another synonym?" A child responds: "Ayres rock and Uluru." Vanessa affirms: "Uluru and Ayers Rock." Another child suggests: "A jeep and a car." Vanessa affirms this. Another child suggests: "Large and a big." Vanessa repeats this to affirm it. Another child says: "Mad and angry." Another child says: "Tiny and small." Vanessa nods at them and smiles. Vanessa stands and holds out her hands to sing: "Make a circle song, do sit down, are you ready?" The children sit in a circle, giggling. Vanessa picks up a pack of flashcards and tests them on sight words. The children respond in unison: "For, why, they, friend, so, they, house, home, you, that, said, saw, was, when, were." She calls on individual children and tests them on individual sight words. They all respond correctly. Vanessa then says: "Excellent, similar cards, they look the same, on your bottom." She kneels in the circle and puts the same flashcards on the floor, asking different children to call out words, which the children with the fly-swatters have to hit. The children giggle, clearly enjoying this. Vanessa says to another child: "We will finish it off at recess time, how do you spell water, let's do it together, ready *w/a/te/r* it sounds like water but we say water, a bit like was and was, we can do that later." She makes an aside comment to the education assistant. Vanessa continues: "Who hasn't called out a word? Could you call out another word?" One child calls out: "Was" and the other children hit it with the fly swatter.

What is notable about the above vignette from her fourth lesson is Vanessa's choice to elicit information from the children from the very start. The atmosphere was pleasant and non-threatening, but no attempt was made to model, lead, test. The warm up was followed by an unexpected Spelling Mastery (Dixon et al., 1980) lesson, a further brief warm-up phase and a phonic card game on magic e.

The fifth lesson observed comprised an introductory phase, followed by a warm up and several small phases of "I do" and a few "You do" phases. There were no "We do" phases. The following vignette shows what happened in the warm-up phase of the fifth lesson.

Vanessa stands in front of the Smartboard and talks socially for the children. She encourages them to put their names on a "How are you feeling?" board. She says to them: "How are you feeling darling? Tara and Clara, how are you feeling?" They place their names in the categories happy/sad/ angry. Vanessa encourages them: "Good girl. Tara, come and put your part here. Think of another compliment for Theo because he's our partner for the week." Vanessa sits on a stool. The children gather on the mat in front of her. Vanessa says: "Oh we've got news bags, one, two, three. Who else brought news bags back for after silent reading time? Good morning to you and you and you, we hope you have a terrible day, we all come to School and we cry and we and when we're down we're down, and when we're up we're up and when we're only half way up we're neither down nor up." They finish singing: "Good afternoon everyone. Good afternoon Mrs Nixon. That's being a bit funny because we're saying good afternoon instead of good morning." Vanessa smiles at them: "What are we doing? We're doing antonyms because we just said, we just sung our good morning song full of antonyms and I really don't hope, I really hope that the song we sung this morning isn't going to be true. Are we going to be bucket fillers? Are we going to fight with each other? Are you going to? Are we nearly in high School? There were a lot of antonyms used in our good morning song. Can we say a beautiful? Let's not do an antonym. Let's do a beautiful, let's do it properly, good morning Ted's mum. Now Ted's mum is just cutting out the robots that you made on Friday. Mrs T. is going to cut them out, she won't have time to cut them out, but she'll get started to help me so I don't have as many to cut out this afternoon. So let's see. Could I have Tara, Alan, and Clara, just leave your work and come and sit down?" The children come to the mat, and Vanessa turns to the Smartboard: "Now, are we counting how many words are in the sentence? What are we doing now? Hands up. What are we doing now to the sentence Jack? We are making it longer to make it more interesting. To make our sentence longer, what's that special word that we need to use in our sentences? It's up there in the um, on that blue chart. Remember that special word that we used. Not fiction. We were doing some fiction writing yesterday with rockets. But it's the yellow chart up there that makes our sentences more interesting as Jess said. Help him out." The children sit in silence, unsure. Vanessa continues: "Oh, what's the word everybody?" The children respond in unison: "Adjectives." Vanessa continues to ask: "Girls, what's the word?" The girls respond: "Adjectives." Vanessa continues to ask: "Boys what's the word?" The boys respond: "Adjectives." Vanessa continues to ask: "Jupiters what's the word?" The Jupiter group respond: "Adjectives." Vanessa continues to ask: "Saturns what's the word?" The Saturn group respond: "Adjectives." Vanessa alters the question: "And what do adjectives do? What do they do Sara? What do adjectives do? What did Jack just say?" Sara responds: "Adjectives, a noun." Vanessa asks: "What do they do to our sentences darling, what are they good for? Adjectives yeah, make our sentences interesting, and what does adjectives describe? It's our pink chart up there. What does

adjectives describe? A *nnn*?" Jack responds: "Describe." Vanessa praises him: "Good boy, adjectives describe a noun." Vanessa bends to a student: "When you see a noun, you need to have an adjective more interesting. Now if you are going to play with your watch I'm going to have to take it off you. You have it either on or off. No touching. I like your watch, but you're not to touch or play with it. Okay. Let's look at our sentence today. Where is a clever astronaut? And they can read the sentence." Vanessa pulls a slide up on the Smartboard: "Tara, which one of you is a clever astronaut that can read the sentence? Do you want to have a go? It's okay to have a go isn't it?" Tara begins to read hesitantly: "The boy..." Vanessa prompts: "Good girl, has." Tara remains stuck, so Vanessa prompts her with the magic e rule: "What do you see at the end here, T? Can you see the magic e, right? And what does the magic e do?" Tara responds: "*A, magic e*, jumps, into a long vowel." Vanessa praises her: "Good girl, jumps over the consonant and turns the into a long vowel. Oh, Tara." Tara continues: "No, *bick*." Vanessa prompts her again: 'You're a clever goosey. Well done, so would you say *b/i/k, bik*?" Tara guesses: "Bike" Vanessa praises her and prompts the others to read the sentence in unison: "The boy has a bike." Vanessa continues: "Can anyone see a noun in that sentence? Carl, can you see a noun in that sentence?" Carl answers: "Boy." Vanessa affirms him: "Sit down, dals. The word, the noun is a boy because a person place or thing is a noun. A person place or thing is a noun. If you listen closely, I'll tell you a person place or thing is a noun. And a boy is a?" The children answer in unison: "A noun. Vanessa asks them to add words to the sentence on the Smartboard: "So help me. What can we use to describe, an adjective to describe the boy. Alan, what can we, what word could we use here to describe the boy, what adjective? What do you think is a good adjective to describe the boy?" Alan answers: "Good." Vanessa affirms him: "The good boy. I like that one. That's a great adjective. The good, put an arrow there, the good boy. That's a good adjective, good, because it describes the noun boy. Now let's see if we can get another adjective to describe the boy, to make our sentence much more interesting, Clara?" Clara answers: "Little." Tara adds: "We could have 'white haired'" Vanessa answers: "Do you reckon we could make three more adjectives to describe a noun? Okay who can give me one more adjective to describe the boy. So far he's good, he's little. What else could we say to describe the boy? What else could we say? Okay, the good, little boy..." Vanessa continues: "The good little boy, with white hair, I like that one. With is one of our sight words. With white hair." Vanessa pauses to write the sentence on the whiteboard. A child adds: "I have this Ninjago Lego and there's this one with white hair." Vanessa continues to write: "Really? With white hair. Oh, two vowels go out walking. Yeah. I like that one. That's a long sound. Let's see if that makes a more interesting story. I like how it sounds Tara. The good little boy, with white hair has a bike. Okay I think how we've used and described adjectives for our boy really, really well. We've really got a good picture of what the boy looks like. In our head as we read that sentence. We know he is little. We know he has white hair. And we know he's good. There's one more noun in this sentence that we need to put some adjectives with. The good little boy with white hair, has a bike. Who knows what noun that could be? There's one more noun in that sentence." No-one responds. Vanessa continues: "It, what is it? Who's asleep? I'm going to wake them. What's the other noun in this sentence? The boy has a bike." One child responds: "Bike." Vanessa affirms: "Bike. Well done. Bike. Let's just put a box around that noun. And a box around that noun. What's an adjective we could do to describe our bike? What's the other noun in this sentence, because we just know it's bike. What's something we could use to describe bike? T, I love your hand up today. What's an adjective we could use to describe the bike?" Sara raises her hand: "The black bike"' Vanessa affirms her: "The black bike. Oh, go and get yourself a sticker. You're on fire today, good girl. Let's write black. The good little boy with white hair, has a black bike. Has anyone got a black bike? Does Corey have a black bike? Do you have a black bike?" Some children nod, Vanessa

continues: ‘Do you have a black bike too? Oh, with some orange on it. Right, that's one adjective, black. Can we describe, can we have one more adjective to describe our bike? The good little boy with white hair has a black bike. Oh, let's get one more adjective, to describe the bike. The good little boy, with white hair, has a big black bike. I like that one. Let's read it together everybody. I think our sentence is looking much more interesting now, what do you reckon Clara? It looks like high School writing, high School sentences now C. Doesn't it? Because we've just put in lots of adjectives. Let's read it together, are you ready? Clear your voice. Clear your throat, are we ready?” They all read: “The good little boy, with white hair, has a big, black bike.” She continues: “Bike. That sounds so much better than 'The boy has a bike. Doesn't it? We can get a big picture of exactly what the boy looks like and we are able to get a picture in our head of what the bike looks like. We know it's big. We know it's black. Fantastic. Make a circle. Make a circle, big and round, big and round, make it very quickly, make it very quickly’. “The children stand and sing the song and form a circle. Vanessa bends to the computer and puts the magic e song from the internet on the Smartboard. The children begin to sing: “Magic e, magic e makes the short sounds long, magic e, magic e, this is the magic e song. Pin, pine, fin, fine, hat, hate, mat, mate, bit, bite, kit, kite, this is the magic e song. Tap, tape, cap, cape, cod, code, rod, rode, cub, cube, tub, tube, this is the magic e song, magic e, magic e, makes the short sounds long, magic e, magic e this is the magic e song.” Vanessa sits on the stool and sings along with them. Vanessa raises a wand with a star on it and turns to the children: “We've been singing that song because we're going to be doing things with our magic e song today. But before we do anything with our magic e, let's do our sight words. Are we ready? Can I just ask my bucket filler Tara could you just go and sit between Carl and Alan? Could you go and sit between Jesse and Clara please? Oh, look at the listening. I love it when everyone follows directions. Everyone's making room for each other. Awesome work. Okay. Let's do it again.” Vanessa turns to them and the children begin to read each sight word flashcard three times: “they, weekend, his, why, they, how, now, sure, her, for, was, a, friend, said, Sally ate itchy dragons, has, they, you, five.” Vanessa pauses to ask them: “What's at the end here? I know, magic e is just everywhere isn't he? We don't, yeah, *tim* and magic e, *tim* short vowel sound *tim*, time, yeah it does have *tim* time. *Magic e,* magic e on the board and magic e on the word.” Vanessa begins to check individual children’s knowledge of sight words: “Get reading Judith. This one's for you, Kara, Alexis, Clara, Ellie, oh, long vowel sound, *t/i*?” Ellie responds: “Time.” Vanessa praises: “Good Tara, Alan, tricky one, we learned this one yesterday, it was one of our one of our new sight words. Here are our new sight words for the week.” Clara calls out: “Once”. Vanessa praises her: “Good girl, let's say it together everybody. We only think that one has a *wuh*, but it doesn't, it's a funny word. We just have to know that *o n c e* says once. Let's say it together everybody. Let's sound it out, let's not sound it out. Let's say the letters.” The children respond in unison: “*o,n,c,e*.” Vanessa says: “Says?” The children respond in unison: “Once.” Vanessa smiles: “I can't hear you.” The children call loudly: “Once.” Vanessa smiles at them: “I think I'm going to get a headache. Okay Sara, your turn.” Vanessa continues to test individual children on their sight words. One child becomes stuck on ‘were.’ Vanessa says: “Let's say it together everybody. Tara, what was it?” Tara responds: “Were.” Vanessa praises: “Good girl, everybody Oranges no everything. And everybody last one. Nice and quickly to the edge of the mat. The first person with the fly swatter is going to be Caleb I think because he was the first one to be at the edge of the mat and so was Tara No, you didn't actually, so maybe you were one of the first ones. One for you dals, you're welcome, you're welcome.” Vanessa asks them to move to the edge of the mat and distributes fly swatters. She places the flashcards face up on the mat in the centre of the circle: “You're most welcome. Take charge Talia.” Talia calls out: “Friends.” The children with the fly swatters jump up and hit the flashcard reading ‘friends’. Vanessa smiles: “One point to

Clara, pass your fly swatters along. Call out a word please. Your turn dals. Why can't you?" The child responds: "He is going to sneeze." Vanessa replies: "Well I think if you stand up and do it carefully you could have a go. It doesn't matter about getting a point, no it doesn't matter about getting a point. It's just a game, it doesn't matter, but you can just stand up carefully with the swatter, with a little tap. You don't have to give a big tap, just a little tap. Okay, Krysta, can you call out the word please?" Krysta calls out: "time" and the others hit it with the swatter. Vanessa says: "Well do you know what, I think I will give a point to Tom and to Karen. That's okay to give each person a point, isn't it? That's being a bucket filler thing to do. Okay, call out a word please Jack." Jack calls out: "Once." The children hit the flashcard. Vanessa asks "How many points Carl?" Carl responds: "Three." Vanessa concludes the warm-up and the game: "Three points for our friends. Tom and Cara could you please pick up the cards and the fly swatters too, once you've got that and the taken away, come and sit on the mat. I know, I'm going to do that right now. I did remind myself right now, do you think? Thank you bucket filler. Cara, do you think we should ask the mummy to come to the front and she can choose who the astronauts are going to be to wear the costumes today. Would you like to go to mum and say 'Mum could you please come to the front because I've got a job for you. Mrs M. are you ready to get them dressed. Okay, I wonder if Mum's got lucky fingers and hands. Up you come mum. Oh, do you think that's a lucky hand, Jordan? Is that the lucky hand? Ben? Mrs M. and put it in the recycling bin. Are we being silly? Right J, so that was your lucky hand. Are you going to stay with your lucky hand or are you going to choose the other one? Are you going to be fair and use the other hand? If it's a kindy, we'll have to put it back, but that's okay." The mum chooses a name from the lucky dip bag of children's names. Vanessa looks at the name: "Eva you have had a turn. But Mrs Neale was Eva one of the first people to have a turn? And do you know what, would you like to have another turn, or would you like to let somebody else have a turn?" Eva responds: "Give another turn." Vanessa smiles and says: "Oh, what a bucket filler you are. Okay, go back with the lucky hand. Tamsin's already had a turn. Who hasn't had a turn? Tamsin, would you like to have another turn or would you like somebody else to have a turn?" Tamsin replies: "Let somebody else have a turn." Vanessa smiles: 'See, he's having two stickers for being a bucket filler. Okay, let's go look at the smartboard while he's getting organised. Oh, have I dropped *magic e*? It's okay magic e. Okay, we'll get you working in a minute." A period of lengthy chatter follows, while Vanessa gets herself organised for the next task, which is independent work. The warm up fizzles out.

Once again, this warm up is notable for its pattern of eliciting and testing. Vanessa presents as a kind, warm teacher to her students. Her testing is non-threatening and she allows plenty of time for students to work out the answer. During the warm up, she allows students to help each other out, but there is no evidence of model, lead, test activities. Plenty of time is devoted to reinforcing pro-social behaviour.

Table 6.5 *Vanessa: Key Teacher Behaviours in Introductory Phase of Lessons (Indicated by Shaded Cells)*

Introduction	Lesson 1	Lesson 2	Lesson 3	Lesson 4	Lesson 5
Gains student attention					
Presents learning objective and/or clarifies its importance					
Reviews prerequisite skills or concepts in warm up using VAK stimuli					
Teacher checks all students for understanding of lesson prerequisites					

Key Finding 6.30 – Aster Wood Primary School Teacher
Vanessa's warm up was consistent in each of the observed lessons and lasted, on average, half the lesson. She used eliciting to check students' understanding of lesson prerequisites.
Key Finding 6.31 – Aster Wood Primary School Teacher
Vanessa's language was not clear or concise and she elicited the phonic rule in her lessons – a consistent pattern in her teaching.

6.3.2 The Body of the Lesson: I do, You do, We do

The first observed lesson consisted entirely of an introduction phase followed by a warm up. The second lesson featured a brief "I do" (2%) followed by Spelling Mastery (Dixon et al., 1980) (48%). In the third lesson, Vanessa included an "I do" (21%) followed by a Spelling Mastery (Dixon et al., 1980) lesson (28%). The body of the fourth lesson consisted of Spelling Mastery (Dixon et al., 1980), after which she reverted to a warm-up phase, followed by a magic e game, as illustrated in the following vignette:

