DEVELOPING EARLY YEARS TEACHERS' DIALOGIC READING SKILLS THROUGH THE USE OF VIDEO ENHANCED SELF-REFLECTION

By

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Abstract

The use of video within teacher training has been shown to increase motivational and emotional engagement and support teachers to 'notice' relevant teaching and learning events (van Es & Sherin, 2009), which can improve pedagogical practices (Tripp & Rich, 2012b). This study introduced video enhanced self-reflection into a Dialogic Reading (DR) training programme for teachers working within early years education. DR is an evidence-based intervention that aims to enhance oral language skill of pre-school children by increasing the complexity of adult-child interactions during shared book reading.

The research employed a mixed-method nested case study design. Two participating teachers, working in different schools, delivered a 6-week DR intervention to one selected pre-school pupil from their class; giving two participating teacher-child dyads. Using video clips of their own DR practice, the participating teachers engaged in three self-reflection sessions. Qualitative analysis of their contributions indicated that video supported them to engage in productive reflection and apply the theoretical underpinnings of DR to their shared reading practice. Quantitative analyses of the language used by the participating pupils within pre- and post-test DR sessions demonstrated a positive effect for the intervention. The implications for theory and practice, regarding the use of video as a training tool, are discussed.

Dedication

Dear Mum, your faith that I would finish kept me going.

I miss you every day.

Acknowledgements

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Chapter 1: Introduction

1.1 Background information and context

This research project constitutes volume 1 of a doctoral thesis submitted to fulfil the academic research requirements for the Applied Educational and Child Psychology Doctorate. It was completed over years two and three of the training programme whilst on placement in an educational psychology service (EPS) that serves a large metropolitan local authority in the West Midlands.

1.2 Initial research rationale

Preschool education providers are increasingly concerned with ensuring children are 'school ready' with the Statutory Framework for the Early Years Foundation Stage (Department for Education, DfE, 2017) stipulating that;

> *"Providers must ensure that children have sufficient opportunities to learn and 'reach a good standard in English language during the EYFS, ensuring children are ready to benefit from the opportunities available to them when they begin Year 1."*

(p. 9, DfE, 2017)

Hence a key part of the preschool curriculum involves providing experiences and interactions that allow children to develop their vocabulary and oral language skills. Dialogue between an adult and child in the preschool setting provides opportunities for speech and language development as well as formative assessment, by eliciting the child's conceptual understanding of the topic being discussed (Mercer, 2000).

Siraj-Blatchford et al. (2002) conducted research into effective early years pedagogy and found that the most effective pre-school settings valued the importance of extending child-initiated interactions through intellectual challenge. They reported that the use of open-ended questioning contributed to periods of sustained thinking and, in turn, cognitive achievement. However, through an analysis of classroom

dialogue it was found that open-ended questions accounted for just 5.1% of the questions asked, even in the most effective settings (Siraj-Blatchford et al., 2002).

Similarly, in their influential study, Tizard & Hughes (1984) analysed the interactions of 4-year-old working class girls at home and in nursery. They found that, at home, parents encouraged the child's active participation in conversations whilst at school the language content of adult-child exchanges was impoverished. Teachers tended to ask direct questions that required a limited verbal response and conversations were not developed (Tizard & Hughes, 1984). This suggests that intellectually challenging adult-child interactions are not always naturally occurring within the early years setting. Therefore developing the quality of adult-child interactions within preschool settings offers an area of pedagogy that could be stimulated through continuing professional development opportunities.

Shared reading in the preschool classroom provides an ideal context for children to practice and develop their language skills. Books are key to stimulating the development of expressive language because they expose children to a wider vocabulary than ordinary conversation (Sulzby, 1985) and the pictures within a book can connect children to words and experiences that they may otherwise not encounter.

Training in dialogic reading (DR) focuses upon developing the adult's ability to ask open-ended questions and provide informative feedback in order to develop the complexity of the interactions they have with a child during a shared reading session. Typically, training in DR is delivered to adults through a combination of direct instruction and role-play or via instructional videos (Arnold et al, 1994). This project seeks to enhance DR skill development in teachers by incorporating the use of video to support self-reflection. The rationale for incorporating the use of video to support self-reflection comes from research highlighting the positive impact video-feedback can have upon professionals' interaction skills. Fukkink et al (2011) reported findings

from a meta-analysis of experimental studies investigating the effect of video-feedback in education training and found a statistically significant effect upon professionals' interaction skills. They reported that, by watching themselves on video, professionals were 'able to improve their receptive, informative and relational skills' (p. 56). The use of video within teacher professional training has been found to increase motivational and emotional engagement and, overtime, supports teachers to 'notice' relevant teaching and learning events (Sherin & van Es, 2009). It allows for teaching sequences to be slowed down (van Es & Sherin, 2008), which affords teachers the opportunity to reflect upon elements of their practice that they may not usually recall such as the detail of interactions (Zhang et al., 2011).

The DR intervention aims to develop children's oral language skills by increasing the complexity of adult-child interactions during shared reading sessions (Whitehurst et al., 1988). Video has been shown to support teachers' ability to reflect upon their practice, moving away from lower level reasoning processes such as describing towards more 'productive' reflection, which involves linking theory to practice (Tripp & Rich, 2012a). This project seeks to introduce video enhanced self-reflection into a DR training programme to support the participating pre-school teachers' ability to reflect upon and 'notice' aspects of their shared reading practice that facilitates the development of quality adult-child interaction and, in turn, oral language skill.

1.3 Research questions (RQs)

This project aims to answer the following research questions:

1. What type of reflective comments do the participating teachers make when they watch video clips of themselves delivering DR?

2. What do the participating teachers selectively attend to ('notice') or comment on?

3. How do the participating teachers' 'noticing' patterns change over the course of the six-week intervention period?

4. Does the 6-week DR intervention in which teachers engage in video enhanced self-reflection impact upon the oral language skills of the child within DR sessions?

1.4 Structure of this thesis

This thesis is presented in six chapters and is structured as follows:

- Introduction (Chapter One)

- Literature Reviews (Chapters Two & Three)

- Methodology (Chapter Four)

- Results (Chapter Five)

- Discussion (Chapter Six)

Chapter Two introduces the Dialogic Reading (DR) intervention and outlines the original study, the theoretical underpinnings and the standardised procedures used within a DR session. The second part of Chapter Two presents the results of a systematic literature review carried out for the purposes of establishing whether there is an evidence base for the intervention's use within early childhood education settings. Chapter Three presents the literature base for the use of video within teacher education and professional development. It outlines the theoretical perspectives on the use of video and discusses the different ways video has been used to support skill development. The Chapter then introduces the concept of reflection within teacher education and discusses how video can be used as a tool to enhance the reflection process. A developed rationale for the current project is presented at the end of Chapter Three.

Chapter Four provides a detailed overview of the methodology employed within this study. This includes information regarding the design, participants, study procedures and the qualitative and quantitative data collection and analysis methods that were used to answer the RQs. The results of the study are presented in Chapter Five and

are summarised in relation to each of the RQs. Finally, Chapter Six discusses the

findings of the current study in relation to the literature, outlines the limitations of the

current study and discusses the implications for theory and practice.

Chapter Two: Dialogic Reading

2.1 Introduction

This chapter is presented in two parts. First it will discuss what is meant by 'dialogic reading' by providing an overview of the first study in which it was described, outlining the theoretical underpinnings to the intervention and introducing the set of standardised procedures used within a DR session. The second section presents the empirical evidence base for the intervention. Firstly, previous reviews of the DR literature base are discussed. A rationale is then presented for carrying out a contemporary systematic review of the literature that specifically addresses the evidence base for the use of DR, as delivered by a non-parent educator, within early childhood education settings. Finally, the findings of this systematic literature review are reported.

2.2 What is dialogic reading?

2.2.1 The original study

DR was first described in Whitehurst et al.'s (1988) seminal paper in which an experimental design was employed to explore the relationship between shared reading practices and linguistic development in early childhood. They hypothesised that the active participation of a child during parent-child book reading was key to the development of early literacy and language skills. In order to test this hypothesis they designed a "package of stimulation" called 'Dialogic Reading' (*DR)* to support parents to engage in dialogue during their home shared reading practices. The intervention was based upon the assumption that "practice, feedback and appropriately scaffolded interactions facilitate language development" (Arnold et al., 1994). Parents in the experimental group were taught a set of specific techniques aimed at increasing active verbal participation from their child during story time and were encouraged to decrease the amount of time spent engaging in straight reading and

limit the number of questions that could be answered by pointing. Parents in the control group were asked to read with their children in their usual manner. After a 1-month intervention period Whitehurst et al. (1988) reported that, post intervention, children in the experimental group were 6 to 8.5 months ahead of the control group on standardised norm referenced post-tests of expressive language. When analysing responses within the reading sessions this group also demonstrated a higher mean length of utterance, higher frequency of spoken phrases and lower frequency of single word responses. These effects were maintained at 9 months post the initial post-test. Videotape analysis of the reading practices of control group parents showed that they typically engaged in few dialogues, were often directive and tended to ask questions that required a simple yes/no response.

2.2.2 Theoretical principles underpinning dialogic reading

Whitehurst et al (1988) selected the following three guiding principles to underpin the design of their DR intervention: a) the use of *evocative techniques* b) providing *informative feedback* and c) *progressive change*. Evidence suggests that language skills, like other skills, develop best through active learning and practice (Wells, 1985), therefore in DR *evocative techniques* are used to encourage the child to verbally participate in the story telling. Open-ended questions are seen as preferable to asking the child to label objects or answer "yes/ no" questions, which would require the child to take a more passive role. Parents are also encouraged to provide maximally *informative feedback* whilst sharing a book. The use of expansions and corrective modelling allows the adult to highlight the difference between what was said and what might have been said (Whitehurst et al, 1988). This enables the child to hear language that is pitched at a slightly more advanced level than its own and elicits increasingly sophisticated descriptions from them. Furthermore, the use of expansions within shared reading has also been shown to increase children's spontaneous imitations and productions (Scherer and Olswang, 1984).

Finally, the principle of *progressive change* is based upon a Vygotskian theoretical framework and the assumption that there is a zone of proximal development (ZPD) (Vygotsky, 1978; see section 2.2.3 for a more detailed outline of Vygotsky's theory and its relation to learning through dialogic reading). According to the principle of progressive change the parent's mastery standards for their child should change overtime leading to an increase in the complexity of the adult/ child interactions and facilitating language development. For example, the child will first be asked to name objects and talk about their physical attributes before they are asked to talk about more abstract concepts such as their function or the relationship to the child's own life.

DR therefore offers a different type of shared reading practice to that usually experienced by the young child. Instead of the typical scenario in which the adult reads and the child listens there appears to be a shift in roles. The child learns to participate within the storytelling whilst the adult actively listens; asking questions, adding information and offering prompts, where appropriate, to support the child to increase the sophistication of the language they use.

2.2.3 Vygotsky's socio-cultural theory and dialogic reading

As mentioned in the previous section Whitehurst et al. (1988) were influenced by Vygotsky's socio-cultural theory of cognitive development when designing the DR intervention. In the late 1920s/ early 30s Vygotsky proposed a theory of development that emphasised the importance of social interaction for learning and involved the mutual consideration of individual characteristics and interpersonal processes as well as the broader socio-cultural context (Tudge, 2008). In a Vygotskian theoretical framework the act of shared book reading therefore provides an ideal context for the development of language skills because it provides the necessary social, cultural and contextual support (Crain-Thorseon & Dale, 1999).

Within his theory Vygotsky used the term the 'zone of proximal development' to describe the gap between the skills that a learner already has mastery over and those that they are able to achieve with guidance from an instructor. The word 'scaffolding' has often been used to describe the actions of the instructor, however Tudge (2008) suggests that this often leads to the interpretation that, within the ZPD, learning only takes place for the child in response to the actions of their more competent teacher. Tudge (2008) argues that, within his original works, Vygotsky proposed that the ZPD is actually created through joint activity, which results in learning taking place on both sides. Hence, a more helpful interpretation within a Vygotskian framework is that cognitive development occurs when children and their partners co-construct knowledge within the ZPD. Taking this theoretical perspective, within DR, it is helpful to think that the adult is also learning through their interactions with the child. For example, they are learning about the types of questions that elicit responses and what maintains the motivation and interest of the child. Over the course of a DR session the adult is being guided in their storytelling by the storytelling of the child, which results in a co-constructed narrative. As a result learning has taken place within a truly socio-cultural context.

2.2.4 Dialogic reading – The standardised procedures

Adults receiving instruction in how to deliver the DR intervention are given a set of standardised procedures, which are underpinned by the three principles, to use within shared reading sessions. The acronyms PEER and CROWD are used to help them remember the procedures, which support the development of active participation from the child. PEER supports the adult to remember the sequence in which to respond to children's verbalisations during the shared reading session – **p**rompt, **e**valuate, **e**xpand and **r**epeat. First the adult prompts a contribution from the child, they evaluate that response, correct if necessary and expand. Finally the child

is invited to repeat back the expanded response. Table 1 provides an overview of the

PEER reading sequence with examples.

Table 1: Dialogic reading PEER sequence (adapted from Morgan & Meier, 2008)

	What to do	Example	How it supports active participation
P – prompt	Prompt the child to say something related to the book. For example ask them to name an object or say something about the characters (see overview of CROWD techniques in Table 2 for more examples)	Adult: "What is this?" Child: A cat OR Adult: "What did Alfie do?" Child: "He chase the mouse."	- Increases attention - Engages child in the story - Increases understanding of the narrative/ plot - Increases vocabulary
E – evaluate	Evaluate whether the response was correct. If not the adult thinks about additional information that can be modelled that would expand the child's vocabulary	Adult evaluates and considers response	Adult provides individual feedback to the response and suggests additional information that could have been included
E – expand	The adult can either rephrase the child's response, correcting any errors or expand the answer by repeating what the child said with some additional information	Adult: "Yes, it's a big ginger cat!" OR Adult: "He chased the mouse."	- Allows child to hear language pitched at a slightly higher level that they would have used independently - Increases vocabulary
R – repeat	Repeat the expansion and ask the child to repeat it back so they can practice using the new vocabulary or extended phrase	Adult: "Can you say that?" Child: "A big ginger cat" OR "he chased the mouse."	-Allows child to practice using language at a slightly more advanced level

The CROWD acronym represents five prompts that the adult can use to develop the child's participation – **c**ompletion (ask the child to complete the phrase or sentence), **r**ecall (what has happened in part/ all of the story), **o**pen-ended questions (for example 'can you tell me what is happening here?), **w**h-questions (why, where and what) and **d**istancing (encourage the child to make links between the story and their own experience). CROWD does not denote a sequence; rather it stands as an aide memoire for the types of prompts available to the adult for engaging a child in the book reading. Some of the techniques support the child to use new words or phrases (e.g. wh - questions) whilst others (e.g. open-ended questions or distancing questions) provide opportunities for the child to practice using their expressive language skills (Morgan & Meier, 2008). The adult is then able to use corrective feedback to support the expansion of the child's vocabulary and develop their oral language competency. Table 2 outlines how the CROWD strategies can be used to support the child's active participation within DR.

Table 2: Dialogic reading CROWD strategies – types of prompts used (adapted from Morgan & Meier, 2008)

	What to do	Example	How it supports active participation
C – completion	Ask the child to complete a phrase or sentence (often used in rhyming stories)	Adult: "let's read this page together" "A Gruffalo? What's a gruffalo?" ———————— Child: "A gruffalo! Why, didn't you know?"	- Increases child's listening comprehension and use of language
R - recall	Ask the child details about the narrative and characters	Adult: "Who lives in the logpile house?" Child:" A mouse!"	- Engages child in the story - Encourages recall of details
O – open-ended	Ask the child to talk about or describe something on the page	Adult: "what is happening in this picture?" Or "what do you see on this page?"	- Provides opportunity for the child to use their expressive language skills
W – Wh-questions	Ask questions beginning with what, where, when, why or how that relate to the story or pictures	Adult: "Why did the gruffalo run away?"	Increases vocabulary
D – distancing	Ask the child questions to relate back to something from their own life	Adult: "Have you ever seen a mouse?" "Where did it live?"	- Provide opportunities for the child to make connections between stories and their own life - Gives another opportunity for child to practice expressive language skills

2.2.5 Training in dialogic reading

In their first study Whitehurst et al. (1988) provided training in DR to the mothers of 29 middle class children living in a suburban area of New York State. Parents in the experimental group received two 30-minute training sessions in DR at the researchers' university. Within each training session parents were given verbal explanations of the skills involved, observed the researchers model the techniques and engaged in some role play to practice the standardised procedures. At the end of a 4-week intervention period the children of these parents performed significantly better than children in the control group on standardised tests of language skill. These effects were maintained at a 9-month follow up. Whitehurst et al. (1988) concluded that variations in parents' reading practices could have appreciable and potentially long-term effects on expressive language development in preschool children. Whitehurst and colleagues wanted to conduct further research into DR in order to answer questions such as; 'how does the program impact upon the acquisition of other pre-literacy skills?' and 'what are the long term effects in terms of later literacy acquisition?' (Arnold et al., 1994) However, they feared that the requirement for one-to-one training delivered by trained researchers could impact upon the intervention being widely adopted. Therefore, in a subsequent study, they sought to replicate the results of the original study using a standardised and inexpensive training model.

Arnold et al. (1994) extended Whitehurst et al.'s (1988) study by introducing an instructional video-training group. In this study a cohort of middle-class parents received training either via two short video presentations delivered 3 weeks apart or by the direct instruction method previously described. In addition to these two experimental groups a control group of mothers were asked to read daily with their children in their normal manner. The videos included descriptions of the DR techniques with modelled examples provided by actual mothers and their children.

Results demonstrated that both groups of children whose parents received training in DR performed better on measures of expressive language than the control group, with the instructional video-training being found most effective (Arnold et al., 1994). The authors concluded that the standardised nature of the instructional videos coupled with the benefits of modelling were perhaps responsible for the more pronounced effects on children's language and that instructional video-training offered a cost effective training method. However, a subsequent study conducted by Huebner & Meltzoff (2005) found that in person instruction yielded higher parental scores for DR behaviours than instructional videos and this was particularly evident for the families with lower education levels. This raises questions about the relative impact of the different training models used within traditional DR research. Is video instruction really the most effective method of training to bring about sustained change in an adult's shared reading behaviours?

2.2.6 Summary

DR is an interactive shared reading intervention that was designed with the aim of accelerating the development of children's oral language skills by encouraging their active participation. Whitehurst et al. (1988) originally designed DR to be a home-based intervention for parents of young preschool children. The intervention is underpinned by three main principles; evocative techniques, informative feedback and progressive change and fits within a Vygotskian theoretical framework. Language learning takes place through parent-child interactions that develop overtime within the socio-cultural context of shared book reading.

Within DR the adult takes on the role of active listener and through the use of prompts, expansions, modelling and informative feedback the child hears language that is pitched at a slightly higher level than what they would produce independently. Through increasing the complexity of the interactions the adult supports the child to become the storyteller and provides them with the opportunity to use their developing

expressive language skills in context. Research has shown that instructional video-training in DR offers a financially viable and effective alternative to one to one training (Arnold et al., 1994) and a set of standardised procedures has been developed to support adults trained in DR to remember the strategies (PEER and CROWD).

2.3 DR literature review

2.3.1 Introduction

The following section will present a review of the empirical evidence that supports the efficacy of the DR intervention. First it will discuss the findings from previous reviews of the literature, which both included data from studies in which DR took place solely at home. It will then present a systematic review of the literature that explores the literature base for DR when it is employed at least partially within a preschool or early childhood education setting, with a non-parent adult. The purpose of conducting this contemporary literature search was to establish whether there was an evidence base for use of DR outside of the parent-child relationship.

2.3.2 Previous reviews

Following on from their seminal study Whitehurst and colleagues, alongside other researchers, sought to replicate the findings of the original study and add to the evidence base for the interactive shared reading intervention they had developed. As a result in 2007 DR was listed in the 'What Works Clearinghouse Intervention Report' (What Works Clearinghouse, 2007) as an evidence-based intervention for pre-literacy skills. The authors of the report reviewed 8 available empirical studies and found that 6 had applied the appropriate level of experimental rigour to satisfy the 'What Works Clearinghouse' evidence screens (Whitehurst, et al., 1994a; Whitehurst, et al., 1994b; Lonigan & Whitehurst, 1998; Crain-Thoreson & Dale, 1999; Lonigan et al., 1999; Wasik & Bond, 2001;). They concluded that, at the time of

writing the report, the available evidence had demonstrated that DR had a positive effect on oral language development and potentially positive effects on print knowledge and early reading and writing skills (What Works Clearinghouse, 2007). However the review stated that there was not yet enough evidence to suggest that DR had any discernible effect on phonological processing.

In response to the growing DR literature base Mol et al. (2008) carried out a meta-analysis of the available research. The aim was to examine whether there was a robust evidence base for the assertion that DR had a positive effect on children's language development, which was beyond that of typical parent-child reading. DR was originally designed as a home based intervention to improve the quality of child-mother shared book reading (Whitehurst et al., 1988) and hence the review included all available studies in which parents of children in the experimental group had been trained in DR techniques. The review did not include studies in which the participating children had received the DR intervention from a non-parent adult. Studies were excluded from the meta-analysis if the intervention involved teacher-child or researcher-child reading or if the intervention consisted of a combined home/ school condition in which there was no separate data for just parent-child DR. This gave a total of 16 studies to include in the meta-analysis.

The meta-analysis revealed that the correlation between the intervention and the outcomes of expressive language measures was strong. Hence, the evidence base supported the hypothesis that enhancing the dialogue between the parent and child, through DR, strengthened the effects of book reading. Mol et al. (2008) concluded that the quality of book reading, with active child participation, is as important as frequency for the development of oral language skills. The meta-analysis also revealed that there had not been a decrease in effect size for the intervention with an increase in publication year (Mol et al., 2008), which is often found when an evidence base is reviewed.

Mol et al. (2008) did report that evidence from the reviewed studies suggested that not all children benefited from DR to the same extent. DR did not appear to afford additional benefits for older children (aged 4-5 years). They suggested possible explanations for this finding including; that older more experienced children depend less on external support to understand a story, they need less support to remain attentive, they are more inclined to initiate dialogue themselves or that they prefer to hear a story without interruptions. They also found that effect size for groups deemed to be 'at risk' for language and literacy impairments benefitted less from DR than those not at risk, which they suggested could be linked to parental educational background. However they were not able to test this hypothesis because no studies were available to determine the extent to which DR is actually realised in less educated compared to better-educated families. The authors suggested that there remained some limitations within the evidence base for DR. For example, they reported that many of the studies lacked control over what actually happened in the control and experimental conditions and that descriptive data regarding actual reading behaviours in both conditions was lacking. However they concluded that DR had potential for enhancing oral language development, and thus increased 'readiness for school' (Mol et al. 2008).

2.3.3 Summary of previous reviews

Previous reviews of the DR evidence base have shown a strong correlation between the intervention and outcomes of expressive language measures. This suggests that encouraging a child's active participation during shared reading, through the use of the PEER and CROWD techniques as previously described, strengthens the beneficial effects of book reading on language development. Preschool aged pupils under the age of 4 appear to benefit most from DR. However, those deemed 'at risk' of language delay do not seem to benefit to the same extent as their peers. Mol et al.

(2008) suggest this finding could be due to differing levels of parental educational achievement between the two groups.

2.3.4 Rationale and objectives for the current systematic literature review

The two reviews of the evidence base discussed in the previous section (What Works Clearinghouse, 2007; Mol et al., 2008) included studies in which DR was delivered solely by a parent in the home environment, with the more comprehensive meta-analysis by Mol et al. (2008) explicitly excluding studies and data relating to interventions that involved teacher-child DR. Within the current research project DR training will be delivered to teachers working within early years education. Therefore, the following systematic search aims to explore the literature base in relation to the use of DR, when employed at least partially, within early childhood educational settings.

2.3.5 Objectives for the current review:

1) To assess whether there is an empirical evidence base for the use of a DR intervention within early childhood educational settings.

2) To identify the groups of children who have benefitted from DR within a setting.

3) To explore the factors that influence the effectiveness of a DR intervention within an early childhood educational setting and answer the question;
   - Under what conditions is DR most effective?

3) To identify how DR training has been delivered to adults working within early childhood educational settings.

2.3.6 Method

2.3.5.1 Inclusion and exclusion criteria

To be included within this review the study had to meet the inclusion and exclusion criteria as outlined in Table 3.

Table 3: Inclusion and exclusion criteria used for the systematic literature review

	Inclusion Criteria	Exclusion Criteria
Design	• Experimental or quasi-experimental design with a control condition.	• Qualitative study or single subject design. • Comparative studies with no control condition.
Participants	• Age 2 - 6 years old.	• Age > 6 years old.
Intervention	• DR intervention based upon Whitehurst et al.'s (1988) original study. • Includes an experimental condition in which DR takes place at least partially within an early childhood educational setting.	• Shared reading intervention not based upon Whitehurst et al.'s (1988) original study. • Does not include an experimental group who receive DR within an early childhood educational setting.
Paper	• Peer reviewed journal article. • Written in English.	• Dissertations, unpublished theses or non-peer reviewed articles. • Written in a language other than English.

2.3.5.2 Search strategy

Using Boolean logic the search terms as set out in Table 4 were entered into the PsychInfo and EBSCO host databases. EBSCO host comprises of the following five databases: Child Development & Adolescent Studies, ERIC, British Education Index, Education Abstracts and Educational Administration Abstract database. This yielded a total of 160 papers. The abstract of each of the 160 papers was read in order to decide whether they met the inclusion criteria for the literature review (outlined in Table 3). If the required information was not presented within the abstract section of a paper the methodology section was read. After careful consideration of each paper 12 were selected that met the inclusion criteria. A snowball strategy was then

employed, in which the reference lists of qualifying papers were searched to identify any additional papers that may meet the criteria. A further 3 papers were identified using this strategy resulting in a total of 15 papers to review.

Table 4: Search terms entered for systematic literature review

Intervention	**AND** Context
"Dialogic reading"	preschool*
	pre-school*
	"early childhood"
	nursery
	"early years"
	"day care"
	school
	kindergarten

2.3.7 Results

A grid containing key information regarding participants, experimental condition/s, settings, training and outcomes about each of the 15 selected studies is presented in Appendix 1.

2.3.7.1 Characteristics of the studies

The fifteen studies that emerged from the systematic literature search were published between 1992 and 2016. The majority of studies (nine) were carried out in the United States (U.S.) and two took place in Canada (Hargrave & Sénéchal, 2000; Lever & Sénéchal, 2011). The remaining study locations were: Mexico (Valdez-Menchaca & Whitehurst, 1992), rural Bangladesh (Opel et al., 2009), Egypt (Elmonayer, 2013) and Turkey (Ergül et al., 2016). The ages of the participants ranged from two years to six years and the studies were carried out in a range of early educational settings including; Head Start Centres in the U.S, subsidised day

care centres for children from low-income families, private and state funded kindergarten classrooms and preschool settings for pupils with special educational needs. The DR intervention periods ranged from four weeks (Hargrave & Sénéchal, 2000) up to seven months (Whitehurst et al., 1994b; Whitehurst et al., 1999) and group size ranged from 1:1 reading (Valdez-Menchaca & Whitehurst, 1992; Crain-Thoreson & Dale, 1999) to whole class reading with up to twenty-five children (Opel et al., 2009; Elmonayer, 2013; Ergül et al., 2016).

