

**AN EVALUATION OF A PAIRED READING INTERVENTION IMPLEMENTED BY
FOSTER CARERS WITH LOOKED AFTER CHILDREN**

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ABSTRACT

Looked after children have been identified by successive governments as a vulnerable group who have persistently demonstrated poor outcomes across a range of measures, including educational attainment and social inclusion (DfE, 2012a). The 2010 Conservative-Liberal Democrat Coalition government has identified narrowing the gap between this group and their peers as a key priority, and Paired Reading is one intervention that has been shown to improve literacy levels when implemented with looked after children (Osborne et al., 2010), with further potential value in strengthening the adult-child relationship through their shared engagement in the reading process (Topping, 2001).

A mixed methods design measuring reading across three time points was used to assess the impact of a Paired Reading intervention with looked after children and their carers on the children's reading levels.

Although a significant difference was found for two of the measures of reading progress, a more detailed analysis of the data suggests that there was wide variation in both pre- and post- intervention scores. The results from this research suggest that Paired Reading may be an effective intervention for some looked after children, but that a differential analysis of individual child needs is required prior to implementation, taking into consideration children's previous life experiences, literacy performance and relationship with their carer.

DEDICATION

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Chapter 1: Introduction

1.1 Overview of research

Looked After Children (LAC) are one of the most vulnerable groups in society, and their life outcomes persistently fall below those of their non-looked after peers (Jackson and Simon, 2005). Not only does this group experience trauma prior to coming into care, there are suggestions that the care system itself does not provide a wholly compensatory experience for LAC (Fletcher-Campbell *et al.*, 2003). There is a large body of research documenting the inter-related negative outcomes that LAC are susceptible to, both during childhood and throughout their lifespan as a result of these experiences. These outcomes are evident in such areas as mental health and wellbeing, social inclusion, and educational attainment. Unfortunately, many of the well-intentioned policies which have been implemented by recent governments have not had their intended impact and the educational attainment of LAC in particular persists in failing to match that of other children¹ (DfE, 2012b). To redress this consistent trend of significant underachievement by LAC, one area that has been heavily targeted is that of literacy (Osborne *et al.*, 2010; Griffiths, 2012).

The aim of the current research was to implement a Paired Reading literacy intervention, carried out by foster carers with the children in their care. In addition to quantitative data, qualitative information was also gathered as a way of gaining an insight into other benefits

¹ The term 'other children' will be used in this thesis to refer to children who are not looked after by the Local Authority.

that the intervention may bring to participants, such as an improved relationship between carers and children and/or confidence with reading.

1.2 Local Context

This research was conducted in two Local Authorities (LAs) (i.e. LA 'A' and LA 'B') in the West Midlands, which have a joint arrangement for the delivery of their Educational Psychology (EP) Services. The involvement of the Educational Psychology Service with LAC in these two LAs was typical of many EP Services across the West Midlands. There were multi-agency Corporate Parenting Teams (CPTs) in both LAs which had a Senior EP seconded to them for part of the week. It was through my involvement with these teams in both LAs that I became interested in carrying out research which aimed to contribute to the evidence base regarding the strategies which are effective in promoting improved outcomes for LAC. Amongst the key concerns that frequently arose in the CPTs were the low levels of literacy observed in primary-aged LAC and the difficulties some carers were experiencing in developing close relationships with their children.

I had already developed an interest in literacy and so, when literacy skill development in LAC was suggested as a possible research topic, I was keen to explore it further.

Both LAs had appointed Virtual School Heads (VSHs) to promote the wellbeing of LAC. The VSH in LA 'B' in particular was determined to raise the educational attainment of LAC and held this to be a key priority for the CPT and the LA more generally.

1.3 Nature, Scale and Duration of Problem

The negative outcomes of LAC have long been recognised by government departments and subsidiaries (Borland *et al*, 1998; Social Exclusion Unit, 2003; Scottish Executive, 2007).

These outcomes include poor mental health, difficulties forming relationships, and poor vocational outcomes, amongst others. If not addressed early, these negative outcomes can lead to lifelong and even transgenerational disadvantage (Fletcher-Campbell *et al.*, 2003). In addition, these outcomes are inter-related and can lead causally to the experience of further negative outcomes within the same generation. For example, low academic achievement can increase risks of unemployment which is, in turn, associated with risks of poor mental health and alcohol misuse (Montgomery *et al.*, 1998). Furthermore, the risk factors which mediate these outcomes interact along complex developmental pathways (Cicchetti and Lynch, 1993; 1998).

Some of the risk factors which have been identified for LAC can be conceptualised as operating at different levels within the Ecological-Transactional model proposed by Cicchetti and Lynch (1993; 1998). This model is depicted in Figure 1 overleaf.

The basic premise of this model is that humans are influenced by and have a direct influence on systems at multiple levels (e.g., at the ontogenic, microsystemic, exosystemic and macrosystemic levels). The model was originally developed to explore the effects of maltreatment and, in particular, community violence on children's development (Cicchetti and Lynch, 1998) and as such, has made a significant contribution to the field of developmental psychopathology. It is particularly useful in accounting for multifinality and equifinality (Cicchetti and Rogosch, 1996), within the domain of child maltreatment and trauma, in that the same circumstance can lead to different outcomes for LAC, (multifinality), while different combinations of circumstances can lead to very similar outcomes (equifinality), depending on the unique combination of potentiating (risk) and buffering (protective) factors present at the varying ecological levels in a child's life.

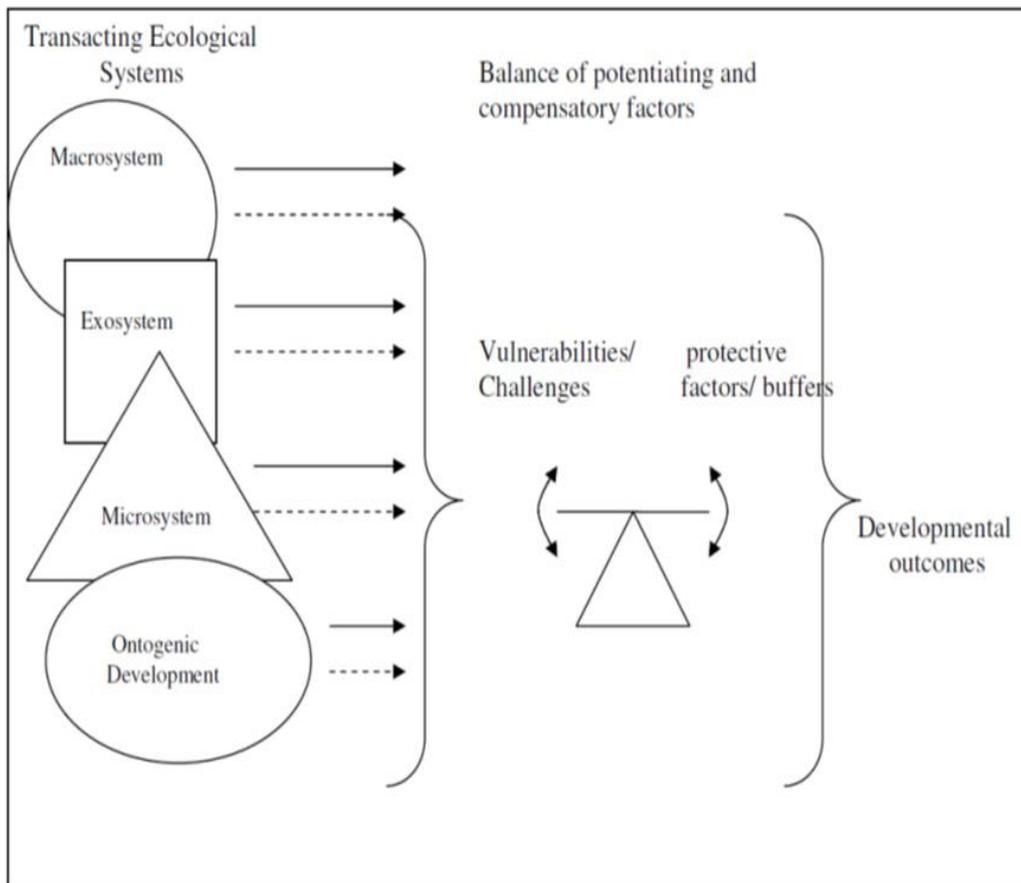


Figure 1: An Ecological-Transactional Model (based on Cicchetti *et al.*, 2000)

The rationale for the use of the model in this study as an integrating conceptual framework is that it neatly accounts for the complexity of the developmental trajectories of LAC within the public care system. It also offers an ecological perspective on development within which the developing child is both influenced by, and influences the multiple systems of which they are part, whether directly (as in the case of family and school settings) or indirectly (as in the case of public policy, cultural attitudes, agency resources, protocols and practices). A more thorough exposition of the ET model is provided in Chapter 2.

The negative outcomes experienced by LAC have long been recognised by policy developers both in the UK and internationally and there has been a number of public policy initiatives

developed to address and redress these negative trends. These will be further addressed in Chapter 3. Whilst these have undoubtedly achieved some success, the progress of LAC remains stubbornly behind that of their peers. This suggests that the care system does not act as a wholly compensatory buffer for these children, with few children remaining with their foster families once they turn 18 (Berridge, 2012a). Recent policy developments have meant that foster children can now be financially supported to remain with their foster families if they wish to do so until 21, providing a secure base for those LAC who are unprepared to live independently at 18 (DfE *et al.*, 2013).

The heterogeneous nature of LAC should also be acknowledged. Despite some similarities, LAC are a highly diverse group, who have experienced differing patterns of neglect and trauma, as well as a range of different experiences whilst in the care system (DfEE and DoH, 2000). As noted above, the Ecological-Transactional Model expounded by Cicchetti and Lynch (1993) has value in explicating the diversity within the care population, their pre-care, ‘in care’, educational and other experiences, and accounting for similarities and differences in developmental outcomes and responses to intervention. Researchers and professionals must be careful not to make undifferentiated assumptions about the abilities and likely developmental pathways of young people, based only on knowledge of their having been through the care system. Despite this, commonalities do exist within the care population. For example, Cairns and Stanway (2004) identify that LAC have in common the following factors:

- they have experienced separation from their parents;
- this separation has involved trauma; and
- they are likely to underachieve academically.

Other commonalities concern entering and leaving care repeatedly and the experience of multiple care and educational placements.

1.4 Terminology

In the area of children's social care, many different terms have been used to describe children who are in the care of the state. The term 'Children In Care' has now largely been replaced by the term 'Looked After Children' which was introduced following the implementation of the Children Act (1989). According to the Children Act (1989), the term 'Looked After Children' is used to refer to those children who are:

- in care through a care order under Section 31 of the Children Act 1989;
- accommodated on a voluntary basis through an agreement with their parents under Section 20 of that Act, or with agreement of the child if they are over 16;
- placed away from home under an emergency protection order; and
- on police protection/remand/detention (Section 21 of the Children Act).

For the purposes of this study, the term 'Looked After Children' and its standard abbreviation to LAC will be used.

1.5 Education

As will be elaborated further in Chapter 3, one of the areas that has received the most attention concerning LAC is that of education. LAC have been identified by the 2010 Conservative-Liberal Democrat Coalition government as a vulnerable group whose educational attainment falls far below the national average (DfE, 2012a). There have been repeated government reviews to address this issue (e.g. DfES, 2007; House of Commons, 2009). Despite this,

educational outcomes for LAC continue to be poor; for example, the DfE reports that in 2012(a), only 14.6% of LAC in England received 5 A* to C grades at GCSEs compared with the national average of 58%.

The reasons behind this persistent pattern of low achievement are complex, but there is evidence to suggest that a number of within-care factors such as low adult expectations, unstable placements and a lack of joined up working between services within the care system may be implicated (Harker *et al.*, 2004). Differences such as the length of time in care, the age at which children come into care and the reasons why the child came into care have also been found to have differential effects on the academic achievement of LAC (McClung and Gayle, 2010). In addition to the in-care factors, there is increasing recognition of the enduring effects of adverse pre-care experiences of abuse or neglect on a young child's development, and of the resulting difficulties that LAC bring with them to their care placements. These include high levels of challenging behaviour, difficulties with emotion regulation and attention control, which can, in turn, compromise the ease with which they can form positive relationships with peers, carers or teachers, and engage in learning (Crittenden, 1992; Fonagy *et al.*, 2002; Howe, 2005).