Vanessa asks two children to clean up the flashcards and turns to the others: "Let's get ready for our *Spelling Mastery*, don't open up, just fold your arms." The children stand up and move eagerly to their desks, where the *Spelling Mastery* Books lie waiting for them. Vanessa crosses to the desks and says: "We're up to lesson 12, please open up to lesson 12." The children chatter. Vanessa gets them ready to write: "One, two, three, four, are your feet flat on the floor? Five, six, seven, eight, Is your back nice and straight? Nine, ten, eleven, twelve, show me how your pencils held." One of the children interrupts: "Fourteen." Vanessa responds: "14 animals? 14 words? I think this book thinks you're getting so clever, show me how you're holding your pencils. I think this book thinks that you are getting

so clever." Vanessa checks their pencil grip: "Lovely Clara. Put your hand up if you can sound out the first word for me?" Clara answers: "*h/a/t."* Vanessa responds: "Let's sound it out together *h/a/t hat*. Could you be the teacher and sound out number two, three, four for me please?" Andrew responds: "*m/a/p, h/a/m, m/a/t."* Vanessa affirms him: "Let's say it together." All the children respond with Vanessa: "*m/a/p, h/a/m, m/a/t, mat*." Vanessa continues: "Sound it out together. Who can be the teacher now?" A child responds: "*t/a/p*." Vanessa responds: "Oh is it ah, sound it out again. Put your finger on the word as we're sounding out. Sound it out together first. Sandra, could you sound out number six?" Sandra responds: "s/a/*p."* I glance down at a photocopy of *Spelling Mastery*, Lesson 12. The D.I. script reads: "Find part A on your worksheet. All these words have an */a/* sound that is spelled with the letter a. Look at the words, and we'll spell them together, then I'll call on individual students to spell them without looking. Word 1 is hat. Spell hat. Get ready. (Signal). *H/a/t.* Word 2 is map. Spell map. Get ready. (Signal)). *M/a/p*. Repeat Step 4 for ham, mat, tap, sap, am, at, sat, dad, mad, sad, pad, had." Vanessa encourages the children to lead: "let's sound it out, who else hasn't had a turn being a teacher? Sarah?" Sarah responds: "*a/m*, am." Vanessa responds: "Lovely Kate." Kate responds: "*a/t/, at*. Could you please put your fingers on part B, I'll name the things in the pictures?" Vanessa continues: "Tara, number 11." Tara responds: "*s/a/t*, sat." Vanessa says: "Could you please put your fingers on part B, I'll name the things in the pictures. You are going to touch them, touch the picture that's a map, touch the pet, mop touch the mop, touch the map. Touch the mop, pet, mop, map, mop, pet, pet, mop, nice work." She turns it into a game. The children giggle: "You tricked me." Vanessa continues, laughing: "Let's sound out the word in part B." The children respond in unison: "*m/a/p*, map." Vanessa says: "Slow down, I think the green gorillas have the best writing." The children settle to work. I glance at the D.I. teacher's script again. It reads: "Read the words above the pictures. Everybody, copy each word where it belongs by each picture. Spell each word correctly." Vanessa continues: "Put your finger on the word pet, not on the picture, excellent now put your finger where you're going to write the word pet. Off you go, your best writing, can we make mistakes? Is it alright to make mistakes?" Some girls respond: "Yes." She bends over students, helping them with mistakes. Vanessa comments: "He's got a lovely voice to tell me. Now put your finger on the word mop. On the word mop, now put your finger where you're going to write the word mop, on the dotted line." Vanessa whispers to the children: "I think it was the sloppy snakes who had the best writing, it might be a draw. Put your finger on part c, thank you. What are you going to circle in line one?" The children respond: "It" Vanessa says: "How many are there?" The children respond: "Eight." Vanessa affirms: "Eight and what are you going to circle in line 2?" The children respond: "*Sh*." Vanessa smiles: "Oh, my favourite digraph! Off you go, not a sound." She crosses the room and organises equipment. The children settle to write. Vanessa says, "Shame that Karl hasn't got his feet on the floor, that's better. Have you found six *sh* digraphs, if you have finished fold your arms, beautiful. If you are still circling, no you don't need to dals, don't forget to do my favourite digraph. Did it really trick you? Everyone fold your arms, if you haven't finished you can do it in a minute, find part B. The sentence should say: what are we to do? What are we going to say?" The children respond: "What are we to do." Vanessa says: "You need to fill in the blanks now in that sentence, off you go, what are we to do? On the line, no rushing, once you have written your sentence by yourself you can come and sit down." Vanessa crosses the room and put on a double *ee* song from YouTube on the interactive whiteboard. The children gather bit by bit on the mat. Vanessa encourages the others to finish: "You keep going dals, keep going." The song ends and Vanessa asks the children on the mat: "Double e, who can give me a double *e* word that you might have seen?" The children respond individually: "tweet, sweep, sheep, deep." Vanessa responds: "No valley too deep." Other children suggest: "Steep, fleece." Vanessa

responds: “That's a good one.” Another child says: “How do we feel today?” Vanessa responds: “I'm glad someone is happier at School, well I heard that someone was naughty last night and kept someone awake. Crystal was jumping up and down on the bed and kept Ben awake. Was Crystal being a bit silly last night, Ben? Make sure she has her manners on, otherwise she may not be able to come on holidays to Bali with me next month. Are we ready warm-up those *ay* says the long *a* sound.” Vanessa cups her hand to her mouth and makes up a rap to say with the children: “*ay* as in today say bay hay today away, *ai* says the long a sound *ai* as in main, tail, snail, train, *ae, ae* says the long a sound gate lake cake makes, *chh*, great rapping.” Vanessa starts to sing: “Okay could you go on the edge of the mat, a person place or thing is a noun, noun song, who can give me a noun please Karl?” Karl responds: “Buzz.” Vanessa prompts him: “What is a noun? A person place or thing is a noun; you're giving me something else. You gave me an antonym I want a noun.” One child responds: “Ghost.” Vanessa responds: “Good, a person is a noun. Okay I'm going to jump out the words in a sentence and then I'm going to tell you a noun and an adjective, what does an adjective do?” A child says: “describes the noun.” Vanessa affirms this: “An adjective is a describer woad, we do use adjectives, the sentence is: The red bike. The red bike. I need to go into the noun. Which one shall I jump into?” She stands in front of three hoops. A child responds: “Bike” Vanessa answers: “Bike, if I jump into the adjective which hoop would I need to jump into?” The child responds: “Red.” Vanessa leans towards her and says: “What was the word? Red, because red describes the noun. Jump out the words in the sentence: The blue sock.” The girl jumps into the hoops on the floor and Vanessa says: “Good girl, could you go into the adjective hoop? What's the adjective? What was the noun?” She responds: “Sock.” Vanessa praises her and says: “Good girl, now who can I trick? Jack.” Jack stands up and Vanessa says: “The big black mat.” Jacob jumps into the four hoops. Jacob is saying the sentence as he hops. Vanessa folds her arms and says: “The big black mat, go into where the noun is? Could you go to where the adjectives is?” She praises him. Vanessa chooses Alan: “Give him a butterfly round of applause. Alan, your sentence is: She is happy.” Alan says the sentence while hopping in the hoops. Vanessa watches him: “She is happy could you go into the noun please?” He finds the ‘sheep’ hoop. Vanessa praises: “It has got my favourite digraph; could you go into the adjective? Fantastic. Give him a seal of approval.” The children clap their hands and bark like sea lions. She calls Anthony up: “The big fat snake.” The children are becoming restless on the mat. Vanessa says: “I got a bit distracted by someone being a bit silly. Could you hop it out again? Could you go into the adjective? The big fat snake.” Anthony hops into the hoops again. Vanessa says: “What adjective is there? Big what other two adjectives? Big fat, what's the noun?’ Anthony answers correctly. Vanessa praises and chooses another child: “Give him a seal of approval. Are you ready Theo? I think I need another hoop for you. Let's count these.” The children count out six hoops. Vanessa says: “I went to the big shop. Where are the adjectives? Let's read it out together are we ready?” The children read: “I went to the big shop.” Vanessa repeats: “I went to the big shop. Where's the adjective? Stare at it if you know.” The children watch while Theo thinks and selects a hoop: “Big.” Vanessa praises: “Good boy. There's a noun. I went to the big shop, a person place or thing is a noun, where’s the noun?” Theo hesitates. Vanessa repeats: “Where’s the noun? Who can tell where the other noun is in a sentence?” She selects Jake to help Theo, who stands in confusion. Vanessa says: “What are the two nouns?” Jake says: “I” Vanessa praises him: “Big round of applause. I can’t see a round of applause.” She directs Julie to pick up the hoops and says: “Everybody else come and sit in a circle.” She shuffles a pack of cards for a card game and distributes them to each child in the circle: “I have no idea who was going to get what. Our magic e game are we ready to play? Teacher Kevin, are you ready?” Kevin responds: “I have thin who has pine, I have pine who has win, I have win who has wine?” Another child responds: “I have wine who has shin?” Another

child says: “I have shin who has shine?” Another child responds: “I have sun who has fin?” Another child responds: “I have fin who has spine?” Another child says: “I have spine who has grin?” Another child says: “I have grin who has grime?” Another child responds: “I have grime, who has rob?” Another child says: “I have rob who has robe?” Another child says: “I have robe who has hop?” Another child says: “I have hope who has tub? I have hope who has tub? I have tub who has tube. I have tube who has cut?” Vanessa leans over and helps the child who is stuck: “I have cut who has cute?” Another child responds: “I have cute, who has not?” Another child responds: “I have not who has note?” Another child responds: “I have note, who has tap?” Another child responds: “I have tap who has tape?” Another child says: “I have tape who has hat?” Vanessa responds: “I have hat, who has hate?” Another child replies: “I have hate, who has slat?” Another child responds: “I have cute who has not?” A child responds: “I have not, who has note?” Another child responds: “I have note, who has tap?” Another child says: “I have tap, who has tape?” Another child says: “I have tape, who has hat?” A child responds: “I have hat, who has hate?” A child responds: “I have hate, who has slat?” Vanessa gets up and says: “Slate, excellent, Clara, can you collect the cards?” Vanessa moves to the stool in front of the whiteboard: “Back on the mat, come and get a sticker, Jack.” She hands him a sticker, and bends to chat socially to a child in front of her: “My shirt is orange. Right, we are finishing off, who has not been on the, who has not been on the Smartboard yesterday? Read the words on the leaf and tap the creature that matches it.” The children sit and watch her explaining the Smartboard activity, and then stand up and start tapping on the screen. Vanessa turns to the Green gorilla group: “Who are detectives today? What words are we looking for today? H words, look for sight words or titles of books that might start with h.” The Green Gorillas move off and gather clipboards. Vanessa turns to another group of children: “Don't give it away to the detectives, we have been talking a lot about dreamtime stories, who's enjoying the dreamtime stories?” One child shakes his head: “If you don't like them that's fine, we are going to do some persuasive writing. It's your opinion is there a right or a wrong answer?” The small group in front of her respond: “No.” Vanessa dismisses the last group into persuasive writing: “You think about what your opinion is. Should we keep telling Dreamtime stories, some people might think yes, and some might think no. Some people are saying no and some people are saying yes. If you think we should do dreamtime stories come and sit over here, if you think we shouldn't do dreamtime stories come and sit over here.” She watches them take up a position on the mat and then settles them to independent writing. The other groups continue with their activities until break time.

The above vignette shows a pattern of eliciting information from the students, and also occurred during the Spelling Mastery (Dixon et al., 1980) lesson, where students were encouraged to take the teacher’s role instead of Vanessa reading from the DI manual in her hand. One of the shared principles of DI and Explicit Instruction was infringed by allowing the students to make mistakes and not teaching in a structured, systematic manner that avoids mistakes altogether. The fifth lesson represented the best example of “I do” (6%) and “We do” (3%), followed by “You do” (47%), as described in the following vignette.

Vanessa ends the transition and pulls a slide up on the Smartboard that shows *magic e* words on a cube. The students are sitting on the mat facing the board. Vanessa is sitting on a stool to the left of

the Smartboard. She addresses the class: “Now, well done Ben. Okay what do two vowels, not two vowels, what do two consonants do when you need to make the long i sound?” There is silence. Vanessa alters the question: “What is that person doing behind the box Cassie?” Cassie says: “Buh.” Vanessa responds: “It's not *a buh*.” The child stands and approaches the Smartboard. Vanessa prompts him to join letters to make magic e words using his finger to drag them together: “Buh, i, get a consonant from the side dals. What's this person doing here?” Cassie responds: “He’s hiding.” Vanessa praises him: “So the word is hide, yeah, off you go, you know what the word is now. Fantastic.” Some children leave the mat and begin putting on astronaut suits, assisted by the education assistant. Vanessa continues with the rest of the class, prompting another child to use the Smartboard to form magic e words: “Oh, let's see who can find the consonant in 'spike'. Easy peasy, japaneasy, lemon squeezy. Ellie, up you come finding. Oh let's sound it out together, oh, it's gone to the next one, who can find the next one.” Vanessa prompts him to make the word ‘bike’: “Klara, oh, we've got that long i sound. *b/i/ke* , bike. Okay, leave it there, you're going to be having a turn doing it all by yourselves, so you need to take your name off I haven't had a turn, to the green "I've had a turn" on the Smartboard to do this during the morning or after in another session. Now boys and girls, there are other ways, astronaut Cassie, there are other ways we can make the long i sound. We know the magic e makes the *long i* sound. Let's have a look at another, at a poem and see if we can find the other ways we can make you can make the long i sound. I'm going to read you this poem, astronaut T come and sit down. *Long i. Long i, long i.* I have an idea, I can ride my bike, I can fly a kite, I can light the fire in the moonlight, I can bake a pie and cut it into a slice, can you give me a high five?” The children watch the poem on the Smartboard and one child says: “There’s a lot *of I’s”* Vanessa responds: “That says, there is a lot of i's, you're right. I'm going to read it again and we're going to see if we can find the long i's I'm going to read it and you can put your hand up if you can hear me say a *long i* sound. Keep it in your head and I'm going to ask you later on. Just keep it in your head if you can hear me say the long i sound. Long i. Long i, long i, I have an idea, I can ride my bike and fly and fly a kite. I can light the fire in the moonlight. I can bake a pie and cut it into a slice. Can you give me a high five. I can see some magic e's but then again and I can hear the long i sound, but it's not a magic e though. There are some other consonants together that make that long i sound. What long i words can you see there, what long i words can you see there? Tom. Come up and point to it there dals. You can see the word.” Tom stands up and approaches the Smartboard: “I can see kite.” Vanessa praises: “Kite. What can you see, come up and, what can you see? Oh, idea, idea starts with a long i sound, so idea, kite and idea. Who else can see the long i sound John?” John stands up and points to ‘moonlight.’ Vanessa affirms him: “Moonlight, moonlight, where's the long i sound, John, in moonlight? Can you go and point to it? Oh so we've noticed that the *igh* says the long i sound. Let's sound it out. *Moon/li/ght*, so the *igh* says the *long i* sound as well. I never knew that. What other long i sounds can you see in the poem there Alan?” Alan replies: “Bike.” Vanessa affirms: “Bike. Let's have a look. Let's highlight it, is it going to give it to us? Yes, we've got the *magic e, the i-e*, what else can we see, what other long i words can we see, astronaut Clara? Up you come.” Clara stands up and points out ‘slice’. Vanessa praises: “*Sl/i/ce*, that's a good one, slice. That's the *magic e, gee, the magic e i*s very popular, but the *igh* is the only one word up there in moonlight, *l/ight*. What else can you see astronaut Tom?” Tom replies: “Compound word.” Vanessa praises: “You're right moonlight, moon, light (claps) moonlight. Well done, good boy. What word's that Tara?” Tara calls out: “*High*.” Vanessa praises: “Good girl, Tara. I can jump high. Let's have a look. High, we've got the long igh again to make the long sound. *p/ie* pie, five, give me a high five. Maybe the igh makes the long i sound. Did anyone else know that? John did you know that?” John nods. Vanessa continues: “You did, didn't you. Did you know that the *igh* makes the *long i* sound

too?" John responds: "My brother told me." Vanessa asks: "Your brother told you? Told you that *igh* makes a long i sound. Any more *long i's*? Come up Tom. A five has the *magic e*, five. Yes, it's like they're friends, all their friends. Alright, can anyone see the long i sound anywhere else, oh, Andy is going to bust. Come on up before you bust Andy." Andy approaches the Smartboard and points out 'my'. Vanessa says: "Who is he? Here he is the sneaky y, the cheeky guy. Oh, he's a sneaky guy. Where are we my. Gee, there's lots of *long i's*, anymore? Oh Ken, fire, what have you got in your name? Have you got the long i sound?" Ken points out 'Fire.' Vanessa affirms: "Fire, the magic e. Anymore? Up you come. Wow, there's lots of long i's in this whole... light, oh, what type of long i is in light Jamie? It is the *igh*. Let's highlight him red, that's another way to make *a long i sound, igh, l/igh/t,* Ken, another one? We're down to a few more, ride the magic e. Oh, I don't want you because you're the magic e fella. Yeah, I don't know why, okay, got another one girls, let's read it together." Some children read along hesitantly along with Vanessa who points to the lines on the poem: "Let's do the title. Long i. Long i, long i, I have an idea, I can ride my bike and fly a kite, I can light a pie and cut it into a slice, can you give me a high five?" Vanessa says: "Oh, I think we've missed a couple in there, Ken. Can you see another *long i*? Oh, what's that word? Pie. It is nearly Ken's name, can anyone else see one more word?" One child raises his hand: "Because the y is helping, being a bucket dipper." Vanessa looks at him and says: "Stand up there and be a big teacher. Why is there a y at the end of the word and not an i? Is the y being a bucket dipper or a bucket filler? Is he a dipper? He's being a bucket filler because why? I can see one more. If you can find me one more long i sound. There is a few as in I, as in I can. There's another one the sneaky y the cheeky guy, no one's picked him up. Can you find him Con? He's the sneaky y the cheeky, that's the word you. Can you see the sneaky y the cheeky guy at the end of the word? Yes, good. Good boy, give him a round of applause everybody for fly, for fly, that sneaky guy the cheeky guy, has turned the y into the i. I wonder why he's done that. Why has the y gone to the end of the word? Why is the y as in fly? Because the *i the big i* is so so so skinny and he's going to fall over and the y says, 'I'm so strong I will stand in your place, and I will take over and I will say your sound for you. Yeah, it's got a focus, it's pretty clever. Make a circle, make a circle, big and round big and round." The children stand and make a circle singing the song. Vanessa finishes singing and speaks to the teaching assistant: "Make it very quickly, make it very quickly and don't sit down, don't sit down. Now sit down, now sit down, I tricked you. Could I get you, no you can't have a party Mrs Norris?" The children laugh and one interjects: "Party, party." Vanessa smiles: "Shh, no party. We're going to break into two groups and do our diving game, you like this one do you? Remember the shark and the crown, and then my group we're going to be finding the *long magic i-e* words to put into the beehive, *ou* just take one pile of cards Mrs N. They just take one card from the top. They say the long vowel sound. If they get it right, they keep the card. If they don't, they put it under the pile, and they're might be a crab or a shark that says give the card back. So, one pile and we choose who is going to go first." Vanessa sits on the floor with her group and organises the card game on the floor: "That's mine. I've got two, right Karl would you like to tell Rachel what your *magic e long i* word is?" Karl answers: "Five." Vanessa affirms him: "Five, could you look into the beehive and see if you've got It's a hive, good boy, that will be on top, good girl. Off you go Ben. Karl, can you find the hive? It's in a bee tower, the honey bee tower. Can you tell me one of your long i words dals?" A child responds: "Rice." Vanessa affirms: "Rice, yes, good boy, put it onto the beehive. What does yours say?" The child reads his card: '*kuh."* Vanessa helps him: "That's a tricky word, knife, it has a silent k at the beginning. Can you read your one?" The next child reads: "Slice." Vanessa affirms her and the beehive i-e game continues in the same manner for a further five minutes. Vanessa then organises for the two groups to switch over: "Come and have a go at my game. So, could you help Mrs Norris pack away? Karl pick up a pile for Mrs

Toms please. You'll definitely have a turn at my game dals." The children sit on the floor around the cards and Vanessa begins the beehive *magic e* game with her new group: "Don't worry if you don't get it right, last time we went clockwise, so this time we can go anti-clockwise. So, Kane you can go first. Pine, good job, you get to keep that one. Tabitha could you read your long i word?" Tabitha picks up a card and reads: "Pine." Vanessa praises her: "Good girl, you have the *b/i/ke,* bike. Okay Gail, could you sound out yours please." Gail answers: "Drive." Vanessa affirms her as she places her card under the i-e beehive: "Drive, oh you can put yours there." Kane reads: "Pie." Vanessa praises him: "Kane, good boy, pie. Put the bee onto the slide *zzzz*. Lime, lime's a type of fruit. Good boy, you can keep that one too." The game continues for another nine minutes. Vanessa sits on a stool and explains a worksheet to a small group of children: "Okay, I'll take that. Okay I've got *the* long i. So what do you need to do, don't get poisoned? You've got bike *b/i/ke* so trace over the *magic e and the long I*, Casper, do not go off. If you fall off, you'll get poisoned. Stay nice and slow and trace over it slowly. You've got to put the *long i* and the *magic e*, kite. Then you need to draw a line to the picture of the kite." Casper interrupts: "I can do it fast, smile." Vanessa praises him: *"S/m/i/le*. I can only hear Casper, well done Casper, smile, where's the picture of where is someone smiling? Yes, draw a line to its smile, to the picture of its smile. You're going to do that side this morning. Mrs N. might call you to her today. We'll do that later, just focus that this is done slowly, and beautifully, we'll do this, this afternoon (indicates other half of the worksheet)." One child interrupts: "Is that a sentence?" Vanessa nods: "It is a sentence but let's worry about that this afternoon. Let's focus on what we're doing on what we're doing this morning. Could I please have C? You can come straight to the Smartboard, because you have been such a bucket filler this morning. Can you take your name off dals? You can go back to your desks ready for your worksheet. Oh, detectives how are you going? Yes, Mrs Norris, that's okay." The education assistant asks her something. The children drift to their desks and Vanessa checks on the other group who are looking for environmental print words to write on their clipboards. Vanessa looks at their findings: "Oh, where's your work A. Could you get it out? Okay James, you're finished." James replies: "I got seven." Vanessa says: "You got seven, you need eight with the long i. You've got ten. Come here. Let me count, you are a great detective, Abel, finding all those words. You finished you wait and go back to your desk." Vanessa directs children who finish to the *long i* worksheet on their desks. Vanessa continues to monitor the word detective group and the word detective group. She circulates for a further eight minutes. She takes photos of some students for a later craft activity. The lesson peters out.