2.3.7.2 The empirical evidence base for dialogic reading in early childhood education settings

Implementing DR for children within an early childhood education setting has been shown to have a positive impact upon; *expressive vocabulary* as tested by standardised measures (Valdez-Menchaca & Whitehurst, 1992; Whitehurst et al., 1994a; Lonigan & Whitehurst, 1998; Hargrave & Sénéchal, 2000; Wasik & Bond, 2001; Lonigan et al., 2013; Ergül et al., 2016), use of *specific vocabulary* targeted through the intervention (Opel et al., 2009; Lever & Sénéchal, 2011; Towson et al., 2016), *mean length of utterance* (Valdez-Menchaca & Whitehurst, 1992; Lonigan & Whitehurst, 1998; Crain-Thoreson & Dale, 1999), *spontaneous verbalisations* (Valdez-Menchaca & Whitehurst, 1992; Crain-Thoreson & Dale, 1999) and *narrative skills* (Zevenbergen et al., 2003; Lever & Sénéchal, 2011). When the DR intervention was linked with training in letter and sound knowledge it has also been found to have a positive impact upon *linguistic awareness* (Whitehurst et al., 1994b), *phonological awareness* (Elmonayer, 2013), and emergent literacy skills including *writing* and understanding of *print concepts* (Whitehurst et al., 1994b & Whitehurst et al., 1999).

Hence, outcomes from the current search suggests that implementing DR within an early childhood setting leads to positive gains in oral language skill of pre-schoolers. Similar to previous reviews of the DR literature (What Works Clearinghouse, 2007;

Mol et al., 2008) the most consistent finding is that DR has a significant impact upon a child's expressive vocabulary.

Wasik and Bond (2001) reported that a 15-week DR intervention also had a significant impact upon standardised measures of receptive language. However, the studies carried out by Whitehurst and colleagues have found no evidence that DR leads to significant gains in receptive vocabulary (Whitehurst et al., 1988; Whitehurst et al., 1994a, Whitehurst et al., 1994b; Lonigan & Whitehurst, 1998). A possible explanation for this is that DR was adapted from the procedure described by Whitehurst et al. (1988) so that concrete objects were used to reinforce understanding when new vocabulary was introduced within the experimental condition and additional extension activities were planned for each book read. Children's understanding of new vocabulary was therefore carefully scaffolded within the DR intervention and reinforced through follow up activities.

Zevenbergen et al. (2003) found that children who participated in a 30-week DR intervention were significantly more likely to produce narratives that included references to the internal states of characters as well as dialogue. This was not due to the children simply talking more when compared to those in the control group, rather it was found that they had gained in specific narrative skills. Lever and Sénéchal (2011) also reported the positive effects of DR on oral narrative skill. Within their study children who received an 8-week DR intervention produced narratives that were more logically structured and contained more contextual information when compared to the narratives of children in the control group. This study also replicated the well-established finding that DR led to gains in expressive vocabulary. However, interestingly, DR was not found to impact upon the complexity of language used by children in their narratives. The authors explained that, although the DR children's narratives appeared more advanced, this finding was not due to them speaking more or using a richer variety of language (Lever and Sénéchal, 2011). Hence, as

previously found in the study by Zevenbergen et al. (2003), DR had lead to gains in specific narrative skills.

2.3.7.3 Groups of children who have benefitted from dialogic reading

The current search of the DR literature base highlights the diverse range of pupils for whom the intervention has been effective. The most replicated finding was that DR produced positive gains in expressive language for populations of preschool pupils reportedly from low-income backgrounds (Valdez-Mancheca, 1992; Whitehurst et al., 1994a; Whitehurst et al., 1994b; Lonigan & Whitehurst, 1998; Whitehurst et al., 1999; Hargrave & Sénéchal, 2000; Wasik & Bond, 2001; Zevenbergen et al., 2003; Opel,et al. 2009; Lonigan et al., 2013; Ergül, 2016). Five of these studies explicitly stated that the language skills of children in the experimental condition were delayed (Valdez-Mancheca, 1992; Whitehurst et al., 1994a; Lonigan & Whitehurst, 1998; Hargrave & Sénéchal, 2000; Lonigan et al., 2013). The intervention has also benefitted pupils identified as being at risk of reading delay (Lonigan et al., 2013), pupils with significant developmental delay (Towson et al., 2016) and pupils with a language delay significant enough to qualify them for specialist education (Crain-Thoreson et al., 1999). Finally, the positive effects of DR are not limited to English. The intervention has been used successfully with pupils who speak Spanish (Valdez-Mancheca, 1992), Turkish (Ergül et al., 2016), Arabic (Elmonayer, 2013) and Bangla (Opel et al. 2009).

2.3.7.4 Factors that influence effectiveness of DR within an early childhood educational setting

2.3.7.4.1 Working with parents

Whitehurst et al. (1994b) designed a study in which an emergent literacy curriculum was delivered over the course of an academic year to 4-year olds attending Head Start, a preschool programme for children living at or below the poverty level. The

Head Start curriculum was adapted for children in the experimental condition so that it incorporated home and school based DR and a classroom-based letter and sound training programme. In comparison to the traditional Head Start curriculum, this emergent literacy programme was found to have a significant effect in the domains of writing and print concepts across all children in the experimental condition. Within this study large and significant gains in language were found but further analysis showed this only to be true for those children whose parents had been actively involved in the at-home DR component of the curriculum. Classroom, group-based, DR by itself did not produce significant gains in oral language skill. Whitehurst et al. (1994b) concluded that children in their late preschool years from low-income families required frequent 1:1 language interactions, as afforded by home based DR, to enhance their skills.

The study conducted by Whitehurst et al. (1994a) was designed to investigate the relative impact of two short 6-week DR experimental conditions: a) a combined school and home condition, in which children read dialogically in their preschool setting and at home with a parent and b) a school condition in which they only read dialogically at school. The preschool participants came from low-income families and were, on average, performing at 10 months below age expectation on standardised pre-tests of language. Within their preschool, a teacher or teacher's aide delivered DR to a small group of up to 5 children. Children in the school plus home condition also experienced 1:1 DR at home with a parent. After the 6-week intervention period, children in both experimental conditions experienced statistically significant increases in oral language skills, as tested by standardised measures, compared to children in the control condition. These findings suggested that there was a place for setting based small group DR interventions in enhancing oral language skill. However, once again the gains were largest for children who received DR both at home and at preschool. The study did not include an experimental condition in which DR was only

delivered at home. Therefore it was not possible to determine the relative contribution to change made by teachers versus parents in the combined condition.

In a follow up study Lonigan & Whitehurst (1998) used an experimental design to address the question regarding relative effectiveness of teacher versus parent DR. In order to do this they introduced a third experimental condition in which children only read dialogically at home. Significant effects of intervention were found at post-test on standardised measures of expressive vocabulary for all three experimental groups (school DR; home DR; combined home and school DR) and were once again largest for those in the combined condition. However, children in the two school conditions made the largest gains in expressive vocabulary suggesting that, when reading dialogically, teachers focussed upon teaching specific age appropriate vocabulary (Lonigan & Whitehurst, 1998). In comparison, parent reading appeared to be more influential in developing children's descriptive use of language. The authors attributed this finding to the 1:1 nature of parent-child reading, which allows for questions and feedback to be tailored to the child's ability and interests.

2.3.7.4.2 Group size

Although the findings from the three studies, conducted by Whitehurst and colleagues, discussed in the previous section suggested that 1:1 DR was most effective, gains in expressive oral language skills were still found for children taking part in group-based interventions. Whitehurst et al. (1994a) acknowledged that delivering 1:1 DR interventions within an early childhood educational setting would present a challenge when taking into consideration staff to child ratios. However, they proposed that, for theoretical reasons, DR should not take place in groups of more than 5. They suggested that the carefully guided interactions within DR, which encourage the child's active participation, act as the mechanism for change in expressive language skill. Thus, increasing group size would diminish the number of

opportunities each child is given to engage in these interactions, which would impact upon effectiveness.

Crain-Thoreson & Dale (1999) compared the relative efficacy of three DR conditions for bringing about change in the linguistic performance of preschool children with language delays. Children were assigned to one of three conditions: a) parent instruction in DR with one to one reading, b) teacher instruction in DR with one to one reading and c) teacher instruction in DR with no one to one reading ('teacher only'). Children in this third group were only exposed to DR techniques through normal teacher led group shared reading. After an 8-week intervention period children in all three conditions spoke more, had a longer mean length of utterance and produced more different words. Although the study did not include a 'no treatment' control group, Crain-Thoreson & Dale (1999) argued that exposure to DR techniques contributed, at least partly, to the increase in oral language skills because the measured changes were larger than would be predicted by maturation alone. In contrast to the Lonigan & Whitehurst (1998) study, the authors concluded that extended 1:1 reading was not necessary for bringing about change in this preschool population. Children in the "teacher only" condition showed comparable gains in expressive language to children in the other two experimental groups, despite not being exposed to 1:1 DR.

Hargrave & Sénéchal's (2000) study addressed reading group size for effective DR. The authors wanted to ensure ecological validity for their DR intervention so stipulated a reading ratio of one to eight, which fit with the existing day care centres teaching structures. They found that preschool aged children with poor expressive language skills, taking part in a 4 week DR intervention, made significantly larger gains in vocabulary than children who were read to in the regular manner. These children also made gains on standardised tests of expressive vocabulary. Hargrave

& Sénéchal (2000) thus concluded that the use of DR techniques could have beneficial effects when delivered to larger groups than previously investigated.

Finally, the studies by Opel et al. (2009) and Ergül et al. (2016) both reported positive effects of DR when delivered in whole class contexts (class sizes ranged from 14 up to 25 preschool pupils). Opel et al. (2009) pointed out that, due to the large group sizes in their study (20 to 25), not all children in the DR condition were overtly engaged in dialogue at any one time and that delivering DR to such a large group placed extra demands on the adult. However, they suggested that the positive gains in expressive vocabulary found for those in the DR condition when compared to the 'regular' reading group suggested that the children must have been mentally engaged enough to benefit.

2.3.7.4.3 Teachers' fidelity to the intervention

Given that DR requires children to engage with repeated readings of the same books in order for them to become the active storyteller it is important that regular opportunities are scheduled throughout the week to deliver the intervention. In Whitehurst et al.'s (1994a) comprehensive study substantial variability in the fidelity to which teachers followed the DR schedule was found across settings. Results showed that the frequency with which children in the small group DR interventions were read to had a statistically significant impact upon outcome measures of expressive language.

Lonigan & Whitehurst (1998) also reported a significant interaction between the level of compliance with which a centre followed the intervention and the effects. The authors' incidental observations within the low compliance settings suggested that they were chaotic organisations with high levels of staff absence and turnover. They also found that both teachers were rarely in the classroom at the same time, impacting upon the ability to deliver the small group intervention. In contrast, high

compliance centres were well organised and administrative staff were on hand to support teachers within the classroom, freeing them up to deliver the intervention.

2.3.7.4.4 Adult competence in dialogic reading techniques

In order to bring about development in oral language skill the adult delivering DR must adhere to the guiding principles of evocative techniques, informative feedback and progressive change discussed previously. This requires a certain level of skill on the part of the adult. They need to gain a sense of where the individual child's zone of proximal development is in order to tailor their questioning and provide feedback, which is pitched at a slightly more advanced level, to skilfully move them along the continuum of language development.

Crain-Thoreson & Dale (1999) analysed video-recordings of pre- and post- test reading behaviours of the adults involved in their study. Magnitude of change in the adults' reading behaviour correlated positively with the change in children's linguistic performance. Improvement in language skill was associated with; increased frequency in acknowledgement of children's utterances; decreased frequency in providing information statements; decreased frequency of the use of simple 'who' and 'what' questions and an increase in the amount of time given to respond (Crain-Thoreson & Dale, 1999).

Ergül et al. (2016) reported that, in their study, observations of teachers showed they had difficulties with following the child's lead and adapting the use of questions and prompts to appropriately reflect the child's interests and abilities. As a result they noted that children lost interest during the repeated reads and disengaged. They suggested that more intensive training in DR should be delivered, focussing upon strategies that support maintaining interest, in order to increase intervention effects.

2.3.7.5 How has dialogic reading training been delivered in early childhood education settings?

Three studies reported following the training procedures outlined by Arnold et al. (1994) in which instructional training was delivered via video with supporting vignettes and follow up opportunities for role play (Whitehurst et al., 1994a; Lonigan & Whitehurst, 1998; Zevenbergen et al., 2003). The training schedule consisted of two sessions, delivered three weeks apart. The first session introduced techniques or 'rules' such as asking 'who', 'what' and 'when' questions, repeating what the child says and following the child's interest. The second session introduced the rules of 'asking open-ended questions' and 'expanding upon the child's responses' (see Table 5 for an outline of all 'rules' introduced in each session). Videoed vignettes were used in each session to model the techniques that were being introduced and to demonstrate inappropriate adult-child reading, providing an opportunity for critique.

Table 5: Techniques introduced during instructional video-training sessions (adapted from Arnold et al., 1994)

Session	Goals for the child	Procedures for the adult
1	• Noun labels • Attribute and function labels • Turn taking	• Ask who, what, and when questions rather than yes-no or 'where' questions • Follow child's answers with further questions • Repeat back what the child says • Provide the child help with answers as required • Give praise and encouragement • Follow the child's interest • Enjoy
2	• Multiword expression • Story and picture structure	• Ask open-ended questions • Expand what the child says • Have fun

The training programme used by Crain-Thoreson & Dale (1999) followed a similar schedule but sessions were longer. Opel et al. (2009) reported using videos of

'typical' versus 'dialogic' reading to support understanding of the techniques. Four further studies reported using videos to support training (Whitehurst et al., 1994b; Whitehurst et al., 1999; Hargrave & Sénéchal, 2000; Lever and Sénéchal, 2011). Within these studies training was delivered in just one session. Training that incorporated the more traditional direct instruction training method, with or without supporting hands on activities, was used in five studies (Valdez-Mancheca, 1992; Wasik & Bond, 2001; Elmonayer, 2013; Lonigan et al., 2013; Ergül et al., 2016).

The inclusion of additional feedback or supervision sessions during the intervention period was mentioned in four papers. Lonigan et al. (2013) and Ergül et al. (2016) both reported that observations of the practitioners were completed in setting and corrective feedback was provided. Opel et al. (2009) reported that teachers within their study had low education levels so a 5-day intensive training program was delivered. Each teacher was also provided with a supervisor who visited them daily to ensure "classes were held regularly and instructions were followed" (p. 15). No papers within this systematic review reported using video as a tool to facilitate self-reflection and skill development within the training programme.

2.3.7.6 Summary

The current literature review provides evidence that DR interventions, delivered within the context of an early childhood education setting by a non-parent adult, can produce significant gains in oral language skill. The intervention is inclusive and has been shown to be successful for a diverse range of preschool pupils. The most replicated finding is that pupils from low-income backgrounds, often with some degree of language delay, show expressive language gains.

Evidence from the literature suggests that DR is most effective when delivered with an adult child ratio of between 1:1 and 1:5. As pupil numbers increase the number of 1:1 interactions, which allow the adult to provide tailored informative feedback, decrease. However, positive gains have also been demonstrated when DR was

delivered to groups larger than five, suggesting that pre-schoolers may benefit from hearing their peers engage in dialogic interactions with a teacher. These findings provide evidence for the ecological validity of DR reading programmes within early childhood education settings.

Factors that have been shown to influence the effectiveness of DR include the fidelity with which the intervention is carried out and the adult's competence in the DR techniques. This suggests that the training model used within settings needs to facilitate sustained teacher change.

2.4 Rationale for introducing video to support self-reflection into DR Training

The majority of the studies within the current review employed either a traditional, direct-instruction, training model or instructional video-training with opportunities for role-play. The few studies that incorporated the use of additional feedback or supervision within the DR training model used a corrective feedback approach. No studies were found to have capitalised on the use of video enhanced self-reflection to develop the quality of adult-child interactions within DR sessions. DR training aims to develop the adults' ability to a) use evocative techniques b) provide informative feedback and c) facilitate language development, within a sociocultural learning context, through the principle of progressive change. The use of video enhanced self-reflection within DR training may support the development of these skills. The next chapter will explore the use of video viewing within teacher education and professional development programmes and will discuss the use of video enhanced self-reflection to support changes in educational practices.

Chapter Three: The use of video in teacher education and professional development

3.1 Video viewing

Over the last ten years the use of video viewing, within both initial teacher education and the professional development of qualified teachers, has increased considerably (Gaudin & Chaliés, 2015). It has been argued that, unlike other training media, video has the unique capacity to present complex teaching and learning sequences in an authentic and relevant manner (Spiro et al., 2007). This allows for a deep level of engagement or 'immersion' in the situation when viewed (Goldman, 2007). Through 'immersion' observers are able to draw multiple connections to their own teaching experiences and known teaching practices, a process termed 'resonance' by Goldman (2007). In contrast to 'in vivo' classroom observations, the benefit of video viewing is that it takes place at a distance from the busy classroom, providing space for systematic analysis (Sherin, 2004). Complex situations can be paused, rewound and replayed, allowing them to be viewed in manageable chunks (Le Fevre, 2004) and analysed from differing perspectives (Kleinknecht & Schneider, 2013).

3.2 Theoretical perspectives on the use of video within professional development

3.2.1 Cognitive processes

It is thought that viewing videos of teaching practices, both of one's own and of others', activates cognitive, motivational and emotional processes (Seidel et al., 2011; Kleinknecht & Schneider, 2013; Gaudin & Chaliés, 2015). The majority view within the literature is that, whilst watching video, teachers engage in a perceptual process that is comprised of two interrelated cognitive components: selective attention and knowledge based reasoning (van Es & Sherin, 2008; Sherin and van Es, 2009; Seidel et al., 2011; Gaudin & Chaliés, 2015).

3.2.1.1 Selective attention

Selective attention or "noticing" (van Es & Sherin, 2008) refers to the process teachers engage in when selecting important or significant events within the complex classroom situation, which have the potential to influence student learning (Blomberg et al., 2011). The terms "call out" (Frederiksen et al., 1998); "check point" (Leinhardt et al., 1991), "highlighting" (Goodwin, 1994) and "stopping point" (Jacobs & Morita, 2002) have all been used within the literature to describe this process. Sherin & van Es, (2009) studied the 'noticing' patterns of teachers involved in a video club over time and found there to be a shift from a primary focus on the teacher to a focus upon the mathematical reasoning skills of the students, suggesting that video viewing has the capacity to develop teachers selective attention and in turn their ability to identify relevant events in the learning context.

3.2.1.2 Knowledge-based reasoning

Once an event has been identified teachers will reflect, interpret and reason based upon their professional knowledge, understanding of teaching and learning and previous experience (Seidel et al., 2011). Research has highlighted three qualitatively different aspects to the knowledge-based reasoning process: a) first, a description of what has been noticed; b) second, an explanation of what has happened, linking prior knowledge and theory and finally, c) an evaluation of what has been noticed, based upon the link between theory and practice, which prompts predictions and/ or alternative courses of action (Santagata et al., 2007; Borko et al., 2008; Sherin & van Es, 2009).

As previously noted, selective attention and knowledge-based reasoning are thought to be interrelated processes. Sherin (2007) conceptualised the two components as 'professional vision', which she described as being "characterised by bottom-up as well as top-down processes" (p. 384). Hence, rather than representing individual steps within the perceptual process there is 'circular interplay' (Blomberg et al.,

2011), when viewing videos teachers' knowledge influences what they 'notice' and the interactions that they 'notice' impact upon their reasoning processes.

3.2.2 Situated learning theory and artefacts of practice

Another theory that has been drawn on by researchers interested in the use of video to support professional development is situated learning theory, a sociocultural learning perspective. Situative theorists posit that learning occurs through participation in the discourses and practices of a community, situated within a particular social context (Greeno, 2003). Hence, the context in which the learning takes place is fundamental to what is learnt (Greeno et al., 1996). Learning is both an individual and community level process whereby individuals learn to participate within the community of practice whilst the community refines norms and practices through the ideas and approaches brought by individuals (Lave and Wenger, 1991). Taking this perspective, Putnam and Borko (2000) suggest that teachers' own classrooms are powerful contexts for supporting learning and skill development. However, professional development does not need to occur solely within the classroom. Concrete artefacts of practice such as lesson plans, curriculum plans or videos of teaching can be used to mediate learning (Borko et al., 2008).

The notion that teachers' should be provided with continuing professional development opportunities throughout their career is widely accepted. However, what constitutes good quality professional development is less clear (Borko et al., 2008) and it can be difficult to effect sustained changes in teaching practice, which are underpinned by adjustments in teachers' knowledge and beliefs (Wood, 2000). Fisher & Wood (2012) argue from a situated learning perspective that, in order to effect change, there needs to be an increased focus upon collaborative enquiry oriented research projects, involving teachers and researchers, which are situated within practice. The outcomes of such projects need to be systematically investigated to ensure effectiveness (Borko et al., 2008).

3.2.3 Viewing videos of oneself versus videos of others

Within the literature video has been used in a variety of ways to support teacher professional development. Examples include: analysing videos of unknown teachers' lessons (e.g. Borko et al., 2011; Santagata & Guarino, 2011), watching and reflecting upon videos of ones own teaching within the context of a 'video club' alongside peers (e.g. Sherin & Han, 2004; Borko et al., 2008; van Es & Sherin, 2008; Sherin & van Es, 2009) and watching ones own teaching alongside a supervisor or researcher (e.g. Sydnor, 2016). In the professional development context, watching videos of one's own teaching practice offers up different affordances and challenges, to watching videos of another teacher's practice (Zhang et al., 2011).

3.2.3.1 Watching videos of others

Watching published videos of an unknown teacher's practice allows space for detached reflection and analysis, which is safe and free from personal scrutiny (Seago, 2004). The videos can be carefully structured to address specific goals of the professional development programme (e.g. Borko et al., 2011) and provide different models of good practice (Zhang et al., 2011). This allows teachers to see a range of teaching and learning contexts, outside of their own classroom experience, providing an opportunity for comparative reflection. Research also suggests that pre-service teachers who watch videos of an another's practice will become more involved in collaborative discussion and reflection than when watching back their own practice (Kleinknecht & Schneider, 2013).

However, Zhang et al. (2011) identified a number of limitations associated with watching unknown teacher activity. Firstly, there is often little information presented about the context (such as objectives, lesson plans and background information regarding the setting and students). Secondly, videos of unknown teachers' practice often do not relate to the viewer's own knowledge base and experience, impacting

upon the viewer's ability to activate knowledge-based reasoning processes (Zhang et al., 2011).

One way of overcoming the lack of contextual relevance found when viewing videos of unknown teachers is to view videos of peer activity. This type of video provides "a window into practice", which allows for both critical thinking and comparative reflection (Zhang et al., 2011). Borko et al. (2008) reported that teachers within their study valued watching their colleagues' videos because they were able to observe different pedagogical strategies, whilst appreciating that they too struggled with similar issues. Collaborative reflection supported the generation of novel ideas and solutions, leading to changes in practice (Borko et al., 2008). However, a limitation specific to this type of video is that teachers' are often cautious to engage in a deep level of analysis when watching a peer's practice (Zhang et al., 2011).

3.2.3.2 Watching videos of oneself

Watching videos of ones own teaching promotes the development of descriptive and critical reflection (Gaudin & Chaliés, 2015) and affords the viewer the opportunity to draw upon prior knowledge of the students and the teaching approaches and principles being applied (Kleinknecht & Schneider, 2013). A participant in Zhang et al.'s (2011) study described the experience as "like having a mirror placed in my face" (p.458). Studies that have used videos of teachers' own practice have shown there to be high levels of motivational and emotional engagement (Borko et al., 2008; van Es & Sherin, 2008; Sherin & van Es, 2009;), which allows for deeper immersion and resonance.

In their experimental study, Seidel et al. (2011) found that teachers who viewed videos in the "Own Video" condition rated the experience as more authentic, activating and motivating, when compared to teachers in the "Others' Video" group. Furthermore, teachers in the "Own Video" group were reportedly more able to selectively attend to the most relevant aspects of learning (Seidel et al., 2011). Other

studies have also reported that watching back ones own teaching has beneficial effects upon 'noticing' abilities (e.g. Sherin & Han, 2004; Sherin & van Es, 2009). In addition to these benefits, viewing themselves, allows teachers to analyse their teaching from different angles or perspectives and to reflect upon things they would not usually recall, such as the detail of discourse (Zhang et al., 2011). Video interaction guidance (VIG) is one video feedback intervention that capitalises upon the use of videos of 'oneself'. The intervention aims to develop effective communication, empathy and attunement within important relationships (personal or professional) by affording the participating 'client' the opportunity to reflect upon the details of their personal interactive style within real life contexts and identify examples of 'attuned' interaction (Kennedy, 2011).

The challenge associated with incorporating this type of video viewing into professional development contexts is that some teachers might find the experience uncomfortable. This can lead to the activation of self-defence mechanisms (Eraut, 2000) or refusal to participate (e.g. Sherin & Han, 2004).

3.2.4 Summary

The use of video within professional teacher training is thought to activate cognitive, motivational and emotional processes. Taking a cognitive theoretical perspective it is thought that teachers engage in a perceptual process that has two interrelated cognitive components; selective attention or 'noticing' and knowledge based reasoning, when watching videos of practice. Research suggests that teachers' ability to notice relevant teaching and learning events develops over time with the use of video (Sherin & van Es, 2009). In turn, they move from lower level reasoning processes, such as describing what has been seen, to the more cognitively demanding process of evaluation, which involves linking theory to practice in order to make predictions and suggest future alternative courses of action (e.g. Sherin & Han, 2004; Borko et al., 2008;).

It has been suggested that teachers' own classrooms provide a powerful context for skill development (Putnam & Borko, 2000). Furthermore, studies that have utilised video self-viewing have demonstrated a high level of emotional and motivational engagement. It is thought that, by viewing themselves on video, teachers are able to reflect upon aspects of their practice they would not usually recall, such as interactions and discourse. The next section will further explore teacher reflection and the use of video to aid reflection.

3.3 The role of reflection in teacher education

Dewey (1933) pioneered the role of reflection in teaching for the purpose of improving the quality of schools and education. He characterised reflection as a meaning-making process that is systematic and rigorous, which is rooted in scientific enquiry, and occurs through interaction with others (Dewey, 1933). Reflective practice is commonly used within teacher education and training. However it is a complex process and simply looking at one's own practice is not inherently a reflective process, rather reflections need to result in action (Sydnor, 2016). Tripp & Rich (2012b) reviewed the multiple definitions available within the literature for the term 'reflection' and proposed that we might,

> *"encapsulate reflection as a self-critical, investigative process wherein teachers consider the effect of their pedagogical decisions on their situated practice with the aim of improving those practices."* (Tripp & Rich, 2012b, p. 678)

3.3.1 Types of reflection

Schön (1983) proposed two types of reflection, 'reflection in action' and 'reflection on action'. 'Reflection in action' happens when a professional is required to act upon a situation as it occurs, whilst 'action present' (Schön, 1983). As such, the professional is not dependent upon preconceived ideas about what should be done but rather creates new solutions that are unique to the specific event. By contrast 'reflection on

action' is a metacognitive process that involves thinking back to what was done in practice and taking time to think about how alternative actions could impact upon future outcomes if the situation were to arise again (Schön, 1983).