Interventions that have been promoted as having a positive effect on the educational attainment of LAC include literacy interventions which involve carers as key participants. Foster carers are crucial in facilitating the engagement of LAC with education, and one of the core recommendations from the All-Party Parliamentary Group (APPG, 2012) on LAC has been to provide foster carers with more educational training.

This study attempts to explore the effectiveness of a reading intervention (Paired Reading), carried out with LAC, in collaboration with their foster carers.

1.6 Paired Reading

Paired Reading (PR) is a literacy intervention that has been shown to improve literacy levels when implemented as an individual intervention with looked after children (Brooks, 2007). Paired Reading is a simple and effective intervention which offers a structured way to improve a child's reading, and furthermore is a productive way of engaging both the adult and child in the reading process (Topping, 2001). Previous research has explored the use of literacy interventions with looked after children, but only two published studies have specifically used PR (Menmuir, 1994; Osborne *et al.*, 2010). The aim of the current research is partially to replicate the findings of the research carried out by Osborne *et al.* (2010). I wanted to improve on the design of this study by including children's views and by using a more complex research design. The anticipated advantages of using PR to address the needs of this specific population are threefold: it is an evidence-based intervention; it provides support for the carer-child relationship; and it provides potential for personal growth in self-efficacy for both the child and carer (Topping, 2001; Brooks, 2013).

The present research employed a mixed methods design whereby a time series experimental design and questionnaires were used. Although this is a mixed methods design, the paradigmatic emphasis is largely on the experimental methods used. Reading measures were completed with children at three separate points in time: Times 1, 2 and 3, where Time 1 to Time 2 is a period of non-intervention used to check on progress over a pre-intervention baseline period, with the intervention then taking place between Time 2 and Time 3.

Performance was compared across all three times. The literature search indicated that no previous UK researchers had employed this particular design to evaluate PR with looked after children.

1.7 Limitations

Although PR does have an evidence base, (albeit limited), when used with LAC (two studies referred to above), there are limitations of the study which should be acknowledged at the outset. Firstly, there are multiple challenges to be overcome when working with the present research population, not least in accessing them and acquiring reliable data (Berridge, 2012a). In addition, due to the complex and multi-faceted nature of the disadvantages which are experienced by looked after children, their difficulties are likely to require intensive and long-term multimodal and multi-level interventions, of which only one component can be a literacy intervention. Thirdly, while the extended baseline aimed to provide a comparison against which progress in response to the PR intervention could be gauged, it must be noted that a wide range of compounding influences (uncontrolled independent variables) will have been operating simultaneously, potentially influencing progress over the intervention period. The sample size (n=12) is not sufficient to offset the influence of such factors; findings can therefore offer only an indication, rather than conclusive evidence for the power of the PR intervention *per se.* in contributing to improvement in reading. Moreover, as is often the case with PR studies (Miller *et al.*, 1986), the intervention period was short (six weeks); clearly compromising the levels of measureable progress which might realistically be expected.

Finally, it is worth noting here that, largely due to the duration of the placement within which this study was negotiated and implemented, the duration of the research period was circumscribed, militating against further systematic collection of data at a Time 4; hence, no data can be presented to assess the durability of progress following the experimental PR intervention. Furthermore, even had data collection at a Time 4 proved feasible, variations in children's experience during the period between Times 3 and 4 would have been considerable,

greatly reducing the confidence with which any conclusions regarding the durability of outcomes of the PR intervention per se. could be drawn.

Research questions

Given these limitations, the main research questions which this study attempted to answer were:

- Does a Paired Reading intervention raise the literacy levels of looked after children when carried out by foster carers?
- Is the intervention effective in improving the relationship between carers and children?
- What are the benefits observed by participants in the intervention?

1.8 Structure of Volume 1

Chapter 1 has offered an introduction to the present study and the research questions, whilst also providing an advance organiser to the remainder of the volume.

Chapter 2 provides an overview of the relevant literature concerning the multiple and complex disadvantages experienced by LAC, using the framework of the Ecological-Transactional model (Cicchetti and Lynch, 1998). In particular, Chapter 2 explores why children come into care and the effects that early trauma can have on children's development.

Chapter 3 summarises the legislative and policy framework behind the care system. Key developments from policy initiatives in this area such as designated teachers (DTs), VSHs and the use of Personal Education Plans (PEPs) are explored.

Chapter 4 focuses on education and literacy in particular. It explores the development of reading difficulties using the theoretical model of the Simple View of Reading (Gough and Tunmer, 1986). The literature reporting evidence for Paired Reading is extensively reviewed and the advantages of PR over other reading interventions are explored.

Chapter 5 introduces the research design and methodology that was used and outlines the ethical considerations that arose during the planning, implementation and reporting of the intervention. My own epistemological stance is also described in this chapter.

Chapter 6 presents the results of the statistical and qualitative analysis of the research data. Graphs and tables are provided, where appropriate, to further illustrate the results found. A more detailed qualitative analysis of the participant's data is also presented, which allows general trends and individual differences to be commented on where appropriate.

Chapter 7 presents a discussion of the results, informed by the previous published literature reviewed in Chapters 2, 3 and 4. Implications for future research and practice are discussed along with some limitations of the research.

Chapter 8 offers concluding comments about the research.

Chapter 2: Looked After Children (LAC): A highly vulnerable group

2.1 Introduction

LAC are a highly vulnerable group who, research has shown, tend to have poorer life outcomes than the general population (Nissim, 2006). There are over 65,000 children who are considered to be ‘looked after’ in the UK and they are regarded by the present Coalition Government to be a high risk group (APPG, 2012). The experience of being in care means that it is highly likely that a child has experienced maltreatment, including neglect and/or abuse in their early life. As Comfort (2007) has identified, children and young people who come into care bring ‘heavy emotional and behavioural baggage with them to school and to their new families’ (p. 30). Research suggests that the experience of child maltreatment has severe and wide-ranging developmental implications (Egeland *et al.*, 2000; Cameron and Maginn, 2011). Wilson *et al.*, (2011) conceptualise the experience of child maltreatment as a traumatic stress injury and identify the impact of such injuries as consisting of ‘long-term detrimental consequences to the development of the affected child such as future brain growth and functioning’ (p. 88).

Some of the disadvantages experienced by children prior to coming into care include neglect, sexual and physical abuse by family members, community violence, domestic violence and abuse, separation or divorce, parental addiction or mental health difficulties, frequent moves, and volatile living situations (Wilson *et al.*, 2011). In addition to the multiple disadvantages experienced by LAC prior to their entry to the care system, some authors have argued that the care experience itself can have a deleterious impact on children’s development (Fletcher-Campbell *et al.*, 2003).

2.2 Ecological-Transactional Model

Although risks for ‘the LAC’ population have been summarised above, the heterogeneity of this population, and differences (as well as similarities) in the developmental experiences and outcomes to which they are prey need to be accommodated. As noted in Chapter 1, Cicchetti and Lynch (1993) developed the Ecological-Transactional (ET) Model in order to account for such complexities and the different, as well as shared experiences and outcomes of trauma and maltreatment during the early stages of the life-long developmental process. This is a useful framework through which we can begin to understand the complex interactions of risk and protective factors which account for the different outcomes in children who have experienced maltreatment. Based upon the Ecological Systems Model (Bronfenbrenner, 1977), the advantages of such a model are that it captures the interdependence between the ontogenic development of the child and the nature and weighting of protective and adverse influences within the ecology surrounding the developing child. This model views childhood adversity as lying outside the scope of normal childhood experience. When a child experiences trauma, their developmental trajectory is changed and there are significant costs to such a change. The Ecological-Transactional Model is again presented overleaf in Figure 2 for ease of reference.

The authors of the model conceptualise nested levels of ecological contexts interacting with one another and with the individual at the centre of the model. Over time, a person’s development is shaped by the transactions between the environment and that person. The macrosystem concerns societal and cultural beliefs which impact upon family functioning, the exosystem concerns the neighbourhoods and localities within which the children and families exist, the microsystem refers to the families the children live in; and the final nested level is

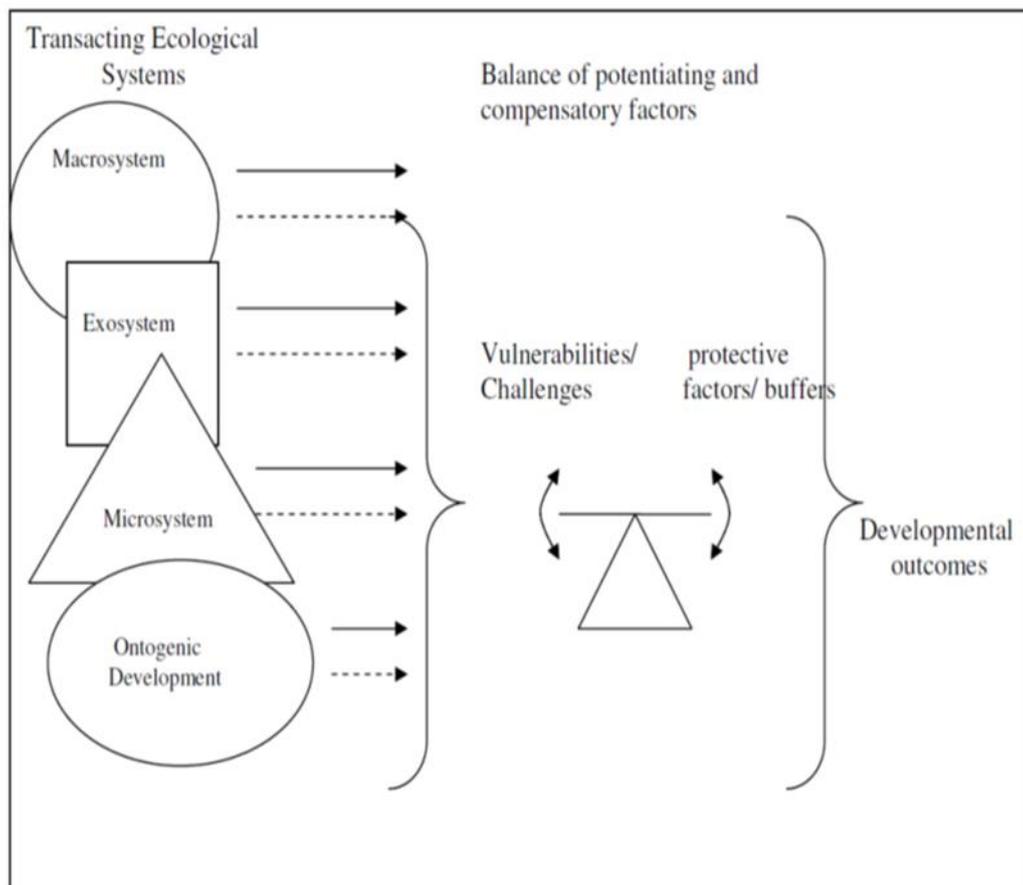


Figure 2: Ecological-Transactional Model provided again for reader's reference (based on Cicchetti *et al.*, 2000)

the ontogenic level which refers to the individual and their unfolding individual characteristics as they progress through the process of ontogenesis or life-long maturation and development. Each level is thought to contain multiple risk and protective factors that impact on the child's development. These are termed (risk) 'potentiating' and 'compensatory' (or protective) factors. The balance found in favour of potentiating or compensatory factors in the child's environment and personal characteristics (such as challenging behaviour) influence the process of ontogenesis, and the likelihood of the child experiencing or expressing developmental difficulties. Considered within such a framework, care can be conceived of as

either a protective buffer or as potentiating risk at the level of the exosystem or microsystem.

As Cicchetti and Lynch (1998) identify, children:

‘...growing up in dangerous ecologies with insufficient compensatory factors, whether they be enduring protective factors or more transient buffers, are especially at-risk to display incompetencies that are associated with increasing symptomatology and psychopathology’ (p. 237).

This model will be used to structure the remainder of this chapter.

2.3 Ontogenic Level

At the ontogenic level, the effects of maltreatment and early adversity are seen in such areas as brain development and functioning, affective regulation, attention control and the ability to form meaningful relationships with others (Perry *et al.*, 1995; Schore, 2001). It is recognised that early maltreatment results in increased risk of adversely affected brain development (Egeland *et al.*, 2000). When the infant experiences sensitive caregiving from a responsive caregiver, as is the case with ‘good enough parenting’ (Winnicott, 1965), the brain develops in a healthy and flexible manner. Where there is disruption to caregiving experiences, neurodevelopment is adversely affected (Schore, 2001).