Interestingly, in the above vignette Vanessa elicited the long "i" words from the children during the beehive game. Her "I do" or explanation of the long "i" worksheet lasted two minutes and the jocular manner in which she warned her students to keep their letters on the lines are also noteworthy. Once again, her humour and kindness are apparent throughout, as is a tendency to provide support by encouraging students with eliciting, rather than model, lead and test. A summary of key behaviours observed in the body of Vanessa's lessons is shown in Table 6.6. There is some evidence of guided practice and prompting in the body of lessons two, three and four, but it is important to note that these teacher behaviours were only evident in the Spelling Mastery (Dixon et al., 1980) section of her lessons. The accompanying DI script was not

followed closely, so efficacy was diminished by eliciting. The Spelling Mastery (Dixon et al., 1980) lessons were not directly linked to her phonic lesson objectives and were presented as an additional task for the children. In the first lesson, "I do" (2%) was focused on explaining the "ai" worksheet and Vanessa modelled writing "paint, rain, snail, chain and train" after first eliciting answers from the children. In the fifth lesson, "I do" (6%) predominantly focused on keeping letters on the lines and used a verbal, rather than a written worksheet.

Table 6.6 *Vanessa: Key Teacher Behaviours in the Body of the Lessons (Indicated by Shaded Cells)*

Key Teacher Behaviours	Lesson 1	Lesson 2	Lesson 3	Lesson 4	Lesson 5
I do					
Clear, consistent and concise language					
We do					
Guided practice					
CFU and feedback at high frequency					
Uses prompts of the strategy					
Delivers lesson at brisk pace					
Uses visual or auditory hand signals to prompt student response					
You do					
Checking for understanding by all students					

Key Finding 6.32 – Aster Wood Primary School Teacher
Vanessa did not comply with the model, lead, test sequence in the body of her lessons.
Key Finding 6.33 – Aster Wood Primary School Teacher
Explicit Instruction requires teachers to not only break down knowledge, strategy and rules into chunks, but also to explain why. This was not evident in Vanessa's practice.
Key Finding 6.34 – Aster Wood Primary School Teacher
Vanessa consistently elicited answers from her students and checked for understanding by testing existing knowledge rather than knowledge gained from her teaching.

6.3.3 The Plenary Phase of the Lessons

Vanessa's lessons did not include a review of the focused skill at the end and tended to gradually peter out, culminating in craft activities. Only two plenary sessions that show some attempt to gather

the children on the mat were recorded. In the first observed lesson, Vanessa assembled some of the children on the mat before releasing them for a craft activity:

Vanessa returned to her stool in front of the whiteboard and gathered some children on the floor around her, saying: “Some people are doing their Mother’s Day love heart writing, some children are on the smart board, some people are cooking, some children are classifying *sh, ch, th* words, some children are making Mother’s Day cards. On your lines, let’s sit.” She then began to organise a Mother’s Day card-making activity.

The lesson objective was to classify *sh, ch, th* digraph words. While some children were practising this independently, there was no attempt to do a final check for understanding by all students. The second observed lesson also ended with Vanessa directing children to a craft activity:

Vanessa bent and spoke to a boy who had finished his *ai* worksheet: “Go and tell her you're finished.” The boy went to the craft table where children were working with the education assistant making an elephant craft out of paper. Vanessa circulated. Some children were playing with cards on a mat, others remained at their tables, working on the *ai* worksheet. Other children were matching *ai* word cards to picture cards, other children were doing *magic e* activity on the Smartboard. Other children were doing the Montessori activity of placing red counters on the nouns on sentence cards.

The second lesson objective was to teach the *long a* sound and *magic e.* While the vignette shows that children did independent work on *long a* worksheets and the *magic e* Smartboard application, they did not get a short review of what was learned. The third lesson on *-y (long e)* concluded with group work on *magic e, a -y* worksheet, word detectives searching for *long y* in environmental print and a cherry craft activity. The focus of the fourth lesson was on revising *magic e* and grammar, ending with a transition to persuasive writing on Aboriginal Dreamtime stories. The fifth lesson focused on *i-e (magic e)* and ended with independent group work on *long i* worksheets, the *magic e* beehive game, a *magic e* application on the Smartboard and a rocket craft activity. Once again, students practised the skills independently, but there was no plenary review or final check for understanding.

did not contain a preview of what was to be learned the next day, although there was some evidence of student success in terms of their ability to engage in independent practice.

Table 6.7 *Vanessa: Absence of Key Teacher Behaviours in the Plenary Phase of the Lessons (Indicated by no Shaded Cells)*

Key Teacher Behaviours	Lesson 1	Lesson 2	Lesson 3	Lesson 4	Lesson 5
Final check for understanding					
Short interactive review of what was learned					
Elicits response from students with high success rate					
Preview of what will be learned next day					

Key Finding 6.35 – Aster Wood Primary School Teacher
Vanessa did not include a review of the focused skill in any of the five observed lessons.

6.4 Chapter Summary

Aster Wood Primary School catered for a population well above the Australian national socio-economic average. Explicit Instruction was introduced in the school in 2012 to meet the higher academic standards imposed by the Australian Curriculum. The school's NAPLAN data indicated a shift from above the Year 3 national average for literacy results to comparable performance with schools of a similar socio-economic standing. While there were no school policy documents that made direct reference to Explicit Instruction, there was a clear alignment with Explicit Instruction principles in the form of Let's Decode (Formentin, 1993) and Spelling Mastery (Dixon et al., 1980) in the early childhood classrooms.

Feedback from the principal at the time of the research showed a muddied understanding of Explicit Instruction that included constructivist practices. The principal was keen on research-based practices and believed that teachers needed to be supported by coaching and extra resources. Coaching was available in the school on an informal basis. The principal was confident that Explicit Instruction was used throughout the school, having introduced it as a means of improving teacher efficacy and rigour.

Vanessa's comments reflected a positive attitude towards Explicit Instruction. Her students EI, and on occasion, asked for more. Vanessa claimed that Explicit Instruction had improved NAPLAN results and enabled teachers to sequence and check for learning. She had been coached by a few different people, and at the time of this research, was receiving peer mentoring rather than coaching.

Vanessa was confident that Explicit Instruction was being applied in the school up to Year 3. She modelled Explicit Instruction for other teachers, both in and outside the school community, and balanced play-based instruction with Explicit Instruction by providing combined stations in her lessons.

Vanessa's warm ups comprised roughly half her lessons (47.2%) and "You do" or testing comprised an average of 29.2% of her lessons. She did not consistently practice "model, lead, test" and her "I do" phases comprised only 5.8% of her lessons. Vanessa's habit of eliciting phonic rules and grammar formed a key feature of her teaching; even her "I do" phases were punctuated with examples of eliciting knowledge from her students. Engaging in social chats and social development were also characteristic of Vanessa's lessons, contributing to a safe, warm learning environment but unintentionally undermining the clear, concise nature of Explicit Instruction lessons.

Chapter 7: Cross Case Analysis

This chapter develops the themes arising from the data and the presents the key findings from the case study chapters, including variations in school contexts, instructional leadership of Explicit Instruction (EI), teachers' beliefs about and enactment of EI from observed pedagogy. The chapter also examines the findings in relation to the research questions, the literature review and the study's broader conceptual framework of direct instruction.

By way of a reminder, Geoff was the principal of Dove Tree Primary School where Katie taught pre-primary and was mentored by Tessa; Ben was the principal of Aster Wood Primary School where Vanessa was the pre-primary teacher; and Emma was the pre-primary teacher at Holly Fern Primary School where Jean was the principal, and mentored by Polly.

7.1 Variations in School Contexts

All three independent public primary schools taught students from pre-primary to Year 7 and were situated in metropolitan Perth. Their ICSEA scores indicated that each of the three schools served a population above the socio-economic average, with parents from higher than average educational backgrounds. The NAPLAN data indicated that since 2012, the students at Aster Wood Primary School performed well in reading compared to similar schools, and all years performed above the average for all Australian schools. The NAPLAN data for Dove Tree Primary School indicated it was one of the highest performers for like schools within WA and Australia between 2010 and 2012. These results contrasted sharply with those of Holly Fern Primary School, whose NAPLAN data indicated that the school population was underperforming in reading compared to similar schools, as well as in some year groups compared to the average for all Australian Schools.

There appeared to be some variation in the principals' motivation for using EI pedagogy. The principal of Holly Fern introduced Explicit Instruction to raise literacy results and provide a more consistent approach to teaching literacy across early childhood classes, and meet the higher standards demanded by the Australian Curriculum. The principal of Aster Wood Primary introduced EI as a research-based approach to improving teacher efficacy and rigour, and was confident that EI was being used throughout the school. The principal of Dove Tree Primary introduced EI as a way of ensuring students learned concepts and knowledge in an intentional, systematic and sequential manner.

There was also some variation in the ways EI was incorporated into the schools' policies. Dove Tree Primary School's business plan supported the implementation of EI with a policy of training, coaching and mentoring all staff, in addition to observing other teachers implement EI, both in and outside the school boundaries. The school documents at Dove Tree Primary reflected a commitment to EI's

systematic approach to teaching (Rosenshine, 1987). Dove Tree Primary's curriculum specified what was to be taught in literacy each week of the school year, including phonological awareness and phonics. This school also had a policy for coaching and mentoring teachers and had documented evidence of Katie's activities in school records. At Aster Wood Primary, there were no school documents that expressly mentioned EI and Vanessa had received no coaching. The only school policy document on EI at Holly Fern revealed a hybrid understanding of what might happen in the "We do" section of lessons and incorporated a constructivist approach. This hybrid methodology switched the teacher's role to that of facilitator using Kagan strategies (Kagan, 1989), and was at odds with the guided practice and faded prompting intrinsic to EI (Archer & Hughes, 2011; Hollingsworth & Ybarra, 2009; Rosenshine, 2012). In Hattie's (2012) meta-analyses, co-operative learning enjoyed the same average effect size as Direct Instruction (d = 0.59). The author added an important caveat: that successful co-operative learning strategies are most powerful after students have achieved sufficient levels of knowledge so they can engage in learning and discuss that knowledge with their peers (Hattie, 2012b). In light of this evidence, including Kagan (Kagan, 1989) strategies for novice learners during the "We do" phase rather than the faded guided practice of EI is likely to be less effective since learners may not possess the prerequisite knowledge.

Assertion 7.1
Although the schools differed in reading performance, they all adopted EI for similar reasons. The level of support for implementation varied between the schools, which would be expected to impact on the extent of gains in reading performance.

7.2 Instructional Leadership of EI

The principals' beliefs about the importance of research-based practices were strikingly similar, yet their messaging to subordinates and commitments to resourcing differed. The school documents alone revealed differing levels of commitment to embedding EI. Ben, the principal of Aster Wood, viewed his role in instructional leadership vital for introducing research-based practice, and claimed he achieved this through extensive coaching and support for teachers in the form of extra resources, feedback, leadership and collegial group support. Ben emphasised his links and networking with universities in pursuit of cutting-edge research-based practice. The university staff referred to in the case study were familiar with EI and no doubt provided Aster Wood with an important professional development resource, but the principal's lack of familiarity with theoretical frameworks and research evidence may have compromised his understanding of EI. Ben acknowledged the biggest challenge with introducing Explicit Instruction was getting the teachers "to let go of past practices, whilst adopting new ones". He resolved this by offering teachers release time to speak with mentors and engage in peer observation. However, Marzano et al. (2005) warned that effective transformational

school leadership involves helping teachers to adopt “deep change” and “new ways of thinking and acting” (Marzano, Waters, et al., 2005, p. 66), by first understanding the existing school culture and making improvements before tackling changes in teacher behaviour (Kotter & Cohen, 2002; Peterson & Deal, 1998) with coaching. While there was evidence of reasonable resourcing in Aster Wood, including a scripted Direct Instruction spelling program at pre-primary level, the school’s approach to coaching was informal. Like Holly Fern, the absence of coaching documentation at Aster Wood was notable and suggested the messaging about changing practice was reliant on oral communication. The literature on teacher change recommends linking resources to goals or targets in a continuously focused manner (Fullan, 2014; Fullan & Ballew, 2004; Marzano, Waters, et al., 2005). While Vanessa had received some coaching from an academic with extensive EI experience, coaching was not sustained in the school. At the time of observation Vanessa was receiving no EI coaching and observations of her colleagues had been scheduled informally. Ben also permitted teachers unspecified release time from their classrooms twice a semester to collaborate, plan, engage in coaching each other and peer observation, resources that were not provided at Holly Fern. Ben stated: “there was a system of peer accountability in staff meetings”, where teachers provided feedback to their colleagues about the EI strategies they had used and organised observations with their colleagues. Ben listened in on these conversations and believed the peer discussion in weekly staff meetings was important for transferring professional learning into practice. He asked the teachers to consider what they could remove from their programs to make time for creative play in order to provide a “balanced” program, all of which signal an awareness of the early years teachers’ ideological concerns and good staff communication.

Ben relied on DI resources, such as Spelling Mastery, and informal coaching and mentoring to embed EI practices at Aster Wood. His leadership style was informal and transformational rather than instructional, with a primary focus on supporting the teaching staff in an inspirational way and affording them a high degree of autonomy, rather than student data as evidence of teachers’ impact on student learning (Robinson et al., 2008). It was apparent, however, that Ben supported his teachers without setting any goals or direction and there were no measurable accountability mechanisms in place. Ben’s resourcing of EI in the school appeared to meet the expectations of the school board, but lacked comprehensiveness of messaging, coaching and mentoring to fully embed EI in classroom practice.

Geoff, the principal of Dove Tree Primary, considered one of the biggest challenges to teachers practising EI was overcoming a misunderstanding that it is rote or drill learning, rather than teaching students to understand and practice concepts. Geoff found the most significant barriers to establishing an explicit approach in the school were shifting teachers’ absolute beliefs in a

constructivist approach to a direct-instruction approach, in addition to making the link between high expectations, high achievement levels and quality pedagogy. This view endorsed a goal-oriented attitude to professional learning, resourcing and messaging around the practice of EI at Dove Tree. Like the other principals, Geoff supported the use of research-based programs for phonological awareness and phonics, and acknowledged the potential of sequential teaching for overlearning at pre-primary level (KF 4.8). He also held a firm belief that difficult knowledge required an explicit, rather than a constructivist approach. Unlike the other principals in the case study, Geoff understood EI as a behaviourist approach, not to be confused with constructivist practices. He stated that all teachers at Dove Tree Primary received one coaching session and instructional rounds each semester, in alignment with his belief that the most successful instructional development for teachers was modelling by expert teachers, coaching and feedback, and in sharp contrast to the unstructured approaches to coaching and mentoring in the other case-study schools. The coalition of schools' management team to which Geoff belonged provided teachers with a shared annual curriculum that reduced workload. The coalition also encouraged a centralised system of PowerPoint Slides and differentiated worksheets for each lesson, for teachers to share their preparation and observations – the only school in the study to do so. Furthermore, the deputy principal, Tessa, reported that the school provided commercial resources, highly aligned to both scripted Direct Instruction and EI, namely Spelling Mastery (Dixon et al., 1980), Cars and Stars (Adcock, 2008), Elementary Math Mastery (Farkota, 2003), MiniLit (MultiLit, 2011) and Connecting Maths Concepts (Engelmann et al., 1993). These resources were used throughout the school and represented a significant investment in commercial programs in support of an explicit approach. Geoff used a combination of informal coaching, classroom walk-arounds and an analysis of results to ensure the presence and quality of EI in the classrooms, and was unique in using this combination of instructional leadership. Hattie commented that instructional leaders believe "their fundamental task is to evaluate the effect of everyone in their school on student learning" (Hattie, 2015, p. 38). Furthermore, Geoff viewed a culture of collaborative responsibility for individual students central to creating a climate where teachers could continuously improve their pedagogic skills. He provided release time for teachers at the same year level to collaborate and enhance a culture of inquiry for professional practice. This was also the most focused example of professional dialogue within the case studies. Geoff encouraged teachers to concentrate on the quality of their pedagogic delivery for high results, rather than on the results themselves. His emphasis on the students and collective impact of the teachers on student learning epitomised an effective instructional leader (Hattie, 2015). Tessa, who was Katie's teacher mentor, advised that Dove Tree Primary's practice of EI was underpinned by Fleming's (2007)

professional development and research-based practices informed by authors like Marzano et al. (2007) and Hattie (2012).

Holly Fern Primary School also adopted John Fleming's Model of EI, and the principal, Jean, stated that the decision to continue with this model was unanimously supported by vote. Professional learning at Holly Fern was informed by research-based practices, such as those described in Hattie's Visible Learning (Hattie, 2012b). The principal's collaborative leadership style (Glickman, 2002) instilled high levels of trust in her staff, and underpinned her assumptions that unanimous staff support and assurances in colleagues' reports translated into effective implementation of EI. Further investigation revealed that EI messaging and underlying beliefs in the school were not necessarily congruent with EI. Like the principal at Aster Wood, Jean at Holly Fern believed all the elements of an EI lesson were being enacted in the pre-primary classroom, but the language used in her description of an explicit lesson reflected a hybrid understanding that included constructivist practices. Jean's understandable confusion about the principles of EI surfaced in her referral to students "having a go" after teacher modelling, rather than following faded practice, and her concept of the gradual release of one particular skill in a single lesson instead of over days. Jean believed Holly Fern had addressed the ideological difficulties among the early childhood education staff by appointing Emma as leader and providing targeted support, coaching and mentoring from a fully trained external consultant. Her confidence about the ease with which EI could be adopted by the early childhood teachers may have been misplaced. Jean disclosed that she did not line manage the early childhood teachers, and together with some miscommunication about the training consultant's qualifications, exacerbated the inconsistent messaging about EI at Holly Fern. Jean was justifiably committed to consensual transformative leadership, but was too busy to bolster her vocal support with walk-around management or checking whether the external consultant's EI training complied with the John Fleming model. Delegation of line management to the deputy principal meant that the early childhood teachers had access to an impartial manager who was sympathetic to their ideological concerns and subscribed to a fluid schedule of coaching.

Emma's teacher mentor and colleague, Zara, not only described a hybrid constructivist understanding of EI, but also admitted she had not yet observed or mentored Emma Schools with strong professional learning cultures regularly observe each other teaching, offer feedback and plan together (Fleming & Kleinhenz, 2007). While this was the intent, it was absent in practice at Aster Wood, where confused and inconsistent messaging about EI and constructivist practices, in addition to poor understanding of the underpinning principles of EI compromised teacher change. There was some alignment with DI in the form of Dynamic Indicators of Basic Early Literacy Skills (DIBELS) assessment for early literacy skills, including PA and letter sound correspondences, but the evidence

suggests that the early childhood teachers and external consultant may have misunderstood the rationale for DIBELS testing and lesson warm ups. This was the only Direct Instruction resource available to teaching staff at Holly Fern, a marked difference from the resourcing at Dove Tree Primary. The pre-primary teachers attributed a lack of credibility associated with Dynamic Indicators of Basic Early Literacy Skills (DIBELS) testing to high-performing schools using the data to inform future teaching (Fleming & Kleinhenz, 2007; Hattie, 2012b). The principal of Holly Fern appeared unaware of these assertions, in all probability due to compromised communication between the principal and the staff in the school.

Assertion 7.2
The Principal of Dove Tree Primary was a high-impact instructional leader. School leadership at Holly Fern and Aster Wood was transformational rather than instructional, with a focus on teacher autonomy rather than how teachers impacted on student learning. School leadership at Holly Fern was compromised by poor communication between teaching staff and management. School leadership at Aster Wood was diluted by a lack of adequate resourcing, mentoring, coaching and messaging about EI.