Farrel (2007) proposed a third type of reflective process for teachers, which he coined 'reflection for action'. This type of reflection results from both 'reflection in action' and 'reflection on action' and involves professionals thinking about how they might change their future instructional practice. Furthermore, Davis (2006) outlined the characteristics of productive and unproductive reflection, stating that unproductive reflection lacked analysis or evaluation, was descriptive in nature and was framed with judgemental phrases such as "I like". By contrast, productive reflection involved: being open to different perspectives, challenging assumptions, being analytical and integrating knowledge (Davis, 2006).

3.3.2 Video as a tool to enhance reflection

As discussed previously video has been used extensively to support teacher learning and development (Gaudin & Chaliés, 2015). Studies have shown that watching videos of their own practice has supported teachers to assess the strengths and weaknesses of their teaching (Tripp & Rich 2012a), increase effective teaching behaviours (Brawdy & Byra, 1994; Sherin & van Es, 2005) and articulate their tacit assumptions about teaching and learning (Powell, 2005). In addition to these benefits, video supports teachers to reflect upon multiple aspects of their teaching, identify the gaps between their beliefs about good practice and their actual practice and notice aspects of their teaching that they would not usually remember (Tripp & Rich, 2012a). Authors van Es and Sherin (2008), suggest that video effectively slows down the pace of a teaching sequence, which allows teachers to develop their selective attention skills, a process they term "learning to notice". In addition to this, Sydnor (2016) argues that video can enhance a teacher's ability to engage in

'reflection for action' because it provides concrete examples of past experiences, which can be viewed and reflected upon to inform future approaches.

3.3.3 Dimensions to consider when analysing videos of one's own teaching

Tripp & Rich (2012b) conducted a review of the literature on the use of video to facilitate reflection and found that the overwhelming majority of studies reported beneficial effects. However, the 63 studies included in the review varied widely in the ways video was used to enhance reflection. From the literature Tripp & Rich (2012b) identified six dimensions that need to be considered when designing a video enhanced self-reflection study. These were: reflection tasks, guiding reflection, individual or collaborative reflection, video length, number of reflections and measuring reflection.

The authors reported that a variety of reflection tasks had been used within the literature. Tasks included completing codes or checklists, taking part in interviews or group discussion, writing up reflections or editing their own videos their teaching (Tripp & Rich, 2012b). Teachers participating in studies tended to prefer collaborative reflection to reflecting alone whilst systematic guiding frameworks supported teachers to focus their reflections, which in turn enhanced the quality of their reflections. The authors cautioned that some studies noted teachers' preference to identify their own foci for reflection. Tripp & Rich (2012b) suggest best practice may be to allow teachers to select the focus for their reflections whilst also supporting them to develop reflective skill through the use of a guiding framework.

The review highlighted the limited amount of research into video length. However, it has been suggested that clips should be no longer than three minutes (Sharpe et al., 2003) and that after three to four viewings of the same video teachers may reach a "saturation" point after which further reflection had limited impact (Tripp & Rich, 2012a).

Reflection is a complex investigative process, which is engaged in for the purpose of improving pedagogical practices (Tripp & Rich, 2012b). Three types of reflection have been identified: 'reflection in action', reflection on action' (Schön, 1983) and 'reflection for action'. Productive reflection involves analysing practice from multiple perspectives, challenging tacit assumptions and integrating theory and knowledge to evaluate real life practice (Davis, 2006). Video provides a concrete artefact of practice that can be used to support productive reflection, which is situated in practice, because it allows for teaching sequences to be effectively 'slowed' down (van Es & Sherin, 2008) and viewed from different perspectives. It also captures aspects of teaching, such as the details of interaction, which may not otherwise be remembered.

3.4 Developed rationale for introducing video to support self-reflection within DR training

DR is an instructional programme, which was designed to support pre-schoolers' language development through increasing the quality of the interactive dialogue between the adult and child during shared book reading (Whitehurst et al., 1988). Although DR was first designed for parent/ child shared book reading, a systematic review of the literature has demonstrated that it has been successfully implemented within early childhood education settings.

Training in DR focuses upon developing the adults' ability to a) use evocative techniques, b) provide informative feedback and c) through a progressive change model, increase the complexity of the adult/ child interactions to facilitate language development. The use of video enhanced self-reflection within training programmes has been shown to increase emotional and motivational engagement, support teachers' ability to selectively attend to and 'notice' relevant teaching and learning events (Seidel et al., 2011) and reflect upon aspects of their practice they would not

usually recall, such as the detail of interactions (Zhang et al., 2011). Therefore, the introduction of video, as a tool to aide self-reflection, may support the development of these DR skills. No previous studies have been found to include video enhanced self-reflection within the DR training model. Factors that have been shown to influence the effectiveness of DR include the fidelity with which the intervention is carried out and the adult's competence in the DR techniques, which suggests that the training model used within settings needs to facilitate sustained changes in shared reading practice.

Sustained changes in teaching practice need to be underpinned by adjustments in teachers' knowledge and beliefs, which can be difficult to achieve (Wood, 2000). Video has been shown to support teachers to engage in productive reflection and move from lower level reasoning processes, such as describing what has been seen, to the more cognitively demanding process of evaluating, which involves linking theory to practice (Tripp & Rich, 2012a). It has therefore been argued that video can be used to support sustained changes in teacher behaviour (Tripp & Rich, 2012a).

It has been suggested that, in order to effect educational change, there needs to be an increased focus upon collaborative enquiry oriented research projects, involving teachers and researchers, which are situated within practice (Fisher & Wood, 2012). Video, as a concrete artefact of practice, affords the opportunity to mediate this collaborative enquiry process within a meaningful context (Borko et al., 2008).

3.5 Research aims

This project seeks to introduce video enhanced self-reflection into a DR training programme delivered to teachers working within early years education. A collaborative enquiry approach will be adopted whereby I, as principal researcher, will work alongside teachers to support them to develop their DR skills by engaging in self-reflection during a six-week intervention period in which they deliver DR to a

participating pre-school pupil. Video will be used as a concrete artefact of the teachers' own practice to support productive reflection.

Employing a case study design, the project will explore what type of reflection the participating teachers engage and what they selectively attend to, 'notice' or comment on when they watch themselves on video delivering the DR intervention. It also aims to explore whether teachers' 'noticing' patterns change over time. Borko et al. (2008) suggest that the outcomes of collaborative enquiry projects, which are situated within practice, need to be evaluated to ensure effectiveness. This study will seek to use language analysis methods to assess the impact of the DR intervention upon participating pre-schoolers' language skills.

3.5.1 Research questions

This project aims to answer the following research questions:

1. What type of reflective comments do the participating teachers make when they watch video clips of themselves delivering DR?

2. What do the participating teachers selectively attend to ('notice') or comment on?

3. How do the participating teachers' 'noticing' patterns change over the course of the six-week intervention period?

4. Does the 6-week DR intervention in which teachers engage in video enhanced self-reflection impact upon the oral language skills of the child within DR sessions?

Chapter Four: Methodology

4.1 Introduction

This study adopted a pragmatic mixed methods approach and employed 'embedded' single case study design in order to explore the use of video within dialogic reading training with the aim of answering the research questions (RQs). Within this chapter the research paradigm that underpins the study is outlined, which justifies the use of a mixed methodology case study design. The research design is presented along with information regarding the participants, study procedures and the quantitative and qualitative measures employed to answer the RQs. Methodological issues including validity, reliability and generalisation are considered as well as the ethical implications of the study.

4.2 Research paradigms & case study design

4.2.1 The quantitative versus qualitative research debate

Traditionally social science researchers have positioned themselves within quantitative or qualitative paradigms. 'Quantitative purists' advocate the philosophical paradigm of positivism, arguing that an objective reality exists external to the researcher, which must be investigated through rigorous scientific enquiry (Gray, 2014). Researchers from this school of thought believe that social science inquiry should remain objective and that the causes of social scientific outcomes can be determined reliably and validly through the empirical testing of hypotheses (Johnson & Onwuegbuzi, 2004).

In contrast, 'qualitative purists', often referred to as constructivists or interpretivists, reject positivism and contend that truth and meaning are created through the subject's interactions with the world (Gray, 2014). Hence, multiple-constructed realities exist that are equally valid (Gray, 2014), time and context free generalisations are not possible (Johnson & Onwuegbuzi, 2004) and, because reality

is constructed by the subject, the knower and known cannot be separated (Guba, 1990). Quantitative and qualitative purists advocate the 'incompatibility thesis' (Howe, 1988), believing that the paradigms they are wedded to, with their associated methods, cannot and should not be mixed (Johnson & Onwuegbuzi, 2004). However an alternative 'compatibility thesis' has been posed, which appeals to a pragmatic philosophical perspective, and posits that combining quantitative and qualitative methods is neither bad nor epistemologically incoherent (Howe, 1988). Rather than being guided by philosophical dualisms, when choosing research methods, decisions should be made based upon 'what works' (Howe, 1988).

4.2.2 Pragmatism and mixed methods research

The philosophical paradigm of pragmatism views knowledge as something that is both constructed *and* based upon the reality of the world we experience and live in, as such 'knowledge', 'truth' and 'meaning' change overtime (Johnson et al., 2007). Traditional dualisms such as 'positivism' versus 'constructionism' or 'subjectivism' versus 'objectivism' are rejected and a high regard is placed upon the connection between knowledge and human action (Johnson & Onwuegbuzi, 2004). Pragmatism underpins mixed methods research, which represents a 'third wave' approach to social science research and moves away from the paradigm wars, providing a practical alternative (Johnson & Onwuegbuzi, 2004). Within mixed methods designs research methods are not determined by a set of assumptions that flow from one particular paradigm, rather they flow from the research questions and provide the best chance of gaining useful and workable answers (Gray, 2014). However, there are a number of associated strengths and weaknesses to mixed method research designs that need to be considered before commencing a research project.

4.2.3 Strengths and weaknesses of mixed methods designs

Mixed methods designs allow researchers to use different methods to answer the same research questions. Yin (2014) argues that this affords researchers the

opportunity to collect a richer array of evidence and answer more complicated sets of research questions. Furthermore, by combining methods researchers can use the strengths of one method to overcome the weakness of another, a process termed 'triangulation' (Gray, 2014). Triangulation allows for convergence and corroboration of findings and some researchers suggest that this strengthens validity (Greene et al., 1989; Johnson & Onwuegbuzi, 2004).

However, quantitative and qualitative data collection methods require different skill sets meaning it can be difficult for an individual to conduct mixed methods research (Robson, 2011). It is also more timely and expensive to conduct, due to the multiple methods and analyses being carried out (Johnson & Onwuegbuzi, 2004). Finally, the debate surrounding the 'compatibility thesis' continues. This opens up the possibility of critique, based upon the mixing of paradigms, by methodological purists (Johnson & Onwuegbuzi, 2004).

A mixed method design was chosen for the current project for a number of reasons. Firstly, a qualitative analysis of comments made by the participating teachers during video enhanced self-reflection sessions could be conducted to illuminate what they 'noticed' and what type of reflective comments they made. Secondly, quantitative language analyses could be carried out to evaluate the impact of the project on the pre-schoolers' oral language skills within a reading session.

4.2.4 Case study design

The purpose of a case study research design is to gain a rich and detailed understanding of a single case or small set of cases (Thomas, 2013). Robson (2011) provides the following definition,

"Case study is a strategy for doing research which involves an empirical investigation of a particular contemporary phenomenon within its real life context using multiple sources of evidence." (Robson 2011, p. 136)

Case study design can combine methods of data collection in order to answer research questions in a multi-faceted manner, which allows researchers insight into what is going on within a particular situation (Thomas, 2013).

When planning case study research the first decision to be made is whether to employ a single or multiple-case study design (Yin, 2014). Yin (2014) distinguishes between 'holistic' and 'embedded' single case studies. Whereas holistic case studies comprise of a single unit of analysis, embedded case studies incorporate multiple subunits of analysis. The embedded case study therefore represents a more complex design that provides an opportunity for more extensive analysis, whilst not detracting from the case as a whole (Yin, 2014). Thomas (2016) terms this design a 'nested' case study and explains that it is distinct from a 'multiple' case study design, in which a small sample of cases are looked at, because the wider case maintains its integrity and wholeness. Figure 1 presents a graphical comparison between 'multiple' case studies and 'nested' or 'embedded' case studies, as adapted from Thomas (2016).
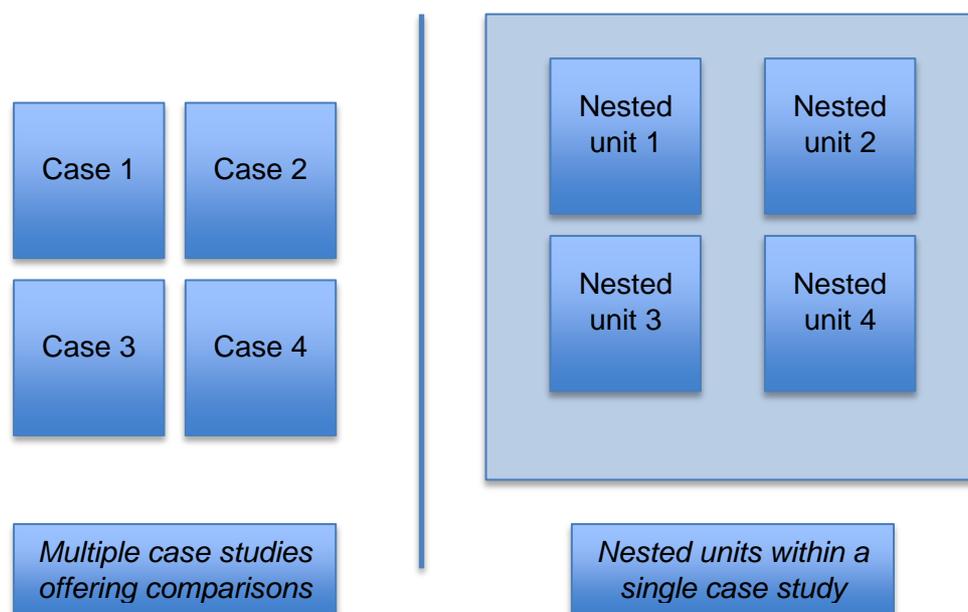
Figure 1: Multiple versus nested case study design adapted from Thomas (2016)

Yin (2014) explains that, in contrast to an embedded or 'nested' design, there are sharp boundaries between each case within a 'multiple' case study. This study employed a single case 'embedded' design with the object of study being the DR intervention with video enhanced reflection. Within the study there were two subunits of analysis, comprised of two teacher-child dyads. More details regarding participant recruitment and details are presented in sections 4.4 and 4.5 below.

In terms of study design, it was deemed that this did not represent a 'multiple' case study because the boundaries between the participating teacher-child dyads were not 'sharp' for the following reasons:

- The two participating teachers worked in partnered schools, which operate under one academy trust.

- The nursery teachers, in collaboration with the principal researcher, jointly planned which books they would use during the intervention period.

- During the intervention period the two nursery teachers met weekly to discuss the project, providing an opportunity for peer supervision.

- During their weekly meetings the participating teachers discussed potential CROWD prompts that could be used for each book.

Thomas (2016) discusses the potential purposes for conducting a case study. The first distinction he draws is between intrinsic and instrumental studies. Intrinsic studies are completed for the purpose of inquiring whilst instrumental studies serve a particular purpose. The current case study is therefore 'instrumental' because it was employed as a "means to an end" to "better understand some theme, process or idea" so that the research questions could be answered (Thomas, 2016, p132). Beyond the intrinsic/ instrumental distinction case studies can be categorised as serving either an evaluative, explanatory or exploratory purpose or any combination

of these (Thomas, 2016). This research project was carried out with exploratory and evaluative purposes in mind. It sought to explore what the participating teachers noticed or commented on whilst watching video clips of their DR sessions and whether their 'noticing' patterns changed. The project also sought to evaluate whether the DR intervention, with video enhanced self-reflection, had an impact upon the oral language skills of the pre-schoolers involved, as has been found in previous DR studies. A case study design also fit with the collaborative enquiry nature of the project, which has been advocated within teacher professional development literature, because it situates learning within realistic contexts (Fisher & Wood, 2012).

4.3 Participant recruitment & participant information

When selecting appropriate cases for a case study design the researcher engages in two levels of sampling (Bryman, 2016). They must first select the context and then the participants. Purposive sampling involves selecting cases and participants in a strategic way in order for the research questions to be answered (Bryman, 2016).

Within this project I recognise that a purposive and opportunistic sampling method was employed. In my role as a trainee educational psychologist I had an established working relationship with a senior member of staff working across two partnered primary schools, which provide education for children aged three to eleven and are part of the same academy trust. These schools provided the context for the case study. The next section will outline the three stages of the participant recruitment process.

4.3.1 Recruitment process

Figure 2 presents an overview of the three stages of the recruitment process.

Stage 1:

Action:

- The senior leadership team was approached about the possibility of carrying out the project across their partnered schools.

Outcome:

- The DR intervention fit with the schools' development plans, which included targets aimed at improving the language and reading skills of their pupils. The leadership team gave permission for me (the principal researcher) to deliver an introductory training session in DR to the staff working within their 'Early Years Foundation Stage' classes.

* In the United Kingdom the term 'Early Years Foundation Stage' describes the phase of education provided to children from birth to 5 years of age.

Stage 2:

Actions:

- Fifteen members of early years staff attended the introductory training session in DR lasting 1 hour and 10 minutes. This initial session used a combination of direct instruction, published video clips and role-play to introduce the basic DR principles and techniques.
- Teachers were invited to take part in the project and were given an information letter that outlined: the details of the project, their right to withdraw, confidentiality and limits of confidentiality, anonymity, video and audio recording, data storage and informed voluntary consent (see Appendix 4).

*A copy of the PowerPoint slides for this training session can be found in Appendix 2 as well as a copy of the hand out provided which gives an overview of the PEER process and CROWD prompts (Appendix 3).

Outcome:

- The nursery class teachers from each school both volunteered to take part and gave their fully informed consent to be part of the project (see Appendix 5 for copy of the informed consent form used).

Stage 3:

Action:

- Participating nursery class teachers were asked to support with the identification of a pupil they could work with.

Outcome:

- Parents of the two pupils identified by the participating teachers were given an information letter, which outlined the same project details as the letter provided to the teachers (as listed above), an information leaflet about the DR intervention and an informed consent form (see Appendix 6 & 7). Fully informed consent was gained for both pupils.

Figure 2: Stages within the recruitment process

As the primary focus of the current study was to develop the teachers' DR skills by introducing video enhanced self-reflection it was decided that each teacher would work 1:1 with the same pupil during the six-week intervention period. This decision was taken for two reasons. Firstly, when viewing the edited clips back, it would be easier for the teachers to focus their analysis upon how they were using the DR techniques to develop the quality of the dialogic interactions, without encountering difficulties such as pupils interrupting or talking over each other. Secondly, it would allow for the analysis of pre- and post-intervention language samples to measure the impact of the six-week intervention on the child's oral language skill. The language analysis measures that were used will be outlined in section 4.7. The inclusion criteria for participating pupils was limited to the following:

- Attendance at nursery was over 95%.
- No identified special educational need.
- Able to communicate verbally in English using short phrases of at least two words.

4.3.2 Participants

4.3.2.1 Nested unit 1: Sandra and Amina

Sandra is the nursery class teacher for School A. She is educated to degree level and holds a Postgraduate Certificate in Education. Overall, Sandra has been teaching for 32 years but has worked specifically in early years education for the past 20 years. School A is located in an urban major conurbation and has 648 pupils on roll. 97.3% of the pupils on roll speak English as an additional language, which is well above the national average. 47.3% of pupils on roll have been eligible for free school meals in the past 6 years. The school receives additional funding through the Pupil Premium for these pupils. Pupil Premium is a government grant provided for disadvantaged pupils for the purpose of decreasing the attainment gap and therefore

provides an indicator of social deprivation (Jarrett et al., 2016). The percentage of pupils in receipt of the 'Deprivation Pupil Premium' at School A was well above the national average, which stood at 23.9% for primary aged pupils in January 2016 (DfE, 2018).

Amina was 3 years and 11 months old when the project commenced. Amina is a part-time nursery pupil at School A, attending the afternoon sessions five days a week. Amina started at School A in September 2017 and has had no previous pre-school education experience. At home she speaks English and Urdu.

4.3.2.2 Nested unit 2: Olivia and Sami

Olivia is the nursery class teacher for School B. She has a BA (Bachelor of Arts) degree in education and is currently in her sixth year of teaching. This is Olivia's second year of teaching in the early years. School B is located 1.5 miles from School A and has 440 pupils on roll. 89.8% of pupils have English as an additional language and 52.1% of pupils are eligible for Pupil Premium due to receiving free school meals. These statistics are both well above the national average.

Sami was 4 years, 1 month when he started the DR intervention. He attends School B's nursery class on a part-time basis for five afternoons a week. Sami started at School B in September 2017 having previously attended a pre-school setting from February 2017 to July 2017. At home Sami mainly speaks English to his parents, however they do speak some Arabic to him.

4.4 Study procedures

4.4.1 DR Intervention schedule

Both participating teachers had attended the initial DR training session as described in the 'Recruitment process' section above (see Appendix 2 for slides). They had also been provided with a hand out which outlined the 'PEER' process and 'CROWD'

prompts (see Appendix 3). Prior to commencing the intervention I met with the teachers to discuss study logistics and the intervention schedule.

The DR intervention period for this project lasted six weeks and took place during the second half of the pre-schoolers' first term in nursery. Six books were selected (see Table 6), which were read at the rate of one per week, by both teacher-child dyads. It was stipulated that each book should be shared a minimum of three times within the week, in a quiet 1:1 context, using the DR principles and techniques.

Table 6: Books read during the 6-week intervention period

Week	Book
1	'The Tiger who came to Tea'
2	'Where's my Teddy'
3	'The Very Hungry Caterpillar'
4	'Peace at Last'
5	'Owl Babies'
6	'Room on the Broom'

The participants were asked to commit to the schedule outlined in Table 7. During the project three reading sessions were videoed and three video enhanced self-reflection sessions (henceforth 'video reviewing' sessions) were completed; videoing of reading sessions and the 'video reviewing' sessions were scheduled on alternate weeks. All sessions took place at the respective teachers' school. Reading sessions were videoed on Fridays; the rationale for this being that the child would have gained familiarity with the selected story during the week and would therefore be more likely to contribute responses and actively participate in the storytelling. This would provide richer material, in terms of reciprocal interactions, to be reflected upon during the 'video reviewing' sessions.

A post-test read of 'The Tiger who came to Tea' was video recorded following the completion of the six-week intervention period. This was for the purpose of measuring the impact of the intervention on the oral language skills of the

participating pre-schoolers. Please see section 4.5 'Data collection' and 4.6 'Quantitative video data analysis' sections below for further information.

Table 7: Schedule followed during 6-week intervention period

Week	Date (2017)	Participant	Action	Story
1	Fri 3rd Nov	Sandra (am) Olivia (pm)	Video reading session (*pre-test read*)	The Tiger who came to Tea
2	Wed 8th Nov	Sandra	Video enhanced reflection session 1	
	Thurs 9th Nov	Olivia		
3	Fri 17th Nov	Sandra (am) Olivia (pm)	Video reading session	The Very Hungry Caterpillar
4	Wed 22nd Nov	Sandra	Video enhanced reflection session 2	
	Thurs 23rd Nov	Olivia		
5	Fri 1st Dec	Sandra (am) Olivia (pm)	Video reading session	Owl Babies
6	Thurs 7th Dec	Olivia	Video enhanced reflection session 3	
	Fri 8th Dec	Sandra		
7	Fri 15th Dec	Sandra (am) Olivia (pm)	Video *post-test read*	The Tiger who came to Tea

4.4.2 Fidelity of implementation

The systematic literature review presented in Chapter 2 highlighted that one factor impacting upon the progress made by children who received DR in pre-school settings was the teachers' fidelity to the intervention schedule (see section 2.3.6.4.3). To ensure participating teachers followed the stipulated schedule of at least three DR reads a week they were asked to complete a DR log. The log required the date and book title to be recorded alongside comments regarding the use of the CROWD prompts and PEER process. The participating teachers were also encouraged to record any questions that they had which arose from the session. DR logs were checked prior to each 'video reviewing' session. Please see Appendix 4 for a blank copy of the log.

4.4.3 Video recording equipment and file storage protocol

Reading sessions and 'video reviewing' sessions were recorded using a local authority issued Microsoft Lumia smartphone, which was secured and password protected. A tripod stand was used during recording to ensure footage was of a high quality. In compliance with the local authority video data storage policy video files were transferred from the smartphone to a local authority encrypted laptop, which had two levels of password protection, prior to leaving the school site. The video data files were stored temporarily, for a period of one week, whilst they were being edited and so that they could be viewed during the 'video reviewing' sessions. The video files were then transferred onto an encrypted USB storage device, which is now being kept securely within the University of Birmingham.

4.4.4 Video enhanced self-reflection ('Video reviewing') sessions

These sessions were held on a 1:1 basis with each participating teacher. They took place in a quiet room at the end of the school day. Sessions lasted for between 25 and 38 minutes. Within the sessions four to six edited clips of the previous weeks recorded DR session were reviewed (see section 4.4.4 for video-editing procedure). In line with the research each clip was reviewed no more than three times to avoid 'saturation' (Tripp & Rich, 2012a). Figure 3 provides a visual representation of the cyclical *recording*, *editing* and *reviewing* process that was followed.
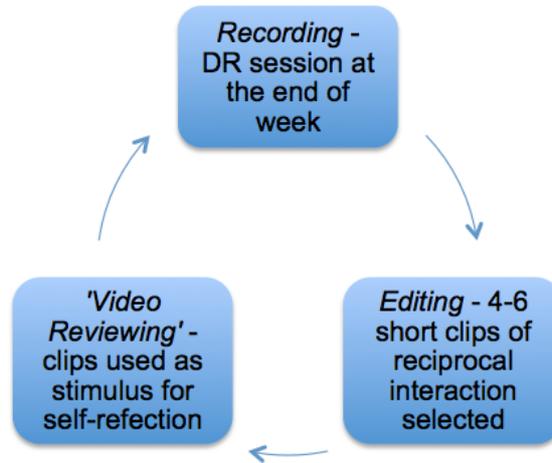
Figure 3: Process followed for recording, editing and reviewing DR clips

4.4.5 Video-editing

Microsoft media player was used to select short clips from the video recorded DR session to be reviewed within the following weeks' video enhanced self-reflection session. Research suggests that, when using video to support professional development, clips need to be carefully selected to ensure they address the aims of the intervention (Borko et al., 2008). The DR intervention aims to support pre-schoolers' language development through developing reciprocal interactions during shared reading. Therefore, during the editing process, clips were selected in which the teacher had initiated a reciprocal interaction through the use of a CROWD prompt. Four to six clips were selected for each DR session, each being between 30 seconds and 1 minute in length.

4.4.6 Role of the facilitator and framework for reflection

Previous literature suggests that teachers prefer to engage in reflective activities when there is a facilitator present rather than on their own (Tripp & Rich, 2012b). Within this project I took the role of facilitator during the 'video reviewing sessions'. Recognising this could be a source of potential bias within the research a systematic framework for reflection was used to scaffold the participating teachers' ability to

'notice' and reflect upon relevant events. The use of systematic frameworks for

reflection has also been advocated within the video literature because they have

been shown to enhance the quality of teacher reflections (Tripp & Rich, 2012b).