The adverse effects of early neglect and/or abuse on children cannot be explicated without first considering attachment theory, which was developed by Bowlby (1969) and is one of the major paradigms available for understanding human social and emotional development. The central tenet of attachment theory is that the human infant needs to experience a secure attachment with a parent or other significant adult in order to be able to develop effective relationships with others as a child, and later as an adult (Bowlby, 1969; Hopkins *et al.*, 2005). Bowlby suggested that an insecure attachment bond between the caregiver and infant

in early life can impair later successful adaptation, manifesting in delayed development, withdrawal, a lack of concentration and an excessive need for affection (Hopkins *et al.*, 2005).

Insecure attachment patterns are frequently maintained as children develop, and, unless children can be supported in developing more adaptive attachment patterns, are likely to remain a lifelong pattern of functioning (Crittenden and Claussen, 2000). The relevance to the current study is that key relationships with attachment figures such as foster carers can potentially ameliorate the negative effects of early insecure attachments and allow for ‘second-chance learning’ to take place, within the context of ‘good-enough parenting’ (Bomber, 2011). However, creating opportunities for this ‘second-chance learning’ to occur is often rendered problematic by the legacy of early maltreatment and neglect e.g. through a suggested ‘internal working model’ (e.g. Bretherton, 1995; Howe, 2011), which may restrict the child’s capacity to trust in or respond to a carer; difficulties with emotional regulation (e.g. Choe *et al.*, 2013; Halligan *et al.*, 2013; Hoffman *et al.*, 2006; Kim and Cicchetti, 2010), which can be challenging for a carer to understand and/or manage; poorly developed attention control (e.g. Tronick, 1989; 2007; Kochanska and Knaack, 2003), which can compromise engagement and learning; and impaired executive functioning (e.g. Bell and McBride, 2010; Rees, 2010; Spear, 2010), which can further restrict the child’s capacity for impulse inhibition and age-appropriate self-regulation. Hence adults who take responsibility for ‘second-chance learning’ need to be aware of the additional challenges they may encounter, and receive skilled support in mediating these challenges.

The ‘Dynamic-Maturational Model’ (DMM) of attachment (Crittenden and Dallos, 2009) affords an important development from attachment theory, as framed by Bowlby (1969) and Ainsworth and Bell (1970). The model suggests that when faced with perceived danger, distress, chaos or the threat of isolation, humans will seek safety, comfort, proximity and

predictability, even when this means deploying attachment strategies which could be considered maladaptive to an outsider, such as returning to live with a dangerous partner. In this model, attachment is defined as:

‘...a lifelong inter-personal strategy to respond to threat/danger which reflects an intra-personal strategy for processing information’ (Crittenden and Claussen, 2000, p. 34).

This model is helpful in that it provides an explanation for the enduring strength of the attachment bond that many LAC retain to their birth parents and siblings, irrespective of adverse early experiences, and how these bonds –and their severance - can form a continuing source of deep distress for LAC and also militate against efforts to commit to ‘new’ relationships with foster or adoptive parents. As explained in the preceding paragraphs, there are numerous challenges to be overcome for children whose early development has been compromised by inadequate care and poorly attuned attachment relationships, and who will require skilled support if they are to amend their internal working model to facilitate the development of more effective ‘inter-personal strategies’.

A complementary theory to that of attachment theory and Crittenden and Dallos’s DMM (2009) is Parental Acceptance-Rejection Theory (PA-RT) which was developed by Rohner (2004; Rohner *et al.*, 2004; 2005). PA-RT holds that children have a fundamental need for acceptance from their parental figures. If they do not receive this, they behave in ways which demonstrate hostility, dependence, impaired self-esteem, emotional unresponsiveness and a negative worldview (Rohner, 2004).

There is a significant body of work to support this theory (Rohner, 2004, provides a comprehensive review). Some implications for parenting that can be drawn from this model are that parents need to communicate acceptance to children and find ways of relating to them

that display ‘emotional warmth’ and ‘avoid behaviours that indicate parental coldness and a lack of affection’ (Cameron and Maginn, 2011, p. 48). These implications hold for foster carers and adoptive parents as well. In particular, these authors suggest that emotional warmth is critical to the attachment relationships that children form with key adults such as foster carers and highlight the therapeutic value of these key attachment relationships. As Perry and Szalavitz (2008) have identified:

‘Most of the therapeutic experiences do not take place in ‘Therapy’ but in naturally occurring healthy relationships’ (p. 80).

It might be argued that, where children express challenging behaviour and mistrust, it will be more difficult for foster carers to sustain or communicate authentic unconditional positive regard for a child in their care, as required by PA-RT, so adding to the probability that negative, risk-potentiating transactions within the all-important (care) family microsystem will compromise the potential for ‘second chance parenting’.

2.31 Effects of maltreatment on children’s development

The experience of maltreatment can have significant ramifications for patterns of typical brain development (Schoore, 2001). When a caregiver develops a weak attachment with an infant, extreme levels of arousal are induced in the child, which are either too low (referred to as dissociation) or too high (referred to as hyperarousal) (Perry *et al.*, 1995). Instead of having these levels modulated by their caregiver, the infant is left in a state of extreme arousal for protracted periods. This is associated with changes in the biochemistry in the infant’s developing brain, particularly in areas which are associated with coping capacities (Schoore, 1996).

In addition to the effects on brain development, Cairns and Stanway (2004) have classified the impact of trauma and/or neglect upon development into several other areas of developmental functioning. These include:

- affect regulation;
- physical development; and
- physiological development.

Affect regulation refers to difficulties the child will experience with emotional states, sensations, and comfort levels (Bomber, 2011). Cairns and Stanway (2004) further identify emotional effects such as an inability to process experiences through language; a reduced capacity for empathy and feelings of shame; and a reduced range of emotions. Physiological development is also affected. Children who have experienced trauma and/or neglect display a tendency towards hypervigilant, hyperactive or dissociative behaviours, altered sleep and eating patterns, and compulsive and/or self-harming behaviours. Some of the physical effects experienced by children who have experienced maltreatment include headaches, muscle tension, respiratory disorders and digestive disorders (Cairns and Stanway, 2004; Scannapieco, 2008). These multiple and interdependent difficulties at the ontogenic level have far-reaching implications for LAC in terms of their ability to regulate their emotions, and engage in trusting relationships with others. Unless their experience is sufficiently mediated by a range of protective compensatory experiences (such as a positive attachment relationship with a key adult), such factors, singly and in combination, are likely to continue to exert a negative influence over children's continuing development and outcomes. A further challenge that children who have been maltreated experience is that the difficulties that they display at the ontogenic level can contribute to negative transactions with factors at the microsystemic

level, leading to the maintenance and exacerbation of adversity in their lives (Cicchetti and Lynch, 1998).

2.4 Family microsystem

At the level of the family micro-system, the risk factors that influence children’s development concerned with birth families primarily centre on the risk of abuse, neglect and family breakdown. Table 1 below provides a breakdown of the reasons, as identified by the DfE (2012a), why children primarily enter the care system.

Reasons for coming into care	Percentage
Abuse or neglect	62%
Child’s own behaviour leads to them placed in care	2%
Family dysfunction	14%
Family in acute distress	9%
Parental illness or disability	4%
Child’s disability	3%
Absent parenting	5%

Table 1: Reasons for coming into the care system (DfE, 2012a)

As can be seen from Table 1, the majority of children come into care because of the experience of abuse or neglect within their birth family. This has implications for their physiological, emotional, physical, behavioural and academic development (Perry *et al.*, 1995). It is helpful at this juncture to consider what exactly is meant by the terms abuse and neglect, both of which come under the umbrella term of child maltreatment. Child maltreatment is currently conceptualised along a commission-omission paradigm (Christoffel *et al.*, 1992), and refers to acts of commission as acts of sexual and physical violence (considered to constitute abuse) and acts of omission as referring to where the caregiver fails

to attend to the child's welfare (considered to constitute neglect). It is not necessary for both to have occurred for there to be a significant impact on neurodevelopment.

Where LAs can identify that children and young people (CYP) have had these experiences of abuse or neglect or where families break down irrevocably, CYP are removed into care, albeit often after extended periods during which endeavours have been made to support their placement with their birth family, creating conditions for those children who do then enter the care system, within which they have been exposed to toxic intrafamilial influences as evidenced by the 2013 definition of 'neglect' (DfE, 2013c, p. 86):

'Neglect is the persistent failure to meet a child's basic physical and/or psychological needs, likely to result in the serious impairment of the child's health or development.'

The rationale for removing children from their families is to improve their life opportunities and provide them with sufficient compensatory buffering experiences that ameliorate their early difficulties (NSPCC, 2012).

2.4.1 'Good Enough Parenting'

An important protective factor at the level of the micro-system is the relationships that LAC can form with foster carers, residential workers, and social workers. Numerous researchers have highlighted the importance of these relationships in helping to provide compensatory and buffering experiences for LAC (Jackson *et al.*, 2005; Cameron and Maginn, 2011). The relationship with the foster carer, in particular, is envisaged as compensating for the deficient primary caregiver relationship within the birth family, and providing that dimension of 'emotional warmth' that is crucial in facilitating the development of attachment relationships (Cameron and Maginn, 2011).

In 1965, Winnicott developed the concept of ‘good enough parenting’ which is based upon the view that where children are in receipt of ‘good enough’ caregiving the majority of the time, they will not be adversely affected. The concept of ‘good enough parenting’ is relevant to foster carers who are charged with providing children with very challenging needs with the opportunity for ‘second chance learning’ within the context of a caring relationship (Bomber, 2011). The opportunity and challenge for foster carers who intervene at the microsystemic level is to establish good attachment relationships with these children and so provide them with an experience of ‘good enough parenting’ to allow for a secure attachment to form, and support positive ontogenic development.

Even though Crittenden and Dallos’s (2009) DMM offers the potential for adverse negative experiences to be overcome, it must be acknowledged that the negative events LAC experience in their early lives are often so great and at times, compounded by in-care experiences, that it is not always possible to overcome them. Considered from a developmental perspective, the early experiences of these young people render the subsequent stages of development increasingly difficult; children are often not provided with sufficient compensatory experiences. A further complicating factor identified by Crittenden and Dallos (2009) is the impact of the enduring attachment that LAC often experience to the ‘absent’ biological family (including siblings, with whom LAC are all too often not placed), which can exert a continuing negative (albeit, in some cases, in some ways, protective) influence on development following children’s entry to the care system.

Whilst the majority of policy makers would appear to agree that foster placements are better for children than residential placements, there appears to be a lack of intensive, expert support available for carers to manage very challenging children (Briskman *et al.*, 2012) and carers of LAC may struggle or fail to provide ‘good enough parenting’ to children who, in many cases,

bring a profile of learned behaviours, expectancies and emotional needs which render relationship building and unconditional positive regard difficult to provide consistently. Where this is the case, the relationship with the carer can all too easily lose its capacity to form a critical protective influence in the child's life and become a further risk factor, and the placement can fail, with further damage to the developing child's sense of security, self-worth and expectations of relationships.

2.5 School exosystem

At the level of the school exosystem, there is evidence to suggest that school can serve a protective function in children's lives (Gilligan, 1998). For many LAC, school represents an important source of stability and continuity in their lives, in addition to providing an accepting environment, the opportunity to develop friendships with peers and establish a relationship with a committed adult (DfEE and DoH, 2000; Fletcher-Campbell *et al.*, 2003).

However, as can be seen from the previous paragraphs outlining the negative developmental effects of abuse and/or neglect, children who enter school having experienced maltreatment are often not well-equipped to engage in the learning process (Bomber, 2011). Because of the difficulties many LAC will experience in areas such as emotional regulation and attention control, there is an inevitable impact upon learning. In addition to these difficulties at the ontogenic level (which inherently influence context at the exosystemic level), factors such as the low expectations held by teachers of children, the lack of information sharing between professionals, and the inevitable disruptions to relationships caused by multiple transitions also play a part in countering the potentially protective effects of school. The experience of these risk factors is also likely to diminish the willingness of LAC to engage with learning

and with supporting professionals. These educational risk factors will be further expounded upon in Chapters 3 and 4.