7.3 Teachers' Beliefs about EI

At Dove Tree Primary, Geoff was the only principal with a clear and unambiguous understanding of the principles of EI and DI (Archer & Hughes, 2011; Engelmann & Carnine, 1991; Hollingsworth & Ybarra, 2009; Rosenshine, 2012), including the difficulties faced by teachers overcoming misunderstandings that ultimately impact on classroom teaching (de Lemos, 2005). Geoff believed EI was difficult for teachers trained in constructivist pedagogy and addressed the issue with comprehensive resourcing and messaging that were still visible in the school five years after introduction. Katie's beliefs about EI were clear and uncompromised by constructivist ideas or opposing ideologies due to her pedagogic content knowledge, and her beliefs matched her practice because she understood the effectiveness of the instructional design and delivery (Argyris & Schon, 1974; de Lemos, 2005; Rokeach, 1976). Katie found EI a structured, varied and effective pedagogic approach from the perspective of retention. Furthermore, she could clearly articulate the different parts of an EI lesson and the task analysis necessary for teaching phonics and PA at pre-primary level. Her beliefs were fully aligned with the principles, practices and application of both EI and DI pedagogies (Archer & Hughes, 2011; Engelmann & Carnine, 1991; Hollingsworth & Ybarra, 2009; Rosenshine, 2012), reflecting the quality of the ongoing professional learning she had received. Katie switched relatively easily from constructivist practices as she'd only had one year of teaching experience when EI was introduced at Dove Tree.

The principal at Aster Wood appeared to have a hybrid understanding of EI that included the use of constructivist practices within an EI lesson. Like Katie at Dove Tree, Vanessa viewed EI as a

positive pedagogic approach for early years teachers that successfully raised NAPLAN results, enabled teachers to sequence and check for learning, and provided consistent language within a lesson. The study does not support this causal link with raised NAPLAN results, as the time period between pre-primary and Year 3 testing leaves open too many opportunities for alternate explanations. Katie could fully articulate the structure of an EI lesson in PA and phonics and understood the importance of checking for understanding, differentiating and maintaining a brisk pace. This was at odds with Vanessa's enacted understanding during the five observed lessons, in her attempts to balance EI and play-based learning and provide a choice of rotational activities for students during the "We do" phase of the lesson. Vanessa's practice did not align with either the key authors (Archer & Hughes, 2011; Hollingsworth & Ybarra, 2009; Rosenshine, 2012) or her description of what an EI lesson structure looked like in practice. She understood the concept of "model, lead, test" and the requirements of an EI lesson, and expressed the view that EI was very effective once a teacher had mastered delivery, but she muddied her expressed beliefs and enactment with constructivist practices. Vanessa believed that a warm atmosphere and positive relationship with her students was of prime importance, and while this is supported in the research, there are a number of caveats, namely high expectations of behaviour, knowing how to work effectively in groups, knowing the learning intentions and their success criteria, and a sense that the teacher is actively helping achieve learning gains (Hattie, 2012b).

Like Vanessa, Emma at Holly Fern believed EI was effective, but did not think that whole-class, teacher-led EI lessons could sustain children's attention. She subscribed to high-quality multi-sensory activities comprised of different learning styles and teacher-directed play following short, sharp bursts of EI. Emma deemed it impossible to engage a pre-primary class for the full duration of an EI lesson, and considered faded practice more attainable as part of small group work. This mirrored the reservations of her mentor, Zara, about the Fleming Model of EI. It was clear that Emma was conflicted by increased pressure from the Australian Curriculum for achieving higher standards in foundation education and her ability to embrace and deliver a developmentally appropriate program for her students. Emma had ideological concerns about EI, and sought to balance it with creativity, differentiation and constructivist principles. She believed that short periods of EI should be broken up with periods of physical activity. Like Vanessa, her conviction to achieve a balanced program for pre-primary students compromised her enactment, yet Emma was the teacher most concerned about EI. This was significant, as the principal of Holly Fern claimed that the ideological difficulties among the early childhood team had been resolved by a change in staff, Emma's leadership of the team and the appointment of an external consultant for coaching, observation and mentoring. The principal favoured the consistent approach of EI to teaching literacy and was confident that all elements of EI lessons were enacted in the pre-primary classroom. Zara, Emma's pre-primary colleague and mentor,

reported that the early childhood team had adapted the Fleming model of EI by including constructivist practices to boost student engagement. The problem with this approach is that EI requires instructional modelling by the teacher, followed by gradual release (Archer & Hughes, 2011), and although Archer (2011) allows for research-based constructivist practices such as Numbered Heads Together (Kagan, 1989), they are recommended for eliciting responses rather than instruction in EI lessons. At Holly Fern, alignment was somewhat compromised by the external consultant, Polly, who was tasked with observing, coaching and mentoring the teachers, but had not read any of the seminal authors and only a generic understanding of EI that had evolved through her own practice. Like the principal, the external consultant's views on EI lessons did not always align with its principles (Rosenshine, 2012) and included constructivist practice by eliciting responses from the students.

The notion that EI cannot sustain student attention and needs to be delivered in "short, sharp bursts" is addressed in EI by pacing (Archer & Hughes, 2011; Hollingsworth & Ybarra, 2009) and other strategies for maintaining high levels of engagement (Hollingsworth & Ybarra, 2009). It is possible that this was a self-fulfilling prophecy for Emma, in that cricisim of Explicit Instruction as a passive approach may have interferred with her ability to deliver a lively, active lesson. As Goeke (2009) pointed out, students in an EI lesson "are passive to the extent that the teacher allows their passivity. If teachers have resigned themselves to their students will not participate, that will be the outcome" (Goeke, 2009, p. 3838). Emma's view of teaching as inclusive of different learning styles has been discredited in the research (Hattie, 2012b), but is an understandable misconception. Furthermore, EI encourages the use of visuals, movement, unison and individual oral and written responses, highlighting Emma's misunderstanding of EI as a passive "drill and kill" method of teaching (Archer & Hughes, 2011). Goeke (2009) stated that in an EI lesson "the key is to set the expectation from the beginning that all students will participate" (Goeke, 2009, p. 38). Katie enforced this by checking for understanding and using songs, movement and pacing as backed by neuroscientific research (Schneider & Chein, 2003) and research on EI and phonics in early childhood classrooms (Callcott et al., 2015). Emma's inclusion of teacher-directed play opportunities aligned with the Early Years Learning Framework (DEEWR, 2009), and at Dove Tree, it was interesting to see Katie resolve the dilemma by reserving play-based learning for afternoon lessons. It was also notable that Emma believed pre-primary students couldn't engage for an entire EI lesson, yet Katie at Dove Tree consistently taught EI lessons with an average duration of 55.9 minutes without losing student engagement. Emma's position on guided practice being more attainable as part of group work was out of keeping with EI's definition of guided practice, where every student practices the same skill at the same time (Hollingsworth & Ybarra, 2009). Despite studying DI at postgraduate level, Emma's ideological concerns about not meeting the students' need for creativity and differentiation again reflected her misconceptions of EI, a pedagogy not designed for

use with open-ended curricula or suited to constructivist practices. Differentiation is built into EI delivery and design, by fundamentally ensuring that all students' needs are met at the starting point and substantial gains are made by moving them incrementally towards the learning goal, all the while making them aware of their progress in relation to the goal and using best practice to meet the needs of both weak and strong learners (Tomlinson, 2014). Easier and more difficult examples are worked into the questioning and independent practice, clearly visible in Katie's teaching. Emma had neither observed other teachers instruction of EI, nor had the opportunity to visit other schools where she could observe and question other teachers. Her beliefs were restricted by her own practice in a singular school environment where EI was not clearly understood or defined. On the other hand, Katie had not done any postgraduate study in DI, but fully understood her practice and anticipated no conflicts, because her beliefs were formed in an environment where the principles of EI were consistently communicated, she had access to instructional rounds and expectations were tightly defined and monitored.

Assertion 7.3

Teacher beliefs about EI at Holly Fern Primary were compromised by dominant Piagetian theories of development in early childhood education. A lack of understanding EI, inappropriate constructivist practices, and mentoring and coaching from practitioners who also did not understand the underlying principles of EI compromised messaging about instructional design and delivery.

Teacher beliefs about EI at Aster Wood were compromised by a lack of clarity about what EI looks like and why, an inability to consider approaches other than constructivism, what constitutes 'developmentally appropriate practice' and a lack of intensive and ongoing coaching and mentoring.

Teacher beliefs about EI at Dove Tree Primary were aligned with the principles of EI and the work of key authors. Katie had received ongoing intensive professional learning, coaching, mentoring and opportunities to watch other pre-primary teachers' enactment. EI was clearly defined at Dove Tree both in documentation and in expectations around practice. The principal at Dove Tree understood that EI was difficult for teachers with a background in constructivist learning and took steps to ensure that it was fully enacted throughout the school.

7.4 Teachers' Enacted Beliefs in Relation to Observed Pedagogy

Precise definitions of EI instructional design and delivery principles at Dove Tree placed Katie at a distinct advantage in terms of her practice. The only aspect that she consistently omitted in each of the five observed lessons was the explicit presentation of learning intentions or lesson goals (Hattie, 2012b). This was attributed to an understanding that the pursuit, practice and ultimate mastery of skill in DI is more important than its statement, as well as the hybrid, unpublished Fleming model of Explicit Instruction (Fleming & Kleinhenz, 2007) used by the school. Instead, Katie checked for understanding the lesson objective throughout the "I do, We do, You do" and plenary phases of the observed lessons. Her high-fidelity enactment of EI was due to her rich pedagogic content knowledge and alignment of her beliefs with the principles of EI (Argyris & Schon, 1974; Rokeach, 1976;

Rosenshine, 2012). Katie believed, without reservations, that EI was an effective approach and understood how to apply the principles of design and delivery due to the professional learning (Argyris & Schon, 1974; Lock & Lee, 2001) she had received. At Holly Fern, Emma introduced explicit learning in her fourth and fifth lessons, after professional learning from John Hattie's Visible Learning Plus Workshops (Hattie & Anderman, 2012*)*, but did not check for understanding at the time of observations (KF 5.30). Her underdeveloped checking for understanding techniques in the plenary stage of those lessons compromised the clearly stated learning objectives.

Katie was the only case study teacher to persistently use the "model, lead, test" procedure throughout her lessons (KF 4.36) (Archer & Hughes, 2011; Goeke, 2009). Her use of this EI cycle throughout the lesson arguably allowed her to accelerate learning for at-risk students in particular (Carnine, 2006). Neither Vanessa at Aster Wood, nor Emma at Holly Fern were able to use this basic instructional format in either their review of prerequisite skills or the body of their observed lessons. Neither of their reviews of prerequisite skills followed a line of development over the course of the observations, and in both cases, it was used for testing, contravening the purpose of the review for enhancing prior learning and developing fluent recall (Rosenshine, 2012). Both Vanessa and Emma's warm ups lasted half the lesson on average. Emma was unable teach the precursor knowledge of letter sounds to mastery and Vanessa checked students' understanding of lesson prerequisites by eliciting them from the students. Vanessa did not include a review of focus skills in any of her five observed lessons, and Emma did not consistently include a plenary review in her five observed lessons (Archer & Hughes, 2011).

Katie at Dove Tree Primary was unique in using "consistent, unambiguous wording" (Archer & Hughes, 2011, p. 22) in her instruction of strategies (KF 4.44). This allowed for easy understanding and avoided ambiguity and confusion while she modelled and led the writing of words with the chosen phonic rule (Archer & Hughes, 2011; Rosenshine, 2012). Katie's introductory examples were restricted to the phonic rule, and in this sense, her examples were appropriate in each of the observed lessons (Carnine, 2006). Simply put, whatever Katie asked of the students in the "You do" phase of the lesson had been modelled and practised in earlier phases of the lesson. Vanessa's language was sometimes unclear and lengthy and she elicited the phonic rule from her students, a consistent pattern in all her lessons. Emma's language was sometimes unclear and lengthy and the phonic rule was not modelled or explained in her lessons, a significant shortcoming because some lessons addressed more than one complex concept at a time.

Katie at Dove Tree reduced cognitive load on her students' working memories by only introducing one concept in phonics at a time (Goeke, 2009; Hollingsworth & Ybarra, 2009). Her presentations on the Interactive White Board (IWB) and flipchart consistently reflected this skill and

made it easy for her to correct students' errors when they occurred because she could identify the skill at fault (Carnine, 2006). In contrast, Vanessa's testing of grammar and phonic rules in the warm-up phase did not follow through to independent practice, and she used her daily review to practise concepts and embed them in long-term memory over the five observed lessons.

Katie was the only teacher in the case studies to provide consistent guided practice in applying a new phonic rule to reading and writing words. She constantly modelled the six key words needed for independent practice in the "I do, We do" phases of her lessons and used consistent language and hand gestures. Katie's form of scaffolding regularly demonstrated the importance of telling students what to do with physical and visual prompts, then asking them what to do, and finally, reminding them what to do before releasing them for a test (Carnine, 2006). Katie observed her students during the faded practice phase and moved to the independent task as soon as they had achieved a level of mastery.

Katie's sequencing of phonic skills followed the explicit, synthetic program of Jolly Phonics used by Dove Tree Primary's shared curriculum (A 7.1) to ensure high-utility skills were introduced before lesser used ones and by introducing easy skills before more difficult ones (A 7.1), an essential component of task analysis or analysis of knowledge particular to EI and Direct Instruction (Carnine, 2006; Engelmann & Carnine, 1991). This meant that strategies and information likely to confuse students were separated and new phonics were introduced at a realistic rate. The curriculum at Dove Tree provided adequate practice and review opportunities every Friday and in the sixth week of term, consistent with EI's roots in neuroscientific research that recommends distributed and cumulative practice for learning retention and developing automaticity (Archer & Hughes, 2011; Engelmann & Carnine, 1991; Rosenshine, 2012). The shared curriculum at Dove Tree also provided teachers with three different worksheets for each lesson, to differentiate at the point of independent practice. Students who struggled with literacy were withdrawn for extra support on DI reading programs. Katie's review of prerequisite skills consistently revised components of the strategy before introducing it, a further intrinsic component of EI and DI (Carnine, 2006). Katie was careful to always include phonological awareness skills of blending, segmentation and rhyming from Let's Decode, as well as revising long and short vowel sounds that were needed later in her presentation and practice of examples. Her increasing demands in reviews of prerequisite skills over the five observed lessons became progressively harder in terms of phonological awareness blending, segmentation and the level of questioning concepts, such as compound words using sound deletion.

Katie's presentation techniques were highly consistent with EI. She controlled the learning environment by consistently employing unison oral responses to maintain her students' attention and responsiveness to her teaching (Archer & Hughes, 2011). She also used constant signalling to

encourage students to respond in unison (Archer & Hughes, 2011). Unlike Vanessa and Emma, Katie used the hand drop, borrowed from DI during her Let's Decode (Formentin, 1993) and "I do, We do" phases, to ensure all students responded at the same time and weaker students weren't copying stronger ones (Archer & Hughes, 2011; Carnine, 2006). Katie daily delivered the fully scripted Direct Instruction program, Spelling Mastery (Dixon et al., 2007), and was familiar with the instructional language of this approach. She applied it to her Explicit Instruction lessons by telling students to "say each word when I touch it" and used "Get Ready" a second before signalling children to answer in unison or for testing individual children (Carnine, 2006).

Katie's pacing also differed from the other two teachers at the time of observation. She was able to deliver her lessons at an appropriate pace (Archer & Hughes, 2011; Goeke, 2009) as her PowerPoint presentations and worksheets/examples were prepared and she was able to focus attention on her students' performance (Archer & Hughes, 2011; Carnine, 2006; Goeke, 2009; Hollingsworth & Ybarra, 2009). The video footage and vignettes attested to how little down-time there was between her questioning (Vignette 5th May 2014). As the students responded, she had the next question or example ready to go, allowing for between 10 and 15 responses a minute (Carnine, 2006).

Katie's monitoring of student performance was purposeful. She regularly positioned weaker students closest to her, and when placed in a circle, the weaker students were in the middle where she could keep a close eye on their responses (Carnine, 2006). Of all the teachers, Katie recorded the highest instances of checking individuals for understanding. She faithfully followed the EI rule of correcting at point of error, promptly righting letter reversals on the children's whiteboards (Archer & Hughes, 2011; Carnine, 2006; Hollingsworth & Ybarra, 2009) to prevent them from unwittingly practising writing letters the wrong way. At Holly Fern, Emma sometimes randomly placed students on the mat and was unable to check all students' written responses and correct at point of error. Perhaps conscious of the need to be brief, she consistently omitted checking for understanding and did not appear to change her teaching to deflect students' misconceptions evident in their answers. Emma had not been taught a consistent engagement strategy, such as "place it under your chin" for individual work on the small whiteboards, which meant she didn't always see errors. Vanessa checked for understanding by testing existing knowledge rather than what she had just taught, and routinely elicited answers from her students, which is inconsistent with EI's principles of design.

Katie's teaching to mastery was exceptional. She taught an adequate number of examples during the "We do" phase to bring students to a level of independence before asking them to complete differentiated tasks (Goeke, 2009; Rosenshine, 2012). Explicit Instruction requires teachers to teach to mastery before introducing the next component of knowledge, strategy or rule, but this

was not evident in Emma's practice at Holly Fern. Vanessa did not break down the knowledge, strategy or rule under study, nor explain why in her lessons (Archer & Hughes, 2011; Rosenshine, 2012). Katie's dealings with off-task behaviour were swift and efficient because she wanted to maintain the other students' attention. So too were her transitions, thereby maximising the time spent on learning (Archer & Hughes, 2011; Goeke, 2009).

Assertion 7.4

Katie enacted all the components of EI with high fidelity, except for the explicit presentation of the learning objective and success criteria for the lesson. She was unique amongst the case-study teachers in her design and delivery of EI that was supported by clear messaging, extensive coaching, mentoring and instructional rounds at her school.

Vanessa at Aster Wood believed that EI was characterised by organised and focused lessons, with clear concise use of language and "model, lead, test" phases, but was unable to enact this in the classroom at the time of observation. She took a flexible approach to teaching that allowed for spur-of-the-moment art activities, because she did not understand that the design and delivery of EI are integral to its success. Instructional leadership at the school lacked a concerted focus on embedding EI in practice.

Emma at Holly Fern believed that EI was an appropriate pedagogic approach for pre-primary students when restricted to a small part of the literacy block. Emma did not believe that EI could sustain students' attention, and her ideological beliefs about developmentally appropriate practices in early childhood education and misconceptions about EI impacted on her ability to successfully enact the principles of EI in the classroom at the time of observation. Emma's enacted beliefs revealed a reluctance to link her postgraduate learning with EI delivery and design or consider approaches other than constructivism in early childhood.

In summary, Katie at Dove Tree Primary was the only teacher who understood why the design and delivery of EI was critical to students' attainment. After extensive coaching, professional learning, curriculum support, clear and consistent messaging and instructional rounds she had mastered fluent delivery of an EI lesson. It was clear that Katie had reached pedagogic automaticity in EI, "automatically responding to her students' understandings and performances" (Pollock, 2007, p. 60). She was unique in her alignment of beliefs with EI, most likely driven by clear and unambiguous messaging and extensive, ongoing coaching, mentoring and instructional rounds at Dove Tree Primary. Geoff at Dove Tree stood out as an effective instructional leader by encouraging teachers to focus on the quality of their instructional delivery for achieving good outcomes, rather than on the students' results themselves (Hattie, 2015).