Within the current project 'Gibbs' Reflective Cycle' (Gibbs, 1988) was used within the

'video reviewing' sessions (see Figure 4). Emphasis was placed upon the teachers

engaging in self-reflection and care was taken not to contribute personal reflections.
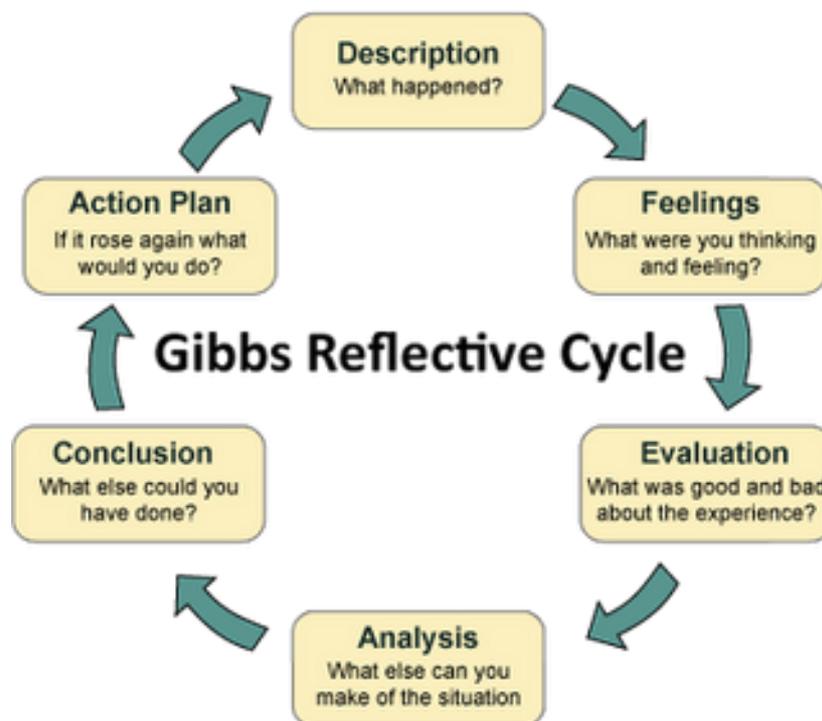
Figure 4: Gibbs' reflective cycle (1988) – systematic framework for refection used during video enhanced self-reflection sessions

4.5 Data collection

Video captures the complexity of social interaction and the use of video as a data

source within educational research allows for multiple analyses to be carried out and

provides opportunities reviewed, reinterpreted or recoded (Hollingsworth & Clarke,

2017). It therefore lends itself well to mixed methods research studies.

4.5.1 'Video reviewing sessions'

Within this study the three 'video reviewing sessions', which took place between the participating teachers and myself on a 1:1 basis were video recorded in full, giving a data set of six 'video reviewing' sessions. Data from these sessions was analysed for the purposes of answering the RQs (see sections 4.6 & 4.7 for a full description of the analyses that were conducted).

4.5.2 Pre- and post-test DR sessions

Pre- and post-test DR reading sessions between each teacher-child dyad were video recorded for the purpose of measuring the impact of the intervention upon the language skills of the pre-schooler pupils (RQ3). The same book, 'The Tiger who came to Tea', was used for both reads so that comparisons could be drawn. The pre-test read was videoed at the end of the first week of the six-week intervention period (see Table 7 for schedule). The child was therefore already familiar with the book, having already completed at least two DR sessions using the book. However, the adult had not yet experienced a 'video reviewing' session. The post-read test was videoed one week post-intervention. The child was not exposed to the book 'The Tiger who came to Tea' in between the pre- and post-test reads.

4.6 Qualitative data analysis

4.6.1 Thematic Analysis

Thematic analysis has been described as "a method for identifying, analysing and reporting patterns (themes) within data" (Braun & Clarke, 2006). Generally speaking a 'theme' captures something important about the data set, some form of patterned response (Braun & Clarke, 2006). It builds upon the initial codes identified from the raw data and provides the researcher with a basis for a theoretical understanding of the data set (Bryman, 2016).

The analysis process can be conceptualised as *inductive*, 'bottom up', or *deductive,* 'top down'. Inductive analysis is data driven and is therefore not based upon any pre-existing coding frames or theories (Boyatzis, 1998). With this approach the identified themes may not relate to the specific questions asked of the participants (Braun & Clarke, 2006). Deductive analysis contrasts with the inductive approach because the researcher's theoretical interests, research questions and a priori coding templates inform the identification of themes (Braun & Clarke, 2006).

Within the current research project a 'hybrid' method of TA was used, informed by the work of Fereday and Muir-Cochrane (2006) and Braun & Clarke (2006), which incorporated both inductive and deductive approaches. Within this type of TA the researcher uses a priori theories or research to guide the articulation of meaningful themes (Boyatzis, 1998). This is particularly valuable in case study research, which lacks the opportunities to compare and contrast across a variety of data sets (Boyatzis, 1998) and therefore adds to the reliability of the coding system.

The current project sought to use video enhanced self-reflection to support the participating teachers' training in DR techniques. I was therefore interested in what type of reflective comments the participating teachers made and what they selectively attended to ('noticed') or commented on when they watched themselves back (inductive analysis) and whether their 'noticing' patterns and reflections fit with existing literature around the use of self-reflection (deductive analysis). Therefore TA was carried out on the transcribed data from the 'video reviewing' sessions. The six stages of TA as suggested by Braun & Clarke (2006) were followed whilst steps from the 'hybrid' approach outlined by Fereday and Muir-Cochrane (2006) were incorporated. Table 8 provides an overview of the steps taken within each stage of the hybrid thematic analysis.

Table 8: Stages taken during the hybrid thematic analysis (based upon work by Braun & Clarke, 2006 and Fereday & Muir-Cochrane, 2006)

Description of stage (Braun & Clarke's, 2006)	Actions taken within this research
1) Familiarisation with the data	• Prior to transcription video files of 'video reviewing' sessions were first watched in their entirety to immerse myself in the data. • Each of the 6 'video reviewing' sessions were carefully transcribed verbatim and then watched again to check transcriptions were an accurate account of what was said in each session. • Interesting features of the data were manually highlighted on the transcripts.
2) Generating initial codes	• Transcriptions of each 'video viewing' session were imported into NVivo, a qualitative data analysis software. • All interesting features of the data were coded systematically (see Appendix 10 for example coded transcript). • Initial codes were transferred onto Post-it notes so that themes could be searched for manually. Different coloured Post-it notes were used for sessions that took place in week 1, 3 and 6 so that any changes in 'noticing' patterns could emerge (see Appendix 9 for photographs demonstrating the manual coding process).
3) Searching for themes: a) *Deductive* b) *Inductive*	• As suggested by Fereday & Muir-Cochrane (2006) a coding frame was generated from the theory reviewed in Chapter 3, which related to use of video in teacher professional development. • Three *deductive* 'a priori' themes were generated for teacher comments – *descriptive*, *reflection 'on' action* & *reflection 'for' action*. • "Analysis at this stage was guided, but not confined, by the [a priori] themes" (Fereday & Muir-Cochrane, 2006). • Initial codes that did not fit within the 'a priori' themes were categorised into emerging/ *inductive* themes.
4) Reviewing themes	• Through an iterative process codes were compared, collapsed and/ or collated to identify sub-themes and overarching themes, providing further structure to the coding system. • Themes were then checked against extracts from transcripts to ensure they accurately reflected what was said.

5) Defining and narrowing themes	• To check the reliability of the coding system an Assistant Psychologist colleague, with previous thematic analysis research experience, was asked to match extracts from the transcripts to themes. • Discussions led to some refinement of the theme definitions and 86% agreement was made (Inter Rater Reliability, IRR). Values from 75 – 90% demonstrate an acceptable level of agreement (Hartmann, 1977; Stemler, 2004).
6) Producing the report	6) Diagrammatic representations of the themes were created (theme maps). 7) Extracts from the transcripts were used to illuminate themes (presented in Chapter 5). 8) Findings were considered in relation to the RQs and previous literature.

4.6.2 Validity

Validity refers to the extent to which you are observing, identifying or measuring what you say you are (Mason, 1996). When employing qualitative data collection methods and analyses potential threats to the accuracy or 'validity' of the findings need to be considered. Robson (2011) considers the main threats to validity in qualitative research to be within description, interpretation or theory. Firstly, steps need to be taken to ensure that the described data being used for analysis is neither inaccurate nor incomplete. Within the current project the following steps were taken to ensure the accuracy of the data being used for the hybrid thematic analysis:

- All six 'video reviewing' sessions were video recorded in full.

- All 'video reviewing' sessions were fully transcribed and transcriptions were checked back for accuracy several times.

- An Assistant Psychologist checked a five-minute sample of each transcription for accuracy against the original recordings.

Secondly, to ensure the validity of interpretation it is important justify the steps taken within analysis and be transparent about how the interpretation was reached (Mason, 1996). To address validity of interpretation within the current study a peer reviewed

method for hybrid thematic analysis was used (Fereday and Muir-Cochrane, 2006) and the steps taken have been detailed in Table 8. Finally, the main threat to the theory generation is to not consider alternative explanations for phenomena (Robson, 2011). To overcome this, within the current project, both an inductive and deductive analysis took place and an iterative approach was taken to ensure that equal attention was paid to all comments made within the 'video reviewing' sessions. Once the coding system had been developed codes were once again checked against the original comments to ensure a good fit and valid description.

4.6.3 Reliability

The notion of reliability when applied to quantitative data collection methods and analyses is associated with the use of standardised measures (Robson, 2011), psychometric tests (Thomas, 2013) and the ability to replicate findings (Bryman, 2016). Reliability and the associated criteria for reliability are therefore often seen as problematic within qualitative research. However, researchers working with qualitative methods do need to ensure reliability in the way they employ their methods and research practices (Robson, 2011). Showing others that research has been carried out in an open, careful and systematic manner increases reliability (Robson, 2011). Within this project the following steps were taken to support this:

- Gibb's (1988) framework for reflection was used to ensure 'video reviewing' sessions focussed upon participating teachers' self-reflections. Care was taken throughout the intervention period to not contribute personal reflections.

- A hybrid thematic analysis of 'video reviewing' session data was used, which adds to the reliability of the coding system (Boyatzis, 1998).

- NVivo, a qualitative data analysis software program, was used to generate initial codes; ensuring equal attention was paid to all aspects of data.

- An example of a coded 'video reviewing' transcript has been included in the appendices (Appendix 10) alongside photos demonstrating the manual coding process (Appendix 9).
- An Assistant Educational Psychologist matched 15% of extracts from the transcripts to themes to give a measure of Inter Rater Reliability (IRR). An IRR value of 86% agreement was made.

4.7 Quantitative data analysis

4.7.1 Pre- and post-test language analysis measures

The pre- and post-test videoed readings of 'The Tiger who came to Tea' were transcribed using the Codes for the Human Analysis of Transcripts (CHAT) format; a standardised transcript format developed by the Child Language Data Exchange System (MacWhinney, 2000).

In order to measure the changes in the children's language complexity over the course of the 6-week intervention period the Computerized Language Analysis Program (CLAN; MacWhinney, 2000) was used to calculate child *mean length of utterance in words (MLU-w), number of different words* spoken by the child and child's *relative participation* within pre- and post-test readings of 'The Tiger who came to Tea'. MLU-w is calculated by dividing the total number of words by number of utterances. Relative participation is computed by dividing the number of child utterances by the total number of utterances (adult + child) within a session. A value of 0.5 would represent equal participation.

A count of the number of *spontaneous verbalisations* made by the child within each of the videoed sessions was also completed. Within this study language analysis outcomes are presented as descriptive statistics. Descriptive statistics allow for data to be simplified, organised and summarised in a manner that is easy to read and interpret (Thomas, 2013).

4.7.2 Validity

Construct validity refers to the extent to which the results of a test actually correlate with what we wish to measure, the theoretical construct (Thomas, 2013). Within this project, and in line with previous DR literature, the impact of the DR intervention upon the pre-schoolers' oral language skill will be measured by calculating MLU-w and number of different words spoken within pre- and post test DR reads (e.g. Crain-Thoreson & Dale, 1999; Lonigan & Whitehurst, 2000). These measures offer non-standardised, developmental measures of children's language, which are appealing because they allow for the analysis of more natural discourse than standardised tests. MLU-w offers a reliable measure of a child's structural language development (Parker & Brorson, 2005) and is recognised as one of the most "robust indices of young children's language acquisition (Rice et al., 2010). It is therefore considered a useful marker of language maturation. Calculating the 'number of different words spoken' offers a measure of the child's lexical diversity (Valdez-Menchaca & Whitehurst, 1992; Crain-Thoreson & Dale, 1999).

4.7.3 Reliability

Sources of threat to reliability when using quantitative data collection methods and analyses include, but are not exclusive to, participant error, observer error, and observer bias (Robson, 2011). Fluctuations in a participant's performance may occur due to contextual factors, such as who is administering the measure, test room environment, time of day and tiredness (Robson, 2011). To minimise the potential for participant error within this project pre- and post- test DR reads were:

- Delivered by the pupils' familiar teacher who had delivered the DR intervention throughout.
- Took place in the pupil's own classroom.
- Were scheduled to take place on the same day of the week and at the same time, six weeks apart.

To minimise risks posed by observer or researcher error and bias a second observer (an Assistant Educational Psychologist) checked the pre- and post-test reading transcriptions for accuracy against the original recordings (Appendix 11 presents an example pre-test read transcript in CHAT format). In addition to this the CLAN programme was used to calculate the MLU-w, number of different words spoken and relative participation so that calculation errors were avoided.

4.7.4 Frequency count data for coded comments

Conducting a thematic analysis allows the researcher to combine the analysis of the content and context of codes/ themes with the analysis of the frequency of codes to reveal patterns (Joffe & Yardley, 2004). Within this study a frequency count was conducted for the different types of coded comments and reflections made during the 'video viewing' sessions. This data was used to illuminate whether the teachers' noticing patterns changed over the course of the six- week period and, if so, how they changed.

4.8 Generalisation

A common mistake within case study design is to think of the case as a "sampling" unit from which statistical generalisations can be made (Yin, 2014). Instead case study design provides researchers with an opportunity to make what Yin (2014) terms "analytical generalisations", that is generalisations made at the conceptual level, which shed light upon underlying theoretical concepts and principles (Yin, 2014). Thomas (2013) corroborates this, stating that the purpose of a case study is not to tell a story rather "it has to illuminate some theoretical point" (p. 150).

Within this project I recognise that the findings related to the participating teacher-child dyads will be unique to this case and research context. This current study does not therefore seek to generalise these findings to the wider population. However, it does seek to analyse findings in relation to pre-existing theory regarding the use of

video self-reflection within training and potentially seeks to contribute to this theory base.

4.9 Ethical considerations

The current project was designed to ensure the principles and standards for ethical practice and research, as set out by the British Psychological Society's Code of Ethics and Conduct (BPS, 2009) and Code of Human Research Ethics (BPS, 2014), were adhered to. Full ethical approval was sought from and approved by The University of Birmingham's Ethical Review Committee. Table 9 outlines the steps taken within this project to ensure a high standard of ethical practice. Due to the nature of the study, procedures for the safe use and storage of video and audio data were considered, ensuring they adhered with the University of Birmingham Code of Practice for Research.

Table 9: Ethical considerations for the research project

Ethical consideration	Steps taken within the current study
Full informed consent	Participating teachers: • As discussed in the recruitment process section, teachers had already received initial training in DR and had been given an information letter (see Appendix 5) about the project which outlined; project details, their right to withdraw, confidentiality and limits of confidentiality, anonymity, video and audio recording, data storage and informed voluntary consent. • The two volunteering nursery teachers met with myself, the principal researcher, to discuss the project logistics and timeline. They were once again informed of their right to withdraw from the project at any time during and up to four weeks after the six-week DR intervention. The ethical review committee agreed this time frame for withdrawal. • Both teachers were given an informed consent form to sign (see Appendix 6). Participating pre-schoolers: • The participating teachers met with the pre-school pupils' parents to discuss the project and provide an information letter, which provided the same information as detailed above as the letter

	provided to the teachers.
	• Parents of the pre-school pupils were given an informed consent form to sign (see Appendix 8).
	• Parents were invited to meet with myself, the principal researcher, to discuss the project further.
	• I met with the participating pre-schoolers and their teacher to talk about the project using child friendly language and pictures (see Appendix 12). The pre-schoolers were asked if they would like to have reading sessions with the familiar adult involved and if they would like to be videoed. Both children appeared to be excited to take part.
Confidentiality	• To maintain confidentiality each participant was assigned a pseudonym, which was used when saving all video files.
	• All transcripts omitted any references to named individuals or organisations and the relevant pseudonyms were used throughout.
	• The data could not be deemed anonymous because I knew the identities of the participants and the line managers of the participating teachers knew they were taking part in the project. However, participants were assured that no identifying information would be included in the write up.
Storage, access and disposal of data	• The participating teachers and myself viewed the videoed reading sessions during the project. During the write up period they were also viewed by an Assistant Psychologist working for the local authority to ensure transcription reliability.
	• Both the participating teachers and the parents of the pre-schoolers gave permission for the reading session videos to be used in presentations given by myself for the purposes of professional development within the school or sharing of research (see consent forms in Appendices 5 & 7).
	• Only I viewed the video enhanced self-reflection session for transcription purposes.
	• No data files collected for the purposes of this study were shared or uploaded onto the Internet.
	• All files were temporarily stored onto a secured local authority laptop with two levels of passwords protection for the purposes of editing and viewing during the 'video reviewing' sessions. All files were removed upon completion of the intervention.
	• All data files are now stored securely on a password protected file on the principal investigator's University of Birmingham account. These files will be stored securely for 10 years as per the University of Birmingham's research code of practice.
Risk of harm	Participating teachers:
	• It was deemed that there would be minimal risk of harm for the teachers taking part in the project. Care was taken to ensure participants were provided with a safe and nurturing context for self-reflection. As researcher I provided only positive comments

	during the video enhanced reflection sessions and no negative critique was given. Participating pre-schoolers: • It was deemed that there was minimal risk of harm for the pre-schoolers involved. I spent some time with them in their nursery setting prior to the study. I introduced myself and explained the project using child friendly language to minimise the risk of them being anxious in the presence of an unfamiliar adult during videoed sessions. • Books that were colourful and popular with the pre-school age group were chosen to ensure maximum enjoyment during the reading sessions.
Dissemination of findings	• The participating teachers also received a personal feedback sheet detailing the main findings of the study and thanking them for their participation. • After the project had finished the parents of the participating pre-school pupils received an information sheet about dialogic reading strategies that they could use with their children. • The parents also received a list of the books the pupils enjoyed reading during the intervention period with some illustrative quotes of what they said during the sessions. • Five months after the completion of the six-week intervention I supported the participating teachers to present a professional development session about the DR principles and techniques to the rest of the staff within their partnered schools.

Chapter Five: Results

5.1 Introduction

This chapter presents the results from both the qualitative and quantitative data

analyses that were carried out for the purposes of answering each of the research

questions (RQs). Firstly, it will present the results of the analyses that were carried

out on the 'video reviewing' sessions data. Secondly, it will present the outcomes of

the language analysis measures completed on the transcriptions of the pre- and

post-test DR sessions.

5.2 Data set

For ease of reference Table 10 the outlines the data sets being used to answer each

of the RQs and details how the findings will be presented within this chapter.

Table 10: Overview showing the data set being used to answer each RQ and how
findings will be presented within this chapter

Research Question/s:	Data Set	Presented findings
1) What type of reflective comments do the participating teachers make when they watch video clips of themselves delivering DR? 2) What do the participating teachers selectively attend to ('notice') or comment on?	**Qualitative** Coded 'video reviewing' session data.	• Outcomes of 'hybrid' thematic analysis. • Diagrammatic representation of themes and sub-themes. (Figures 5 to 8) • Description of themes with commentary and supporting quotes from the data set.
3) How do the participating teachers' 'noticing' patterns change over the course of the six-week intervention period?	**Qualitative** Coded 'video reviewing' session data. **Quantitative** Count data for the types of coded comments made during video viewing	• Table showing % of different types of coded comment made during 'video reviewing' sessions by week. (Table 12) • Description of themes with commentary and supporting quotes from the data set.

	sessions held in week 2, 4, & 6 of intervention.	
4) Does the six-week DR intervention in which teachers engage in video enhanced self-reflection impact upon the oral language skills of the child within DR sessions?	**Quantitative** Pre- and post test descriptive language analysis statistics: - MLU-w - No. of different words spoken - Relative participation in reading session - No. of spontaneous verbalisations **Qualitative** Coded 'video reviewing' session data. Emerging 'deductive' theme – *Impact of intervention*	• See Tables 13 -15 for outcomes of the language analyses. • Description of Inductive theme – *Impact of intervention,* with supporting quotes.

5.3 'Video reviewing' session data

5.3.1 Hybrid thematic analysis

A hybrid thematic analysis, as described in section 4.6, was carried out using the data generated during the video enhanced self-reflection sessions ('video reviewing' sessions). During these sessions Gibbs' reflective cycle (Gibbs', 1988) was used to scaffold the participating teachers' ability to reflect upon what they saw in the edited video clips. Appendix 10 provides an example transcript from a 'video reviewing' session with initial codes and themes.

Based upon literature reviewed in Chapter 3, three deduced a priori theoretical codes were established for the types of reflective comments teachers make when watching themselves on video:

- 1) Descriptive
- Reflective:

2) Reflection 'on' action

3) Reflection 'for' action

Initial codes were generated from the comments made during each video viewing session using the NVivo qualitative data analysis software. The codes were then transferred onto Post it notes so that initial codes could first be organised using the a priori codes (deductive coding) and emerging themes could be identified (inductive coding). This allowed the validity of the theoretical codes to be checked whilst accommodating for those initial codes that did not meet the criteria for the a priori deductive codes.

Three further themes were identified from the 'video reviewing' session data giving. Overall, there were a total of five overarching themes: '*descriptive comments', 'reflective comments', 'shifts in beliefs about practice', 'video'* and '*impact of intervention.'* To elaborate and provide further structure to the coding system a number of 'sub-themes' (Boyatzis, 1998) were also identified. Table 11 provides a description of each theme and the identified sub-themes. Recognising that thematic analysis is a repetitive and iterative process (Boyatzis, 1998) the validity of the coding manual (both deductive and inductive) was subsequently checked against extracts of the transcribed data to ensure a good fit and to check that both participants contributed comments to each theme and sub-theme.

To test the reliability of the coding manual I asked an Assistant Psychologist to read excerpts of the raw data from the 'video reviewing' sessions and code the comments against themes and sub-themes to give a measure of Inter Rater Reliability (IRR). Through discussion we reached 86% agreement. IRR values between 75% and 90% are thought to demonstrate an acceptable level of agreement (Hartmann, 1977; Stemler, 2004).

Table 11: Overview of the inductive and deductive themes and relevant sub-themes

	Theme - *Sub-themes*	Description
Deductive Codes	**Descriptive comments** - *Child's performance* - *Adult's performance*	Comments that were descriptive in nature demonstrated **surface level analysis** and lacked evaluation and were potentially framed by terms, such as "I like". (Davis, 2006)

	Reflective comments
	
	- *Reflection 'on' action*
	- *Reflection 'for' action*
	   o *Questioning/ prompting*
	   o *Informative feedback*
	   o *Allowing the child to lead*
		Comments that demonstrated participants were being **analytical** and were integrating their **knowledge of the underlying DR principles** (Davis, 2006).
		
		<u>Reflection 'on' action:</u>
		
		Comments that reflected upon what was done in the video clip and include reference **to why it was successful** or **suggest an alternative course of action** they could have taken within the **context of the DR intervention**. (Schön, 1983)
		
		<u>Reflection 'for' action:</u>
		
		Comments about how they might change or approach their **future practice in DR**, in light of their reflections. (Farrell, 2007)

Inductive Codes	**Shifts in beliefs about practice**	Comments that showed **a shift in understanding, knowledge** or **belief** about how to develop pre-schoolers' **oral language skills.**
	Video - *Experience* - *Facilitation of reflection*	Comments that related specifically to the use of video – the experience of being videoed or how it facilitated reflection.
	Impact of Intervention - *Language* - *Confidence and engagement*	Comments regarding the impact of the intervention for the child.

5.3.2 Count data for type of comments made

In order to determine whether there were changes in 'noticing' patterns across the course of the six-week intervention a frequency count was conducted for the different types of coded comments made in the 'video reviewing' sessions held in weeks 2, 4 and 6. Table 12 presents the data for the percentage of different types of coded comments made each week.

Table 12: Percentage of different types of coded comments made each week

Type of comment	Week 2 (%)	Week 4 (%)	Week 6 (%)
Child descriptive	23.3	24	26.6
Adult descriptive	27.4	10.7	9.4
Reflection 'on' action	23.3	32	18.8
Reflection 'for' action	12.3	20	4.7
Shifts in beliefs about practice	1.4	5.3	12.5
Video	11	2.7	10.9
Impact of intervention	1.4	5.3	17.2

Descriptive comments, which focussed upon the child's performance within the clips, increased slightly across the weeks from 23.3% to 26.6%. By contrast, over the six-week period, there was a decrease from 27.4% to 9.4% for the percentage of descriptive comments made about the adult's performance. The largest change in these types of comments occurred between weeks 2 and 4, decreasing from 27.4% to 10.7%.

Comments that were coded as reflection 'on' action increased from 23.3% in week 2 to 32% in week 4. This was followed by a subsequent decrease to 18.8% in week 6. There was a similar pattern found with comments coded as reflection 'for' action, increasing from 12.3% to 20% between weeks 2 and 4 and then decreasing to 4.7%.

Overall in week 2 the 'video reviewing' sessions were comprised of 50.7% of comments coded as descriptive and 35.6% of comments that were reflective. In the following week the overall percentage of descriptive comments decreased to 34.7%, whilst reflective comments increased to 52%. In the final week descriptive comments remained at a similar overall level to week 4 (36%) but reflective comments decreased to 23.5%. There was an increase across each week in the number of comments that were thought to represent 'shifts in beliefs about practice' from 1.4% in week 2, to 5.3% in week 4 and up to 12.5% in week 6.

'Video reviewing' session comments, which related specifically to the use of video as a tool to aid reflection, accounted for 11% of comments in week 2, 2.7% in week 4 and 10.9% in week 6. Finally, comments about the impact of the intervention for the child increased from 1.4% to 5.3% between weeks 2 and 4 and then to 17.2% in week 6.