2.6 Macrosystem

As can be seen from the graphical representation of the ET Model in Figure 2, the macrosystem lies outside the exosystem and refers to the cultural beliefs held which permeate society. Also incorporated into this level is the support provided to LAC at the level of policy and legislative initiatives through corporate parenting (CP).

Corporate parenting is situated at the macrosystemic level and refers to the support provided by LA elected members and officers to children in care. Corporate parenting is envisaged as compensating for the disadvantages experienced by LAC (DfEE and DoH, 2000). As identified by the Utting Report (DoH, 1991), ‘corporate parenting cannot replace or replicate the selfless character of parental love; but it does imply a warmth and personal concern which goes beyond the traditional expectations of institutions’. (p. 5). The duty of the CP is framed as ‘the collective responsibility across services and across local authorities, to safeguard and promote the life chances of looked after children’ (DoH, 1991), with the clear expectation that good corporate parenting will ensure that LAC have the same access to their rights and enjoy the same life chances as other children.

Critics of the poor standards of implementation of corporate parenting such as McParlin (1996) and Fletcher-Campbell (2003) argue that the system has failed many of its CYP in care, and cite the poor educational attainment of LAC as evidence of this. Certainly, at the level of the macrosystem, it is evident that there is a need for greater coordination between agencies who contribute to corporate parenting in the LA such as social care and education (APPG, 2012). Furthermore, despite the efforts of recent governments to implement policies

which have striven to address the needs of LAC, many of these policies have fallen short of their intended impact (The Who Cares? Trust, 2012a). Educational policies specifically targeted at LAC such as the introduction of the VSH role have been introduced in an attempt to coordinate and strengthen support across services; however much remains to be done to see these policies fully effective. The VSH role is one such policy which was introduced by the White Paper *Care Matters* (DfES, 2007). The VSH is envisaged as taking responsibility for improving the educational attainment of all LAC in a particular LA. They oversee a virtual school which 'is not envisaged as a teaching institution, but a model to oversee progress and support as well as to hold to account those who provide services' (Berridge, 2012, p. 33). Further information on the VSH is included in Section 3.5.2.

A recent review by the APPG (2013) suggests that LAC are still unclear about many of their rights and entitlements, such as their right to care plans. A serious failing on the part of the corporate parenting system is clearly evidenced when so many children and young people in care are still unclear about what they are entitled to. The report also highlighted many cases where LAC were aware of their rights, but were not afforded them. One role of the corporate parenting system is to ensure that LAC are aware of and receive their entitlements (National Children's Bureau, 2013). The support provided to LAC at the macrosystemic level will be further explored in Chapter 3, and specific attention paid to the policies of VSHs, DTs and PEPs. In addition to the VSH role, other policies which have been introduced to meet the needs of LAC include DTs and PEPs. These were introduced in the *Guidance on the Education of Children and Young People in Public Care* (DfEE and DoH, 2000), and will be further explored in Sections 3.5.1 and 3.5.3 and in Table 2.

2.7 Conclusion

In sum, this chapter has provided an account of the bases for the vulnerability of LAC to negative outcomes, including educational underachievement, whilst also highlighting why difficulties so often persist for this group, despite an espoused policy commitment toward intensive, multi-modal intervention by services.

The crucial role of the foster carer in supporting LAC has been explored, together with exposition of the reasons why, in some cases, it is difficult for carers to occupy a supportive, educative role in the life of a child in care.

The ET model was presented as a framework for examining the potentiating and protective factors which are likely to affect LAC at different ecological levels. The vulnerability of children growing up in dangerous ecologies has been acknowledged, even when there are compensatory factors at each ecological level. Providing sufficiently robust protective factors for LAC who have experienced multiple disadvantage continues to be a challenge for those closely involved with the care system at each level of the model, including the government, the LA as a corporate parent, and professionals working with LAC (Berridge, 2012a).

Chapter 3: Public Policy Development to Address the Needs of LAC

3.1 Introduction

The poor outcomes achieved by a significant majority of LAC are often highlighted to draw attention to the perceived failings of the care system. Despite the policies and legislation in existence to support LAC, organisations such as The Who Cares? Trust (2012a) continue to argue that there are discrepancies between the well-intentioned policies that have been introduced by recent governments and their successful implementation, citing the Pupil Premium and 16-19 Bursary as key examples of this.

This chapter provides an overview of the relevant educational legislation and policy in this area, policy developments in LAs 'A' and 'B' and a brief critique of the argument that the care system itself contributes to the educational under-achievement of LAC. It also provides an overview of some of the key educational policies in place to address the needs of LAC, such as the introduction of the role of DTs, VSHs and PEPs.

3.2 Legislative framework

The care system in England is supported by, and accountable to a comprehensive legislative framework which is intended to support the educational and emotional wellbeing of children in care. This is summarised in Table 2 overleaf.

Despite the multiple policy and legislative changes which have been implemented to address the needs of LAC, their continuing educational and vocational underachievement continues to be an indictment of the efficacy of corporate parenting.

Year	Legislation or policy guidance	Contribution
1989	Children Act	<ul style="list-style-type: none"> • first piece of legislation to set out the rights of children in care • legislated for hearing the views of children • emphasised the rights of children to be placed near their home and near their siblings
1994	The Education of Children being Looked After by Local Authorities, Joint circular 13/94 from the Department of Health and the Department for Education	<p>This report was informed by research and also concern that the education of LAC was being neglected and was published in response to two Government reports, the Utting Report (DoH, 1991), Children in the Public Care and the Warner Report (1992), Choosing with Care. It:</p> <ul style="list-style-type: none"> ○ initiated changes in the policy context ○ highlighted the importance of joint working between services and LAs; and ○ highlighted the key role of primary school headteachers and secondary school year tutors in taking responsibility for the welfare of LAC in their schools. However, this was not consistently implemented and this recommendation was replaced with the introduction of the DT role in 2000
1995	The Education of Children Who Are Looked After by Local Authorities, Joint inspection report by the Social Services Inspectorate and the Office for Standards in Education (Ofsted)	<p>Found that educational standards were still too low for looked after children, in the secondary phase in particular, and precipitated change, giving impetus to the following:</p> <ul style="list-style-type: none"> ○ set up a climate for change (O’Sullivan and Westerman, 2007) ○ government set targets for LAs, creating a new bank of statistical data ○ led to the joint guidance being published by Department for Education and Employment (DfEE) and Department of Health (DoH) (2000) (see below)
2000	Guidance on the Education of Children and Young People in	<ul style="list-style-type: none"> • set out the role of the DT - all schools were advised to appoint a member of staff who would be responsible for promoting the educational attainment of LAC. This became a statutory role

	Public Care (DfEE and DoH)	<p>in 2009</p> <ul style="list-style-type: none"> • introduced the use of PEPs • introduced the proviso that care placements were not to be made (except in emergency circumstances), without an educational placement first being secured • meant that all LAs were now working to the same guidelines • further expanded upon the term ‘corporate parent’ after it was first introduced by Frank Dobson, MP, in 1998
2000	Children (Leaving Care) Act	<ul style="list-style-type: none"> • strove to provide improved access to health, education and social care services for young people when they left care • switched the focus from preparing young people for independent living to pursuing opportunities for a career/further study • introduced Personal Advisors and Pathway Plans for care leavers
2002	Section 14 of the Education Act	<p>Introduced the Personal Education Allowance (PEA) (now called the Pupil Premium) for:</p> <ul style="list-style-type: none"> ○ LAC ○ service children ○ children on Free School Meals (FSM) <p>The PEA was a sum of £500 which was available to LAs to support the educational needs of LAC. There is no longer a requirement for LAs to provide this and it has largely been replaced by the Pupil Premium. The Pupil Premium was introduced in 2011. The Pupil Premium replaced the PEA and was not considered to be as beneficial to LAC as the previous package of support had been (The Who Cares? Trust, 2012a). For the year 2012-2013, LAC received £600.</p>

2004	Children Act	<p>Enshrined in law the ‘duty’ of the government to promote the educational attainment of LAC.</p> <p>Placed a duty (but not a statutory obligation) on LAs to:</p> <ul style="list-style-type: none"> • place the welfare of children and young people in care at the centre of local government policies; and • work towards increased multi-agency working
2006, 2007	Green Paper, Care Matters (DfES, 2006a) and White Paper, Care Matters (DfES, 2007)	<ul style="list-style-type: none"> • these publications introduced the role of the VSH. Ostensibly introduced as a pilot initiative, the VSH role was intended to become a universal provision, regardless of the pilot outcome (DCSF, 2008) • these publications gave LAs the power to make schools admit LAC, even if they were fully subscribed
2008	Children and Young Person’s Act	<ul style="list-style-type: none"> • amended parts 2 and 3 of the Children Act 1989 • built upon the recommendations contained in the White Paper, <i>Care Matters: Time for Change</i> (DfES, 2007) • made available various monetary subsidies for children in care such as £2000 for further education and training and increased the power of LAs to make cash payments to young people in need and their families <p>A number of the key changes it made were to:</p> <ul style="list-style-type: none"> ○ require LAs to source suitable accommodation within the LA to meet the needs of looked after children ○ place a duty on LAs to ensure their representatives visit all looked after children, regardless of where they are placed

		<ul style="list-style-type: none"> ○ require LAs to recruit an independent professional to act in an advisory role for looked after children, if it is in the child’s interests to do so; and ○ make it a statutory requirement for schools to appoint a DT <p>Berridge (2012a) notes that there is a risk of misinterpretation of the data on children placed away from their local areas, in that it may suggest that these children achieve poorer outcomes, particularly where there are severe behavioural and emotional difficulties which require more specialist placements. He does, however, acknowledge the challenges posed by placement outside of the LA as well.</p>
2010	Regulation 5, Schedule 1, The Children Act 1989 Guidance and Regulations, Volume 2: Care Planning, Placement and Case Review (England) Regulations and statutory guidance, HM Government	<ul style="list-style-type: none"> ● provided guidance to local authorities in England about their functions under Part 3 of the Children Act 1989 ● in particular, it described how local authorities should carry out their responsibilities with respect to care planning, placement and case reviews for looked after children
2010	Promoting the Educational Achievement of Looked After Children: Statutory Guidance for Local Authorities, Department for Children, Schools and Families	<ul style="list-style-type: none"> ● described the necessary actions which the government expects LAs to undertake in order to comply with their duties with respect to LAC <p>These included:</p> <ul style="list-style-type: none"> ○ promoting the educational achievement of LAC, regardless of where they are placed, as a crucial component of care planning ○ ensuring that all LAC had up-to-date PEPs

		<ul style="list-style-type: none"> ○ greater attention to be paid to the educational implications of decisions about LAC's social care, (such as school moves at crucial times such as at the end of key stage 4)
2011	Guidance on the 16-19 Bursary by the Young People's Learning Agency (YPLA)	<ul style="list-style-type: none"> ● provided guidance on the 16-19 Bursary, which replaced the Education Maintenance Allowance (EMA), and which provided a guaranteed amount of £1,200 to LAC and care leavers ● the guidance gave further education institutions responsibility for determining how bursaries would be administered and so there was wide variability in how colleges administered the support to students (The Who Cares? Trust, 2012a)
2013	The Care Planning, Placement and Case Review and Fostering Services (Miscellaneous Amendments) Regulations 2013	<ul style="list-style-type: none"> ● updated paragraphs 3.139 to 3.146 of the Children Act Guidance (1989) ● to be used in conjunction with 2010 Regulations for Care Planning, Placement and Case Reviews ● these regulations provide guidelines to LAs with respect to the delegation of decision making about looked-after children to their carers

Table 2: Relevant legislation and government publications for looked after children (1989 to present day)

3.3 Educating LAC - low educational attainment

‘The dismal performance of children in public care is perhaps the longest-running scandal of our education system’ (Slater, 2002, p. 24).

The poor educational attainment of LAC has long been the focus of UK government reviews (Borland *et al*, 1998; DfES, 2007; House of Commons, 2009; APPG, 2012). Despite many initiatives to raise the achievement of LAC, their academic performance persistently falls behind that of their peers (DCSF, 2009; DfE, 2012a). According to the DfE (2012a), whilst GCSE grades improved for the general population in 2012, this was not reflected in the data for LAC. Only 14.6% of LAC received five A*- C grades at GCSE level in 2012, compared with 58% of their peers. Furthermore, the attainment gap between children in care and other children has increased by eight percentage points since 2006. While there is little available data on care leavers and educational outcomes post-16, what limited data are available would suggest that their outcomes are poorer than those of their peers, and that fewer go on to tertiary level and further education (The Who Cares? Trust, 2012a).