7.5 Discussion

The central finding of this thesis confirms that what teachers do with EI matters more than what they say they do. While there is plenty of evidence to support the importance of explicit, systematic teaching of synthetic phonics to early readers (Department of Education Science and Training, 2005;

National Reading Panel, 2000; Rose, 2006) and children with literacy learning difficulties (Christenson et al., 2016; Graham & Harris, 2009; Graham et al., 2012; Kroesbergen & Van Luit, 2016; Kroesbergen et al., 2004; Solis et al., 2012; E. Swanson & Vaughn, 2011; H. Swanson & Sachse-Lee, 2016; Vaughn & Linan-Thompson, 2004), only one teacher, Katie, maintained high compliance with EI in her practice. Each of the three principals chose EI as a research-based practice for their schools, however "without support, a powerful practice, poorly implemented, is no better than one that is ineffective" (Knight, 2009, p. 509). Teachers have been identified as the most important variable affecting student achievement; the most effective teachers gaining an average of 53 percentage points in one year compared to average gains for least effective teachers of 14 percentage points (Wright et al., 1997, p. 63). These measures compare the impact of highly effective teachers on student learning with the least effective teachers, according to value added scores. Some researchers estimate students will make gains of six percentage points simply from one year's maturation (Cahan & Davis, 1987; Hattie, 2012a). Substantial evidence confirms the powerful impact of teachers on students' academic outcomes (Creemers, 1994; Darling-Hammond, 2000; Goldhaber et al., 2013; T. L. Good & Brophy, 1986; Mariano et al., 2010). Collective teacher effectiveness in schools has also been shown to affect literacy and maths outcomes (Heck, 2009) when high-leverage practices are used effectively. These studies reflect the importance of high-quality teaching on average student gains.

What teachers do with EI matters, because its efficacy depends on the execution of its instructional components to positively impact on student attainment (Liem & Martin, 2013, p. 368). It could be argued that this is an inherent weakness of EI and the reason why Engelmann insisted on a scripted version of direct instruction (Engelmann, 2007). Each of its component parts are difficult for teachers to co-ordinate smoothly without a high degree of pedagogic content knowledge (Carney & Indrisano, 2013; Shulman, 1986), essential for effective implementation of EI. Teachers must understand the underlying theories and concepts (D. K. Cohen et al., 1990; Darling-Hammond & Richardson, 2009) and experience the efficacy of the component parts for themselves in order to change their beliefs (Guskey, 2002). When instructional practices appear not to be working teachers generally stop using them, so it is not professional learning but the "experience of successful implementation that changes teachers attitudes and beliefs" (Guskey, 2002, p. 383). It is difficult to develop mastery over new pedagogical practices, but as Katie at Dove Tree Primary demonstrated, it is not impossible with "just-in-time, job-embedded assistance as they struggle to adapt new curricula and new instructional practices" (Guskey & Yoon, 2009, p. 497). Intensive instructional leadership developed Katie's pedagogical content knowledge (Shulman, 1986) and reshaped her beliefs from the early constructivist practices she'd learned in her undergraduate studies to a teacher-led pedagogy, buoyed by her own success implementing the component parts (Guskey, 2002). Difficulties associated

with executing the component parts of EI were overcome by providing ongoing opportunities for teachers to see EI successfully modelled by other pre-primary teachers and breaking down new instructional practices into steps (Knight, 2009), such as the acronym TAPPLE for visible checking for understanding (Hollingsworth & Ybarra, 2009). Instructional leaders also require a "deep understanding of the practices they share, so that they can effectively explain those practices to teachers" (Knight, 2009), as in the example of Geoff, principal of Dove Tree. The difficulty for instructional leaders adopting EI is that the component practices, while powerful when properly executed, are not easy to implement, and teachers are unlikely "to implement practices unless they are powerful and easy to implement" (Knight, 2009, p. 509). To this end, Ecological Systems Theory (Bronfenbrenner, 1989) was used in this research as a conceptual framework to explain why Katie alone was willing and able to practise the components of EI with such fidelity and understanding.

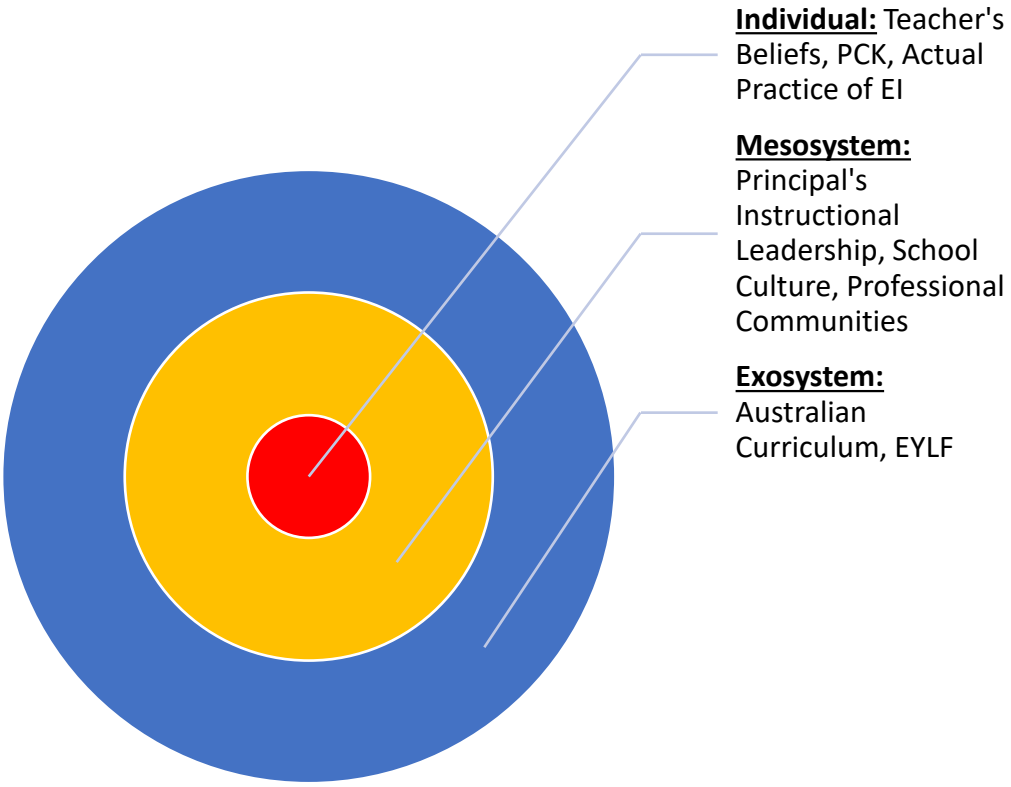


Figure 7.1 Conceptual Framework based on Ecological Systems Theory (Bronfenbrenner, 1989)

Repeated analysis of the data led to the conclusion that teachers' actual practices rested on their beliefs, pedagogical content knowledge and support from instructional leadership as opposed to transformational leadership. At Dove Tree, instructional leadership (Hattie, 2015) was used to affect teachers' beliefs and PCK with data-driven analysis and ongoing, intensive professional learning including coaching, mentoring and instructional rounds. Geoff, the principal, achieved his goal of

introducing EI as a clear signature model by focusing attention on Katie's immediate sphere of influence – the mesosystem (Bronfenbrenner, 1995). By doing so, he made it easier for her to implement EI and experience the power of effective instructional practice for herself (Guskey & Yoon, 2009; Knight, 2009). Geoff began by first observing the school's existing culture and developing an understanding of "the way things are done around here" (Barth, 2002, p. 11). This allowed him to identify the school's strengths and weaknesses, as well as getting to know the school culture, teachers' behavioural norms and early childhood teachers' values and beliefs (Peterson & Deal, 1998; Zepeda, 2013). Resistance to change is sometimes attributable to mental models of how things should be done (F. M. Duffy, 2002; Senge, 1999), and by taking the time to observe, Geoff was able to understand the magnitude of what was needed to beat the odds (Zimmerman, 2006) of school reform ending in failure (Fullan & Hargreaves, 1996). Knight (2009) wrote: "Many teaching practices are sophisticated, and teachers can't be expected to learn them without an opportunity to watch model demonstration lessons, experience job-embedded support, and receive high quality feedback" (Knight, 2009, p. 509). Geoff was the only principal who understood EI as a highly sophisticated and complex pedagogy and knew effective implementation would take significant resources, focus and consistency.

Understanding the existing culture allows principals to determine why there may be resistance to change (Fullan & Ballew, 2004) by looking at what happened in the past, sometimes known as initiative or change overload (Hargreaves, 2004; Knight, 2009). Such a level of understanding is necessary for school leaders to recognise that "change leads to loss – not just any loss, but a devastating and personal loss" (Reeves, 2009, p. 99). For early childhood teachers, changing behaviour also involves a change of identity in switching from child-centred to teacher-led pedagogies, understandably associated with yet more "proverbial pendulums, bandwagons and things that go around and come around" (Hargreaves, 2004, p. 292). Geoff initially pointed out the disparity between teachers' stated beliefs about helping all students learn and the school's poor results before communicating that change was indeed necessary and urgent (Marzano, Waters, et al., 2005; Zimmerman, 2006), and did so with a pedagogy supportive of all students, with and without learning difficulties.

The principals of Holly Fern and Aster Wood, Jean and Ben respectively, brought research-based practices into their schools, but in the absence of systematic change in school culture, the changes in practice had to "fit in and round existing elements of the culture" (Barth, 2002, p. 22) – in both cases this was a constructivist culture, characterised by balanced, play-based learning, rather than a systematic literacy approach (Moats, 2014a). In order to overcome potential resistance to change, Geoff concentrated on developing an optimistic school vision, rewarding and celebrating teacher

behaviours with positive, systematic coaching, and developing a strong professional learning community.

The clear mission statement of "Every child matters, every day" at Dove Tree Primary served to align positive student-teacher relationships with a belief that caring schools are committed to "maximising the opportunity for students to learn" (Hargreaves, 2004, p. 294) and realising high academic expectations. By developing a shared mission or vision, Geoff was able tap into a basic human need to "act consistently with commitments and values" (Cialdini, 2009). But more than that, by allowing teachers themselves to develop a vision of how things could be (Hargreaves, 2004) he reframed change from "a personal attack to a new, meaningful and exciting opportunity" (Reeves, 2009, p. 11). Establishing a new, positive school culture was important for reducing anxiety and becoming "aligned, and goals and objectives are consistent with the mission" (Zepeda, 2013, p. 3737) through teacher-directed learning. Human beings like to be positive and consistent, and forming a positive, published mission statement motivated teachers to commit (Cialdini, 2009). Geoff created high expectations for student achievement by publishing clear school-based goals for student achievement at the end of pre-primary and emphasising teaching to mastery, providing academic learning time and encouraging student participation (Heck, 2009). A strong school culture fosters trust, open communication, high expectations, collegiality, support, knowledge, celebrating staff and student accomplishments, humour, involvement in decision making, and builds a wall of protection around school priorities (Saphier & King, 1985; Zepeda, 2013).

Developing professional and peer communities that support these norms provides early childhood teachers with emotional reinforcement (Hargreaves, 2004; Zepeda, 2013) throughout the inevitable declines in confidence and performance as they try out new practices (Fullan & Ballew, 2004). When teachers feel overwhelmed by anxiety they simply revert to what they already know (Goleman et al., 2003) and often turn to their peers for emotional support. Peer support and peer pressure help teachers navigate and identify the necessary norms for high-performing schools, and develop a sense of "the way things are done around here" (Barth, 2002, p. 11; Fullan & Ballew, 2004). Perhaps the strongest argument for developing supportive professional communities is that they provide social resilience in times of uncertainty by people we perceive to be similar to us (other teachers) and help to create new social norms (Cialdini, 2009). Social proof is a powerful driver of human behaviour, because seeing everyone else engaged in the same thing leads to assumptions that it is correct (Cialdini, 2009). Professional communities also help open up communication (Heck, 2009), establish feelings of togetherness and allow teachers to maintain professional autonomy and respect by contributing to the thinking (Hargreaves, 2004; Knight, 2009).

By establishing an early coaching system that was positive in nature, Geoff affirmed the positive attributes in his staff's teaching and validated them. Validating old and new behaviours through a system of coaching enabled powerful change, because "change leaders know that they do not change organizations without changing individual behaviour, and they will not change individual behaviour without affirming the people behind the behaviour" (Reeves, 2009, p. 11). In this way, Geoff, the teachers and other stakeholders collectively translated the school's vision into a culture that valued professional learning and resulted in improved practices (Mooney & Mausbach, 2008) through monitoring individual student progress for which teachers were held accountable. Rather than using the data punitively, they were used in a positive way to affirm teacher and student progress, and teachers were encouraged rather than discouraged (Marzano, Waters, et al., 2005).

Each of the three principals exposed their teachers to current research and theory in education (Marzano, Waters, et al., 2005), but Geoff placed a particularly high value on evidence-based professional learning (Mooney & Mausbach, 2008). Geoff was a high-impact instructional leader (A 7.2), who personally modelled EI in the classroom and clearly communicated it as a signature pedagogy by introducing documentation and a shared curriculum (A 7.1) that included PA and phonics. He supplemented his strategy with coaching and instructional rounds, ongoing professional learning with John Fleming, and maintained a sense of urgency with data-driven accountability. By establishing EI as a clear signature policy rather than part of a balanced approach to literacy, Geoff was able to develop "a common set of assumptions about learning" (Zepeda, 2013, p. 37) that served to promote Katie's understanding of behaviourism and the relationship between cognitive load theory and EI (Sweller et al., 2011). Katie's stated understanding of EI included moving student knowledge from short- to long-term memory, and interestingly, she was the only teacher to make this link. Geoff understood that "when it comes to change, teachers have to drink the water, so to speak, before they will believe" (Knight, 2009) and therefore ensured they all received ongoing follow-up support (Knight & van Nieuwerburgh, 2012).

The underlying onus of managing change lies with principals to resolve instructional problems effectively (Heck, 2009). This means that principals must emphasise high expectations in academic work, increase student participation, learning time, teaching to mastery and monitor teachers' work (Heck, 2009). Emma at Holly Fern did not believe EI worked, because she hadn't attended any of John Fleming's professional learning sessions or seen any other pre-primary teachers execute it successfully. Neither had she observed it modelled in her classroom by a coach who understood what EI meant (A 7.3), nor received any validation for what she was doing right. Furthermore, Emma had not personally experienced success in her practice of the Fleming model (Hoy & Hoy 2003) and attributed this to the students' short attention span. She did not have a coach who could model EI

effectively because her external coach, Polly, only had a generic understanding of EI (Rosenshine, 2008), despite the principal, Jean, being under the impression that Polly was fully trained. Communication at the school was compromised by the disconnect between the teachers and the principal (A 7.2), who unlike Geoff at Dove Tree and Ben at Aster Wood, did walk-throughs to monitor teachers' performance. It is possible that a different model of EI, using the warm up as a brief review of prerequisite skills (Archer & Hughes, 2011; Hollingsworth & Ybarra, 2009) rather than the lengthy daily review of knowledge in the Fleming model, may have better suited Emma's needs. By providing ongoing, embedded professional learning and resources, Geoff effectively blocked concerns about the focus of the Early Years Learning Framework on "intentional teaching" (DEEWR, 2009, pp. 14-15). He allayed concerns about the downward pressure from the Australian Curriculum by providing a school curriculum that simultaneously provided an analysis for teachers, set the scope and sequence, and allowed teachers to meet and exceed the prescribed standards and teach to mastery with inbuilt reviews and revisions every sixth week. He was also able to prevent erosion by residual whole-language practices, remnants from the literacy wars, by ensuring professional learning was sustained (Darling-Hammond & Richardson, 2009) and validated by John Fleming through a fundraiser by his school. Finally, he used data-driven accountability to validate his teachers' continued use of EI and celebrated their successes.

Conversely, Jean at Holly Fern and Ben at Aster Wood were transformational leaders (Hattie, 2012b). Both were highly motivated to bring research-based practices into their schools, but did so without "compatible goals and supportive conditions" (Hargreaves, 2004, p. 302). It is probable that Emma's fundamental inability to enact EI with fidelity was due to a lack of alignment in the school's professional learning design, instructional leadership and policy, and her experience of EI as excluding her "professional purposes and considerations of the realities" (Hargreaves, 2004, p. 302). Because Emma did not have opportunities to observe or experience successful implementation of EI at pre-primary level she did not believe it was possible to enact fully. She was unable to experience successful implementation because change in learning outcomes is not restricted to data-driven analysis but also depends on "students' attendance, their involvement in class sessions, their classroom behaviour, and their motivation for learning" (Guskey, 2002, p. 384). Unlike Dove Tree Primary, Holly Fern was unable to implement EI "in a way that is professionally inclusive and supportive and demonstrably beneficial for students" (Hargreaves, 2004, p. 303). Emma's PCK (Shulman, 1986, 2005) was compromised by inadequate professional learning (Darling-Hammond & Richardson, 2009) gained from other teachers who had attended John Fleming, and coaching from Polly, who was unfamiliar with the principles of EI (Rosenshine, 2012). Furthermore, Jean introduced Visible Learning (Hattie & Anderman, 2012) to Holly Fern before she had successfully embedded EI in the school. While Visible Learning (Hattie &

Anderman, 2012) was beneficial for Emma's practice of EI, this change ran the risk of creating chaos related to excessive change (Abrahamson, 2004) or teachers feeling overwhelmed by yet more initiatives (Hargreaves, 2004). Vanessa at Aster Wood was positive about EI because she had experienced successful implementation, but due to a lack of intensive support, sufficient professional learning (Darling-Hammond & Richardson, 2009), coaching and modelling, her PCK (Shulman, 1986) was compromised because she didn't understand the principles of EI design and delivery (A 7.4). Interestingly, both Vanessa and Emma believed they were enacting EI, but constructivist practices permeated both their lessons, driven by entrenched habits and underlying beliefs. Their enactment of the instructional components of EI mattered, because activating prior knowledge, using clear and concise language, presenting the material step by step and providing faded and extensive practice impacts on the cognitive load of novice learner (R. E. Clark et al., 2012). The findings of this study indicate that unless each of the principles of EI is practised with excellence (Rosenshine, 2012) and there is a highly supportive framework aligned with instructional leadership for changing teachers' habits and beliefs about EI, early childhood teachers will continue to believe they are teaching phonics and phonological awareness in an explicit, systematic manner when the evidence suggests otherwise.

In conclusion, as an instructional leader (Hattie, 2015), Geoff ensured what Katie said she did with EI was actually what she did in practice, through an intensive focus on individual beliefs, PCK (Shulman & Wilson, 2004) and alignment of her immediate sphere of influence. He successfully brought the message and the mission in line by providing meaningful, prolonged professional learning and ensured it was put into practice through daily walk-arounds, coaching and instructional rounds. Geoff made student achievement a priority, opened up communication with professional communities and mentors, and personally monitored and resolved instructional problems – the very definition of instructional leadership in practice (Heck, 2009). Louden's (Louden, 2015) case study on nine high-performing schools in WA found that two out of the four highest performing schools used EDI as a signature pedagogy. As in Dove Tree Primary School, they used a combination of coaching, instructional rounds, excursions to EI schools and extensive professional learning with John Fleming to embed EI in practice. All nine schools used reading programs based on explicit teaching of phonological awareness and synthetic phonics. Seven out of the nine case-study schools shared many of the characteristics of Dove Tree Primary School, namely a mandated curriculum with a prescribed scope and sequence that laid out what students would learn and when (A 7.1), mandated text books and resources, targets for every student on a term basis, DI programs for learning support and Explicit Instruction (Louden, 2015).

This investigation illustrated how Dove Tree Primary prioritised EI within a suite of high-leverage practices, both in the classroom and instructional leadership practices at management level. The

school focused its resources on individual attainment with an intensity that was lacking in the other two case-study schools, and made the important link between quality of instruction and impact on achievement.