5.4 Themes established from 'video reviewing' session data

5.4.1 Descriptive comments

The teachers' descriptive comments or 'noticing' demonstrated surface level analysis. These comments focussed upon what had been viewed within the clip and lacked interpretation or evaluation that made links between underlying theoretical principles of DR and their practice. As shown in Figure 5 these comments focussed upon either the adult's or the child's performance.
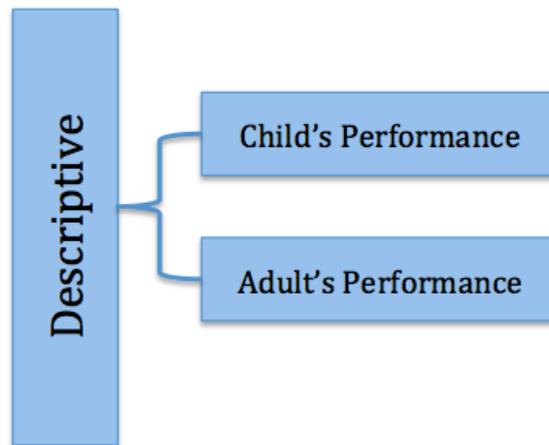
Figure 5: A visual representation of the 'descriptive comments' theme

5.4.1.1 Descriptive: Adult's performance

Within 'video reviewing' sessions both Sandra (Nested unit 1) and Olivia (Nested unit 2) made descriptive comments related to their implementation of the PEER sequence (**P**rompt, **E**valuate, **E**xpand, **R**epeat). Comments made by both participants in their first 'video reviewing' sessions suggested that they were not confident in their ability to apply the sequence correctly. Sandra discussed feeling worried that she did not know it well enough, whilst Olivia noticed that she had not completed the PEER sequence in some of her viewed clips. However, by their final sessions both Sandra and Olivia were able to notice when the sequence had been applied correctly and, Sandra in particular, talked about being more confident in using it.

The following excerpts illuminated this:

Sandra	"So I was agreeing with her answer and then expanding. Yeah ok, and then asking her to repeat it." "It's ok but I still need to be more familiar." "I keep getting worried about not knowing it enough." *- Session 1* "I think I'm just… the more I do it the more I find it ok to go through the whole […] process of the PEER. You know it's just my confidence using it now is ok" *- Session 3*
Olivia	"I did get him to repeat it as well. Maybe I didn't expand. I didn't expand did I? On what he said." "I don't know I think I kind of lost the PEER there." *- Session 1* "Hmm well I think I did the PEER there; the prompt and expanding. I don't know, I've forgotten. Um prompt, expand […] and evaluate […] and getting him to repeat. I did that process." *- Session 2* "So I did see it go through PEER there, the prompt, evaluate, expand." *- Session 3*

Other areas of focus for descriptive comments about the adult's own performance related to questioning and the types of prompts they used. Examples from the excerpts included:

Sandra	"So I've done a distance [prompt] by asking her what she's got in her cupboards." So, I think ... So I did the 'who' […] question." *- Session 1* Without [realising] I've done a bit of completion there haven't I?" *- Session 2*
Olivia	"I feel like I'm asking loads of questions there. I have to keep questioning, questioning, questioning to get the answer I want out of him." *- Session 1*

These comments demonstrated that the use of video allowed Sandra to notice the types of CROWD (**C**ompletion, **R**ecall, **O**pen-ended, **W**h-questions) prompts she was

using. In her first session Olivia discussed feeling like she had asked too many questions when she viewed one of the clips.

5.4.1.2 Descriptive: Child's performance

Sandra and Olivia both made descriptive comments about the child's demeanour during the viewed clip and talked about how engaged they appeared to be. The following comments captured this:

Sandra	"So I like that she was finishing off sentences. She was quite engaged in the book." *- Session 2* "So she's more distracted isn't she? Not quite so engaged but then you can see her confidence with "right I'm turning the page now" […] that bits nice to see, but not quite so engaged with the story." *- Session 3*
Olivia	"He seems um, a little less engaged in that one. Do you think?" *- Session 1* "Ahh, he's very excited, which is nice." *- Session 2* "Yeah, it was nice because you could see he really understood what had happened in the story and he was quite enthusiastic." "Yeah he answered it really nicely there and he kept like adding to it himself and expanding and although he did the yawn at the beginning he did seem quite engaged towards the end." *- Session 3*

Another focus for descriptive comments about the child's performance was their ability to repeat-back modelled sentences. Sandra and Olivia both noticed times when the child was not able to repeat back a whole sentence correctly.

Sandra	"I'd say 'can you say that back?' and she'd say some of it but not necessarily all of it." *- Session 1* "So I'm asking her to say 'a tiny very hungry caterpillar' but she's struggling with it." *- Session 2*
Olivia	"Sometimes he can't repeat the whole sentence but he does add more to what he had originally." *- Session 2*

However, in the final session they both made descriptive comments about successful attempts the child made to say back a whole sentence:

Sandra	*"That's a good sentence isn't it? 'They're pleased to see their Mummy'."*
	- Session 3
Olivia	*"Ahh yeah, he's really good at clearly repeating the sentence back now and he even added some more on because he said 'and Daddy' didn't he?"*
	- Session 3

When watching back video clips Olivia made some comments about Sami's responses not always being what she had hoped for or expected. This is captured in the following excerpts:

Olivia	*"Hmm, so you know when, so I'm asking the prompt but then he doesn't exactly answer it the way I want him to answer it."*
	- Session 1
	"He does do that sometimes though I know he knows the rest of the story but he kind of makes up something."
	"He's quite strong-minded in what he wants to talk about."
	- Session 3

Although descriptive comments were coded as demonstrating surface level analysis some of the areas of focus, which have been presented in this section, were picked up on and interpreted within comments that showed a deeper level of reflection. The next section will discuss the 'reflective comments' theme and associated sub-themes.

5.4.2 Reflective comments

Reflective comments were judged to be qualitatively different to descriptive comments. They were more analytical and demonstrated some integration of their knowledge and understanding of the underlying theoretical DR principles: *evocative techniques*, *informative feedback* and *progressive change*. Comments were coded

as either reflection 'on' action (Schön, 1983) or reflection 'for' action (Farrel, 2007). Comments coded as reflection 'on' action included either a reference as to why the viewed interaction was successful or suggested an alternative course of action that could have been taken within the context of the DR intervention. Teachers' comments coded as reflection 'for' action made reference to how they might change or approach their future practice in DR, in light of their reflections. A number of sub-themes emerged for reflective comments. These were: *questioning*, *informative feedback* and *allowing the child to lead*. Figure 6 presents a theme map for reflective comments. These sub-themes will now be discussed.
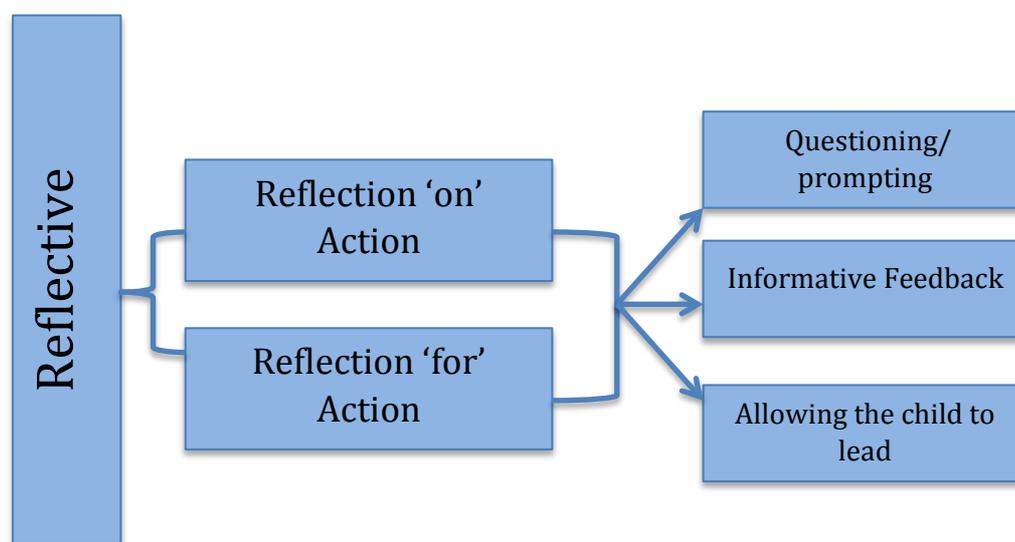
Figure 6: A visual representation of the 'reflective' comment theme with associated sub-themes

5.4.2.1 Reflective comments: Questioning/ prompting

Olivia discussed her use of questioning in her first 'video reviewing' session. She noticed that she had asked a lot of questions and that she had repeated some questions from earlier in the week. She indicated that she felt that this had impacted upon Sami's engagement in the session. Her reflections are captured in the following excerpts:

	Questioning/ prompting – Session 1
Olivia	*Reflection 'on' action* "I think it would've flowed better if I didn't ask so many [questions] because I think I was nearly asking them every page […] and I repeated some of them that day that I'd done earlier in the week so maybe I didn't really need to ask them again" *Reflection 'for' action* "So maybe I wouldn't ask so many [questions] next time and kind of let it flow better and keep him more engaged."

Sandra made a similar reflection about the use of too many questions or prompts, saying:

	Questioning/ prompting – Session 1
Sandra	*Reflection 'for' action* "You don't want to be stopping too much. You don't want to be interrupting."

However, in contrast to Olivia's reflection about repeating questions or prompts from session to session, Sandra's comments indicated that she thought it was a valid strategy.

	Questioning/ prompting – Session 1
Sandra	*Reflection 'for' action* "We want to get familiar with the story but then I also think […] you could have some different [prompts] but it doesn't really matter if you repeat. You can repeat [prompts]. You can put a [prompt] in that you had one day and still have it again another, in the other sessions. I don't think that really matters."

In her second 'video reviewing' session Olivia reflected upon whether she should keep repeating a prompt if the child does not answer straight away or whether to model an answer. She said:

"That comes to one of my questions I had – if they don't know the answer straight away. Should I keep prompting them or model? But there I didn't, I just kept

prompting him. He got there in the end didn't he?"

Olivia reflected upon this and made the following comment:

	Questioning/ prompting – Session 2
Olivia	Reflection 'on' action "From that clip that we watched […] I think that worked quite well. I just kept prompting him […]. He came out with some more language that he probably wouldn't have […] if I'd just told him or modelled straight away what I wanted, what I was thinking."

After analysing the clip Olivia reported that by continuing to prompt Sami she had encouraged him to use more language and therefore, within that context, she felt it was the right strategy to use. The next section will focus upon reflective comments that focussed upon the use of informative feedback.

5.4.2.2 Reflective comments: Informative feedback

Within DR the adult is encouraged to provide informative feedback through the use of expansions and corrective modelling. This allows the child to hear language pitched at a slightly more advanced level. Both Sandra and Olivia made reflective comments about their application of informative feedback within the viewed clips and discussed whether the informative feedback was relevant and pitched at the right level for the child.

Sandra discussed providing informative feedback in the form of modelled sentences to encourage Amina to not give one-word responses. In her first session Sandra noticed a moment in which she had extended Amina's language through the use of informative feedback. This was highlighted in the following comment:

	Informative feedback – Session 1
Sandra	Reflection 'on' action "So ahhh, I'm extending her language! Yeah, if I just read it and said 'what can you see?' and she said 'the tiger' then we would have moved on […] We wouldn't have got anything else out of that would we? So hopefully I've extended her language by giving her some more words 'big, stripy tiger' and then getting her to repeat it gives her longer sentences, rather than one-word answers.

However, in session 2 she reflected upon whether she had given Amina sentences that were too long, which she was not yet ready for. The following excerpts captured these reflections:

	Informative feedback – Session 2
Sandra	Reflection 'on' action "So I'm wondering whether when I started I was shorter and now I've tried to do longer [sentences] before she was ready?" Reflection 'for' action "I think really what I've said now is to be more conscious of maybe keeping the expansion not so expanded. Not necessarily so many words […] just shorter".

When watching her clips back during 'video viewing' sessions, Olivia noticed some missed opportunities to provide informative feedback. This was indicated in the following excerpts:

	Informative feedback
Olivia	Reflection 'on' action "I evaluated what he said but I didn't actually add anything to it or get him to repeat it again. You can see he's quite confident with the story and he knew what was coming. He was able to retell it himself there wasn't he? Maybe I didn't need to get him to repeat but maybe I could have expanded on what he said." - Session 1 "He was saying about the sharp claws. He was saying "shark". Did you notice that bit? […] I repeated "sharp" but then he still said "shark" and I just moved on. I should have maybe explained the different things "shark" and the word "sharp." - Session 3 Reflection 'for' action "I think I would keep a look out for anything that he didn't understand or if he had a misconception about something […] That will help him with his language even more because he will understand." - Session 3

As highlighted by the excerpts above Olivia noticed an error made by Sami during her final session, which she had not addressed. Upon reflection she felt that it was

important to address misconceptions and errors within DR sessions to support the development of understanding, which in turn, would have a further positive impact upon language.

5.4.2.3 Reflective comments: Allowing the child to lead

Both Sandra and Olivia discussed the need to listen to what the child is saying during DR and respond to what they say, allowing them to lead the conversation. This theme is highlighted within the following excerpts:

	Allowing child to lead – Session 2
Sandra	*Reflection 'on' action* "When you're doing a distance [prompt] you're not actually really sure what they are going to say so you've got to react […] to whatever they're saying and have things in your head. But I think you get better at that just by doing it don't you? *Reflection 'for' action* "Really I need to do that; go with the flow sometimes. Especially if she's become animated about something and there's more language coming out." "It's not about correcting, correcting, correcting. It's about listening to her and what she's trying to say."
Olivia	*Reflection 'on' action* "I think I should have listened. Well I was listening to what he said but I think I should have responded better to what he was saying rather than just saying what I wanted to say." *Reflection 'for' action* "I would respond to what he's saying more and follow his trail of thought further rather than making him say what I want him to say."

When watching back a clip during session 2 Sandra discussed the need to react to what the child is saying, particularly when using distancing prompts in which the child is encouraged to make links between the story and their own life. She talked about the importance of listening to and understanding what the child is saying instead of always correcting them. Olivia also discussed the need to listen and follow the

child's trail of thought within DR. In her final session she noticed an example from her own practice in which she felt she had not done this. She said the following:

	Allowing child to lead – Session 3
Olivia	*Reflection 'on' action* *"I think he was getting fixated on there being a monster in the woods and I kind of dismissed it a bit and I should have maybe gone into it a bit more with him."* *Reflection 'on' action* *"I should have talked about what he was thinking about more […] taking his initiative and just asking about the monster. Asking him why he thought there was a monster in the woods."* *"That's probably why he went a bit um uninterested then because I kind of didn't talk about what he wanted."*

After noticing that she had not responded to Sami's ideas within the viewed clip Olivia reported that she felt this had resulted in him becoming disengaged. She therefore reflected upon the need to use questions and prompts to support the development of their ideas within DR, in order to maintain the child's interest.

5.4.3 Shifts in beliefs about practice

As discussed in the previous section, comments coded as reflective demonstrated some application of the participant's knowledge of the DR principles to their observed practice. However, some reflective comments made within 'video reviewing' sessions went further and appeared to demonstrate a shift in understanding, knowledge or belief about how to develop pre-schoolers' oral language skills, which had resulted from the self-reflection process. These comments were coded as 'shifts in beliefs about practice' and were judged to be more evaluative than descriptive and reflective comments. Sandra made the following comments, which represented some of these shifts:

	Shifts in beliefs about practice
Sandra	*"So it's good to use the same stories isn't it? Just using the same book so they get familiar with it and then they get chance to hear the language over and over and use it themselves – language they might not have had chance to hear before.* *- Session 2* *"I don't worry now about going off plan, off track. It doesn't really matter because it's all about extending their language, from their level with what they want to talk about."* *"If you don't give them chance to say it then they're not going to learn it but you have to be careful and make sure you give them language at the right level, not too advanced."* *"If you think about what we are trying to do, improve their language, it's about becoming familiar with the book and the phrases and the whole way we're working with the book – questioning and repeating. The more you read the same book the more familiar they will get and they will understand it and use the language."* *- Session 3*

Sandra's comments demonstrated that, through the reflection process, she had developed an understanding of the benefits of repeated readings. She felt that the use of questioning and repetition leads to familiarity with a book, which supports language development and language understanding. She had also recognised the importance of responding to the child within an interaction and allowing the conversation to go "off plan, off track" and talk about what they want to talk about. Olivia made the following comments, which represented shifts in beliefs about practice:

	Shifts in beliefs about practice
Olivia	*"I think just how important it is to explain things […] like sometimes I don't realise and I kind of dismiss what they're saying a bit but it is important to explain it to them because they do pick it up and understand and start using new language on their own."* *"Yeah that's what's good about repeating the book as well because if you just read it once and explain that they may not use the sentence again themselves and will they forget? But having a chance to use the language themselves again and repeating it helps them to remember."* *"Before we did the dialogic reading, when I was sharing a book with the children, I wouldn't really think to ask those sort of [distance] prompts so um yeah its nice I like them. Yeah and their language is quite good when they're talking about something that they want to talk about themselves, like from home."* *- Session 3*

Olivia also considered the importance of developing the child's understanding of the language being used within books. Through her reflections she had noticed how important it was to explain misconceptions because once the child understands they are able to use the language themselves. She also discussed the use of distancing prompts, in which the child makes links between their own life and the content of the book, explaining that she had not thought to ask such questions previously. She felt that these prompts facilitated the child to use language to talk about what they know, which improved their performance.

5.4.4 Video

Within 'video reviewing' sessions both participants made comments about how they experienced watching themselves back on video. They also made some comments that illuminated how the use of video facilitated their ability to reflect upon their DR practice (see Figure 7).
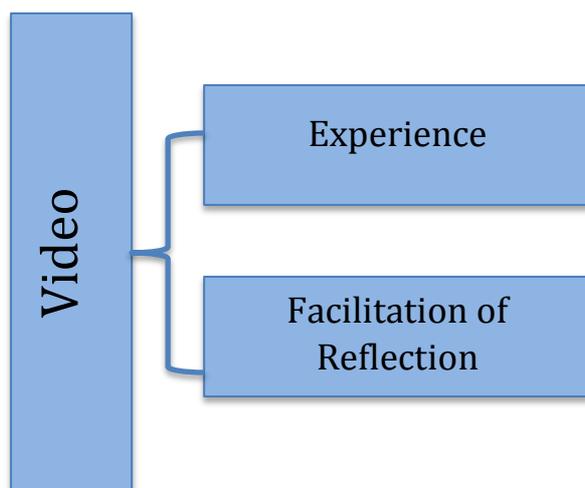
Figure 7: A visual representation of the 'video' theme

5.3.4.1 Video: Experience

The following comments captured how the participants felt about watching

themselves on video during the 'video reviewing' sessions:

	Video: Experience
Sandra	"Yeah and actually it's quite good for your own teaching, for your own reading. And it wasn't as bad as I thought watching me!" *- Session 1* "You see I thought this whole book hadn't gone so well but actually when you get down to the nitty gritty you can still see progress can't you?" *- Session 3*
Olivia	"It's hard, you always see the bad things don't you, when you watch yourself." "You always think that it's gone terribly when you have an observation or being filmed or something like that but when you look back there are actually some good things from it. But you don't realise it at the time. You just think 'oh no that went really bad'." "It's really helpful because yeah, I wouldn't have realised that I was actually doing some of those things and I just thought it didn't go very well when we did it but it seems like it did." *- Session 1*

In her first session Sandra made positive comments about the experience explaining that she felt it was good for her teaching and had not been as bad as she thought it might have been. During her final 'video reviewing' session Sandra commented that she felt the book used that week ('Owl Babies') had not gone well but after micro-analysing the clips she was able to see that Amina had still shown progress with her language.

Olivia was initially less positive than Sandra during her first session, reporting that she was focussing upon the 'bad things' when watching herself back. However, as the session progressed and more clips were viewed she felt reassured. Olivia recognised that there were examples from her own practice of her applying the DR techniques successfully, which led her to report that the video clips were helpful.

5.3.4.2 Video: Facilitating reflection

The following comments illuminated how the participants felt the video clips had facilitated their self-reflection:

	Video: Facilitating reflection
Sandra	Oh I hadn't heard that before. She said "somewhere" didn't she? I hadn't heard. I don't think I heard that when she was reading to me that she said "somewhere". **- Session 1** "Um you don't necessarily pick it all up [at the time] do you? But then you watch it back." **- Session 2** "When you see it like that […] because you're sort of engrossed in doing it when you're doing it. It's quite interesting to see it back because you don't remember when you're doing it." "That first time she said "flying" I didn't realise that's what she said." **- Session 3**
Olivia	"I was looking at how I was talking to him and how I was wording the questions." **- Session 1** "Yeah, you don't always think of those things though but when you watch it back on video you think "oh yeah" I forgot that he didn't understand that so it's good to see." "Um but yeah it was only watching it back that I thought oh I wonder what he was thinking? What was this idea that he had had?" **- Session 3**

As these comments illustrated, watching the video clips enabled Sandra to recall aspects of her DR practice that she would not usually have remembered. It also enabled Sandra to analyse some of Amina's responses in more detail. She commented upon Amina's use of some vocabulary, which she had not noticed in the moment. The use of video clips enabled Olivia to examine her interactions with Sami more closely. She was able to reflect upon some of his misconceptions and noticed moments in which she had not used her DR skills to support him to develop his ideas.

5.4.5 Impact of intervention

The participating teachers both made comments regarding the impact of the DR intervention on the child. Two sub-themes were identified within this theme: *language* and *confidence & engagement* (see Figure 8).
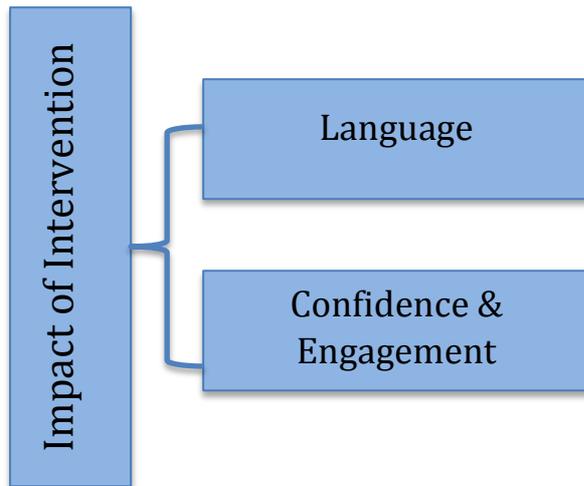
Figure 8: A visual representation of the 'impact of intervention' theme

5.3.5.1 Impact of intervention: Language

Sandra and Olivia both noted that the DR intervention had supported the preschool pupil to make progress with their language and use longer, more complex, sentences. Olivia noticed that Sami was using vocabulary, such as prepositions, that she would not usually expect a nursery aged pupil to be using in context at that point in the academic year. The following comments highlighted some of the observations made regarding language progress:

	Impact of intervention: Language
Sandra	"Sometimes she's just expanding on her own. She's using longer sentences and more words." "You can definitely hear that her language is coming along." *- Session 3*
Olivia	"Sometimes at the beginning […] he was just kind of saying some words or like the end of sentences but now he's saying more." *- Session 1* "He's come on really well and especially using words like cocoon, which you wouldn't really come across unless you were looking at caterpillars. I don't think he would have used that language before so its' good that it's just from reading it three times together." *- Session 2* "Words like 'around', a lot of the children don't use […] prepositions so it is good that he's picked that up and he's using it himself because normally at this point in the year most of the children wouldn't use vocabulary like that." *- Session 3*

5.3.5.2 Impact of intervention: Confidence and engagement

Finally, the impact of the intervention in terms of the child participants' confidence and engagement within shared reading was discussed. Sandra noticed that Amina had become more confident to sit and share a book compared to when the intervention started. Olivia discussed how Sami had become more engaged with shared reading because of the use of distancing prompts. She also discussed the impact the intervention had upon his ability to think imaginatively and bring his own ideas into the storytelling. The following excerpts capture these moments of noticing:

	Impact of intervention: Confidence & engagement
Sandra	*"You can see she's definitely more confident now. It's lovely actually. When it's time for the session she gets out the book and says 'come on I'll get the chair'. At the beginning she was quite shy."* *- Session 3*
Olivia	*"Yeah he has started to be more imaginative and he's coming up with his own ideas now."* *"He really likes it when I give him a distancing question. He becomes really engaged in the conversation. He loves talking about his own experiences. I think he has quite a lot of nice experiences and this gives him the opportunity to talk about them."* *- Session 3*

5.5 Language analysis data

Pre- and post-test reads of 'The Tiger who came to Tea' were transcribed into the Codes for the Human Analysis of Transcripts (CHAT) standardised format. The Computerized Language Analysis Program (CLAN; MacWhinney, 2000) was then used to calculate the child's mean length of utterance in words (MLU-w), number of different words spoken by the child and child's relative participation within each of these sessions. Frequency count data is also provided for spontaneous verbalisations. Outcomes of the language analyses are presented as descriptive statistics.

5.5.1 Mean length of utterance in words (MLU-w)

Table 13 presents the outcomes for the pre- and post-test calculations of MLU-w for the videoed reading sessions of 'The Tiger who came to Tea'. Mean length of utterance increased for both of the participating children. Amina demonstrated the greatest increase in MLU-w, increasing from an MLU-w of 2.352 to 3.423 words, a gain of 1.071 words per utterance. Sami started off with a higher MLU-w of 3.146, which increased to 3.866, a gain of 0.72 words per utterance.

Table 13: Pre- and post-test mean length of utterance in words (MLU-w).

	Pre-test		Post-test	
	MLUw	Std. D	MLUw	Std. D
Amina (nested unit 1)	2.352	1.701	3.423	2.36
Sami (nested unit 2	3.146	2.359	3.866	2.505

5.5.2 Different words spoken

Table 14 presents the data for the number of different words spoken by each child used in the pre- and post-test reading sessions of 'The Tiger who came to Tea'. In the pre-test sessions Amina said 75 different discrete words, whilst Sami said 121. In the post-test reading sessions both children increased the number of different words spoken, demonstrating a wider vocabulary. Amina used 120 different words and Sami used 161 different words.

Table 14: Number of different words spoken.

	Number of different words used		Increase
	Pre-test	Post-test	
Amina (nested unit 1)	75	120	60%
Sami (nested unit 2)	121	161	33%

5.5.3 Relative participation

The relative participation of the child within each of the pre- and post-test reading sessions was calculated by dividing the number of child utterances by the total number of child and teacher utterances. A figure of 0.5 would reflect equal participation within the session. As shown in Table 15, both children increased their relative participation in the reading session for 'The Tiger who came to Tea' from pre- to post-test. Amina showed the greatest increase in participation from 26.2% up to 33.2% (+7%). Sami increased his participation from 37.7% to 40.4% (+2.7%).

Table 15: The Relative participation of each child by number of utterances.

	Number of child utterances		Total utterances		Relative Participation	
	Pre-test	Post-test	Pre-test	Post-test	Pre-test	Post-test
Amina (nested unit 1)	54	71	206	214	0.262	0.332
Sami (nested unit 2)	89	112	236	277	0.377	0.404

5.5.4 Spontaneous verbalisations

A frequency count revealed that both participating preschool pupils increased the number of spontaneous verbalisations they made during the pre- and post-test DR reading sessions. Once again Amina demonstrated the greatest increase from a total of 4 up to 15, a gain of 275%. Sami increased his number of spontaneous verbalisations from 16 to 21, a gain of 31.25%. Table 16 presents this data in tabular format.

Table 16: Spontaneous verbalisation data

	Number spontaneous verbalisations		Increase
	Pre-test	Post-test	
Amina (nested unit 1)	4	15	275%
Sami (nested unit 2)	16	21	31.25%

5.6 Summary of key findings in relation to the research questions (RQs)

RQ1: What type of reflective comments do the participating teachers make when they watch video clips of themselves delivering DR?