Data indicates that after leaving school, 18% of LAC will be unemployed and by the age of 19, the figure rises to 33% of LAC who are not in education, employment or training (NEET) (The Who Cares? Trust, 2012a). This is a much higher figure than that for all young people of this age in the UK (21.5%). Comparable figures are evident when considering young people’s progression to further and higher education. Here, for example, figures show that compared with 36% of peers in higher education, only 7% of care leavers went on to higher education in 2011 (The Who Cares? Trust, 2012a).

3.4 Importance of factors at ontogenic and exosystemic levels

Previous researchers have blamed the corporate parenting system for the poor educational outcomes of LAC (Fletcher Campbell *et al.*, 2003; Harker *et al.*, 2004). These authors argue that the experience of being ‘looked after’ compounds pre-care disadvantages and that the education system exacerbates negative experiences, rather than providing a source of stability (Borland *et al.*, 1998). They cite factors at the exosystemic level such as the low expectations of LAC held by professionals and the multiple transitions of both care and school placement which many LAC experience as being causally implicated in the poor outcomes for LAC.

In contrast, Berridge (2012a) argues that it is the profile of needs that children have (i.e. at the ontogenic level as outlined in Chapter 2), prior to coming into care, as opposed to the care experience itself, that affects their outcomes, and that the argument provided above confuses causation with correlation. Furthermore, Berridge argues that, because of the socioeconomic characteristics of the backgrounds many of these children come from, they would not be likely to perform well educationally anyway (2012a). There is a well-established link between poverty and lower socioeconomic status (SES) and low academic attainment, which has tended to be ignored in recent research on academic attainment (Feinstein, 2003). Risk factors which are associated with coming into care and the breakup of families are also closely correlated with educational failure (Veltman and Browne, 2001; Berridge, 2012a).

Whilst Jackson and McParlin (2006) accept this argument, they do strongly reject the deterministic view implicit in much of the oft-cited research which has been conducted in the previous century (e.g. Essen *et al.*, 1976; St Clair & Osborn, 1987), which concluded that LAC were much more likely to come from families of low SES and to achieve poor academic outcomes because of their prior experiences. They contend that the care and education

systems are, at least, partly responsible for the underachievement of LAC. An extreme argument advanced is that – if the care system is unable to provide children with compensatory experiences – they would be in a better situation if they continued to live with their parents (even in dysfunctional situations), instead of being separated from them and experiencing the resulting separation anxiety and negative impact of the care system. Although an extreme view, this is somewhat reflective of practices in social care over the past decade, where there has been a move towards keeping children with their families where possible (NSPCC, 2012). As Narey (2011) has identified, this can have very serious consequences for children if they remain in dangerous ecological environments.

However the argument is complex on both sides, in that it is based largely on correlational research and causation is very difficult to demonstrate. A meta-analysis of research by Veltman and Browne (2001) found that, when SES was controlled for, the variable most closely associated with school under-achievement was maltreatment. This would appear to provide evidence for the argument that it is prior experiences which are ultimately responsible for academic under-achievement, although the authors again acknowledge the difficulties inherent in proving causation.

In an attempt to provide support for the care system, Berridge cites adoption studies such as those by Berridge and Saunders (2009), which suggest that LAC can make significant educational improvements whilst in the care system. Furthermore, data supplied by the DfE (2010) suggest that children who have spent longer in care (>5 years) perform better in examinations than children who have only been in care 1 year to 18 months. This suggests that the care system can have a positive effect on children's outcomes, but that children are likely to enter the care system from a distinctly disadvantaged position, and that the process of

adjusting to their new circumstances is slow, requiring evaluation of progress within the care system to be evaluated over an extended time frame.

Considered from the perspective of the ET model which was outlined in Chapters 1 and 2, it is likely that factors at multiple levels are implicated in accounting for the poor outcomes of LAC. As Cicchetti and Lynch (1998) have identified, child development is affected by the interplay between the individual and their environment at multiple ecological levels and unless children who have been maltreated are provided with compensatory experiences of sufficient quality and duration, they are likely to be negatively affected by their prior traumatic experiences. The principles of multifinality and equifinality are again relevant here. As outlined in Chapter 2, an explanation for the diverging outcomes of LAC can be found in these principles, which account for how some young people do well and progress to higher education as identified in the study by Jackson *et al.*, (2005), whereas other young people who have experienced similar backgrounds of abuse and neglect fail to achieve academically, and fall prey to the negative outcomes identified in Chapter 2, such as unemployment and social exclusion. It is likely that, because of the negative experiences the majority of LAC will have had, prior to entering the care system, the majority will be adversely affected to a certain degree (Cairns and Stanway, 2004); the extent to which they are affected will be dependent on the combination of buffering factors in their own biogenetic make-up and crucially, their environment, both prior to and following entry into care. This suggests that although progress is possible for LAC, many will require highly skilled intervention over an extended period of time. This however, clearly places an extremely high premium on the quality of education and care that needs to be provided to LAC to meet these ‘unmet needs’ (DfEE and DoH, 2000), and places responsibility on the corporate parenting system to facilitate this.

3.5 Critique of policy

As identified in Paragraph 3.2, LAC are a group who have been the subject of numerous legislative and policy initiatives. The Labour government (1997-2010) introduced a number of innovative reforms to improve outcomes for LAC, within a wider government commitment to eradicating child poverty and reducing social exclusion. To this end, they recognised the power of education to combat disadvantage and increase social mobility and placed a high priority on improving educational outcomes for LAC. Some of these key educational policy developments included the introduction of the VSH for LAC, DTs in schools and PEPs, whose continuation has been supported by the present 2010 Conservative-Liberal Democrat Coalition government. These initiatives are described further in the paragraphs below.

3.5.1 Designated Teachers (DTs)

The role of the designated teacher was originally set out in the *Guidance on the Education of Children and Young People in Public Care* (DfEE and DoH, 2000). All schools were expected to appoint a member of staff who would be responsible for promoting the educational attainment of LAC (DfE, 2012b). The role became statutory in September 2009. Some of the core responsibilities of the DT were to:

- promote high expectations of looked after children;
- allow the young person to have input into setting personal learning targets;
- advise staff on differentiated teaching strategies and Assessment for Learning;
- prioritise LAC for receiving 1:1 tuition;

- support carers to appreciate the importance of providing educational support at home; and
- oversee the development and roll-out of the Personal Education Plans (PEPs).

Research by Honey *et al.* (2011) investigated the perceptions of a sample of DTs of resilience factors in LAC and found that LAC themselves were more likely to report positive views of their sociability and their career aspirations when compared to responses from the sample of DTs who were surveyed, suggesting that DTs may not, in fact, promote the positive expectations and ambitious support for self-actualisation by LAC, expected of their role.

The authors highlight the importance of EPs playing a key role in providing training for teachers, in particular with respect to raising teachers' awareness of the important role that early traumatic experiences can have on children's learning and emotional development. The authors do not however, make it clear whether it is DTs who are being referred to or teachers more generally. Overall, however, the study suggests that it would be naïve to suppose that the functions attributed to DTs are universally implemented in schools, affecting the school experience of all LAC.

3.5.2 Virtual School Heads (VSHs)

The VSH role was also introduced by the Green Paper *Care Matters* (DfES, 2006a) and White Paper (DfES, 2007) of the same name. The VSH role was introduced ostensibly as a pilot initiative, but one which was intended to become a universal provision regardless of the pilot outcome (DCSF, 2008). The VSH is a non-statutory LA employee who has responsibility for improving the educational attainment of LAC in their LA. The VSH is conceived of as overseeing a virtual school which refers to the structure of support that is

available educationally for the young people in care in that LA. The role is envisaged as being a champion for children in care (Berridge, 2012b). The pilot evaluation of the VSH role found that on the whole the VSH role had done much in the 11 LAs surveyed to raise the profile of LAC, in addition to highlighting the areas in which LAs could do more to support LAC. One of the recommendations from the recent publication, *Education in Care Matters* (APPG, 2012), is to place the role of the virtual school head on a statutory footing and therefore allow VSHs to have increased influence within local authorities.

3.5.3 Personal Education Plans (PEPs)

PEPs are also an important provision in the support for LAC in schools. All LAC must have a PEP drawn up as an integral part of their care plan (DfE, 2012b). Their introduction was another crucial component of the *Guidance on the Education of Children and Young People in Public Care* (DfEE and DoH, 2000), together with the launch of the DT role. The DT manages the PEP when a child becomes looked after or when they start attending a new school. The PEP is designed to be a shared document that includes information to assist with the planning and the delivery of strategies required to support the child in their setting.

Although well-intentioned, PEPs have been criticised for not being sufficiently personalised to the particular child and for the delay in writing them, often due to the high workload of social workers and teachers (Fletcher-Campbell *et al.*, 2003). Further evidence from Fletcher-Campbell *et al.* (2003) indicates that PEPs can be useful when schools adopt a more user-friendly template and where the PEP is used as a vehicle for representing the views of the child or young person. However, these authors found that ‘in general, PEPs were seen as a strategic activity strengthening corporate parenting’ (p. v).

In sum, it would appear that although these policy developments have served an enabling function in many LAs as part of the corporate parenting role, and present a positive signal to the public that LAs take their responsibilities as corporate parents seriously; their potential remains inconsistently realised to date (APPG, 2013). The movement to create a statutory obligation on LAs to have a VSH in post is commendable (APPG, 2012), and the VSH role offers strong potential to further strengthen accountability, however Berridge (2012b) identifies that policies targeted at LAC need to be further streamlined with research outcomes in the UK, if they are to be wholly effective.

3.6 Local Context

Practice in LAs 'A' and 'B' has largely appeared to follow educational policy as implemented by the previous Labour government (1997-2010) and present Conservative Liberal-Democrat government (2010). For example, both LAs have appointed VSHs who are in charge of multi-disciplinary LAC teams. These multi-disciplinary teams are composed of EPs, Child and Adolescent Mental Health Services (CAMHS) mental health practitioners, designated nurses, therapists and youth participation workers. The role of the EP in these teams is a specialist role which incorporates providing training and support to schools and carers to manage the diverse and complex needs of LAC, and to provide them with an understanding of how the emotional needs of LAC can undermine their ability to learn, as identified in Chapter 2. The high quality of this team has been commented on by Headteachers in the Ofsted (2011a) review of services for LAC in LA 'A', with headteachers commenting in particular on the value they placed on the support and guidance provided by this team to DTs and how they worked effectively to match learning programmes to meet the specific needs of LAC.

This review further identified that academic outcomes for LAC were ‘outstanding’, but advised that provision for non-academically orientated pupils was lacking post the age of 17. It further identified that the VSH was effective in providing leadership and had a leading role in planning services for LAC in the LA. It commented on the strength of the process of reviewing progress and the efficacy of the PEPs to inform further intervention. Ofsted (2011a) did however note that the PEP recording system was in need of improvement, if it was accurately to capture the views of children and young people. An area for development which was identified in a further safeguarding review in LA ‘A’ in 2012 was how to further incorporate the views of children and young people to enhance strategic planning for their futures (Ofsted, 2012a). LA ‘A’ has partially addressed this concern through providing a forum for young people to articulate their views via the medium of a website. The website also provides young people with clear information about their rights, educational provisions such as PEPs and DTs and accessing support to progress onto further education and training.

A safeguarding review of LA ‘B’ by Ofsted (2012b) found that safeguarding processes were ‘adequate’ in terms of overall effectiveness in safeguarding CYP, and improvement was noted in the management of the private fostering arrangements in the LA. An area of weakness for the council was identified with respect to multiple ‘transition points’ experienced by LAC which led to too frequent changes of social worker (Ofsted, 2012b).

In sum, it would appear that there is considerable support provided for LAC in both LAs, particularly with respect to that afforded them by the multi-disciplinary LAC teams, of which EPs are an integral part. However, there is inconsistency in practices such as the timely recording of PEPs, and the inclusion of young people’s views in PEPs and care plans. However, overall these reports conclude that the academic attainment of LAC in this county compares well with the national picture, and that the robust support provided to LAC by the

multi-disciplinary teams, VSHs and DTs ensures that attainment and progress are monitored across time.

This reflects the national picture, where some progress has been made, but where much remains to be done to ensure greater collaboration between services and the identification and support of ‘unmet needs’ in children and young people in care (Berridge, 2012a; APPG, 2013).