In contrast, the other principals in the study were unable to align the design of the mesosphere with a compatible vision or to provide intensive support for faithful practice of EI in their early childhood classrooms. “Continued follow-up, support and pressure” (Guskey, 2002, p. 388) (A 7.2) were absent in both Aster Wood and Holly Fern, in addition to an understanding of the existing school culture before launching into significant changes. Effective principals “look for ways to support and sustain teacher efforts. They do not send teachers alone into uncharted territory. Effective administrators must be sources of both light and heat, helping teachers see the benefits of new initiatives while simultaneously insisting on progress” (Tomlinson, 2014, p. 178).

This study provides evidence that strikingly different understandings of EI exist in schools and that what teachers do with EI in phonics and PA, rather than what they say they do, matters, because explicit, systematic teaching for successful outcomes has been well established by scientific research (Ehri et al., 2001; National Reading Panel, 2000; Slavin et al., 2009).

Chapter 8: Conclusions and Implications

This concluding chapter provides an overview of the research and discusses the conclusions, limitations, implications and recommendations stemming from the research.

8.1 Research Overview

This current research sought to fill the gap in knowledge about the factors that facilitate or hamper pre-primary teachers' effective practice of EI in phonics and phonological awareness in schools that have adopted EI as a signature pedagogy. This study

This thesis argues that the salient features of EI, namely task analysis and the steps of "model, lead, test", or "I do, We do, You do" should be visible in an EI lesson. Because EI has been identified in the research as particularly effective for children at risk of reading difficulties, how teachers enact it matters, not only for novice learners of literacy, but also for schools seeking to raise literacy outcomes. McArthur et al. (2015) proposed that between 5% and 7% of children will experience reading difficulties. In Australia, significantly higher figures may be attributed to poor instruction that is not based on evidence (Hempenstall, 2009) and the chasm between research and practice (Buckingham et al., 2013; de Lemos, 2005; Slavin, 2002). Some academics argue that many students in Australia are not given exemplary and effective early instruction because ideological concerns override empirical evidence in early literacy practices (Buckingham et al., 2013).

The ongoing debate about the most appropriate method of teaching reading to young children is significant for school leaders wishing to raise attainment, because when young students receive exemplary, timely teaching in literacy, they achieve higher results and fewer fail, regardless of their home circumstances (Buckingham et al., 2013; Department of Education Science and Training, 2005; Moats, 2007). The reverse is still evident in Australia, where play-based approaches to phonics, in addition to balanced approaches to literacy (Tompkins et al., 2015) are recommended for early years teachers (DEEWR, 2009). Some academics are concerned that the concession of a balanced approach allows for whole-language practices to live on (Moats, 1996, 2007, 2014a; Seidenberg, 2017), despite overwhelming evidence that "whole-language programs have negligible effects on learning to read – be it on word recognition or on comprehension" (*d = .06*) (Hattie, 2009, p. 138); that whole language is ineffective for those learning to read (Hattie & Yates, 2013) and incompatible with what we now know about the brain and reading (Seidenberg, 2017). Other academics call for a redefinition of the balanced approach to reflect a greater understanding of reading development and match effective instruction for alphabetic decoding, fluency and comprehension for the requirements of the different stages of reading development (Castles et al., 2018). Recent neurological and behavioural research required skilled adult readers to learn sounds and meanings of an artificial text (Taylor et al., 2017)

and confirmed that early instruction should emphasise phonics rather than a balanced or whole-language approach (Rastle & Taylor, 2018).

The research also shows that some early years teachers have concerns about teaching phonics directly, rather than in a facilitative, play-based manner (Campbell, 2018). A further difficulty is that the explicit teaching of phonics requires high levels of teacher knowledge and skill (C. Snow & Juel, 2005) and the research indicates that early years teachers in Australia lack the necessary metalinguistic knowledge necessary to teach phonics and phonological awareness explicitly (Hammond, 2015). Neither have they derived the benefits of professional learning and extensive coaching that is positive in tone and specific in feedback (Hammond & Moore, 2018). Unless teachers can access professional learning communities and supportive evidence-based professional learning, they are likely to struggle with EI, since signature pedagogies have an implicit moral or value structure and an explicit structure of delivery principles (Shulman, 2005) that may not align with their beliefs or PCK. Teachers' enactment of EI requires a sophisticated pedagogical content knowledge that encompasses reasoning and action (Shulman & Wilson, 2004) as well as understanding its implicit and explicit nature.

The use of case study as a method of inquiry enabled examination of EI in its real context (Yin, 2010) and uncovered how the contexts influenced the actions of the teachers with regard to EI design and delivery. Case study proved to be an effective method for examining teacher practices because it examines human behaviour, thoughts and feelings that "are partly determined by their context" (Gillham, 2000, p. 11). Only one teacher, Katie, understood the purpose of her behaviours in EI, and because of this she was able to orchestrate EI design and delivery principles in the form of a multiple-phase lesson. She alone understood that her actions needed to be highly prescribed to support the successful transfer of knowledge from short- to long-term memory. Her purpose was deeply rooted in a school culture of learning where the expectations for delivering an EI lesson were clearly defined and reinforced.

8.2 Conclusions

Research Question 1: What are the enacted understandings (interpretation), as evidenced from practice, of pre-primary teachers' Explicit Instruction of phonics and PA?

At Dove Tree Primary, Katie was singular in her highly consistent practice of EI (KF 4.36). She consistently enacted each of the five EI lesson phases in each of the observed lessons, with the exception of explicitly stating the lesson objective and telling her students why it was important (KF 4.39). Her high-fidelity enactment of EI was attributed to a clear understanding of the purpose of those principles, endorsed by alignment between her beliefs about her purpose as a teacher and her

pedagogical content knowledge (Assertion 7.3). This, in turn, was due to a well supported intensive professional learning design and school culture (Assertion 7.3).

At Aster Wood, Vanessa was able to articulate the key principles of EI design and delivery, namely the "I do, We do, You do" phases, the need for a clear focus and structure in the lesson, and used clear, concise language (KF 6.18). However, she was unable to put this into practice at the time of observation (Assertion 7.4). Vanessa incorporated unrelated art activities into her lesson and whole-language practices in the form of word hunts, because she did not understand how the principles of design and delivery impacted on student learning (Assertion 7.4). She believed that a relaxed atmosphere and rapport with her students was of utmost importance to student learning (KF 6.20). The instructional leadership she had received at the school may have lacked the intensity and clarity of messaging about EI (Assertion 7.3) necessary to embed these principles into her practice (Assertion 7.4).

At Holly Fern, Emma was unable to enact any of the principles of design and delivery in a multi-phase lesson, as she did not believe EI could sustain students' attention at the time of observation (KF 5.25). She was able to state learning objectives and their importance in two of her lessons and follow this up with a review of prerequisite skills (KF 5.32), but was unable to follow through with "I do, We do, You do" (Assertion 7.4). She did a plenary review of "what I learned today" in two of her five observed lessons, but did not consistently check individual students' attainment of the learning objective (KF 5.39). The professional learning Emma had received at Holly Fern lacked the necessary alignment with teacher-led pedagogy and was insufficiently clear about what EI meant in practice and why (Assertion 7.3). Although Emma had studied DI at postgraduate level, she was unable to link these understandings to the principles of EI design and delivery at the time of observation (Assertion 7.4).

EI principles of design and delivery matter in practice, because the average five-year-old can only retain two items in their working memory at a time for around 18 seconds (Forbringer & Fuchs, 2014). Because of the constraints on their working memories, young students need phonic and phonological information to be introduced in small chunks, followed by enough practice to embed it in working memory before the next piece of information is introduced. Without chunking and guided practice, students struggle to process the information and their learning is compromised. While all three teachers consistently reviewed prerequisite skills, Katie alone did this in a logical sequence, helping students to link new information with existing information in their long-term memories. By providing extensive, faded, guided practice with worked examples, students were able to make connections with prior learning and improve their long-term retention of new phonic sounds. Katie modelled the writing of new words with "think alouds" and followed through with the same cognitive strategies during faded practice. In this way students successfully used the same strategies in their

independent writing. She also demonstrated consistent use of one strategy (pull the next sound down) in each of her five lessons, allowing students to use the strategy multiple times to achieve the same outcome, i.e. using sounds to encode a new word. Katie's clear, concise language meant that working memory capacity was used for phonological reasoning rather than processing extraneous detail. Katie alone was able to maintain the active engagement of all students during her presentation of new content, because her lesson was focused and delivered at a brisk pace. Her omission of a meaningful lesson objective was only significant because humans are programmed to be more efficient about learning information that is personally relevant (Archer & Hughes, 2011; Wolfe, 2010). She compensated for this by having a singular, learning objective in her head that she used to monitor her students' understanding throughout the lesson, and ensured that they remained attentive with pacing, varied activities and efficient delivery.

More than this, Katie consistently used her warm up to review phonological skills and relevant grapheme-phoneme correspondences, and was able to form a strong neural network in preparation for a new abstract concept (phonic rule) and model it with multiple examples of words within their mental lexicon. By ensuring a high rate of correct answers, Katie's students were experiencing dopamine "hits" or small releases of dopamine in their prefrontal cortices with each successful answer. The reward of knowing they had answered correctly was powerful, because the brain seeks rewarding experiences (Sprenger, 2013). It not only reinforced learning, but motivated her students to encode the next word correctly with Katie's guided practice, as the prefrontal cortex was anticipating the next dopamine reward. By vigilantly correcting at the point of error (letter reversals) during guided practice and providing multiple examples, Katie ensured that their neurons were firing with the correct information, because according to Forbringer and Fuchs (2014) "practice makes permanent". Modelling and using guided practice with multiple examples using the phonic rule in each of the observed lessons helped Katie's students transfer what they had learned to multiple words. In this way, they were able to recognise how the new digraph was used and encoded.

This contrasted with the lack of guided practice in Emma and Vanessa's classrooms, where errors visible on the whiteboards and worksheets were not corrected at the point of error during the observed lessons. By consistently following EI protocol in her five observed lessons, Katie's students had the benefit of knowing what was going to happen next. Katie taught only one concept per lesson, effectively allowing her to rehearse that concept to mastery and use it to check for understanding. Connections in the brain become stronger the more they are activated, so by repeating the concept and asking her students to repeat it, Katie was strengthening their neural connections (Wolfe, 2010).

Research Question 2: What are the actual practices of the teachers?

The actual practices of the teachers were varied. At Dove Tree, Katie consistently enacted a warm-up, the "I do, You do, We do" and plenary phases in each of her five observed lessons (KF 4.37, KF 4.45). She made increasing demands in her warm ups over the research period (KF4.38), becoming more difficult in terms of PA blending, segmentation and questioning of concepts such as sound deletion (KF 4.38). While each of Katie's warm ups included the necessary review of prerequisite skills, they were also used for reviewing knowledge (KF 4.35). Katie never stated her lesson objectives or discussed their relevance or importance (KF 4.39), choosing instead to keep the singular objective and its importance implicit in each lesson (KF 4.39). She taught her warm-up phase using a "model, lead, test" format and used Let's Decode (Formentin, 1993) to teach blending, segmenting and rhyming concepts in phonological awareness (KF 4.36, KF 4.37). Although Katie's warm ups lasted an average of 20 minutes (KF 4.35), she used brisk pacing and visual, auditory and kinaesthetic strategies to maintain student attention (KF 4.41).

In the body of each of the five observed lessons, Katie modelled encoding of six key words using "think alouds" (KF 4.42). The six words were subsequently used in the "We do" and "You do" phases KF 4.42), with the "You do" phase incorporating more difficult examples for abler students. Katie maintained student attention during the "I do" phases by getting them to physically "pull down" the next sound (KF 4.44). She used clear, concise language throughout (KF 4.44) and limited her speech to teaching metacognitive strategies, thereby reducing extraneous cognitive load. Katie made each student participate in the "We do" phase by providing faded practice on each of the six key words on the mini whiteboards. Each student was required to "pull down the next sound" for each of the key words and write the sounds one by one, in lock-step fashion. Katie consistently corrected at point of error by asking students who had written a letter reversal to erase and rewrite it. She made consistent use of faded support by first telling them what to do for the initial two key words, followed by asking them what to do for the next two examples, and finally, reminding them what to do for the final key word or "test" as she called it (Hollingsworth & Ybarra, 2009). The "You do" session in each lesson began with a brief tidying up of whiteboards, erasers and markers. The students were then sent to their seats to practise different worksheets, with black and white pictures representing the key or phonic rule words on the left hand side. Weaker students were required to write out the previously worked examples, while others were provided with a mixture of worked examples and new words that represented the phonic rule. The "You do" phase was brief, and throughout Katie circulated and corrected at point of error.

Katie then asked the students to return to the mat for a plenary, final check of understanding (KF 4.45). She did this by making all students chant the phonic rule before checking them individually. Each of Katie's five observed lessons complied with this highly consistent pattern, due to shared

resources across the coalition schools, a mandated format for EI lessons, and extensive coaching and instructional rounds provided by Dove Tree Primary.

At Holly Fern, Emma was highly committed to the warm-up phase of her EI lessons but used it for testing (KF 5.32). She tested blending, segmenting and rhyming skills in phonological awareness, digraphs, letter-sound correspondences and syllables, but did not follow a discernible line of development over the five-lessons (KF 5.31). Emma presented the lesson objective and explained its importance in the fourth and fifth lessons, but did not manage to check for student understanding (KF 5.32). Emma's language was unclear and lengthy and the phonic rule in her lessons was not modelled or explained (KF 5.33). This was significant because she addressed more than one complex phonic concept in the same lesson (KF 5.33). Although Emma's warm ups took approximately half of each of the observed lessons, she consistently did not teach the precursor knowledge of letter-grapheme correspondences to mastery or check for understanding in her lessons (KF 5.34, KF 5.36).

Emma did a brief "I do" in the second observed lesson by modelling writing body-part labels ("toes") on a Gruffalo worksheet. While she sounded the concept out aloud as she wrote it, she did not model it with a "think aloud" or cognitive strategy, nor address a specific phonic rule, but rather elicited responses from students to label the remaining body parts. Emma didn't use guided practice or a "We do" phase in any of the observed lessons, however, "You do" or independent practice was evident in the second, third, fourth and fifth lessons. She did not consistently check for student errors on the mini whiteboards because she did not know about an engagement strategy, such as "place it under your chin" in order to see what students were writing (KF 5.35). Neither did Emma know about teaching knowledge to mastery before introducing the next skill or concept (KF 5.36), so student errors went unchecked and uncorrected during the observations. Emma did not alter her teaching to rectify students' misconceptions evident in their answers (KF 5.37), and played a YouTube alphabet song in her plenary session of the first observed lesson. There was no visible plenary session in the second or third observations, but Emma did use a final check for understanding the lesson objectives in the plenary session of the fourth and fifth lessons (KF 5.38). However, this final check for understanding was compromised by a particular use of checking techniques that did not allow her to establish how many students had achieved the stated learning objectives (KF 5.39).

At Aster Wood, Vanessa was also strongly committed to the warm-up phase of her lessons (KF 6.31). She used her review of prerequisite skills to test grammar and phonic rules, but this was not evident in the rest of her lessons (KF 6.30). There was no evidence of "model, lead, test" structure in the observed review, which was used instead for eliciting information from the children (KF 6.30). Her review of prerequisite skills took, on average, half the observed lessons. Vanessa's language was not clear and concise (KF 6.33) and she consistently elicited the phonic rules in her lessons (KF 6.32).

"I do" was incorporated into her second and fifth lessons. In the first lesson, "I do" focused on explaining the *ai worksheet*, and while modelling writing five *ai* words Vanessa elicited these from the children first. In the fifth lesson "I do" mainly focused on keeping letters on the lines. "I do" was a verbal rather than written model of the worksheets, accompanied by a clear, concise "think aloud". "We do" was evident in the fifth lesson and "You do" was included in the second, third, fourth and fifth lessons, consisting of some Spelling Mastery and worksheet work. The Spelling Mastery (D.I.) script was not followed with fidelity and phonic skills were not explicitly taught or explained in the observed lessons. Vanessa did not use the "model, lead, test" sequence in her observed lessons (KF 6.34) and elicited information from her students rather than teaching first and then checking for understanding (KF 6.36). She did not include a structured plenary session with a final review and check of understanding the focused skill in the observed lessons (KF 6.38).

Research Question 3: How do teachers' personal beliefs influence their enactment of EI?

The actual practices of the teachers were highly dependent on their beliefs. Emma at Holly Fern believed EI was effective (KF 5.23), but did not consider that whole-class, teacher-led lessons using EI could sustain her students' attention. She was of the view that her students needed high-quality, multi-sensory activities, including different learning styles and teacher-directed play opportunities combined with short, sharp bursts of EI (KF 5.25). Emma felt it wasn't possible to engage the attention of a pre-primary class for the full duration of an EI lesson, and that faded practice was more attainable as part of small-group work (KF 5.27), yet faded practice in small-group work was not observed in any of her five observed lessons. She had ideological concerns about EI, based on balancing EI with creativity, differentiation and constructivist principles (KF 5.26) and believed there was a need to break up short periods of EI with periods of physical activity (KF 5.22).

Vanessa believed EI was a positive pedagogic approach for early years teachers that raised NAPLAN results and enabled teachers to both sequence and check for learning, as well as providing cohesive language in a lesson (KF 6.16). She could fully articulate the structure of an EI lesson in PA and phonics and understood the importance of checking for understanding, differentiating and maintaining a brisk pace (KF 6.17). Vanessa understood the concept of "model, lead, test" and the requirements of an EI lesson (KF 6.24), and stated that EI was effective (KF 6.21) once a teacher had mastered delivery of the lesson. In her observed enactment, however, she combined EI with constructivist practices which did not align with the principles of design in an EI lesson. Vanessa believed that a warm atmosphere and rapport with the students was of prime importance to student attainment. While the research supports a positive classroom atmosphere, it is with a number of stipulations, amongst them clarifying the learning objectives and success criteria, as well as instilling

in students a sense that the teacher is actively helping them to reach those learning goals (Hattie, 2012b).

Katie's beliefs were fully aligned with the principles, practices and applications of both EI and DI pedagogy (Archer & Hughes, 2011; Engelmann & Carnine, 1991; Hollingsworth & Ybarra, 2009; Rosenshine, 2012). Her commitment to EI was unhindered by constructivist ideas or opposing ideologies due to her pedagogical content knowledge. Katie's espoused beliefs matched her practice because she understood why the instructional design and delivery were effective (Argyris & Schon, 1974; de Lemos, 2005; Rokeach, 1976). She believed EI was an effective pedagogic approach that was structured, varied and effective for retention (KF 4.25). Furthermore, she could articulate and explain the different parts of an EI lesson (KF 4.31), as well as the task analysis necessary for teaching phonics and PA at pre-primary level (KF 4.26). The clarity and alignment between her espoused beliefs and EI practice reflected the quality and quantity of professional learning she had received, in addition to her easy transition from student-led to teacher-led practice as she had only had one year teaching experience when EI was introduced at Dove Tree School (KF 4.28).

Research Question 4: What are the school-based instructional leadership factors that support or inhibit teachers' enacted interpretation of EI?