The hybrid thematic analysis revealed that both teachers made self-reflection comments that fit within three qualitatively different categories or themes – '*descriptive*', '*reflective*' and *'shifts in beliefs about practice'*. *Descriptive* comments

focussed upon what was being viewed within the moment, demonstrated surface level analysis and did not seek to link the underlying theoretical principles of DR to the situated DR practice. By contrast *reflective* comments were more analytical and did integrate DR theory with practice. Comments that were coded as reflection 'on' action made reference to why the viewed interaction was successful or suggested an alternative course of action that could have been taken within the session. Reflection 'for' action comments made reference to how the teachers' future DR practice might change, in light of their reflections. Some comments made by the participating teachers were judged to show further evaluation when compared to *reflective* comments and appeared to demonstrate a shift in understanding, knowledge or belief about how to develop pre-schoolers' oral language skills.

RQ2: What do the participating teachers selectively attend to, 'notice', or comment on?

Areas of focus for teachers' *descriptive* comments and 'noticing' included their own performance in relation to implementing the DR intervention or the performance of the child within the viewed clip. Evidence from *reflective* comments suggested that the participating teachers were selectively attending to or noticing the following:

- How *questioning and prompting* techniques were used within the clip.

- Their ability and need to provide *informative feedback*, which was relevant and *pitched at the right level* for the participating child.

- Whether they *allowed the child to lead* the conversation, listened to what they said and responded appropriately.

In addition to these areas of focus for descriptive and reflective comments, the teachers made comments relating specifically to the use of *video* within the training programme and talked about how it facilitated their reflections. Finally, some

comments made during the video reviewing sessions referred to the *impact of the intervention* for the child. The video clips supported them to 'notice' how the DR intervention impacted upon the language skills, confidence and engagement of the participating child within the reading sessions.

RQ3: How do the participating teachers' 'noticing' patterns change over the course of the six-week intervention period?

The frequency count data presented in Table 12 shows that from the first to the second 'video reviewing' session there was an overall increase in the percentage of comments made that were coded as *reflective* (reflection 'on' action plus reflection 'for' action), whilst overall percentage of *descriptive* (adult's performance plus child's performance) comments decreased. When comparing data from the second and final 'video reviewing' sessions it was evident that the overall percentage of *descriptive* comments made remained at a similar level but overall percentage of *reflective* comments decreased in the final week. However, in the final 'video reviewing' sessions the percentage of comments that were coded as *shifts in beliefs about practice* increased, as did comments regarding the *impact of the intervention.*

When looking at the type of *descriptive* comments made it was evident that the percentage of comments which focussed upon the child's performance within the viewed clips remained at a similar level across the weeks, whilst the percentage of *descriptive* comments made regarding the adult's own performance decreased. The most marked decrease in adult descriptive comments occurred between the first and second 'video reviewing' sessions.

RQ4: Does the 6-week DR intervention in which teachers engage in video enhanced self-reflection impact upon the oral language skills of the child within DR sessions?

Data from the language analyses that were carried out on the pre and post-test reads of 'The Tiger who came to Tea' showed there were increases in mean length of utterance, number of different words spoken, relative participation and spontaneous verbalisations for both participating children after the six-week intervention period. When comparing the participating children's performance against the language analysis measures, Amina started off with lower baseline scores across all measures but demonstrated the greatest increases.

Chapter Six: Discussion

6.1 Introduction

This chapter will first outline the contributions this study has made to the research base and then discuss in detail the findings. Findings are discussed in relation to the teachers' development of selective attention, 'noticing' and productive critical reflection and situates the findings within the existing literature regarding the use of video self-reflection within teacher training. The use of video within the intervention is discussed alongside findings regarding the impact of the DR intervention. Limitations and implications for theory and practice are discussed and finally, the chapter finishes with concluding comments.

6.2 Contributions of the research

A systematic review of the literature highlighted that DR training for professionals working within early childhood education settings had traditionally employed a direct-instruction training model, with some studies incorporating the use of instructional videos or role-play to support skill development. This study introduced video enhanced self-reflection into a DR training programme, a methodology not previously employed. Video of the participating teachers' own DR practice was used in conjunction with a systematic framework for reflection to support skill development.

Analysis of the contributions made by the participating teachers during 'video reviewing' sessions demonstrated that video supported them to develop critical reflection and 'notice' relevant aspects of their DR practice, such as: their use of questioning and prompting, their provision of informative feedback and whether or not they allowed the child to lead the conversation. Language analysis data demonstrated that the six-week DR intervention, with the incorporated video enhanced self-reflection, had a positive impact upon the oral language skill of the participating pre-schoolers within the context of DR sessions. The study therefore

adds to the body of research that reports positive effects for video self-viewing within teacher professional development (e.g. Borko et al., 2008; Sherin & van Es, 2009; Seidel et al., 2011; Kleinknecht & Schneider, 2013) and provides an example of how it can be used within early years to develop the quality of adult-child interactions.

Finally, it has been argued, from a situated learning perspective, that in order to effect change in teachers' practice there needs to be an increased focus upon the use of collaborative enquiry oriented research projects (Fisher & Wood, 2012). This project provides an example of how video can be used to support such a collaborative approach, affording opportunities for teacher self-reflection, over a 'top-down' or expert led approach.

6.3 Discussion of findings

6.3.1 Hierarchy of reflection

Through a hybrid thematic analysis process it was revealed that during 'video reviewing' sessions the participating teachers made reflective comments that could be categorised within three qualitatively different codes; 'descriptive', 'reflective' and 'shifts in beliefs about practice.' Analysis of comments coded as reflective found evidence for both reflection 'on' action (Schön, 1983) and reflection 'for' action (Farrell, 2007).

The participating teachers' descriptive comments focussed upon either their own performance within the viewed clip or upon the child's performance. These comments had features of what Davis (2006) might term 'unproductive' reflection. Teacher comments coded as descriptive demonstrated surface level analysis, did not appear to link the DR principles and theory to their situated practice and focussed upon what happened in the moment. Some of these comments were framed by phrases such as "I like", "I feel" or "it's nice", which Davis (2006) suggests can be unhelpful and potentially judgemental within reflection. However, within this project it

was apparent that some comments coded as descriptive appeared to tap into ideas that led to reflective comments at a later stage in the self-reflection process, suggesting that rather than being 'unproductive' these comments were a pre-cursor to productive reflection. This will be discussed further in section 6.3.2 *Selective attention and 'noticing'.*

In comparison to descriptive comments, reflective comments were more evaluative in nature and were thought to demonstrate some integration of the teacher's knowledge of the DR techniques and theory with their viewed practice, a feature associated with productive reflection (Davis, 2006). Whilst reflection 'on' action comments discussed what was viewed in the clip and made reference to why it was successful or suggested an alternative course of action, reflection 'for' action comments included information about how the teacher might change their future DR practice. Comments that were coded as 'shifts in beliefs about practice' also had features of productive reflection, such as challenging tacit assumptions and integrating theory and knowledge (Davis, 2006), but they appeared to go beyond reflecting upon the situated DR practice and demonstrated a shift in of understanding of how to support language development through pedagogical practices.

In previous research, Sydnor (2016) investigated the focus of student teachers' 'noticing' when they viewed videos of their own practice and found an increase in depth of reflection and a shift in focus away from "themselves and their idiosyncrasies to their students and their actions" (p. 74). Within this project a similar pattern in 'noticing' was observed with experienced teachers. From the first to the second 'video reviewing' sessions frequency count data showed that there was an overall decrease in the percentage of descriptive comments made, whilst there was an overall increase in reflective comments.

From the second to the final 'video reviewing' sessions the overall percentage of descriptive comments remained at a similar level but there was an overall decrease

in percentage of comments coded as reflective, which is perhaps counter intuitive. However, there was an increase in the percentage of comments that appeared to show a deeper level of cognitive processing and demonstrated a 'shift in belief about practice' and embedding of the principles of DR. These three qualitatively different types of reflective comments made within the 'video reviewing' sessions could therefore be conceptualised as a hierarchy of reflection, which increases in depth.

Descriptive comments represent the first level within the reflective hierarchy; requiring lower level reasoning processes, whilst 'shifts in beliefs about practice' demonstrate integration of theory and knowledge and show a shift in belief and understanding of how to develop language through pedagogical practice which has resulted from the reflection process. Figure 9 presents this theoretical hierarchy of reflection. The next section will discuss in detail what the participants within this project selectively attended to or 'noticed' when they watched themselves delivering DR on video.

Figure 9: Theoretical hierarchy of reflection

6.3.2 Selective attention, 'noticing' and the development of critical reflection

A pattern that emerged from the 'video reviewing' data within this project was that, from the first to the second sessions, there was a notable decrease (-16.7%) in the percentage of descriptive comments made which focussed upon the adult's own performance in delivering the DR intervention within the viewed clip. Once again this pattern mirrored the findings of Sydnor (2016). Further analysis of the descriptive comments made during the first 'video reviewing' sessions suggested that the participating teachers were initially selectively attending to the pragmatics of implementing the standardised procedures, such as whether or not they followed the PEER process and their use of the CROWD prompts. Many of these initial 'noticing' comments appeared self-critical, which could be explained by the teachers' inexperience in delivering DR and their relative lack of confidence in applying the techniques. However, another explanation is that both teachers were new to the experiences of watching their teaching practice on video and engaging in a self-reflection process. As described in Zhang et al. (2011), watching oneself on video "is like having a mirror placed" in front of the face. This level of 'self-confrontation', which they were not yet used to, may have impacted upon their ability to initially 'notice' or selectively attend to more relevant aspects of teaching and learning.

Previous research suggests that teachers' ability to notice relevant teaching and learning events develops overtime with the use of video (van Es & Sherin, 2008; Sherin & van Es, 2009). In this study, from the first to the second 'video reviewing' sessions, there appeared to be a shift in focus away from the teachers' own performance in implementing the DR strategies towards the child's performance within the clip, which resulted in more productive reflection and suggestions about how future practice might be changed.

The main interest in using video of a teacher's own practice within professional development contexts is to promote the development of descriptive and critical reflection (Gaudin & Chaliés, 2015). As mentioned in section 6.3.1 *Hierarchy of reflection,* analysis of descriptive comments highlighted that it was possible to pick up threads of ideas or a 'noticing', which later informed comments that were situated further along in the reflective hierarchy. Figure 10 presents an example thread of reflection, moving through the hierarchy, that came from 'video reviewing' contributions made by Sandra. Within her second reviewing session Sandra 'noticed' that Amina was struggling to repeat back a modelled sentence within a video clip. She said, *"so I'm asking her to say 'a tiny very hungry caterpillar' but she's struggling with it."* Further along in the self-reflection process, once the clip had been viewed again, this 'noticing' led to comments that were judged to be more analytical and which linked theory to practice. Sandra discussed feeling that she had tried to model sentences that Amina was not yet ready for and felt that she needed to be more conscious of not providing sentence expansions that were too long and complex in the future. Hence, the initial 'noticing' and description of what had been viewed was a pre-cursor to the deeper level of reflection in which changes to future practice were suggested. In her final 'video reviewing' session Sandra reflected upon the importance of ensuring that modelled language is pitched *"at the right level"* for the individual child, which demonstrated a shift in understanding, which had resulted from the intervention and self-reflection process.

Descriptive	*"So I'm asking her to say 'a tiny very hungry caterpillar' but she's struggling with it."*
Reflection 'on' action	*"So I'm wondering whether when I started I was shorter and now I've tried to do [longer] sentences before she was ready?"*
Reflection 'for' action	*"I think really what I've said now is to be more conscious of keeping the expansion …not so expanded. Not necessarily so many words […] just shorter."*
Shift in belief about practice	*"If you don't give them chance to say it then they're not going to learn it but you have to be careful and make sure you give them language at the right level, not too advanced."*

Increase in depth of reflection

Figure 10: Example thread of reflection moving through the hierarchy from Sandra's 'video reviewing' contributions

Threads of reflection could also be picked up within the contributions made by Olivia. An example of which is presented in Figure 11. From this example it is possible to see that viewing the edited clips allowed Olivia to 'notice' that Sami had his own ideas about what he wanted to talk about within DR sessions. Upon reflection she realised that she had dismissed his attempts to introduce his own ideas into the session. Olivia discussed feeling that in the future she would try to investigate his ideas further, rather than trying to move on within the session. In her final 'video reviewing' session Olivia made comments that suggested she had developed an appreciation for allowing a child to use their imagination when working with books stating that their *"language is quite good when they're talking about something they want to talk about themselves."*

Descriptive	"Yeah he does that sometimes. I know he knows the rest of the story but he kind of makes up something and he's quite strong-minded in what he wants to talk about."
Reflection 'on' action	"I think he was getting fixated on there being a monster in the woods and I kind of dismissed it a bit and I should have maybe gone into it a bit more with him because obviously he was thinking of a monster in the woods because it's a bit dark and scary."
Reflection 'for' action	"I think I've said this before but you don't realise when it's happening, at the time. I would try and investigate more about what he was trying to get across to me and what he was trying to explain rather than just trying to move on quickly."
Shift in belief about practice	"With a book that's quite simple it's nice because they can use their imagination and like I said their language is quite good when they're talking about something that they want to talk about themselves."

Increase in depth of reflection

Figure 11: Example thread of reflection moving through the hierarchy from Olivia's 'video reviewing' contributions

Hence, within this project descriptive comments, which focussed upon the child's performance, have been conceptualised as pre-cursors to productive reflection rather than as 'unhelpful' or 'unproductive' reflective comments. These initial 'noticings' perhaps only demonstrated surface level analysis of what has been viewed but they were an important step within the reflection hierarchy. Therefore, in line with previous research (Gaudin & Chaliés, 2015), using video of the participating teachers' own DR practice was found to promote the development of descriptive and critical reflection.

6.3.3 Selective attention, 'noticing' and the theoretical underpinnings to DR

Incorporating video into training programmes affords teachers the opportunity to draw upon prior knowledge of the teaching approaches and principles being applied (Kleinknecht & Schneider, 2013) and offers a concrete artefact of their own situated practice, a powerful learning context (Putnam & Borko, 2000). Through conducting

the hybrid thematic analysis it was evident that within the overarching 'reflective' comments theme it was possible to identify some sub-themes, or "themes-within a theme" (Braun & Clarke, 2006, p.23), which further illuminated what the participating teachers were selectively attending to or 'noticing' when they watched themselves on video. The main areas of focus for the teachers' reflective comments were: 1) their use of *questioning and prompting*, 2) their ability to provide *informative feedback*, which was relevant and *pitched at the right level* for the participating child, and 3) whether or not they had *allowed the child to lead* the conversation, listening and responding appropriately.

These first two areas of focus for reflective 'noticing' ('*questioning and prompting'* and *'informative feedback'*) map onto the underlying principles and theoretical framework for DR, which includes: a) the use of *evocative techniques* (questions and prompts) to facilitate child participation, b) providing maximally *informative feedback* and c) developing the complexity of interactions through the *progressive change* model. To illustrate this with an example I refer back to Figure 10 which provides an example of a thread of reflection from Sandra's second 'video reviewing' session. Sandra's initial 'noticing' was that Amina was struggling to say back a modelled sentence. She then discussed feeling like she had provided Amina with a modelled sentence (*informative feedback*) at a level that she was not yet ready for. This reflection or 'noticing' links to the underlying DR principle of *progressive change,* which is informed by a Vygotskian theoretical framework and the assumption that there is a zone of proximal development (ZPD) (Vygotsky, 1978). Although Sandra did not explicitly talk about the progressive change principle, video had afforded her the opportunity to notice moments in which she had provided *informative feedback* that was outside of Amina's ZPD.

In addition to the underlying principles and theoretical framework for DR, the overarching aim of the shared reading intervention is to *allow the child to become the*

storyteller whilst the adult takes the role of active listener. This aim maps onto the third area of focus for the participating teachers' reflective comments – '*allowing the child to lead'*. An example illustrating this type of reflective comment comes from the thread of reflection provided in Figure 11, which presents contributions from Olivia's video reviewing sessions. As discussed previously Olivia had noticed moments in which she had dismissed Sami's attempts to lead the conversation by introducing his own ideas. She felt that she had tried to move on too quickly rather than allowing his ideas to develop. Within this session video had afforded her the opportunity to 'notice' when she had not allowed Sami to lead the conversation and become the *storyteller* whilst she took the role of the active listener. This led to a new appreciation for allowing the child to use their imagination and contribute their own ideas during shared reading.

The examples of 'noticing' provided above suggest that microanalysis of the edited video clips within this project allowed the participating teachers to apply the underlying principles, theoretical framework and aims of DR to what they viewed, allowing them to become embedded. The edited video clips had provided a concrete article of their own practice to situate their DR training in, providing a less abstract and more authentic learning experience (Seidel et al., 2011).

6.3.4 Video as a training tool

Within this project both participating teachers were new to the experience of using videos of their own practice to support professional development. As highlighted by the *'video'* theme that emerged from the 'video reviewing' sessions both teachers commented upon the experience and talked about how they felt video facilitated their self-reflection. Olivia discussed feeling initially apprehensive at the thought of watching herself on video but towards the end of her first video reviewing session she commented:

> *"It's not that bad and it is really helpful […] I wouldn't have realised that I was actually doing some of those [DR] techniques and I just thought it didn't go very well when we did it, but it seems like it did."*

Sandra also noted at the end of her first session that she felt the experience was not as bad as she thought it was going to be and that she found it really helpful for her teaching. Therefore, both teachers appeared to find the experience of using video within their DR training positive. This finding links to that of previous studies employing the use of videos of teachers' own practice, which have demonstrated high levels of emotional and motivational engagement (Borko et al., 2008; van Es & Sherin, 2008; Sherin & van Es, 2009).

Both teachers in this project also made comments within reviewing sessions that illuminated how video had facilitated their ability to reflect upon their DR practice. For example, Sandra talked about being able to hear parts of Amina's responses that she did not pick up on in the moment and Olivia said that watching the video helped her to analyse how she was wording questions. In addition to these comments both teachers also talked about video supporting them to recall elements of the sessions that they would not have remembered. These comments linked to the previous literature reviewed in Chapter Three which suggests that video supports teachers to focus upon aspects of their teaching practice that they would not usually remember (Tripp & Rich, 2012a), such as the details of discourse and interactions (Zhang et al., 2011).

6.3.5 Impact of intervention upon oral language skill within DR sessions

Language analysis measures were carried out on the transcriptions of the participating children's pre- and post-test dialogic reads of 'The Tiger who came to Tea' following the six-week DR intervention to measure the impact upon their oral language development. Results demonstrated that from pre- to post-test read there was an increase for both children in mean length of utterance, number of different

words spoken, relative participation and spontaneous verbalisations. These increases were more pronounced for Amina, who started off with lower baseline scores across all the language analysis methods. It is important to note that DR has been found to be particularly beneficial for pre-school pupils who experience language delay (e.g. Whitehurst et al., 1994a; Lonigan & Whitehurst, 1998; Hargrave & Sénéchal, 2000). It could therefore be hypothesised that Amina made more progress due to her language levels being lower pre-intervention. However, another possibility is that there were differences between the two teachers in the fidelity to which the intervention was delivered throughout the six-weeks. Both teachers completed DR intervention logs, which showed that they had adhered to the to requirement of delivering three DR sessions per week. The informal observations of their DR practice carried out whilst videoing sessions every other Friday (see Table 7) suggested that both teachers were becoming proficient in using the PEER and CROWD techniques. However, this only provided a 'snapshot' of their regular practice and no formal measures were used to calculate magnitude of teacher change.

Within the 'video reviewing' sessions both teachers discussed the positive impact of the intervention upon the oral language skills of the child they worked with. Sandra and Olivia both talked about progress in terms of the child's ability to say sentences that were longer and more complex. Olivia in particular discussed the impact upon Sami's vocabulary explaining that he had picked up words such as "around" and "cocoon" from the books they read and was able to subsequently use them independently, whilst Sandra talked about Amina's confidence, explaining that she was no longer shy when contributing during the sessions and really enjoyed them.

6.4 Limitations

Although all aspects of this project, including the methodology, study procedure and data analyses, were carefully considered I recognise the importance of

acknowledging the limitations and weaknesses that have emerged during the research process (Thomas, 2013). Firstly, the current project did not address whether the DR training, with video enhanced reflection, had a measurable impact upon teacher shared reading behaviour over time. It was therefore not possible to evaluate the intervention in relation to magnitude of change in the teachers' shared reading behaviour. When designing the current project I considered conducting observations of the teachers shared reading behaviours during sessions against a checklist of 'desirable' DR behaviours, as had been done in previous studies (e.g. Crain-Thoreson & Dale, 1999). However, I felt that being videoed and engaging in video enhanced self-reflection already placed the participants in a position in which they could feel potentially vulnerable or uncomfortable. I wanted to ensure the training process felt as positive and non-judgemental as possible for them and I did not want them to feel anxious about being observed or engaging in self-reflection. It was therefore decided that, to minimise the risk of teacher vulnerability, I would not evaluate the intervention in terms of magnitude of change in teacher behaviour.

A second potential limitation of this project that needs to be considered is that I, as principal researcher, also acted as the facilitator within 'video reviewing' sessions. In recognising this as a potential source of bias within the project I endeavoured to ensure the focus was upon the teachers engaging in video self-reflection. A framework for reflection was used to facilitate the self-reflection process (Gibb's, 1988) and care was taken not to contribute personal reflections or evaluations of performance. However, my presence may have impacted upon their contributions during the 'video reviewing' sessions. This is perhaps particularly important to consider in relation to positive comments made regarding the use of video and impact of intervention. Although these comments were not elicited through direct questioning, they emerged during the self-reflection process in which I acted as

facilitator. I therefore cannot be certain that my presence was not a contributing factor to these comments.

Issues of reliability and validity need to be discussed in relation to the data methods and analyses that were employed. In terms of the qualitative data analysis, I recognise that the presented results could be viewed as subjective interpretations of the raw 'video reviewing' data. In order to minimise this risk I conducted a 'hybrid' thematic analysis, a peer reviewed method, which employs both deductive and inductive analyses and is thought to enhance the validity of a coding system (Boyatzis, 1998). In addition to this an Assistant Educational Psychologist matched extracts of the transcripts blind to the themes to give a measure of Inter Rater Reliability (IRR). An IRR value of 86% agreement was made, IRR values between 75% and 90% are thought to demonstrate an acceptable level of agreement (Hartmann, 1977; Stemler, 2004).

When considering the quantitative measures used it is important to note that the language analysis measures used offer descriptive statistics regarding the oral language progress of the participating children within a 1:1 DR intervention context, using a specific book ('The Tiger who came to Tea'). Standardised assessments could have been used to measure expressive language levels pre- and post-intervention to establish whether DR led to gains. However, there were a number of reasons this approach was not taken. Firstly, a language other than English was spoken in the homes of both the participating pupils. Therefore, the available standardised assessments may not have been culturally appropriate. Secondly, when using standardised assessments with pre-school pupils, it is best for a familiar adult to administer the test. The participating teachers would have required supervision, support and additional planning time to familiarise themselves with the test as well as time to complete it on a 1:1 basis with the pre-school pupil they were working with. This would have increased the project related demands placed upon

the participating teachers. Finally, the chosen method, of using pre- and post-intervention language samples from DR sessions, allowed for an analysis of more naturally occurring discourse than standardised tests would have afforded (Parker & Brorson, 2005).

In order to ensure that outcomes of the language analyses were not influenced by practice effects the children were not exposed to the chosen book between the pre- and post-test reads. However, it is important to consider that other factors may have contributed to the progress they made, such as maturation or involvement in normal pre-school activities. Contributions made by the participating teachers during the 'video reviewing' session suggest that they had observed a positive impact of the intervention upon the children's language skills as well as their confidence and engagement within DR sessions. However, it is not possible to determine whether the progress made against the language measures from pre- to post-test was solely due to their involvement in the DR intervention.

Finally, the issue of generalisability needs to be considered. Within this collaborative case study I recognise that the participating teacher-child dyads do not represent a 'sampling unit' from which statistical generalisations can be made (Yin, 2014). Rather the findings are unique to these participants situated within this research context. However, it does seek to provide what Yin (2014) terms "analytical generalisations", generalisations made regarding the underlying theoretical concepts and principles at play within a case study, which could potentially be applied to novel situations. These will be discussed in the next section – Implications for theory and practice (Section 6.5).

6.5 Implications for theory and practice

The findings of this study demonstrated that introducing video self-reflection into DR training had a positive impact upon the participating teachers' ability to engage in

productive reflection and selectively attend to or 'notice' relevant aspects of teaching and learning. Areas of focus for 'noticing' mapped closely onto the underlying principles of DR. Blomberg et al. (2011) suggest that, when teachers lack subject specific knowledge, they fail to identify the most relevant teaching and learning events. Therefore, the initial introductory DR training session, which outlined the theoretical underpinnings to DR, was an important step in the training process.

The process of micro analysing edited clips using a framework for reflection allowed the teachers to develop their critical reflection; moving through a theoretical hierarchy of reflection (presented in Figure 9), which led to comments that were judged to show *'shifts in beliefs about practice'* for supporting language development through pedagogical practices. The findings of this project therefore suggest that, in order to be effective in supporting changes to teacher practice that are underpinned by changes in knowledge and belief, video should be used alongside good quality initial training with an intervention that is underpinned by a clear set of principles or theoretical framework.

Future projects between educators and researchers could capitalise upon the use of video self-reflection to support implementation of evidence based language or educational interventions that have a clear theoretical framework. Video should be seen as the 'tool', allowing teachers to apply theory to an authentic or real life context, whilst a framework for reflection (such as Gibb's, 1988) should be used to facilitate teachers' ability to engage in productive reflection. Figure 12 presents this as a conceptual three-element model for the use of video within training in a diagrammatic form.
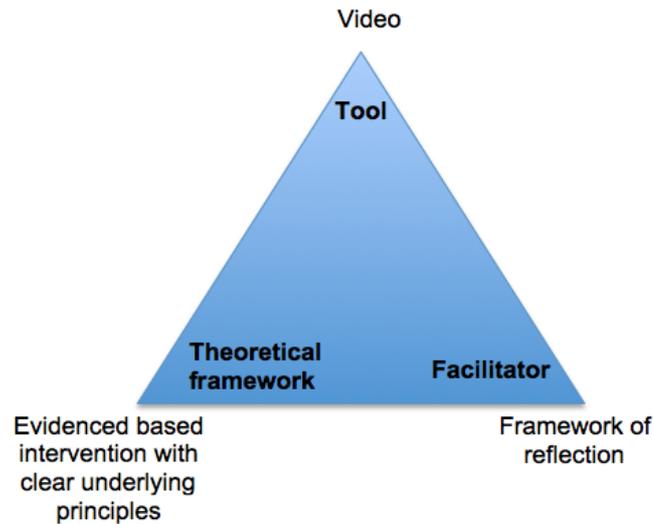
Figure 12: Three-element model for using video self-reflection within training

Educational psychologists (EPs) work within educational settings, applying their psychological knowledge and skills through the core functions of consultation, assessment, intervention, research and training, to improve outcomes for children and young people (Fallon et al., 2010). EPs, in their day to day work in schools, are often recommending and delivering training on a range of evidenced-based interventions. Designing training programmes that incorporate video enhanced self-reflection, using the three-element model presented in Figure 12, could offer a more personalised and authentic training experience for school staff. Furthermore, as external professionals operating outside of the performance management structures of a school, EPs would be well placed to facilitate the self-reflection process.