3.7 Conclusion

Although LAC experience multiple and profound disadvantages, they are theoretically supported by extensive legislation and policies designed to promote their educational and emotional development. However, many of these policies lack widespread and consistent implementation and although well-intentioned, often fail to make the intended difference to a young person’s life (DfEE and DH, 2000; The Who Cares? Trust, 2012a). As The Who Cares? Trust (2012a) has identified, ‘culture and practice across the care system does not consistently support high levels of achievement in education for young people in and from care’ (p. 4). Furthermore, there is disparity between what research evidence suggests and what policy-makers implement (Berridge, 2012b), particularly with respect to addressing the enduring effects of trauma on child development.

What is required are further policies that address the root causes of social disadvantage and exclusion which lead to the need for children to be placed in care in the first place (i.e. promote early intervention). Whilst there are undoubtedly many useful policies in place to support LAC such as the DT and VSH, policies do need to become more child-centred with sufficient time allowed for evaluation pilots to be completed, and the outcomes disseminated to the research community (Berridge, 2012b).

An area in need of further research is the relative effectiveness of specific educational interventions to support LAC (Forsman and Vinnerljung, 2012). A summary of interventions which have been implemented with LAC to date is provided in Chapter 4, with a thorough exposition of the Paired Reading intervention as a possible intervention to target literacy skills in LAC and also to promote the relationship between children and carers, thus providing support for LAC at both the ontogenic and microsystemic levels.

Chapter 4: Literacy Skill Development

4.1 Why reading?

Reading was selected as a focus for intervention in this study as literacy is crucial to a child's ability to make progress in school and in later life, and indeed, functional literacy skills are commonly referred to as the bedrock of education (Rose, 2009). This is relevant for all children, but particularly so for LAC who, as identified in Chapter 2, have to contend with profound disadvantages which affect them at multiple ecological levels. Various contributors have highlighted in particular, the low levels of literacy experienced by LAC (Fletcher-Campbell *et al.*, 2003; APPG, 2012).

Bald *et al.*, (1995) has suggested that children in care are more likely to experience difficulties with literacy than any other aspect of schooling, since the acquisition of literacy skills is dependent – in part – on having a supportive home environment within which the child is exposed to print material. Furthermore, if a child's literacy skills are poor to begin with, then their chances of catching up are lower than a child who is not in care and who does not have to contend with these disadvantages (Hibbert, 2003). It is therefore the responsibility of LAs as corporate parents to compensate for these disadvantages to ensure that children in care have the same opportunities as other children to progress in life (Sinclair, 1998; Berridge, 2012a).

Exposure to print, having a supportive home environment, being read to as a small child and seeing adults reading for pleasure in the early years of a child's life, have been identified as factors implicated in the development of early literacy skills (Leslie and Allen, 1999). Many LAC who have come from disturbed and chaotic backgrounds which have been characterised by abuse and/or neglect, will not have had these experiences and will therefore enter school at

a different (less advanced) starting point in their early literacy development than their more privileged peers. There is an argument that children in care therefore need increased input and support for reading from a young age to compensate for their early challenging life experiences, and to account for individual factors at the ontogenic level of development adversely impacting on other factors (for example, the challenging behaviour displayed by a young child limiting their engagement in story-time at school and building trusting relationships with adults) (Cicchetti and Lynch, 1998; Leslie and Allen, 1999).

4.2 The development of reading difficulties

Before moving on to discuss how literacy difficulties develop in LAC, it is important to consider briefly how literacy difficulties are thought to develop. Two of the main frameworks accounting for the development of reading are the Simple View of Reading (Gough and Tunmer, 1986) and the Searchlights model (DfEE, 1998). A more detailed account of these frameworks can be found in Appendix 13. The Searchlights model preceded the Simple View of Reading and held that there were four strategies implicated in the reading process. These were: phonic knowledge, grammatical knowledge, word recognition and graphical knowledge.

The Simple View of Reading (Gough and Tunmer, 1986) followed the Searchlights model and is the current dominant framework accounting for how reading develops (University of York, 2011) (Figure 3 is provided overleaf). Unlike the Searchlights model, it proposes that fluent reading requires the integration of two separate, but related reading processes: decoding and comprehension. It further proposes that there are two different types of reading difficulty – difficulties with decoding and difficulties with comprehension (Snowling and Hulme,

2011), and that it is possible to experience decoding difficulties without comprehension difficulties and comprehension difficulties without decoding difficulties.

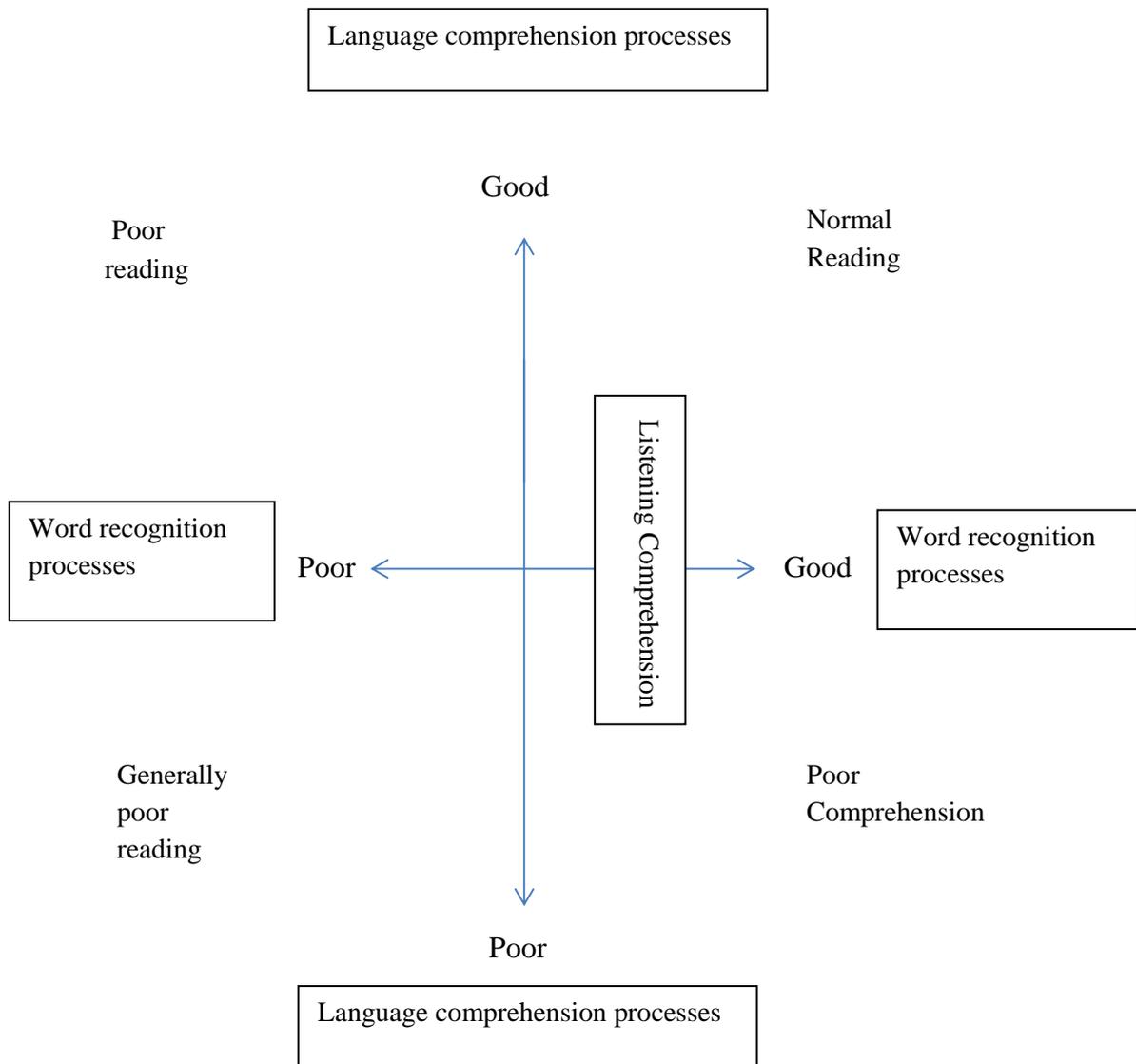


Figure 3: Simple View of Reading (Gough and Tunmer, 1986 adapted by University of York, 2011)

One of the main advantages of the intervention that has been chosen in this study i.e. Paired Reading is that it promotes both decoding and comprehension skills, but does not interfere with the strategies the child has been taught previously to use for word reading. PR fits neatly

into this framework in that both word reading and comprehension processes are targeted through this intervention.

4.3 LAC and reading

It is likely that reading difficulties present themselves in the same way in children who are in care compared to children who are not in care. However, since entry to care so frequently results from children having experienced sustained abuse and/or neglect, as noted in Section 4.1, LAC are more likely to experience reading difficulties than other children.

Furthermore, there are a number of factors at the exosystemic level which militate against the engagement of many LAC with reading, and more generally with learning. Many of these factors have been identified previously in Sections 2.5 and 3.3. As identified in Section 3.5.1, the low expectations held of LAC by professionals such as DTs may be implicated in the low educational achievement of LAC. Jackson and McParlin (2006) have posited the theory that it is the negative stereotypes that teachers hold of LAC that is the main contributor to their low academic achievement over within-child factors. In addition, research by The Who Cares? Trust (2004) found that young people in care who had reading ages above 16 were placed in lower ability classes possibly due to the low expectations held of them by teachers. However, if it is presumed that LAC lack educational motivation, such an assumption finds weak empirical support (The Who Cares? Trust, 2003; CSCI, 2007).

Another factor which impacts on their access to education is that of multiple transitions which has been identified as a contributing factor (Social Exclusion Unit, 2003). It is understandably difficult to maintain continuity in learning when a young person experiences multiple transitions and placement moves during their educational career.

Researchers have also noted that LAC tend to attend less high attaining schools, which the government has sought to address (as identified in Table 2) through current policy such as that implemented through the White Paper, *Care Matters* (DfES, 2007) which means that schools have to admit LAC, even if they are fully subscribed.

In addition to factors at the ontogenetic and microsystemic levels, it is therefore likely that factors at the exosystemic level such as multiple changes of placement and school have an adverse effect on the ability of LAC to access reading and learning opportunities. Where children do engage well with literacy and learn to read early and fluently, this has been identified as a positive protective factor in their lives (Jackson and Martin, 1998).

4.4 Educational psychologists and LAC

There is little research into the involvement of educational psychologists (EPs) with LAC. What little research there is suggests that the remit of EPs who work in this area could be substantially broadened (Thomson, 2007). Where EPs have been involved with children in care, their involvement has most often focused on providing assessment advice and consultation, and liaison with social workers and other professionals (Farrell *et al.*, 2006).

Norwich *et al.* (2010) have investigated this issue more recently. They used a survey approach to gather information from EPs in five LAs and had a response rate of 86% with 107 responses. They found that for the majority of EPs, their contribution to LAC was predominantly through their school-based work. Where EPs were found explicitly to contribute to improving educational achievement, most references were to individual casework carried out in schools (Norwich *et al.*, 2010). Relevant to the present study, only one reference was made to EPs working to deliver educational interventions to professionals

and carers. This seems to be a key role that EPs can hold, given their expertise in training and research skills (Farrell *et al.*, 2006).

In my own capacity as a trainee educational psychologist (TEP), I would argue that EPs are well placed to make a direct contribution to improving the educational attainment of LAC through increased involvement with foster carers and through providing direct training for this group. There seems to be a need for EPs to become involved at this systemic level (Osborne *et al.*, 2010). In addition, the knowledge base and skill set of EPs enables them to enhance policy delivery by contributing to the expertise of core professionals within the influential microsystems which surround, and shape the development and learning of LAC (Norwich *et al.*, 2010).