Geoff, the Principal of Dove-Tree Primary, was an instructional leader (Hattie, 2015) who ensured Katie implemented a consistent, high-fidelity interpretation of EI by aligning his design of instructional leadership within the school. He laid the groundwork by creating a shared mission with the staff at Dove Tree and created a culture of collaborating with professional learning groups that focused on teaching and student attainment. Geoff had read Theory of Instruction (Engelmann & Carnine, 1991) and had presented each teacher with a copy of Explicit Direct Instruction (Hollingsworth & Ybarra, 2009). He was a highly effective instructional leader (A 7.2) who personally modelled EI in the classroom, communicated it as a clear signature pedagogy and established a shared curriculum (A 7.1) that included PA and phonics. The instructional leaders at Dove Tree reinforced the groundwork with coaching and instructional rounds, ongoing professional learning with John Fleming, and maintained a sense of urgency with data-driven accountability. Notably, instructional leaders had organised for Katie to fly interstate to Haileybury to witness John Fleming's teaching in the classroom. By establishing EI as a clear signature policy rather than part of a balanced approach to literacy, Geoff was able to develop a culture of learning highly aligned to EI. He actively promoted alignment between Katie's espoused practice and her actual practice through an intensive focus on individual beliefs and PCK (Shulman & Wilson, 2004). Geoff aligned instructional leadership, the message and the mission and provided meaningful and prolonged professional learning to ensure EI was carried out in practice, and supported teachers with daily walk-arounds, coaching and instructional rounds. Geoff prioritised

student achievement, stimulated communication with professional communities and personally monitored and resolved instructional problems, epitomising instructional leadership in practice (Heck, 2009). It is possible that by personally modelling the teaching himself Geoff levelled the playing field between his role as principal and the role of the teachers, reinforcing his view that teachers needed to "drink the water" first, with the school's significant investment in instructional rounds further strengthening the credibility of EI.

This contrasted with the transformational leadership (Hattie, 2015) at Holly Fern Primary School. Emma did not believe an entire EI lesson was possible with pre-primary students (KF 5.27) possibly because she had not attended any of John Fleming professional learning sessions, witnessed any other pre-primary teachers executing it successfully or seen it modelled in the classroom by a coach who understood what EI meant (A 7.3). Nor had Emma personally experienced success with EI in practice, which she attributed to the students' short attention span. Contrary to the principal of Holly Fern's belief that the external coach, Polly, was fully trained EI (KF 5.4), Emma did not have a coach who could model it effectively because Polly had a generic understanding of EI at the time of the research period (KF 5.10). Communication at the school was hampered by the distance between teachers and the busy principal (A 7.2), who unlike Geoff at Dove Tree or Ben at Aster Wood, undertook walk-throughs to monitor teacher performance. At Aster Wood, the only school document on EI was a lesson format that reflected a constructivist understanding of "We do" (KF 5.2). This was a significant barrier, because understanding guided practice with faded prompts is a vital component of EI. The principal, Jean, reported that continuation of EI as a pedagogy was supported by unanimous vote (KF 5.7), as recommended by EI or "little d.i." to ensure sufficient staff buy in (Slavin & Madden, 2013), but the consensus appeared to be undermined by misunderstandings about EI, varied teacher beliefs, lack of instructional rounds, misaligned policies and instructional leaders who may not have understood the principles of EI sufficiently (KF 5.8). There was also evidence that the early years teachers learning community was struggling to interpret EI and was not receiving mentoring, coaching or intensive support to interpret the complex model (KF 5.17, KF 5.18).

Ben, the Principal at Aster Wood, was also a transformational leader (Hattie, 2015). Like Jean, he was keen to use research-based practices but was too busy to measure their impact on results with data-based analysis, instead using an informal system of peer accountability and discussion (KF 6.14, KF 6.15). Ben promoted a balanced approach to early years teaching that was interpreted in practice as interspersing EI design and delivery with play-based or child-led practices (KF 6.19). Ben also appeared to have a hybrid understanding of EI (KF 6.7) and an informal approach to learning communities, coaching and instructional rounds (KF 6.13). There were no school documents that expressly mentioned EI (KF 6.2) or a central mandate for its practice (KF 6.23). Vanessa received peer

mentoring rather than coaching at Aster Wood (KF 6.24), so there was an absence of feedback for improvement or alignment of her practice with EI's complex principles of design and delivery.

8.3 Limitations

The limitations of this study relate to common criticisms of qualitative research methods and others inherent in the design. Careful consideration was given to ways of taking these into account and minimising their impact.

Firstly, analysis rested on the researcher's thinking and choices, and therefore the study was necessarily limited by researcher subjectivity and bias. This was counteracted by making it clear to participants that my background was in early childhood, special education and helping children who experienced difficulties in acquiring literacy. In the initial letter to participants, it was made clear that I would be observing EI behaviours. Coding schemes and video analyses were scrutinised by my principal supervisor, who was familiar with the schools, teachers and principals under study.

A second limitation was that the teachers may have given responses they perceived as helpful or acceptable. In the same way, they may have adjusted their lessons to accommodate what they thought would be helpful to the study. For this reason, observation was extended over two semesters and the teachers were interviewed before and after each observation and at the beginning and end of the research period. Further studies in rural and inter-state school settings and of longer duration will add weight to the findings.

A third limitation of the study was that the research sample consisted of three schools in the Perth metropolitan area in Western Australia. This may be a limiting factor in terms of the study's generalisability to other school sites interstate and overseas, and to other providers of professional learning. However, generalisability was not the goal of this research, the issue of transferability being addressed instead (Denzin & Lincoln, 2013), and to this end, thick, rich, detailed descriptions were included to provide context and background to the research. In this way, it is anticipated that instructional leaders will be able to assess the findings for applicability to their own particular circumstances and apply them accordingly.

8.4 Implications and Recommendations

The findings of this study have implications for practice, teacher professional learning, instructional leaders, policy makers and further research.

Firstly, although some teachers believed they were implementing EI, this study clearly showed their practice was inconsistent with the principles of EI design and delivery as expressed by Rosenshine (2012), Hughes et al. (2017) and the Theory of Instruction (1991) (Engelmann & Carnine, 1991; Hughes et al., 2017; Rosenshine, 2012). This was not surprising, given the complexities of this highly prescribed, unscripted pedagogy (Engelmann, 2014), with intrinsic implications that teachers will only

be effective at following its principles if they reduce cognitive load in novice learners by spelling out new concepts in a structured way and have access to instructional leadership designed to foster sophisticated PCK.

A further implication is that teachers with intensive, focused professional learning will be more effective at implementing EI principles of design and delivery. Given the importance of EI for novice learners of phonics and phonological awareness (Moats, 1999, 2016) and the complexity of EI as a signature pedagogy, both pre- and in-service teachers require extensive professional learning to support and achieve effective implementation.

This study also highlighted the importance of effective instructional leadership for effective implementation of EI. In view of the significance of aligning data-driven practices, school vision, philosophy, instructional policy, professional learning groups, coaching, mentoring and instructional rounds with consistent messaging, this approach is highly demanding of leadership capability. Providers of EI professional learning need to be clear about this, and investment in developing instructional leadership in the literacy domain may be required to narrow the gap between research and practice (Hempenstall, 2006, 2016).

The implications for policy makers are that policy needs to be evidence based and unambiguous, including a definition of "balanced approach". The case studies showed that both teachers and instructional leaders are confused about when EI and play-based approaches can be used and what an appropriate balanced approach means in terms of pedagogic emphasis for novice learners in literacy. It is also crucial that policy in the literacy domain with regard to the five pillars of literacy is clear, unambiguous, research-based and reflective of the different stages of literacy development (Castles et al., 2018).

While explicit, systematic phonics and phonological awareness are considered critical for novice learners, the quality of its implementation may have an even greater effect, and teachers need significant support to do it well (C. Snow & Juel, 2013). This study addressed the gap in the research regarding the factors that frustrate or enable the quality of EI implementation by pre-primary teachers as a signature pedagogy. Given the central role of effective leadership for successful implementation and the lack of research on the alignment between school instructional leadership policies and practice in early childhood classrooms, there is a need for further research to identify leadership practices conducive to enhanced, research-based early years literacy development. It is recommended that future research examines how instructional leaders model and understand EI and the conditions under which professional learning models emphasise and build collective efficacy.

8.5 Concluding Comments

This study testifies that what teachers do with EI is more important than what they say they do. Each of the three teachers believed they were enacting the prerequisites of literacy effectively with EI, in schools that had adopted EI as a research-based practice. All three school principals believed EI was being implemented effectively by their respective pre-primary teachers. However, the study revealed that teachers require significant and ongoing support, as well as conditions purposely structured to address their beliefs, pedagogical knowledge and understanding of their purpose as early years teachers.

This thesis addresses the lack of research on early childhood teachers' practice of Explicit Instruction in phonological awareness and phonics, and shows that some teachers were able to articulate the principles of EI but not realise them in practice. Only one teacher was able to do so, because of specifically aligned conditions in her school environment that shaped and encouraged her ability to do so. This was an important finding, because the principles of EI design and delivery are based on research findings in the areas of cognitive effects, teacher effects and neuroscience. Omission of any one of these principles affects students' abilities to process new and difficult abstract information in their working memories and successfully transfer it to long-term memory. There is nothing about the design and delivery of EI that can be considered redundant, and this thesis contributes to existing knowledge by affirming that what teachers do with EI matters more than what they say they do.

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Appendices

Appendix A: Teacher Semi-Structured Interview Protocol

(Key questions only)

I would like to ask you some questions about your understanding of explicit instruction and how you practice it in your phonics and phonological awareness lessons in pre-primary. I'll ask you some questions to guide your responses, but please feel free to add anything at any time, that you think is more relevant. Are you happy for me to record your answers?

I shall transcribe your answers and return them to you so that you can check that you are happy with my record of your answers. You can also add to or change any of your comments after reading back over them if you wish. Your opinions are a key part of this study and will be valuable.

a) Can you tell me about your experiences with EI? How did you first come across it?
b) Can you tell me what you think is significant or important about EI from your perspective and experience of using it?
c) Suppose I was going to teach pre-primary this year. What would I need to understand and do in order to teach a good lesson in PA and phonics to pre-primary using EI?
d) Can you tell me a bit about what is available to you as a teacher in this school to enable you to teach using EI?
e) Some people would say that teaching phonics and PA to pre-primary students using EI is an inappropriate instructional approach. What would you say to them?

Appendix B: Principal Interview Protocol

(Key questions only)

I would like to ask you some general questions about how explicit instruction is enacted and understood in this school. I'll ask you some questions to guide your responses, but please feel free to add anything at any time, that you think explains it better, even if I don't ask you directly. Are you happy for me to record your answers?

I'll transcribe your answers and return them to you so that you can check that you are happy with my record of your answers. You can also add to or change any of your comments after reading back over them if you wish. Your opinions are a key part of this study and will be really valuable.

a) Can you tell me about how the school got involved with explicit instruction?
b) What do you think is significant about EI from a teacher's perspective?
c) What do you think teachers need to know and understand about EI in order to be effective at it?
d) What in your experiences are the biggest challenges in its implementation for teachers and how do you support them?
e) If you were observing a pre-primary teacher teaching phonics and PA using EI what would you expect to see?
f) Some people would say that using EI to teach phonics to pre-primary or early childhood students is inappropriate. What would you say to them?

Appendix C: Mentor Unstructured Interview

(Key questions only)

I would like to ask you some questions about how explicit instruction is enacted and understood in this school. I'll ask you some questions to guide your responses, but please feel free to add anything at any time, that you think explains it better, even if I don't ask you directly. Are you happy for me to record your answers?

I'll transcribe your answers and return them to you so that you can check that you are happy with my record of your answers. You can also add to or change any of your comments after reading back over them if you wish. Your opinions are a key part of this study and will be really valuable.

a) Can you tell me about your personal role with regard to explicit instruction in the school?
b) If you were observing a pre-primary teacher using EI to teach phonics and PA what features of instruction would you expect to see in a lesson?
c) What do you think is significant about EI from the perspective of the teachers?
d) What do you think teachers need to know and understand about EI in order to be effective at it?
e) Can you tell me about what is available in the school to help teachers with EI?
f) When you mentor teachers about their approach to reading instruction what do you tend to focus on?
g) Some people would say that using EI with pre-primary students to teach phonics is inappropriate as a pedagogic approach. What would you say to them?

Appendix D: Information letter for Parents/Carers

Dear Parent/Carer

Pre-Primary Teachers' Enacted Understandings of Explicit Direct Teaching of Phonics

My name is Helen Jensen and I am writing to you on behalf of Edith Cowan University. I am conducting a research project that aims to discover what pre-primary teachers' enacted understandings of explicit teaching of phonics are. I hope to be able to discover what supports are needed in schools who chose to teach in this way and make recommendations to principals and school district leaders. The project is being conducted as part of a PhD in education at ECU.

I would like to invite your child to take part in the project. This is because your school uses explicit teaching of phonics in pre-primary. Your primary school is one of three primary independent public schools in Western Australia approached for their participation. Your child has also been provided with a letter from us that we encourage you to discuss with him/her.

Participation in the project will involve your child in five video-taped lessons of his or her regular ten to twenty-minute phonics lessons over terms two and three, 2014.

Participation is voluntary and your decision will be respected. Your decision will not affect your family's relationship with your child's teacher or the school. If a decision is made to participate, it will need to be made by the end of the week for your child to be included in the project. Once a decision is made to participate, either you or your child can change your mind at any time. If you change your mind and are no longer happy for your child's video footage of the lesson to be included in this study, you can withdraw your consent up until the 31st Dec 2014, by either contacting me at hfjensen@our.ecu.edu.au or at [redacted]. Please understand that if you withdraw your consent, it may be difficult to both later identify and erase your child's face from all the video footage. All data analysis will have been completed by December 31st 2014, hence the final withdrawal of consent date.

Each lesson will be observed for evidence of explicit teaching such as checking for understanding, activating prior knowledge and delivery of information to the students, questioning, student responses and feedback. The purpose of this is for data analysis only, and no personal data on students will be collected. If you do not wish your child to participate in the research, he or she will be seated in a 'filming black spot' in the classroom, so that their privacy is respected and that they do not miss out on their regular phonics lesson.

The privacy and confidentiality of the participants is assured. Information that identifies anyone will be removed from the data collected. The data is then stored securely in a locked filing cabinet at my home and is fully password protected on my computer. It can only be accessed by my supervisors Dr. Lorraine Hammond and Professor Tony Fetherston. The data will be stored for a minimum period of five years, after which it will be stored in archives and destroyed electronically later determined by the records management staff at the storage facility used by Edith Cowan University.

Participant privacy and the confidentiality of information disclosed by participants, is assured except in circumstances that require reporting under the Department of Education Child Protection policy, or where the research team is legally required to disclose that information.

The data will be used only for this project and will not be used in any extended or future research without first obtaining explicit written consent from both you and your child.

It is intended that the findings of this study will be published in articles, in reports at conferences or perhaps as part of a book chapter but will not include any video footage or information in the thesis or any other published material based on the study. A summary of the research findings may be requested on completion of this project. You can access this by contacting me and expect it to become available in February 2016.

The research has been approved by the ethics committee of Edith Cowan University and has met the policy requirements of the Department of Education.

All persons undertaking research activities on Department sites must complete a Confidential Declaration. Also, under the Working with Children (Criminal Record Checking) Act 2004, people undertaking research that involves contact with children must undergo a Working with Children Check. Evidence that these checks are current for each member of the research team has been provided to the principal of your school.

If you would like to discuss any aspect of this study, please contact me on the number provided below. If you wish to speak with an independent person about how the project is conducted please contact the research ethics officer at Edith Cowan University at 08 6304 2170 or by email at research.ethics@ecu.edu.au.

If you and your child are both willing for him/her to be involved, please complete the Consent Form on the following page. Your child is also asked to complete the Consent Form attached to his/her letter. Please explain the project to your child and help them to understand the information letter and consent form for children. Please return the consent forms to the class teacher by Friday of this week and I will collect them from her early next week. This project information letter is for you to keep.

Helen Jensen (PhD student at Edith Cowan University)

Ph. [redacted]

Email: helenfjensen@our.ecu.edu.au

Appendix E: Consent Form for Parents - Child Participation

Consent Form

- I have read and understood the information letter about the project or have had it explained to me in a language I understand.
- I have taken up the invitation to ask any questions I may have had and am satisfied with the answers I received.
- I understand that participation in the project is entirely voluntary.
- I am willing for my child to become involved in the project, as described.
- I have discussed with my child what it means to participate in this project. He/she has explicitly indicated a willingness to take part, as indicated by his/her completion of the child consent form.
- I understand that both my child and I are free to withdraw that participation at any time without affecting the family's relationship with my child's teacher or my child's school.
- I understand that I can withdraw my consent up until the 31st Dec 2014, by contacting Helen Jensen at [redacted] or at hfjensen@our.ecu.edu.au.
- I understand that if I withdraw my consent, it may be difficult to erase my child's face from the video footage.
- I give permission for the contribution that my child makes to this research to be published in a journal, as part of a conference paper or a book chapter, provided that my child or the school is not identified in any way.
- I understand that I can request a summary of findings from Helen Jensen after the research has been completed.

Name of Child (printed): _____

Name of Parent/Carer (printed):_____

Signature of Parent: _____ **Date: / /2014**

Appendix F: Information Sheet for Young Children

Hello

My name is Helen Jensen. I have a project that you might like to help me with.

The project is about getting to know how your teacher teaches you sounds and letters.

Would you like to help me for about five of your sounds and letters lessons?

I will be using a video camera to tape you as you learn from your teacher.

If you want to stop at any time, that's OK, you can….

I won't tell anyone what your name is or what you say while you are helping me with the project, unless I need to tell someone like your teacher if you tell me that you have been hurt by someone lately.

Your parents, or the person who looks after you, has talked with you about helping with the project.

If you would like to help with the project, please draw a circle around the tick, on the next page.

If you don't want to help with the project - that's OK too.

Helen Jensen

PhD Student at Edith Cowan University

Ph. [redacted]

Appendix G: Consent Form for Child Participants

- I know I have a choice whether or not I want to do this project
- I know that I can stop whenever I want.
- I know that I will be doing letters and sounds with my teacher as part of the project.
- I know that I need to draw a circle around the tick, before I can help with the project.

No, I do not want to help

Yes, I would like to help with the project

Name of child: _____ Today's Date: _____

Appendix H: Information Letter for Principals

Helen Jensen

PhD Student (ECU)

[redacted]

Dear Principal,

Pre-Primary Teachers' Enacted Understandings of Explicit Direct Teaching of Phonics

My name is Helen Jensen and I am writing to you on behalf of Edith Cowan University. I am conducting a research project that aims to discover what pre-primary teachers' enacted understandings of explicit teaching of phonics are. Through this, I hope to be able to discover what supports are needed in schools who chose to teach in this way and make recommendations to principals and school district leaders who implement or hope to implement explicit instruction in their schools. The project is being conducted as part of a PhD in education at ECU.

I would like to invite your school to take part in the project. This is because your school uses explicit teaching of phonics in pre-primary. Your primary school is one of three primary independent public schools in Western Australia approached for their participation.

What does participation in the research project involve?

I seek access to you as principal, one of your pre-primary classes and their teacher as well as his or her teacher mentor.

The pre-primary teacher and his/her class will be invited to participate in five video-taped lessons of phonics and phonological awareness at a time of his or her convenience over terms two and three, 2014. The teacher will be asked to teach his or her regular explicit phonics lesson without making any changes for the study. I anticipate that these lessons will last between 10 and 20 minutes each. Each lesson will be observed for evidence of explicit teaching such as checking for understanding, activating prior knowledge and delivery of information to the students, questioning, student responses and feedback. The purpose of this is for data analysis only, and no personal data on students will be collected. Children whose parents do not consent to participate in the research will be seated in a 'filming black spot' in the classroom, so that their privacy is respected and that they do not miss out on the lesson.