When designing training packages that incorporate video enhanced self-reflection EPs would need to work collaboratively with participating staff members to develop a schedule for videoing and 'video reviewing' sessions. Factors that would need to be considered prior to commencing a training programme include: ethical consent, data storage and deletion, fidelity of implementation and criteria for selecting video clips.

Finally, as suggested by Borko et al. (2008) it would be important to consider how the outcomes of such as training programme, situated within practice, would be evaluated to ensure effectiveness.

6.6 Concluding comments

This study introduced video into a DR training programme for the purposes of supporting the participating teachers' to engage in productive reflection and improve the quality of the adult-child interactions.

The results of the hybrid thematic analysis, carried out on the contributions made by participating teachers' in the three 'video reviewing' sessions held over the six-week period, suggested that teachers' comments appeared to move through a hierarchy of reflection. Initial descriptive comments represented a pre-cursor to 'reflective' comments, which appeared to be more analytical and demonstrated some integration of the underlying principles of DR. Finally, some comments made appeared to go beyond reflecting upon the situated DR practice and appeared to represent a shift in understanding how to support language development through pedagogical practice.

During the six-week period the teachers developed their ability to selectively attend to, 'notice' and reflect upon relevant aspects of their situated practice that fit with the underlying principles of DR. Analysis of noticing patterns suggested that their focus for 'noticing' shifted away from their own performance within viewed clips towards the performance of the participating child and that 'video reviewing' contributions developed in terms of depth of reflection from the first to the final session. This supported them to implement the DR intervention successfully resulting in increases in mean length of utterance, number of different words spoken, relative participation and spontaneous verbalisations for both participating children from pre- to post-test.

This study provides further evidence to support the positive impact of video when used as a tool to develop productive reflection. Video allows teachers to situate professional development within their own practice, providing an authentic learning experience, and supports them to develop and embed an understanding of the theoretical principles being applied. As such, video provides a promising 'tool' that EPs could capitalise on the use of when designing training packages for educational settings.

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Appendices

Appendix 1: Overview of studies included within the systematic literature review presented in Chapter 2

Authors	Setting	Conditions	Participants	Time	Group size (adult for school conditions)	Training	Outcomes
1. Valdez-Menchaca & Whitehurst (1992)	Mexican day care centre	1) School DR 2) Control (1:1 fine motor/ perceptual skill activities with their teacher	20 working class 2yr olds (Spanish speaking – low language levels)	6 – 7 weeks (30 session s 10-12 mins)	1:1 child-teacher (Graduate student)	Variation of the original training described by Whitehurst et al. (1988)	Differences favouring the intervention group found on all standardised post-tests of language. Differences were not as pronounced as in Whitehurst et al. (1988) perhaps due to the lower language levels (Matthew effect). Also experimental control was tighter – all children read with the same adult and read same books).
2. Whitehurst, Arnold et al. (1994a)	Subsidised day care (New York)	1) School + home DR 2) School DR only 3) Control (play activities	70 3yr olds Low income families	6 weeks	No more than 5 (Teacher)	Videotape + role play	Children in both School + home and School conditions outperformed control group on two different measures of expressive vocabulary and on one measure at 6 month follow up. Children in the school + home condition performed best –

							substantial impact upon expressive language in a short period. There was substantial variation in teacher fidelity – reading frequency in class correlated with outcome measures.
3. Whitehurst, Epstein et al. (1994b)	Head start centres (Suffolk County, New York)	1) School + home* DR 2) Control (teachers read in typical manner) NB. Intervention = DR + sound foundations +sound and letter awareness program) *89% of primary caregivers received training	167 4yr olds Low income families	7 months	4 per group (teacher or teacher's aide)	20 mins video + role-play	Significant impact upon writing and print concepts (perhaps due to sound foundations?) Effects on language were large but only for the children whose primary caregivers were involved in the at-home component. Group based interactions may not be sufficient in later preschool years. Children from low-income families may need substantially increased opportunities for 1:1 interaction.

4. Lonigan & Whitehurst (1998)	Subsidised child care centres (Nashville)	1) School DR 2) Home DR 3) School + home DR 4) Control (no treatment)	91 3-4yr olds low income families oral language skills significantly below age-level	6 weeks	No more than 5 (teacher or teacher's aide)	Instructional video	Significant effects on standardised measures of oral language at post-test. Effects largest for the combined condition. However where compliance was good in day care the school and combined condition groups did not differ significantly on expressive language. DR effective for children with low language levels for age. Results better for children in centres that conducted the intervention with high compliance.
5. Whitehurst, Zevenbergen et al. (1999) Replication of paper number 3 with a new cohort + follow	Head start centres (Suffolk County, New York)	1) School + home DR 2) Control NB. Intervention = DR + sound foundations +sound and letter awareness program –	251 4yrs + follow up data	30 weeks Phonemic awareness 16 weeks	4:1 (Teacher or teacher's aide)	20 min videotape	Results from previous study replicated (see paper 3 above). Both cohorts at the end of kindergarten maintained the positive effects of the emergent

up)		introduces children to letters and their sounds)		(3-5 times a week)			literacy intervention. Positive effects did not generalise to reading scores at end of 1st and 2nd grade. Perhaps because reading scores at this age do not tap into semantic and narrative knowledge that are targets of the DR intervention. Rather they focus upon specific skills that underlie decoding tasks. Growth in emergent literacy skills from year to year was strongly influenced by the centre attended.
6. Crain-Thoreson & Dale (1999)	Early intervention preschool programs (Pacific Northwest, USA)	1) Home (parent instruction in DR) 2) School staff instruction in DR with 1:1 reading 3) Control - Staff receive instruction in DR but no 1:1 shared reading given to this group	32 children 39-66 months (3-5yrs) with language delay qualify for special education services	8 weeks (at least 4 times a week)	1:1 with staff member Control group children did not read 1:1 but did still have group story time with a member of	2 x 1 ½ hour instructional sessions with segments of a training video	Parents and staff changed their book reading practice in line with the DR instruction received. Children in all 3 groups spoke more, made longer utterances, produced more different words and participated more in shared reading.

		*Compares parent and staff implemented interventions			staff who had received instruction in DR.		No statistically significant changes in children's vocabulary scores. Magnitude of change in child's linguistic performance correlated positively with magnitude of change in adult reading behaviour.
7. Hargrave & Sénéchal (2000)	Day care centres (Ottawa, Canada)	1) Home + day care DR 2) Day care DR only (as not all parents agreed to participate) 3) Control condition (children played)	36 3-5yrs with poor expressive vocabulary skills (about 13 months behind) low income families	4 week period (daily reading 10 mins)	Groups of 8 (teacher)	1hr group training Videotape plus role-play	Children in the DR condition made significantly greater gains in language than children in regular reading. Beneficial effects of DR in a shorter time period to previous studies. Results did not show an increased benefit for children in the combined condition (although only limited comparisons could be made). No statistically significant difference in receptive vocabulary measure.

8. Wasik & Bond (2001)	Early learning centres (Baltimore)	1) Intervention classes* 2) Control classes * Intervention included DR plus extension activities (vocabulary was reinforced by presenting concrete objects) Teachers in both groups read the same stories	127 4yr olds from low income families	15 weeks	Groups of 12-15 (Teachers)	Instruction given in DR techniques Bond (author) supported with the book reading in intervention condition for first 4 weeks)	Children in the intervention group scored significantly better on the PPVT-3 and other measures of receptive and expressive language. Story props, book reading and extension activities provided multiple contexts to hear and use the vocabulary. Teachers in the control group did not systematically extend the use of the vocabulary beyond the pages of the book.
9. Zevenbergen et al. (2003)	Head Start Centres (New York, Suffolk County)	1) School + home DR 2) Control NB. Intervention = DR + sound foundations +sound and letter awareness program – introduces children to letters and their sounds)	123 4yrs preschool Subset of the participants from paper 5.	30 weeks	4:1 3-5 times a week (teacher)	Videotape plus role play	Intervention had a significant effect upon the children's inclusion of evaluative devices in their narratives (evaluative information makes explicit why the described event was interesting/ meaningful). The intervention did not significantly impact on overall verbalisations in the narrative recall. Rather they had gained in narrative skill and were more likely to include information about internal states of characters

							and dialogue.
10. Opel et al. (2009)	Bangladeshi preschools in a rural area	1) School DR (*teacher implemented) 2) Control (regular reading with same books) *Nb. Teachers were paraprofessionals with relatively low levels of training)	153 5-6yrs (75 intervention group 78 control) Speak Bangla	4 weeks	20-25 children (whole class with teacher*)	Watched 2 videos 1 showing typical reading and 1 showing dialogic reading. 5 day intensive training. Supervision provided during the 4 weeks.	Children's expressive vocabulary increased. Mean vocabulary scores for the DR group increased from 26% to 54% whereas the control group remained at the same level. Research shows that a short DR intervention delivered by paraprofessionals in large groups can be effective in a low-literacy, low-resource country.
11. Lever and Sénéchal (2011)	Kindergarten classrooms (Canadian City)	1) School DR 2) Alternative treatment group = phoneme awareness program	40 5-6 yr olds English speaking low income families	8 weeks	Groups of 1-4 (delivered by researchers 2 x a week)	15 min videotape training plus role play	Post-test analysis of narratives showed that they were significantly better on structure and context measures. They included more references to mental states and emotions. Children in the DR intervention showed expressive language gains. DR did not affect the complexity of the language within their narratives or the use of cohesive ties.
12. Elmonayer (2013)	Kindergarten classes in two private	1) DR with activities to improve	67 5-6yr olds	8 weeks	Whole class plus small group follow	Teacher trained to gain a better	Children in the intervention group had higher phonological awareness levels (perhaps due to the specific

		phonological awareness skills (alphabet PowerPoint books used) 2) Control group – regular classroom activities			up activities with teacher (Numbers not specified)	understanding of DR and phonological awareness	design of the DR activities) Whole class DR activities have a positive effect on Arabic phonological awareness.
14. Lonigan et al. (2013)	Head Start centres and pre-schools in Northern Florida	1) DR with phonological awareness (PA) intervention 2) DR with letter knowledge (LK) intervention 3) DR with both PA and LK 4) Shared reading with PA and LK 5) Control condition (on going classroom curriculum)	324 3-5yr old Children deemed 'at risk' for reading difficulties	5 days a week for a school year	Small group 3 – 5 children (with a member of project staff, all graduates)	Training included on going supervision and feedback (limited info. provided about these procedures)	Children in the 3 DR groups scored significantly higher than children in non-DR groups on measures of expressive language. These measures were broad measures of language skill (not targeted and related to the specific intervention) and therefore outcome reveal a generalised increase in language skill.
13. Ergül et al. (2016)	Turkish Kindergarten classes (low	1) Whole group DR 2) Whole and	112 5-6yr olds	7 weeks (3 – 4 times a	Whole group (14 – 24). Small group	Direct instruction and video	Authors describe the intervention as adapted DR because10 target words and 1 phoneme were chosen

| | socioeconomic status) | small group DR
3) Whole group and home DR
4) Whole & small group DR and home
5) Home
6) Control – routine book reading activities | | week) | (5 – 6) | based corrective feedback in class with real child participants. | for each of 7 books selected for the study.

DR had a moderate effect on expressive language.

Intensity of intervention impacted upon effect. Children who received DR in only 1 setting (home or whole class group in school) achieved higher language scores.

Teachers said that children who were in the more intense conditions (DR at home/ school or whole group/ small group) tended to get bored with the repeated reading of the same book.

Home group achieved overall highest scores suggesting that home DR is most effective. |

| 15. Towson et al. (2016) | Preschool inclusion or self-contained classrooms in suburban areas of southeast US. | 1) DR with incorporation of pause time 2) Control (typical storybook reading – used same books) | 42 3 -5yr olds with developmental delay and an individual education plan (IEP) | 3 days a week fro 6 weeks | Small group 3 – 5 children (led by principal researcher or research assistant) | Researchers led intervention | DR with pause time positively affected the learning of specifically targeted and non-targeted vocabulary within 3 storybooks. |

Appendix 2: Copy of the PowerPoint slides from initial DR training session

Slide 1

Dialogic Reading – Initial Training Session

Peggy Barrett – Trainee Educational Psychologist

Slide 2

Objectives

- To know what the dialogic reading intervention is and what it looks like in practice.
- To understand the principles that underpin dialogic reading.
- To known what is meant by PEER and CROWD.
- To be able to prepare a book using the CROWD techniques.
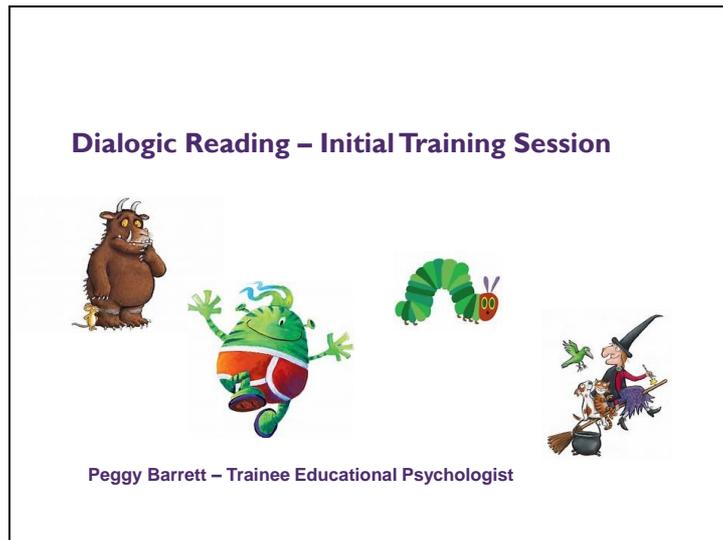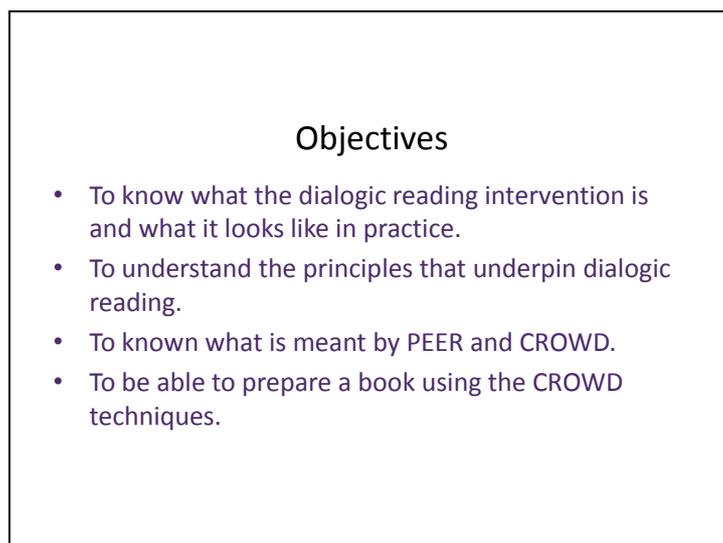
Slide 3

- Preschool education providers are increasingly concerned with ensuring children are 'school ready' with the Statutory Framework for the Early Years Foundation Stage stipulating that;

- *"Providers must ensure that children have sufficient opportunities to learn and 'reach a good standard in English language during the EYFS, ensuring children are ready to benefit from the opportunities available to them when they begin Year 1'." (DfE, 2017)*

Slide 4

Effective Early Years Pedagogy

- Most effective settings:
  - valued the importance of extending child-initiated through intellectual challenge

  - used open-ended questioning, which contributed to periods of sustained thinking and, in turn, cognitive achievement.

      (Siraj-Blatchford et al.,2002)

Slide 5

Language development

- Levels of complexity – *Marion Blank*

- Level 1- Labeling and locating
- Level 2- Describing and recalling
- Level 3- Summarising, defining and comparing
- Level 4- Reasoning and problem solving

Slide 6

Dialogic Reading (DR) – What is it?

- Interactive shared reading programme designed to improve oral language skills of pre-schoolers.

- Oral language skills are promoted by develo
  child's ability to actively participate in the sh
  reading session.

•(Whitehurst et al., 1988)

Slide 7

Principles Underpinning DR

1. **Evocative techniques** – encourage the child to participate through use of prompts (e.g. open questions, recall, wh- questions)
2. **Informative feedback –** allows the child to hear language that is pitched at a slightly more advanced level than their own through the adults use of modelling
3. **Progressive change –**process of developing the child's oral language skills through gradually increasing the complexity of the child/ adult interactions

Slide 8

Standardised Procedures

- **PEER** = Sequence
    - **P**rompt, **E**valuate, **E**xpand, **R**epeat
- **CROWD** = Different types of prompts
    - **C**ompletion, **R**ecall, **O**pen-ended qs, **W**h – qs, **D**istancing

*See separate hand-out

Slide 9

Videos

- Introducing the story
- https://www.youtube.com/watch?v=-eWR4mDK63Y
- Reading the story
- https://www.youtube.com/watch?v=Iatmzyml4_Y
- Closing the story
- https://www.youtube.com/watch?v=G7Ya4M1dwJw

- **Activity 1** – identify the use of **CROWD** techniques within the video example

Slide 10

Preparing a book

- https://www.youtube.com/watch?v=XlmxWF5gJWg

- **Activity 2**–prepare a book for a DR session using the CROWD prompts

Slide 11

Research

•Research has shown that DR has a positive impact upon:

- **Expressive vocabulary**
- **Specific vocabulary (i.e. targeted)**
- **Mean length of utterance (MLU)**
- **Descriptive language**
- **Lexical diversity (number of different words)**
- **Grammar**
- **Sound awareness**
- **Word identification**

Slide 12

Research

•**Research has shown that it benefits preschool aged children:**

- From low-income families
- Who have English as an additional language (EAL)
- Who are at risk of reading delay
- With developmental delay
- With language delay/ limited vocabularies
- From a diverse range of cultural backgrounds (research has been conducted in Bangladesh, Mexico, Egypt, Turkey)

Slide 13

Reflection

- How could you incorporate the DR strategies within your practice?

- What would it look like in your setting?

- What are the potential benefits and/ or barriers?

Slide 14

Research Project

- Background information
- Traditional training model
- Benefits of video enhanced self-reflection
- What it will look like in practice

Appendix 3: PEER process and CROWD prompts hand out

Interactive Storytelling

PEER	What does it mean?	Here's an example!
Prompt	Reminding the child to identify items in the book and to talk about the book.	"Look at this page, what is that called?
Evaluate	Statements that praise correct answers or correct child's incorrect responses.	"Yes, that is right, the dog is brown."
Expand	Repeating what the child says and providing additional information.	"Yes, that is a dog. It's called a German Shepherd."
Repeat	Encouraging the child to repeat his/her response.	"Say that again. What do you call that animal?"

CROWD		
Completion prompts	Fill-in-the blank questions.	"When it rains we use our_____?"
Recall prompt	Questions that ask a child to recall a detail from the book.	"What did Lucy do when she was scared?"
Open-ended prompts	Statements that prompt the child to talk about the book.	"What's the dog doing in the picture?"
Wh-prompts	What, where and why questions.	"What colour is the ball?"
Distancing prompts	Questions that ask the child to link events in the book to his/her own life experiences.	"You travelled on an aeroplane like Harry, where did you go?"

(Adapted from: CROWD and PEER; Zevenbergen & Whitehouse, 2003)

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Appendix 4: Copy of DR log completed by participating teachers

Dialogic Reading Log

Date and Book Title	Comments	Questions

UNIVERSITY OF
BIRMINGHAM

PARTICIPANT INFORMATION SHEET – Early Years Teacher

Study title: Developing Early Years Teachers' Dialogic Reading Skills Through the use of Video-reflective Feedback

This information leaflet has been given to you because we are seeking your permission for to take part in a research project run by a postgraduate research student at The University of Birmingham. Before you decide whether you would like to take part, please read this leaflet so that you understand why the research is being conducted and what it will involve. If you would like further information, or would like to ask any questions about the information below, do not hesitate to ask (contact details are provided at the end of this leaflet).

The purpose of the study

Dialogic reading (DR) is an interactive shared reading programme first described by Whitehurst et al (1988), which has been shown to have a positive effect upon children's vocabulary and oral language skills (What Works Clearinghouse Intervention report, 2007). In DR oral language skills are promoted by developing the active participation of the child during a shared reading session. The adult takes an active listening role and supports the child to become the 'storyteller' through the use of expansions, informative feedback and modelling.

Standard training in DR incorporates the use of DVDs in which the DR techniques are modelled. However in this project I want to introduce video reflective feedback sessions into the training process. The rationale for incorporating video reflective feedback sessions comes from research highlighting the positive impact watching yourself back on video can have upon your interaction skills.

What will happen if I take part?

If you choose to take part in the project you will receive the standard training in dialogic reading from me (the researcher, Peggy Barrett). You will then be paired up with a preschool pupil in your school or setting. Over a six-week intervention period you will deliver 1:1 DR reading sessions to the preschool pupil three times a week. I will visit you on a weekly basis to either observe and video record a reading session or to complete a video reflective feedback session with you.

What is expected of me during the intervention?

Over this six-week intervention period I will observe and video record you delivering a DR reading session three times. You will also take part in three video reflective feedback sessions with me. There will be three components to these sessions:

- Watching back an edited video of yourself, which contains clips of you successfully using the DR techniques.
- Reflecting upon how your use of DR techniques in the video clips supported the pre-schoolers to use more language.
- Answering questions about the video feedback session in a short semi-structured interview with me. This interview will be audio recorded.

The video feedback sessions will focus only upon positive aspects of the observed sessions and will hopefully provide a safe and comfortable environment for self-reflection.

The following will be followed for my weekly visits:

Week	Activities
1	DR reading session observed and videoed (video 1)
2	Video reflective feedback session and interview (interview 1)
3	DR reading session observed and videoed (video 2)
4	Video reflective feedback session and interview (interview 2)
5	DR reading session observed and videoed (video 3)
6	Video reflective feedback session and interview (interview 3)

What are the possible benefits for the child taking part?

During the sessions you will read popular and familiar colourful picture books with the child. It is therefore hoped that the preschool pupil will enjoy them. Previous research has shown that dialogic reading has a significantly positive effect upon preschool pupils' oral language skills. Through your prompts and questions the preschool pupil will extend their talk about the story and become actively involved in the storytelling.

What are the possible risks of taking part?

There are no risks for the children taking part. The sessions will be incorporated into their normal nursery day. If the pupil involved becomes anxious or upset at all the shared reading session will finish.

What will happen when the research finishes?

The results will be written up into a research report. You will be provided with an information feedback sheet, which outlines the main findings of the study. The parents of the pupil involved will be provided with a personalised feedback sheet that lists the books that were read alongside some quotes from their child.

Who will know that I'm involved in the study?

As well myself, my supervisors Dr XXXX XXXXX (qualified educational psychologist) and XXXX XXXXX(member of the tutor team for the Applied Educational and Child Psychology Doctorate at the University of Birmingham) members of your senior leadership team will know you are involved in the project.

Who will have access to the collected data?

The study will comply with the Data Protection Act (1998) in terms of handling, processing and destroying all participants' data. My supervisors and I will have access to the digital data files collected during the project. None of your school colleagues will have access to them. If you give your consent clips of the video files may be used within a presentation given to the Educational Psychology Service for the purposes of professional development. The data will be destroyed 10 years after the research is completed, having been stored securely during the interim period.

What will happen to the results of the research study?

The results of the study will be written up as part of my thesis for the Doctorate in Applied Educational and Child Psychology. The study may also be written as a journal article and submitted for publication to a relevant professional journal. Identifying information including your own, the school's and all children's names will remain anonymous within the written reports. Aspects of the work may be presented at conferences for the purposes of professional development. Clips from the recorded videos may be included if you consent to this.

Who is organising the research?

The research is organised by the University of Birmingham and XXXXXXX Educational Psychology Service. The research project forms half of the doctoral thesis, which I need to complete in my capacity as a postgraduate research student in Applied Educational and Child Psychology Doctorate.

Who shall I contact if there is a problem?

No risks should arise for you as the early years practitioner involved in the study or for any of the children as a result of participating in this research. However, if a problem were to arise, then I, (Peggy, the researcher), can be contacted between 9-5pm Monday-Friday, as can XXXX XXXXX, my research supervisor at the University of Birmingham.

Who has reviewed the study?

The Humanities and Social Science Ethical Review Committee at the University of Birmingham have approved this research project.

What do I do next?

If you agree to participate in this research, you are asked to complete the attached consent form and return this to me, and also, in parallel, advise a member of the school's senior leadership team.

Please be assured that, should you prefer not to participate in this study, there would be no adverse consequence: your professional decision would be fully respected and there would be no risk of damage to your professional reputation.

Contact details for further information:

- *Peggy Barrett* (Researcher, University of Birmingham)

- *XXXX XXXX* (Research Supervisor, University of Birmingham):

Thank you for reading this information sheet. Please feel free to contact me with any questions.

Appendix 6: Informed consent form for participating teachers

My name is ....

Please tick your answer to each question:

	Yes	No
I would like to take part in the project.		
I understand that I will be video-recorded delivering dialogic reading. I will then take part in video-reflective feedback sessions over the course of the six-week intervention period.		
I am happy for selected clips from the video files to be used within the context of a professional development presentation delivered to educational psychologists and/ or educational researchers. I understand that I will be given the opportunity to agree which clips can be used. I understand that only the principal researcher and their supervisor will have access to the full video files.		
I understand that my responses within the short semi-structured interviews will be audio-recorded. I understand that only the principal researcher and their supervisor will have access to the audio files.		
I understand that my feedback will be used in a written report, but that my name and other identifying information will not be included.		
If I have a question, I know that I can ask the researcher or the researcher's supervisors.		
I understand that I can withdraw from the project at any time during up to a calendar month after the six-week intervention period has finished.		

Signed: ....

Date: ....

Appendix 7: Information letter for participating children's parents

UNIVERSITY OF BIRMINGHAM

PARTICIPANT INFORMATION SHEET – Parents

Study title: Developing Early Years Practitioners' Dialogic Reading Skills Through the use of Video-reflective Feedback

This information leaflet has been given to you because we are seeking your permission for your child to take part in a research project run by a postgraduate research student at The University of Birmingham. Before you decide whether you would like to take part, please read this leaflet so that you understand why the research is being conducted and what it will involve. If you would like further information, or would like to ask any questions about the information below, do not hesitate to ask (contact details are provided at the end of this leaflet).

The purpose of the study

Dialogic reading (DR) is an interactive shared reading programme that has been shown to have a positive effect upon children's vocabulary and oral language skills (What Works Clearinghouse Intervention report, 2007). In DR children's oral language skills are promoted by developing their active participation during a shared reading session. The adult takes an active listening role and supports the child to become the 'storyteller'.

In this project I am interested in using video-reflective feedback to support your child's class TA to develop their skills in dialogic reading. Previous research has shown that watching back clips of yourself during training can have a positive impact upon professionals' skills.

What will happen if my child takes part?

If you agree to your child taking part in the project they will have 1:1 dialogic reading sessions three times a week with their class TA for six weeks. During the six-week intervention period three of the reading sessions will be video recorded by myself (the researcher, Peggy Barrett). Clips from these videos will be used within three video-reflective feedback sessions with your child's class TA to support their further training in dialogic reading.