4.5 What is Paired Reading?

One technique which has been demonstrated to be effective for improving reading skills is Paired Reading (PR) (Topping and Lindsay, 1992; Brooks, 2013). PR is a simple and effective technique for accelerating reading progress, based on a shared partnership approach to reading (Topping 1995; 2001). Devised by Morgan in 1976 to support parents in assisting struggling readers, it was based on the key principles of flexibility and simplicity in that the training required was minimal and the technique could be applied to any type of reading material. It has its foundations in behavioural psychology. In particular, it is based on the behavioural principles of positive reinforcement and participant modelling (Morgan, 1976). It also allows access to a wide variety of material which facilitates vocabulary acquisition. It is the precise combination of elements that Topping (1995) maintains is the secret to the success of the technique, as discussed in Section 4.7. It also builds on partnership working with an adult or peer, which has been shown to have numerous benefits for both the tutor and tutee

(Topping, 1995). Moreover, PR is the most well-known and researched partnership-based approach, and is widely recognised as an effective intervention for struggling readers (Brooks, 2007). Tentative evidence also exists to suggest that it is an effective intervention when used with LAC (Menmuir, 1994; Osborne *et al.*, 2010).

PR is an intervention which aligns closely with my personal beliefs about the most effective way to teach reading which emphasise reading for enjoyment, the use of real books as opposed to reading schemes, the benefits of reading with and listening to children read and the selection of books based on interest levels as opposed to graded reading ages. It aligns with the Simple View of Reading (Gough and Tunmer, 1986) in that Paired Reading has also been shown to increase both accuracy and comprehension through promoting fluent word reading. Although it does not specifically address the underlying mechanics of reading such as phonological skills, it does improve decoding and comprehension as: A) the child is rewarded for pronouncing the word correctly, or provided with the correct word and then reinforced for repeating it correctly; and B) because there is a limit of 4-5 seconds before the correct word is supplied, the child does not lose the sense of what they are reading and so comprehension is facilitated. Furthermore, one of the fundamental aims of the intervention is to make reading enjoyable. As Morgan (1976) has identified, children who struggle to learn to read experience a high level of stress which further inhibits learning. Paired Reading is designed to address this and so the main processes of reading, decoding and comprehension, are facilitated through this increased enjoyment of reading (Topping, 2001).

As numerous researchers have suggested (Adams, 1990; Leslie and Allen, 1999), children from low socioeconomic backgrounds who have not been exposed to a rich reading environment from a young age are at risk of developing poor functional literacy skills. High quality educational support can compensate for this. PR is one such intervention which

provides children with access to good quality books and the opportunity to be listened to and read to by a more experienced reader, using a structured and well-evidenced technique. In light of the discussion of the bases for poor early literacy progress in LAC presented in Sections 4.3, this aspect (of developing a rich, stimulating and rewarding reading environment), suggests that PR is a particularly apposite targeted intervention for LAC.

4.6 Advantages of Paired Reading over other reading interventions

There are many reading interventions currently available for improving children's reading levels (Brooks, 2013 provides a comprehensive review). For example, interventions such as *Reading Recovery*, *Catch Up Literacy* and *Read, Write, Inc.* have been widely used in the UK (Brooks, 2013). However, PR offers distinct advantages over such techniques in that it does not require access to specialist resources, and is relatively easy for carers and parents to learn how to use. Furthermore, because the current study is in part replicating a previous study, it was considered appropriate to use the same technique as a way of supplementing the existing evidence base for LAC (Osborne *et al.*, 2010). Finally, it was chosen over other reading techniques due to its very strong evidence base (Topping, 2001). In sum, it has numerous advantages over other comparable interventions. For example, *Catch Up Literacy* is dependent on delivery by trained teaching assistants or teachers and is designed to be delivered over a full year (Holmes *et al.*, 2012). *Read, Write, Inc.* is a relatively expensive intervention for which schools have to purchase training and an extensive array of materials to be able to deliver the intervention (Brooks, 2013), while *Reading Recovery* requires a teacher who has been specially trained in the technique to deliver it directly to the children. It is therefore not suitable for general delivery by parents or carers (What Works Clearinghouse, 2007).

4.7 Why does PR work?

As noted in Section 4.5, Topping (1995) claims that PR works because of the unique combination of elements it relies on, i.e. the behavioural principles of adult modelling, positive reinforcement, repetition and discussion. For example, in PR, the adult models the correct behaviour for the child who learns rapidly. The element of discussion and collaborative reading between tutor and tutee allows for learning to take place. As Vygotsky (1978) identified, mediated learning with another person is invaluable in supporting the transition from inter-mental to intra-mental representations of knowledge.

Positive reinforcement is also an important aspect of the intervention. As Morgan (1986) has highlighted, the experience of success when learning is crucial, contributing to further experiences of success – which, in turn, help children to develop a positive concept of themselves as learners. However, although all these elements are thought to be important to the intervention's success, Topping (1995) has suggested that PR is more usefully considered from the end-point of improved reading, which can be reached by a number of different paths. This means that PR may work for different children in different ways, but that the end result is almost always positive. This is reflective of the arguments in the more general literature about how children learn to read, which continue to be fiercely contested, in particular the arguments with respect to phonics versus whole word reading and synthetic versus analytic phonics (Rose, 2006; Wyse and Styles, 2007).

4.8 What does Paired Reading involve?

PR comprises two main stages. In the initial stage, the tutor and tutee read together. This provides adult modelling, whereby the child is learning through observing the adult read. It

builds upon principles of behavioural psychology whereby the adult models the desired behaviour for the child and is termed the 'Reading Together' stage (Topping, 1995).

Throughout the process, considerable emphasis is placed upon praising the pupil, so motivation is maintained (Morgan, 1986; Topping, 1995). This draws upon principles of positive reinforcement.

The second stage involves the tutee, through a discreet sign to the tutor, signalling that they wish to continue reading on their own. This is referred to as the 'Reading Alone' stage. There are a number of strategies that the tutor can adopt to support the reader if they appear to struggle with a particular word. For example, as noted above, the tutor is trained to allow the child 4 to 5 seconds to self-correct before they intervene. The tutor then pronounces the word correctly and the child repeats it before proceeding as before. This avoids the stressful process for the child of having to 'sound out' or decode the word and feeling discouraged and frustrated as a result. Any reading material is suitable with PR and the child is encouraged to select their own reading material. Appendices 2 and 6 provide a more detailed breakdown of this technique.

4.9 Paired Reading research base

Paired Reading has been extensively evaluated and has been consistently shown to be effective in increasing reading ability (Topping and Lindsay, 1992; Brooks, 2007). Indeed, it is one of the most thoroughly researched interventions in existence (Topping, 2001). The most rigorous systematic review of PR was undertaken by Topping and Lindsay (1992). This included the largest study which has been conducted in the UK on Paired Reading (Topping and Lindsay, 1992). This was a study carried out in Kirklees in Scotland which covered 155 projects across 71 primary and secondary schools. 37 matched control groups were employed.

The project was run with years one to 11, but predominantly in the primary phase. The average length of intervention was nine weeks. Ratio gains of 3.4 and 4.6 respectively for the experimental versus control groups in terms of accuracy and comprehension were reported. The effect size for accuracy was .87 and .77 for comprehension, however Topping has reported (cited by Brooks, 2007), that the mean effect size for the PR published studies is in fact 2.12. Follow-up studies (at 17 months) showed that the majority of children examined at follow-up maintained the ratio gains they had made (Topping and Lindsay, 1992).

Research has shown that PR not only has an impact on word recognition, but also improves comprehension skills (Bushell *et al.*, 1982). These authors suggests that this may be because children's ability to use contextual clues to gather meaning about text improves as less time is spent on decoding difficult words.

Because PR increases the sheer practice a child has with reading, it is thought to also increase reading rate over time as a function of this. Reading rate was found by Winter to be the best predictor of post-intervention reading ability (1996). Winter found that children whose reading rate was highest prior to the PR intervention made the greatest gains. He hypothesised that this was because of the increased content coverage their rapid reading rate facilitated (i.e. the faster they read, the more they were able to read).

An improvement, not just in reading, but in associated socio-emotional outcomes has also been reported for PR (Topping, 2001; Miller *et al.*, 2009). For example, Topping (2001) evaluated the outcomes of interpersonal relationships, motivation and social competence. He found that motivation and interpersonal skills in particular were deemed by teachers to have increased and that there was some generalisation of these positive effects onto other subjects. Confidence and engagement with reading were also found to have increased.

PR has also been shown to have a positive effect on the parent-child relationship. Elliot (1989) carried out post-hoc interviews with parents following the implementation of Paired Reading schemes and found support for the improvement of the parent-child relationship via a reduction in stress levels, and an increase in sight vocabulary retention. However, this is based on parent-reported data and is not supported by quantitative measures of vocabulary (Elliot, 1989).

However, Paired Reading is not without its critics. Swinson (1986) published a critique of Paired Reading which suggested that Paired Reading was no more effective than a listening approach and that the key variable which accounted for the children's improvements was the parental involvement itself. Winter (1996) concluded that the individual tutee characteristics were the best predictor of post-intervention gains, largely irrespective of the extent to which treatment integrity was maintained. The only aspect of implementation that the author concluded to be of import was the 'long-pause-modelling' techniques advocated by PR (i.e. tutor waits four seconds before supplying the correct answer) which were found to have a negative impact on reading rate as measured post-intervention. An alternative explanation of this is that it is not the delayed correction of errors that slows down readers but rather the making of errors. However this latter explanation was not supported by the results found in this particular research.

A number of general issues with the existing Paired Reading research base have been acknowledged by Topping (1995, 2001). For example, many of the studies which have evaluated PR are small-scale studies with no control group. Where control groups have been used, participants have generally had to self-select to be part of them instead of being randomly allocated to a group. The results are further confounded by issues of participant

self-selection or coercion in other circumstances. The reading tests used to evaluate interventions are numerous and the studies vary in terms of what statistical information is reported. Nor do many studies take practice effects into account when reporting results.

Furthermore, there is uncertainty about how closely tutors adhere to the classic model of Paired Reading. Topping (1995) reports that the evidence that is available suggests that the quality of the PR delivery varies considerably from one study to the next. He argues that collecting this type of process data is extremely important in determining which factors may account for an intervention's success and recommends that this data be routinely reported where available. Where process information is reported, it is often of a self-report nature from tutors and so raises questions about reliability. A meta-analysis of the literature on PR is necessary to clarify some of these issues. A further limitation to the research base is that of publication bias, which suggests that studies with positive findings are more likely to be published. This means that there could be inflated reporting on the effectiveness of Paired Reading as an intervention.

In sum, it appears that although there are a number of methodological concerns with the PR research base to date such as the small sample sizes, and the variability in the statistical information reported, the research base overall demonstrates that improvements are routinely observed in reading accuracy, rate and comprehension, and that the benefits of the intervention extend to socio-emotional outcomes such as confidence and engagement with reading.

4.10 Previous research on literacy and LAC

As has been highlighted previously by Fletcher-Campbell *et al.* (2003), there is very little published literature on literacy interventions with LAC. While these authors were speaking specifically about the UK situation, examination of the situation worldwide finds it to be similar in countries such as Canada and the USA (Matheson, 2011). What little has been published in the UK is reported below.

Menmuir (1994) evaluated the impact of a *PRAISE* reading intervention for social workers and foster carers. *PRAISE* stood for Partnered Reading Activities Involving Social Services and Education and was an important forerunner to the present project. It promoted reading as an enjoyable activity for children in care and trained both social workers and foster carers in the delivery of the programme. As in the present situation (DfE, 2012a), the backdrop to the intervention was increased concern over the educational attainment of children and young people in care. The intervention was implemented with young people aged between 5 and 17 years. The author concluded that the intervention produced benefits for the young people involved, but that training was required for the more specific techniques used such as Paired Reading. However, this study was hampered by the lack of evaluative measures used and the lack of any kind of rigorous design. In addition, the social workers and carers were allowed to choose from a range of intervention techniques (not just Paired Reading) which further confounds the study's conclusions.

In conjunction with LAs, for the *Right to Read* project in 2000, The Who Cares? Trust set up a number of starter libraries in care homes. Despite some initial resistance on the part of staff, the project was judged a success and the following benefits were identified:

- Children came to understand that books were not 'boring'.

- Looking after the books provided the children with a sense of responsibility which they had not had before (previously books had been locked away from the children).
- It improved the relationship between staff and the children through the act of sharing the books (The Who Cares? Trust, 2003).

The project highlighted the importance and often difficulty of securing funding for valuable resources such as books, as well as the importance of working in conjunction with LAs and external agencies who have the expertise to guide LAs through the process of setting up a literacy intervention or programme on a large scale (The Who Cares? Trust, 2003).