The pre-primary teacher, his or her teacher-mentor and you as principal will be asked to participate in two taped interviews, once at the end of term 1, 2014 and once again at the end of term 2, 2014. These will be scheduled at a time that suits the participants within the school. It is my sincere hope that these interviews will last no longer than thirty minutes each. I would also hope to gather any EI professional records that the pre-primary teacher has attended, notes from staff meetings, newsletters and policy documents that refer to EI and literacy from you or perhaps a member of your staff that you could nominate for me. The pre-primary teacher will be asked for any relevant

phonic/PA lesson plan documents, although these must not contain any information about individual students. He or she will also be asked to provide any records she has of his or her involvement in EI PD and personal notes related to EI conversations and issues during his/her mentoring sessions with her teacher-mentor. These will help me gain a picture of how EI is understood and enacted by him or her, within the broader school environment.

I will keep the school's involvement in the administration of the research procedures to a minimum. However, it will be necessary for the pre-primary teacher to participate in the five video-taped phonics lessons and two interviews at the beginning and end of semester one and allow access to the relevant school documents. The pre-primary teacher will also be asked to send home with students the information letters and consent forms for students and their parents and gather those up. I will collect these from her or him.

To what extent is participation voluntary, and what are the implications of withdrawing that participation?

Participation in this research project is entirely voluntary.

If any member of a participant group decided to participate and later changes their mind, they are able to withdraw their participation up until the 31st Dec 2014. The reason for this is that I am hoping to have all data gathered by the 4th July, and therefore all data analysis will be completed by the end of December.

There will be no consequences relating to any decision by an individual or the school regarding participation, other than those already described in this letter. Decisions made will not affect the relationship with the research team or ECU.

What will happen to the information collected, and is privacy and confidentiality assured?

Information that identifies anyone will be removed from the data collected. The data is then stored securely on a fully password protected computer, and files are kept in a locked filing cabinet in my home. They can only be accessed by my supervisors at ECU, Dr. Lorraine Hammond and Professor Tony Fetherston. The data will be stored for a minimum period of five years, after which it will be stored in archives and destroyed electronically or shredded at a later date determined by the records management staff at the storage facility used by Edith Cowan University.

The identity of the participants and the school will not be disclosed at any time, except in circumstances that require reporting under the Department of Education Child Protection policy, or where the research team is legally required to disclose that information. Participant privacy, and the confidentiality of information disclosed by participants, is assured at all other times.

The data will be used only for this project's data analysis purposes and will not be used in any extended or future research without first obtaining explicit written consent from participants.

Consistent with Department of Education policy, a summary of the research findings will be made available to the participating schools and the Department. You can expect this to be available from February 2016.

Is this research approved?

The research has been approved by the Ethics Committee at Edith Cowan University and has met the policy requirements of the Department of Education, as indicated in the attached letter.

Do all members of the research team who will be having contact with children have their Working with Children Check?

Yes. Under the Working with Children (Criminal Record Checking) Act 2004, people undertaking work in Western Australia that involves contact with children must undergo a Working with Children Check. The documents attached to this letter include Dr. Lorraine Hammond as well as me, who will be having contact with children through your school, along with current evidence of their checks.

Who do I contact if I wish to discuss this project further?

If you would like to discuss any aspect of this study with a member of the research team, please contact me on the number provided below, or Dr. Lorraine Hammond at l.hammond@ecu.edu.au. If you wish to speak with an independent person about how the project is conducted please contact the research ethics officer at Edith Cowan University at 08 6304 2170 or by email at research.ethics@ecu.edu.au.

How do I indicate my willingness for the school to be involved?

If you have had all questions about the project answered to your satisfaction and are willing for the school to participate, please complete the Consent Form on the following page. I will come and collect the consent forms from the school reception on Monday of next week. This information letter is for you to keep.

Helen Jensen (PhD student at Edith Cowan University)

Ph. [redacted]

Email: helenfjensen@our.ecu.edu.au

Appendix I: Consent Form for Principals

- I have read this document and understand the aims, procedures and risks of this project, as described within it.
- For any questions I may have had, I have taken up the invitation to ask those questions and am satisfied with the answers I received.
- I am willing for this school to become involved in the research project, as described.
- I am willing for five phonics/phonological awareness lessons to be video recorded in pre-primary.
- I understand that participation in the project is entirely voluntarily.
- I understand that the school is free to withdraw its participation at any time without affecting the relationship with the research team or Edith Cowan University.
- I understand that I can withdraw my consent up until the 31st Dec 2014, by contacting Helen Jensen at [redacted] or at hfjensen@our.ecu.edu.au.
- I understand that this research may be published in a journal, as part of a conference paper or a book chapter, provided that the participants or the school are not identified in any way.
- I understand that the school will be provided with summary of findings once the research has been completed.

Name of Principal (printed): _____

Signature: _____ **Date: / /2014**

- **I consent to being interviewed twice.**

Signature of Principal: _____**Date: / /2014**

Appendix J: Information Letter for Pre-Primary Teachers

Dear Pre-Primary Teacher,

Pre-Primary Teachers' Enacted Understandings of Explicit Direct Teaching of Phonics

My name is Helen Jensen and I am writing to you on behalf of Edith Cowan University. I am conducting a research project that aims to discover what pre-primary teachers' enacted understandings of explicit teaching of phonics are. Through this, I hope to be able to discover what supports are needed in schools who chose to teach in this way and make recommendations to principals and school district leaders who implement or hope to implement explicit instruction in their schools. The project is being conducted as part of a PhD in education at ECU.

I would like to invite you to take part in the project. This is because your school uses explicit teaching of phonics in pre-primary. Your school is one of three primary independent public schools in Western Australia approached for this project.

What does participating in the research project involve?

You and your class are invited to participate in five video-taped lessons of phonics and phonological awareness at a time of your convenience over terms 2 and 3, 2014. You will be asked to teach your regular explicit phonics lesson without making any changes for the study. I anticipate that these lessons will last between 10 and 20 minutes each. Each lesson will be observed for evidence of explicit teaching such as checking for understanding, activating prior knowledge and delivery of information to the students, questioning, student responses and feedback. The purpose of this is for data analysis only, and no personal data on students will be collected. Children whose parents do not consent to participate in the research will be seated in a 'filming blackspot' in the classroom, so that their privacy is respected and that they do not miss out on the lesson.

You, your teacher-mentor and your principal will be asked to participate in two digitally taped interviews, once at the end of term 1, 2014 and once again at the end of term 2, 2014. These will be scheduled at a time that suits the participants within the school. It is my hope that these interviews will last no longer than thirty minutes each and will focus on how explicit instruction is used and understood in the school. I would also hope to collect any relevant school policies on literacy, relevant lesson plan documents in phonics and PA, although these must not contain any information about individual students. I also hope to gather records or notes of your professional development in explicit instruction from you. I will also ask for your consent to gather personal notes about you from your mentor, regarding conversations and issues raised during EI mentoring sessions. Your identity of course will be removed from all of these and I will ask you before taking them.

You will also be asked to send home with students the information letters and consent forms for students and their parents and to collect them. I will pick them up from you at the beginning of next week.

Do I have to take part?

No. Participating in this research project is entirely voluntary. The decision should always be made completely freely. All decisions made will be respected by members of the research team without question.

What if I wanted to change my initial decision?

If you wish to participate, the decision will need to be made by the end of March for you to be included in the project.
Once a decision is made to participate, you can change your mind at any time until the 31st December 2014, simply by contacting me. The reason for this final withdrawal of consent date is that I am hoping to have all data gathered by the 4th July, and therefore all data analysis will be completed by the end of December.
There will be no consequences relating to any decision you make regarding participation, other than those already described in this letter. These decisions will not affect your relationship with your colleagues or the research team from Edith Cowan University.

What will happen to the information I give, and is privacy and confidentiality assured?

Information that identifies anyone will be removed from the data collected. The data is then stored securely on a fully password protected computer, and files are kept in a locked filing cabinet in my home. They can only be accessed by my supervisors at ECU, Dr. Lorraine Hammond and Professor Tony Fetherston. The data will be stored for a minimum period of five years, after which it will be stored in archives and destroyed electronically or shredded at a later date determined by the records management staff at the storage facility used by Edith Cowan University.
Participant privacy, and the confidentiality of information disclosed by participants, is assured at all times, except in circumstances where the research team is legally required to disclose that information or that require reporting under the Department of Education Child Protection policy.
The data will be used only for this project and will not be used in any extended or future research without first obtaining explicit written consent from you.
It is intended that the findings of this study will be published as a series of articles, as part of a conference paper or as a book chapter. Consistent with Department of Education policy, a summary of the research findings will be made available to the participating schools and the Department. You can expect this to be available from February 2016.

Is this research approved?

The research has been approved by the Ethics Committee at Edith Cowan University and has met the policy requirements of the Department of Education.

Who do I contact if I wish to discuss this project further?

If you would like to discuss any aspect of this study with a member of the research team, please contact me on the number provided below, or Dr. Lorraine Hammond at l.hammond@ecu.edu.au. If you wish to speak with an independent person about how the project is conducted please contact the research ethics officer at Edith Cowan University at 08 6304 2170 or by email at research.ethics@ecu.edu.au.

How do I become involved?

If you have had all questions about the project answered to your satisfaction and are willing to become involved, please complete the **Consent Form** on the following page. I will collect this consent form from you on Monday of next week. This information letter is for you to keep.

Helen Jensen (PhD student at Edith Cowan University)

Ph. [redacted]

Email: helenfjensen@our.ecu.edu.au

Appendix K: Consent Form for Teachers

- I have read and understood the information about the project or have had it explained to me in language I understand.
- I have taken up the invitation to ask any questions I may have had and am satisfied with the answers I received.
- I understand that participation in the project is entirely voluntarily.
- I am willing to become involved in the project, as described.
- I consent to giving copies of personal notes or records related to conversations during mentoring sessions on explicit instruction.
- I consent to giving copies of relevant lesson plans for phonics, records and notes from any professional development in EI as well as any relevant school policies on literacy.
- I understand that I am free to withdraw its participation at any time without affecting the relationship with the research team, my participating colleagues or Edith Cowan University.
- I understand that I can withdraw my consent up until the 31st Dec 2014, by contacting Helen Jensen at [redacted] or at hfjensen@our.ecu.edu.au.
- I give permission for my contribution to this research to be published in a journal, as part of a conference paper or a book chapter, provided that I or the school is not identified in any way.
- I understand that I can request a summary of findings once the research has been completed.
- I take responsibility for ensuring that the documents do not contain any information about individual students.

Name of Participant (printed): _____

Signature of participant teacher: _____ Date: / /2014

I consent to five phonics/phonemic awareness lessons being video recorded at a time of my choosing.

Signature of participant teacher: _____ Date: / /2014

I consent to personal notes related to conversations and issues during EI mentoring sessions with teacher mentors being used in the study.

Signature of participant teacher: _____ Date: / /2014

Appendix L: Information Letter for Teacher-Mentors

Dear Teacher-Mentor,

Pre-Primary Teachers' Enacted Understandings of Explicit Direct Teaching of Phonics

My name is Helen Jensen and I am writing to you on behalf of Edith Cowan University. I am conducting a research project that aims to discover what pre-primary teachers' enacted understandings of explicit teaching of phonics are. Through this, I hope to be able to discover what supports are needed in schools who chose to teach in this way and make recommendations to principals and school district leaders who implement or hope to implement explicit instruction in their schools. The project is being conducted as part of a PhD in education at ECU.

I would like to invite you to take part in the project. This is because your school uses explicit teaching of phonics in pre-primary. Your school is one of three primary independent public schools in Western Australia approached for this project.

What does participating in the research project involve?

You as teacher-mentor will be asked to participate in two digitally taped interviews, once at the end of term 1, 2014 and once again at the end of term 2, 2014. These will be scheduled at a time that suits you within the school. It is my hope that these interviews will last no longer than thirty minutes each and will focus on how explicit instruction is used and understood in the school. I also hope to look at relevant school policies from the principal, relevant lesson planning documents in phonics from the pre-primary teacher, although these must not contain any information about individual students. I would also appreciate it if you could give me any personal notes related to conversations and issues from EI mentoring sessions in explicit instruction from you (if available and possible). These personal notes from mentoring sessions must be only given with the full consent of the pre-primary teacher who was being mentored. This is so that I can better understand how the pre-primary teacher is supported within the wider school context.

Do I have to take part?

No. Participating in this research project is entirely voluntary. The decision should always be made completely freely. All decisions made will be respected by members of the research team without question.

What if I wanted to change my initial decision?

If you wish to participate, the decision will need to be made by the beginning of March for you to be included in the project.

Once a decision is made to participate, you can change your mind up until the 31st December 2014, simply by contacting me. The reason for this final withdrawal of consent date is that I am hoping to have all data gathered by the 4th July, and therefore all data analysis will be completed by the end of December.

There will be no consequences relating to any decision you make regarding participation, other than those already described in this letter. These decisions will not affect your relationship with your colleagues or the research team from Edith Cowan University.

What will happen to the information I give, and is privacy and confidentiality assured?

Information that identifies anyone will be removed from the data collected. The data is then stored securely on a fully password protected computer, and files are kept in a locked filing cabinet in my home. They can only be accessed by my supervisors at ECU, Dr. Lorraine Hammond and Professor Tony Fetherston. The data will be stored for a minimum period of five years, after which it will be stored in archives and destroyed electronically or shredded at a later date determined by the records management staff at the storage facility used by Edith Cowan University.

Participant privacy, and the confidentiality of information disclosed by participants, is assured at all times, except in circumstances where the research team is legally required to disclose that information or that require reporting under the Department of Education Child Protection policy.

The data will be used only for this project and will not be used in any extended or future research without first obtaining explicit written consent from you.

It is intended that the findings of this study will be published as a series of articles, as part of a conference paper or as a book chapter. Consistent with Department of Education policy, a summary of the research findings will be made available to the participating schools and the Department. You can expect this to be available from February 2016.

Is this research approved?

The research has been approved by the Ethics Committee at Edith Cowan University and has met the policy requirements of the Department of Education.

Who do I contact if I wish to discuss this project further?

If you would like to discuss any aspect of this study with a member of the research team, please contact me on the number provided below, or Dr. Lorraine Hammond at l.hammond@ecu.edu.au. If you wish to speak with an independent person about how the project is conducted please contact the research ethics officer at Edith Cowan University at 08 6304 2170 or by email at research.ethics@ecu.edu.au.

How do I become involved?

If you have had all questions about the project answered to your satisfaction and are willing to become involved, please complete the **Consent Form** on the following page. I will collect this from the school reception on Monday of next week. This information letter is for you to keep.

Helen Jensen (PhD student at Edith Cowan University)

Ph. [redacted]

Email: helenfjensen@our.ecu.edu.au

Appendix M: Consent form for Teacher Mentors

Consent Form

- I have read and understood the information about the project or have had it explained to me in language I understand.
- I have taken up the invitation to ask any questions I may have had and am satisfied with the answers I received.
- I understand that participation in the project is entirely voluntarily.
- I am willing to become involved in the project, as described.
- I consent to giving copies of personal notes or records related to conversations during mentoring sessions on explicit instruction.
- I consent to giving copies of relevant lesson plans for phonics, records and notes from any professional development in EI as well as any relevant school policies on literacy.
- I understand that I am free to withdraw its participation at any time without affecting the relationship with the research team, my participating colleagues or Edith Cowan University.
- I understand that I can withdraw my consent up until the 31st Dec 2014, by contacting Helen Jensen at [redacted] or at hfjensen@our.ecu.edu.au.
- I give permission for my contribution to this research to be published in a journal, as part of a conference paper or a book chapter, provided that I or the school is not identified in any way.
- I understand that I can request a summary of findings once the research has been completed.
- I take responsibility for ensuring that the documents do not contain any information about individual students.

Name of Participant (printed): _____

Signature of participant teacher: _____ Date: / /2014

I consent to five phonics/phonemic awareness lessons being video recorded at a time of my choosing.

Signature of participant teacher: _____ Date: / / 2014

I consent to personal notes related to conversations and issues during EI mentoring sessions with teacher mentors being used in the study.

Signature of participant teacher: _____ Date: / /2014

Appendix N: Teacher EI Observation Tool

Teacher: ..... Date..... No. of Students Present..... Time..... Phonics/ PA skill.....

Variable: Teacher EI Behaviours

Start of the lesson:

a) Teacher gains student attention

Not evident (0) somewhat evident (5) highly evident (10)

b) Teacher presents the learning objective and/ or clarifies its importance

Not evident (0) somewhat evident (5) highly evident (10)

c) Teacher reviews critical prerequisite skills or concepts in an anticipatory warm up using visual, auditory or gestured stimuli

Not evident (0) somewhat evident (5) highly evident (10)

d) Teacher checks all students for understanding of important lesson prerequisites

Not evident (0) somewhat evident (5) highly evident (10)

Body of the lesson:

e) Teacher models the skill by demonstrating while thinking aloud ('I do')

Not evident (0) somewhat evident (5) highly evident (10)

f) The teacher's language is clear, consistent and concise as she/he demonstrates the skill

Not evident (0) somewhat evident (5) highly evident (10)

g) The teacher involves the students in modelling the skill or strategy ('We do')

Not evident (0) somewhat evident (5) highly evident (10)

h) She/ He uses prompted or guided practice to increase students' success

Not evident (0) somewhat evident (5) highly evident (10)

i) The teacher checks for understanding at a high frequency and provides corrections and feedback to the students

Not evident (0) somewhat evident (5) highly evident (10)

j) The teacher uses physical, verbal or visual prompts of the skill or strategy (directions, reminders, cues or questions)

Not evident (0) somewhat evident (5) highly evident (10)

k) Teacher uses unprompted practice ('you do') by giving them tasks that have already been modelled to do on their own or with peers.

Not evident (0) somewhat evident (5) highly evident (10)

l) Teacher checks for understanding, giving feedback and ensuring that they consistently perform it correctly.

Not evident (0) somewhat evident (5) highly evident (10)

Close of the explicit lesson:

m) The teacher does a final check for understanding

Not evident (0) somewhat evident (5) highly evident (10)

n) The teacher gives a short, interactive review of what was learned

Not evident (0) somewhat evident (5) highly evident (10)

o) The teacher elicits response from the students with evidence of a high success rate

Not evident (0) somewhat evident (5) highly evident (10)

p) The teacher gives a short preview of what will be learned the next day

Not evident (0) somewhat evident (5) highly evident (10)

q) The teacher assigns independent work

Not evident (0) somewhat evident (5) highly evident (10)

Tally of choral and oral responses	
Tally of partner oral responses	
Tally of written responses	
Tally of action responses	
Tally of individual responses	
Tally of affirmative feedback and praise	
Total number of responses in lesson	

This document is based on *Explicit Instruction (Archer and Hughes, 2011b)* and *Explicit Direct Instruction (Hollingsworth & Ybarra, 2009)*

Appendix O: Final Interview Protocols (Key Questions Only)

Teacher Interview Questions

Have you been instructed to run your phonics lesson in this way? Is it your design or is it something that is expected for all PP teachers in this school?

In the time that I have been observing you:

- Has the principal been in to watch you teach, or perhaps another mentor or coach?
- Have you attended any PD?
- Have you read any books on explicit instruction?
- Have you altered your explicit lesson planning in any way?
- Have you shared any Power Point slides?

Has my presence made you think more about teaching in an explicit way?

What impact have I had in observing you?

How often are you coached?

Can you see any parallels between DI and explicit instruction?

What does an I do/ We do/ You do look like to you in a lesson?

How many years have you been teaching for? How many years have you taught explicit instruction for?

Can you describe your leadership roles?

Where does your knowledge of PA and phonics come from?

Where does your understanding of explicit instruction come from?

Principal Questions

In establishing an explicit approach, what were the most significant barriers and success factors?

How often are the teachers coached?

How do you know that the teachers are teaching explicitly?

How do you create a climate where teachers can develop their pedagogic skill?

In the time that I have been observing in the school, what has changed or taken place?

Has the presence of a researcher had any impact on the school?