What are the possible benefits for my child?

During the sessions your child will read popular and familiar colourful picture books with their class TA. Previous research has shown that dialogic reading has a

significantly positive effect upon preschool pupils' oral language skills. Through prompts and questions it is hoped that your child will extend their talk about the story and become actively involved in the storytelling.

What are the possible risks of taking part?

There are no risks for your child. The sessions will be incorporated into their normal nursery day. If the pupil involved becomes anxious or upset at all the shared reading session will finish.

What will happen when the research finishes?

At the end of the six-week intervention period you will receive a written feedback sheet that contains a list of the books your child enjoyed reading with some examples of the language they used in the sessions. You will also receive an information sheet about dialogic reading and the types of prompts and questions you could use to support your child's language development during shared reading at home.

Who will know that my child is involved in the study?

As well as your child's teachers, my supervisors and myself, Dr XXXXX XXXXXXXXX (qualified educational psychologist) and XXXX XXXXX (member of the tutor team for the Applied Educational and Child Psychology Doctorate at the University of Birmingham), will know you are involved in the project.

Who will have access to the collected data?

The study will comply with the Data Protection Act (1998) in terms of handling, processing and destroying all participants' data. No video files collected for the purposes of this study will be shared or uploaded via the Internet and no further copies of the files will be made. The data will be destroyed 10 years after the research is completed, having been stored securely during the interim period. If you give your consent clips of the video files may be used within a presentation given to the Educational Psychology Service for the purposes of professional development.

What will happen to the results of the research study?

The results of the study will be written up as part of my thesis for the Doctorate in Applied Educational and Child Psychology. The study may also be written as a journal article and submitted for publication to a relevant professional journal. Identifying information including your child's name and the school's name will remain anonymous within the written reports. Aspects of the work may be presented at conferences for the purposes of professional development. Clips from the recorded videos may be included if you consent to this.

Who is organising the research?

The research is organised by the University of Birmingham and XXXXXXX Educational Psychology Service. The research project forms half of the doctoral thesis, which I need to complete in my capacity as a postgraduate research student in Applied Educational and Child Psychology Doctorate.

Who shall I contact if I have a question or a concern about the project?

I (Peggy, the researcher) can be contacted between 9-5pm Monday-Friday, as can XXXX XXXXX, my research supervisor at the University of Birmingham.

Who has reviewed the study?

The Humanities and Social Science Ethical Review Committee at the University of Birmingham have approved this research project.

What do I do next?

If you agree to participate in this research, you are asked to complete the attached consent form and return this to me, and also, in parallel, advise a member of the school's senior leadership team.

Please be assured that, should you prefer not to participate in this study, there would be no adverse consequence: your professional decision would be fully respected and there would be no risk of damage to your professional reputation.

Contact details for further information:

- *Peggy Barrett* (Doctoral Researcher, University of Birmingham

- *XXXX XXXXX* (Research Supervisor, University of Birmingham):

Thank you for reading this information sheet. Please feel free to contact me with any questions.

Appendix 8: Parental consent form for participating children

My child's name is ………………………………………………………………….

Please tick your answer to each question:

	Yes	No
I would like my child to take part in the dialogic reading project.		
I understand that my child will be video-recorded during dialogic reading sessions and that these videos will be used to support the TAs training in dialogic reading.		
I am happy for selected clips from the video files to be used within the context of a professional development presentation delivered to educational psychologists and/ or educational researchers. I understand that only the principal researcher and their supervisor will have access to the full video files.		
I understand that the project will be written up into a report but that my child's name and any other identifying information will not be included.		
If I have a question, I know that I can ask the researcher or the researcher's supervisors.		
I understand that I can withdraw my child from the project at any time during and up to a calendar month after the six-week intervention period has finished.		

Signed: ……………………………………………………………………………

Date: ………………………………………………………………………………

Appendix 9: Photographs demonstrating the manual coding process for 'video reviewing' data
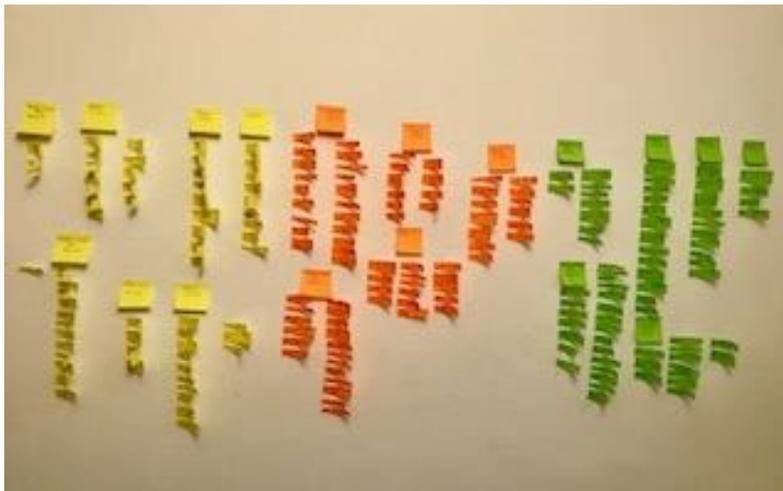
Initial codes organised by weeks and development of emerging themes
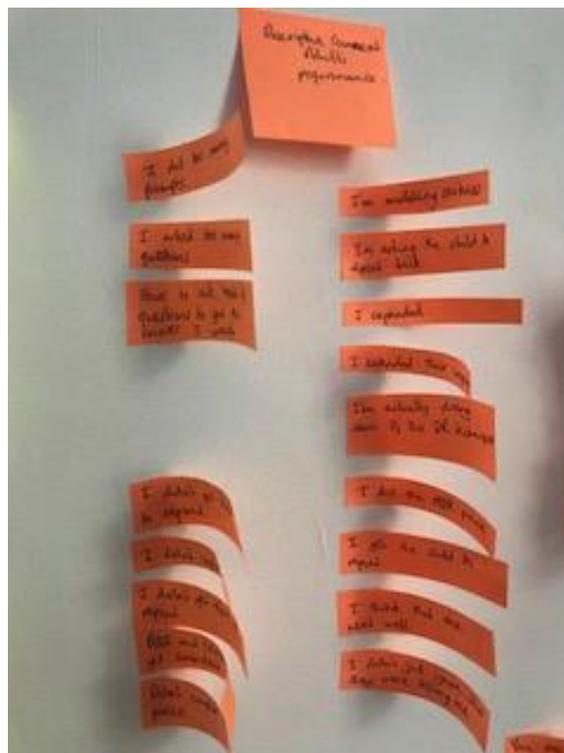
Development of descriptive comments theme
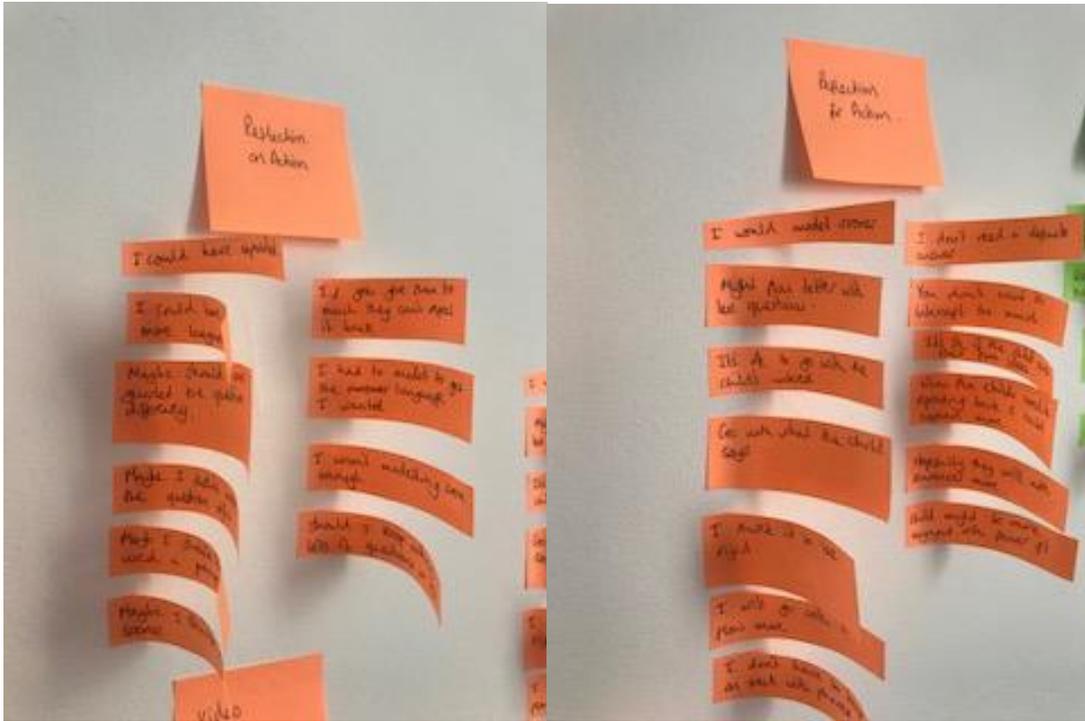
Development of reflective comments theme

Appendix 10: Transcript from Olivia's first 'video reviewing' session with initial codes and themes

	Watch clip 1	Initial Code	Theme
P	**So what did you see in the clip?**		
O	Hmm, so you know when, so I'm asking the prompt but then he doesn't exactly answer it the way I want him to answer it so then I feel like I'm asking loads of questions then. I have to keep questioning, questioning, questioning to get the answer I want out of him.	- Child Doesn't answer how I want. - Have to ask loads of questions to get answer I want.	- Descriptive: Child's performance (negative) - Descriptive: Adult's performance (negative)
P	**And what was that?**		
O	Um, well I wanted him to look at the picture and say what was on the table. Maybe I should have guided the question differently.	- Maybe should have guided question differently.	- Reflection on action (questioning/ prompting)
P	**What was on the table?**		
O	It was buns and cakes or sandwiches		
P	**Ok, so you don't feel that he answered the question**.	- Maybe I didn't word the question right.	- Reflection on action (questioning/ prompting)
O	Umm, maybe I didn't word the question how I wanted him to answer sort of thing		
P	**Oh, ok**.		
O	Does that make sense?		
P	**Yes that makes sense**		
O	And then I don't know if I should keep asking lots of questions then or just leave it with what he says.	- I don't need a definite answer.	
P	**What was the purpose of asking the question?**		
O	Um, I think it was an open-ended question so I suppose it's just for him to say what he thinks. I don't		

	really need a definite answer do I?		
P	**Shall we watch it again? What do you notice?**		
O	Um yeah he did eventually answer but I think I had to model it first	- I had to model to get the answer.	- Descriptive Adult's performance (positive)
P	**How sense/ analysis can you make from the clip?**		
O	Yeah, yeah so maybe I should have modelled it, as soon as he said "this and this" then I should have said "yes we have some buns and some cakes" rather than trying to get it out of him.	- Maybe I should have modelled sooner.	- Reflection on action (informative feedback)
P	**So do you feel, but do you feel he expanded his language at that point?**		
O	Um yeah he did in the end.		
P	**So was it's successful?**		
O	Yeah, yeah		
P	**So, how do you feel now watching it back and thinking about it?**		
O	Um, maybe it wasn't as bad as I thought.	- Maybe not as bad as I thought.	*
O	Because um, yeah also I'm always thinking "Oh I need to ask this question and hopefully he'll say something like this. But then if he does go off and says something about his own, you know, like how he was doing a bit of a distance thing there where he said he had cakes and that's ok as well really but before I was thinking oh no I need to keep on track.	- It's ok if the child uses its own ideas. - I don't have to keep on track with the planned questions.	- Reflection for action (allowing child to lead)
O	Yeah, yeah		
P	**So what was good or bad about it?**		
O	Um, I followed PEER but kind of in a bit of a long winded way		
P	**So you prompted, expanded, evaluated and got him to repeat?**		
O	Yeah		
O	Ok, (giggles)		

O	Its hard, you always see the bad things don't you, when you watch yourself.	- You see the bad things when you watch yourself.	- Video: experience
P	**What were you looking at?**		
O	I think I was looking at how I was talking to him and how I was wording the questions	- I was looking at me.	- Video: Facilitating
P	**So if the situation arose again, what would you do?**		
O	Umm, I think I would model earlier. Is that [ok?	- I would model earlier.	- Reflection for action (informative feedback)
P	**[Ok, Yeah, yeah**		
P	**It 's all about self-reflection..**		
O	I think that's why it was going a bit off track because maybe when I was asking him a question maybe I wasn't modelling it soon enough	- I wasn't modelling soon enough	- Reflection on action (modelling)
P	**So you'd model sooner?**		
O	Yeah		
P	**Brilliant so that's the first clip. Let's move onto the next one**		
	Watch clip 2		
P	**So what happened in that clip?**		
O	I think I did the um.. PEER there	- I did the PEER process.	- Descriptive: Adult's performance (positive)
P	**Yeah**		
O	Because.. and I did get him to repeat it as well. Maybe I didn't expand actually. I didn't really expand did I? On what he said	- I got the child to repeat. - I didn't expand.	- Descriptive: Adult's performance (positive/ negative)

P	What was good or bad about it?		
O	Yeah, uh hum. Yeah maybe I could've added something else to eat as well. "and it's delicious?. But then sometimes if you give them too much then they can't repeat it back then can they?	- Maybe could have added more language. - If you give them too much they can't repeat it back.	- Reflection on action (informative feedback)
P	That's' fine. Ok so what sense do you make of that clip? What can you take away from it?		
O	I think that one went well.	- That one went well.	*
P	Yeah		
O	I think		
P	So how does that make you feel watching that clip?		
O	Um, That I'm kind of maybe on the right track?	- Maybe on the right track.	- Video: Experience
P	Yeah definitely. I think so Um if that situation were to arise again how would you…?		
O	Um maybe once you've done it for a while and he's more used to it and he's used to repeating longer phrases back to me I'd add something else in	- When the child is used to repeating back longer phrases I could expand.	- Reflection for action (informative feedback)
P	Ok, Yeah		
P	Do you want.. Shall we watch it back one more time?		
O	He seems um, a little less engaged in that one. Do you think?	- Child less engaged.	- Descriptive: Child's performance (negative)
P	Oh do you think? Maybe it's the camera?		

O	Yeah and he did repeat back well	- Child repeated back well.	- Descriptive: Child's performance (positive)
P	**Yeah, it was nice and clear. What sense do you make of it?**		
O	Yeah, he's getting used to that as well and now from this week as well hmm, because sometimes at the beginning as well he was just kind of saying some words or like the end of sentences but now he's saying more	- Child is getting better at repeating back.	
P	**Ok so he's getting used to that kind of PEER pattern?**		
O	Yeah, I think so		
	Watch clip 3		
P	**So what did you see?**		
O	I don't know I think I kind of lost the PEER bit there	- I didn't complete PEER process.	- Descriptive: Adult's performance (negative)
P	**Ok,**	- I expanded.	
O	I expanded on it but I didn't get him to repeat back then		
P	**Ok**		
O	So maybe I should have		- Reflection on action (informative feedback)
P	**Ok so what happened?**	- Maybe I should have got him to repeat.	
O	Um when he said "a mess" and I said "he's made a mess" or something and "he's left everything on the floor" and then yeah maybe I should of got him to say that again then but he said.. he said "he's not going to tidy up" or something. So I suppose he then expanded on what I said	- Child expanded with own ideas.	- Descriptive: Child's performance (positive)

P	**It had moved on from that ….just repeating**			
	Yeah he [Added in extra			
P	**and if we watch it again**			
	Watch Clip 3 again			
P	**Was there anything there that you noticed this time?**			
O	Um "the naughty tiger" so he repeated then without me actually telling him to	- Child repeated without me asking.	- Descriptive: Child's performance (positive)	
P	**Yeah, and was that…that wasn't one of your set things was it?**			
O	Yeah so he did repeat without me telling him to	- Child repeated without me asking.	- Descriptive: Child's performance (positive)	
O	Yeah, ah he has done very well hasn't he?	- Child has done well.	*	
P	**You've done very well too.**			
O	Yeah and also you.. I always think that it's gone terribly when I when you know you have an observation or being filmed or something like that but when you look back there are actually some good things from it	- Think it's gone badly but when you watch it there are some good things.	*	
P	**[Yeah, yeah**			
O	[But you don't realise it at the time. You just think "oh no that went really bad"			
P	**So if we go, so from that what would you do in the future, after watching that??**			
O	I think I probably wouldn't be so rigid in what I'm expecting him to say. I'd still have my questions ready but um just go with more what he says.	- I wouldn't be so rigid. - Go with what the child says.		

	Watch Clip 4		
P	**So what was happening there?**		
O	Um I think I did PEER there and it was a distance prompt. So I think throughout the thing I did cover um all the different types of prompts but I think I did too many	- I did PEER. - I did too many prompts.	
P	**Um so what do you feel at the end of watching the clips.**		
O	Um I think it would've flowed better if I didn't ask so many because I think I was nearly asking them nearly every page. Maybe not every page but I think … and I had repeated some of them that day that I'd done earlier in the week so maybe I didn't really need to ask them again because I'd asked them. Not all of them but some of them. So maybe I wouldn't ask so many next time and kind of let it flow better and keep him more engaged.	- Might flow better with fewer questions. - Child might be more engaged with fewer questions.	- Reflection for action (questioning)
P	**Yeah, yeah . And you said at the beginning you wanted to know about different ways of getting the children to repeat back. What do you think after watching the videos?**		
O	I think he does do that naturally anyway sometimes, which I didn't realise but I don't know er I don't think it seems like I was just doing it like you know (makes circular motion with finger)	- I didn't realise child is naturally repeating back sometimes.	-
P	**So were you feeling like you kept on saying "repeat it back, repeat it back"?**		
O	Yeah but then it didn't seem like that (points to computer)		
P	**So, do you feel that you've taken some learning from watching the clips?**		
O	Yeah definitely I thought it was going to be horrible watching them but it's not that bad and it is really helpful because yeah I wouldn't have realised that I was actually doing some of those things and I just thought it didn't go very well when we did it but it seems like it did…(hand gesture to laptop screen)	- I thought it would be horrible but it's not that bad. - I'm actually doing some of the techniques.	- Video: experience/ facilitation
P	**How's it going generally?**		
O	Yeah really well. He likes this story because his favourite story is Whatever Next and it's the same author and got the same sort of characters. And then next week we're doing The Very Hungry Caterpillar and that ones not as long either really		
P	**Great**		

Appendix 11: Transcript from Sandra and Amina's pre-test read of 'The Tiger who came to Tea' in CHAT format

@Begin
@Languages: eng
@Participants:AML Target_Child, SEV Teacher
@ID: eng|change_corpus_later|AML|||||Target_Child|||
@ID: eng|change_corpus_later|SEV|||||Teacher|||
*SAN: this is our book.
*SAN: the tiger who came to tea.
*SAN: what can you see?
*AMN: tiger.
*SAN: what else can you see?
*AMN: don't know.
*SAN: it's a little girl isn't it?
*SAN: what are they doing?
*AMN: eating.
*SAN: yeah.
*SAN: they're sitting at the table and eating.
*SAN: aren't they?
*SAN: can you say that?
*SAN: they're sitting at the table and eating.
*AMN: sitting table eating.
*SAN: good girl.
*SAN: let's start the story shall we?
*SAN: once there was a little girl called Sophie and she was having tea
          with her Mummy in the kitchen.
*SAN: Amina the little girl is called?
*AMN: Sophie.
*SAN: that's right her name is Sophie.
*SAN: she's having tea with her Mummy.
*SAN: what's she doing?
*AMN: having tea.
*SAN: What's she doing?
*AMN: having her tea?
*SAN: with her Mummy.
*SAN: having tea with her Mummy.
*AMN: having tea in her Mummy.
*SAN: suddenly there was a ring at the door.
*SAN: Sophie's Mummy said, I wonder who that could be?
*SAN: it can't be the milkman because he came this morning.
*SAN: and it can't be the boy from the grocer because this isn't the
          day that he comes.
*SAN: and it can't be Daddy because he's got his keys.
*SAN: who do you think it is Amina?
*AMN: dis@d.
*SAN: who do you think's at the door?
*AMN: Dee@c.
*SAN: do you think it's Daddy?
*SAN: but it can't be Daddy because he's got his keys.
*SAN: he's got his keys.
*SAN: who could be at the door?
*AMN: Daddy.
*SAN: let, shall we have a look?
*SAN: we better open the door and see.

*SAN: who is it?
*AMN: a big tiger.
*SAN: at the door.
*AMN: at the door.
*SAN: well done.
*SAN: Sophie opened the door and there was a big, furry, stripy tiger.
*SAN: and the tiger said excuse me but i'm very hungry do you think I
could have tea with you?
*SAN: Sophie's Mummy said of course come in.
*SAN: what do you think the tiger's going to eat Amina?
*AMN: cake.
*SAN: he's going to eat cake?
*SAN: what do you like to eat?
*AMN: chocolate cake.
*SAN: you like chocolate cake?
*AMN: I got, I got chocolate cake.
*SAN: have you got chocolate cake at your house?
*SAN: is your favourite food chocolate cake?
*AMN: yeah.
*SAN: say my favourite food is chocolate cake.
*AMN: my favourite choc xxx xxx chocolate cake.
*SAN: good girl.
*SAN: so the tiger came into the kitchen and sat down at the table.
*SAN: Sophie's Mummy said, would you like a sandwich?
*SAN: but the tiger didn't take just one sandwich.
*SAN: hetook all the sandwiches on the plate and swallowed them in one big
mouthful.
*SAN: so the tiger ate all the?
*AMN: cake.
*SAN: sandwiches.
*AMN: sandwiches.
*SAN: the tiger ate all the sandwiches.
*AMN: yeah.
*SAN: he must be very hungry.
*SAN: he still looked hungry so Sophie passed him the buns.
*SAN: but again the tiger didn't eat just one bun he ate all the buns on
the dish.
*SAN: and all the biscuits.
*SAN: and all the cake.
*SAN: until there was nothing left to eat.
*SAN: what's he doing there?
*AMN: using the xxx.
*SAN: what's he doing?
*AMN: using the xxx the potty.
*SAN: he's drinking all of the tea out of the teapot.
*SAN: can you say that?
*AMN: drink all the teapot.
*SAN: all the tea.
*AMN: pot.
*SAN: tea.
*AMN: tea.
*SAN: out of the teapot.
*AMN: teapot.
*SAN: well done.
*SAN: Sophie's Mummy said, would you like a drink?

*SAN: and the tiger drank all the milk in the milk jug.
*SAN: and all the tea out of the teapot.
*SAN: and then he looked around the kitchen to see what else he could find.
*SAN: he ate all the supper cooking in the saucepans.
*SAN: what can you see?
*AMN: apples.
*SAN: it looks like apples in the saucepan.
*SAN: and all the food that's in the fridge.
*SAN: and all the packets and tins in the cupboard.
*SAN: oh, what can you see in the cupboard Amina?
*AMN: some food.
*SAN: what do you have in your cupboards in your house?
*AMN: sweets.
*SAN: what do you have?
*AMN: sweets.
*SAN: sweets in your cupboard?
*SAN: can you say I've got sweets in my cupboard?
*AMN: I got sweet in my cupboard.
*SAN: he drank all the milk, all the orange juice, all of Daddy's drink
        and all the water in the tap.
*SAN: oh what do you like to drink Amina?
*AMN: my water bottle.
*SAN: do you like water out of your water bottle?
*AMN: xxx house.
*SAN: at your house?
*AMN: no xxx house.
*SAN: who's house?
*AMN: Amaima's house?
*SAN: Amaima's house?
*AMN: yeah.
*SAN: you had some water at Amaima's house?
*AMN: Amaima's house.
*SAN: then he said, thank you for my nice tea.
*SAN: I think I better go now.
*SAN: and he went.
*SAN: oh, what can you see here?
*AMN: xxx everything.
*SAN: what's happened to everything?
*AMN: the tiger come in big mess.
*SAN: he's made a mess hasn't he?
*SAN: can you say that?
*SAN: the tiger has made a mess.
*AMN: the tiger has made a mess.
*SAN: Sophie's Mummy said, oh I don't know what to do.
*SAN: I've got nothing for Daddy's supper.
*SAN: the tiger has eaten it all.
*SAN: and Sophie found she couldn't have a bath.
*SAN: why can't she have a bath?
*AMN: she can't have a bath.
*SAN: she can't have a bath.
*SAN: why?
*SAN: why can't she have a bath?
*AMN: cuz@d tiger eat, drink all the water.
*SAN: the tiger has drunk all the water hasn't he?
*SAN: well done.

*SAN:	just then Sophie's Daddy came home.
*SAN:	Sophie and her Mummy told him what had happened.
*SAN:	and how the tiger had eaten all the food and drunk all the drink.
*SAN:	the tiger ate all the?
*AMN:	food.
*SAN:	and he drank all the?
*AMN:	drink.
*SAN:	Sophie's Daddy said, I know what we'll do.
*SAN:	I've got a good idea.
*SAN:	oh, where are they gonna@d go?
*AMN:	xxx xxx.
*SAN:	it says here, we'll put on our coats and we'll go to the cafe.
*SAN:	they're gonna@d go to the?
*AMN:	cafi@d.
*SAN:	cafe.
*SAN:	can you say they're going to go to the cafe?
*AMN:	gonna@d go cafe.
*SAN:	to have some supper.
*SAN:	so they went out in the dark and all the street lamps were lit.
*AMN:	cat.
*SAN:	and all the cars had their lights on.
*AMN:	cat.
*SAN:	cat.
*SAN:	where?
*SAN:	what can you see?
*SAN:	what else can you see?
*AMN:	some some xxx they going.
*SAN:	where are they going?
*AMN:	somewhere.
*SAN:	They're going to the cafe.
*AMN:	They're going to the cafi@d.
*SAN:	that's right.
*SAN:	and.
*AMN:	that's the.
*SAN:	they had a lovely supper with sausages and chips and ice cream.
*AMN:	that's a tiger.
*SAN:	yeah.
*SAN:	and in the morning Sophie and her Mummy went shopping and they
	bought lots more things to eat.
*SAN:	where did Sophie and her Mummy go?
*AMN:	for tiger, for tiger.
*AMN:	that's for tigers.
*SAN:	where have they gone?
*SAN:	they've gone to get some?
*AMN:	food.
*SAN:	some more food, yeah.
*SAN:	shopping to buy some more food.
*SAN:	can you say that?
*AMN:	yeah.
*SAN:	say, they went shopping.
*AMN:	xxx.
*SAN:	they went shopping.
*AMN:	they went shopping.
*SAN:	to get more food.
*AMN:	get some more food.

Appendix 12: Child friendly script used with preschool pupils

My name is Peggy

I am training to be an educational psychologist. Educational psychologists work with lots of children to help them learn.

I am interested in how books help you to learn new words that you can use when you talk.

I am going to be working with (XXXX insert name of early years practitioner). She would like to spend time sharing some books with you.

You and XXXX will look at picture books together, read them and talk about them.

I am going to video you sharing books with XXXX because I want to look at what XXXX is doing when they read with you.

If you don't feel happy at any time when you are looking at the book with XXXX you can stop and I will stop videoing.

After you have looked at the book with XXXX I can show you the video and you can see yourself talking about the books with XXXX.