Following this, an intervention project was run by The Who Cares? Trust and Kent County Council as a joint venture (Wolfendale and Bryans, 2004). Known as the *Looking after Literacy in Kent* project, this was a large-scale study that lasted 15 months. Sixty-eight young people from the ages of 9 to 14 were included in the sample. A ‘package of provision’ was designed for each pupil and pre and post measures were used to evaluate the intervention. Some of the elements of the provision package included providing each child with a hand-held computer, providing the children with book tokens, ready access to books, and regular visits from a project visitor who provided encouragement and support and brought more books with him or her for the children to choose from. There was no specific training delivered to foster carers on techniques they could use to read with their children; the focus of the project was much more on encouraging the child to take advantage of the opportunities provided to improve his or her reading skills and interest in reading. The authors found that there was a significant improvement on the three measures: Basic Reading, Reading Comprehension and Spelling of the Wechsler Objective Reading Dimensions (WORD) test (Rust *et al.*, 1993) comparing pre and post measures; however this study is limited by a

number of factors: no control group was used; there was not enough collaboration with schools; and there was a low post-intervention response rate. The project was also considered not to have involved carers sufficiently, so that responsibility for continuing with the project lay with the children.

Another literacy project for LAC which has been relatively successful is *The Letterbox Club* (Griffiths, 2012), which involved posting educational packages directly to children over a period of six months. The packages included stationery, books and maths materials and were customised to the needs of the individual child. The results from pre and post-intervention showed a small improvement in reading and numeracy levels, particularly for the children who had scored substantially below their chronological age before the intervention, and also increased levels of engagement of carers. However, neither information on ratio gains nor effect sizes was reported. The programme was also trialled with older children (aged 11 to 13). In this case, the evaluation of a pilot study with 38 children showed that the children made improvements in reading and maths; however these results need to be interpreted with caution as information about significance levels was not reported (Griffiths and Comber, 2011).

A further literacy intervention is the *Catch Up Literacy* programme: a partnership approach recommended by the DfES (2003) as a suitable Wave 3 intervention for struggling readers. The aim of the study was to raise the literacy attainment of LAC by training carers to implement a literacy programme. Following an initial pilot study, a second study was carried out which had a larger sample size and trained not only carers in the techniques, but also Learning Support Assistants and residential care workers. This second study reported better outcomes than the first one, with ratio gains of 2.4 by the end of the intervention. The authors

of *Catch Up* have reported that they expect *Catch Up* to be effective for 85% of all pupils, but less effective for those with additional needs such as emotional and behavioural difficulties. Fraser *et al.* (2008) cite LAC as falling into this latter category, but do not offer this as a rationale for not including LAC in the *Catch Up Literacy* programme.

4.10.1 Partial replication of study by Osborne *et al.*, 2010

A more recent study which used PR was conducted by Osborne *et al.* (2010) in Hampshire. The present study aimed partially to replicate this research, of which a detailed critique is presented in Section 5.3 of this Volume. This was a relatively small study, whose authors carried out an evaluation of a PR intervention with foster carers. However, this study was limited by a design which did not use a control group to account for extraneous variables and which relied solely on reading age and ratio gain as outcome measures. Thirty-five children were included in the sample and the project was run over 16 weeks. Foster carers were provided with training on the use of the PR approach and were encouraged to use the approach a minimum of three times a week for twenty minutes.

The authors found that overall, the children made a statistically significant improvement on reading scores by the end of the intervention, with the average reading age of the sample improved from 8 years to 9 years in four months. Ratio gains were also reported. The mean ratio gain for each child was found to be 2.96. As Brooks (2007) has illustrated, ratio gains are more informative than reading ages as they allow for comparisons to be made of a heterogeneous research base, which reading scores do not. Also they take into account the length of an intervention, which the use of standardised reading scores does not (Brooks, 2007). However, time effect sizes could not be calculated as standard deviations were not provided.

4.11 An introduction to the current study

The current study used a multiple baseline mixed methods design employing both quantitative and qualitative measures to evaluate the effectiveness of a Paired Reading intervention with foster carers and children. The intervention was delivered twice a day over a period of six weeks. The children were aged 5 to 10 and were all in Key Stages 1 and 2 in maintained mainstream primary schools (except for one pupil who was not attending school). The sample was selected from two local authorities in the same county. I delivered training to foster carers and also collected the pre and post-intervention data.

Twelve pairs of children and carers took part in this study. The children were selected on the basis that they were in relatively secure placements and that they were struggling readers as identified by their National Curriculum (NC) levels (as being at least 2 NC levels behind their chronological age). For the children who were selected, an initial home visit was completed where consent from both the child and carer was collected and a reading assessment was carried out with the child. A repeated measures design was used whereby the same participants were tested using three measures (or reading accuracy, reading rate and reading comprehension) at three separate time points: Time 1, Time 2 and Time 3. The intervention took place between Time 2 and Time 3. If a participant's scores significantly increased between Time 2 and 3, but not between Time 1 and 2, then the assumption was that this improvement was due to the intervention.

Although the study was based on the work of Osborne *et al.* (2010), it was not an exact replication. The aim of the research was to see if the findings from Osborne *et al.* (2010) could be replicated within the context of a different local authority and within the structure of a mixed methods design where attempts were made to control for variance by using a time

series repeated measures design (Field, 2009), with qualitative measures included. As Snowling and Hulme (2011) have identified, researchers can contribute to the creation of a ‘virtuous circle’ of learning when educational interventions are evaluated using strong and robust designs.

4.12 Hypotheses

1. It was expected that there would not be a significant difference in participants’ scores on Measures 1, 2 and 3 (reading accuracy, rate and comprehension respectively) between Times 1 and 2 because participants would not engage with the experimental literacy intervention during this period.
2. It was expected that participants’ scores would be significantly higher on Measures 1, 2 and 3 at Time 3 than at Time 2 following the PR intervention which would have been delivered on a twice-daily basis for a period of six weeks.
3. It was expected that the qualitative information gathered post-intervention would show an improvement in the relationship between carers and children.
4. It was expected that the qualitative information gathered post-intervention would show benefits from the intervention such as increased confidence and engagement with reading, as reported by carers and children through the self-report questionnaire measure.

Chapter 5: Methodology

5.1 Research questions

Historically, educational research has concerned itself more with the ‘doing’ of research and the associated methods and processes, rather than with the underlying philosophical assumptions that inform this research (Usher and Scott, 1999). However, it has been argued by researchers such as Cohen *et al.* (2007) that how educational research is conducted is inevitably influenced by multiple factors such as epistemology, ontology and political factors, and that choosing a research paradigm should be dependent on the purpose of one’s research. Furthermore, Usher and Scott (1999) have argued that all research is political and one is necessarily adopting a certain viewpoint through the methods, design and even subject of research that is chosen. Therefore the research questions should logically influence the decision to adopt a research paradigm, in which the underlying philosophical assumptions are explicitly addressed.

The current study aims to answer the following research questions:

- Is Paired Reading an effective intervention for raising the literacy levels of looked after children in County A?
- Is the intervention effective in improving the relationship between carers and children?
- What are the benefits of the intervention observed by participants?

The study strove to partially replicate research that was carried out by Osborne *et al.* (2010). Similar to these authors, a mixed methods design was employed whereby a repeated measures experimental methodology and questionnaires were used to evaluate the intervention. This

reflects a pragmatic approach to research which allows for the use of complementary quantitative and qualitative research methods. In the social sciences at large, mixed methods research is increasingly popular and can be considered a legitimate, stand-alone research design (Creswell, 2003).

The following hypotheses were made:

1. It was expected that there would not be a significant difference in participants' scores on Measures 1, 2 and 3 (reading accuracy, rate and comprehension respectively) between Times 1 and 2 because participants would not engage with the experimental literacy intervention during this period.
2. It was expected that participants' scores would be significantly higher on Measures 1, 2 and 3 at Time 3 than at Time 2 following the PR intervention which would have been delivered on a twice-daily basis for a period of six weeks.
3. It was expected that the qualitative information gathered post-intervention would show an improvement in the relationship between carers and children.
4. It was expected that the qualitative information gathered post-intervention would show benefits from the intervention such as increased confidence and engagement with reading, as reported by carers and children through the self-report questionnaire measure.

5.2 Epistemological stance and assumptions

It has been suggested that there are four levels at which researchers operate (Usher and Scott, 1999). The first of these is ontology, followed by epistemology, method and lastly strategy. An epistemological approach grounded in pragmatism posits the following central tenet:

‘The current meaning or instrumental or provisional truth of an expression is to be determined by the experiences or practical consequences of belief in or use of the expression in the world’ (Johnson and Onwuegbuzie, 2004, p. 16).

This is known as the pragmatic maxim. In other words, when proposing ideas for research, researchers should think about the practical and empirical consequences of such ideas (Johnson and Onwuegbuzie, 2004). This means that the methods that allow for the best exploration of the question under investigation are the most appropriate, regardless of the underlying paradigmatic viewpoint. In some situations, it is allowed that quantitative approaches will be more suitable, in others, qualitative approaches will and in others still, a combination of both methods will serve to produce the most high quality research (Johnson and Onwuegbuzie, 2004).

To understand where mixed methods research originated from, it is first necessary to consider the paradigms of quantitative and qualitative research. Simply put, positivist researchers believe that there exists an objective reality and measurable phenomena within that paradigm. Interpretist research on the other hand believes in multiple realities and the subjective nature of research and holds that there is no ‘knowable’ reality (Newby, 2010). It has been described as the conflict between ‘deep, rich, observational data’ and ‘hard, generalisable data’ (Sieber, 1973, p. 1335). Historically, the paradigm wars (the philosophical debate between proponents for both sides) have left many researchers with the distinct impression that there are no similarities between the two paradigms. However, as Johnson and Onwuegbuzie (2004) point out, there are more similarities between the two paradigms than may be immediately obvious to the observer. Both paradigms necessitate the formulation of research questions, the drawing of inferences from results and the addition of safeguards into the design to limit confounding biases.

In addition, most researchers from the two paradigms would now agree on the following – that every method of data collection that is attempted by researchers is necessarily influenced by the previous life experiences that researcher has had and the views they hold as a result. In short, research can never be value-free (Johnson and Onwuegbuzie, 2004). This is a position approaching that of a pragmatic viewpoint. It is therefore not a huge leap to consider an alternative, ‘third’ paradigm to the two already discussed – that of mixed methods research.

Often in research, qualitative researchers will adopt qualitative methods and similarly so for quantitative researchers. Johnson and Onwuegbuzie (2004) have argued that this should not be the case and that qualitative researchers should be free to use quantitative research methods and vice versa. In educational research in particular, there is a tendency to confuse epistemology with methodology and researchers argue that the epistemology a researcher adopts must necessarily define the data collection methods they employ (Cohen *et al.*, 2007). Johnson and Onwuegbuzie (2004) argue that this is a mistaken understanding of epistemology and more specifically of the ‘logic of justification’ which is a crucial component of epistemology.

Hence adopting a pluralist approach to research can often yield more complete answers to complex research questions. Based on the ‘fundamental principle of mixed research’ (Johnson and Turner, 2003), which states that researchers should collect data using a variety of methods which build upon the strengths of the two distinctive paradigms and avoid the disadvantages of each, mixed methods research is an increasingly viable option for researchers (Hanson *et al.*, 2005).

Another important consideration relevant to this study is that of ‘paradigm emphasis’ (Morse, 1991; Morgan, 1998), which refers to whether the qualitative and quantitative components in

a research design have equal emphasis, or whether one is dominant over the other. In this study, the dominant paradigm is the quantitative paradigm which is complemented in my view by a qualitative method (e.g. a questionnaire). This is known as a manipulation check. An emphasis on quantitative methods does not contravene the adoption of a pragmatic epistemological stance (Johnson and Onwuegbuzie, 2004), but rather is a practical way of investigating complex issues at a deeper level. The real concern as argued by Newby (2010) should be with quality of research design and its ability to say something meaningful about the research issue and not necessarily ensuring equality between the qualitative and quantitative elements of the research.

5.3 Critique of Osborne *et al.* (2010) study

The current study is partially based on research which was carried out by Osborne *et al.* (2010) in Hampshire. This was a relatively small study. The authors carried out an evaluation of a PR intervention with foster carers, however this study was limited by the design which did not use a control group to account for extraneous variables and which relied on reading age and ratio gain as measures of outcome. A detailed critique of this study is presented in Tables 3, 4 and 5 below. Thirty-five children were included in the sample and the project was run over 16 weeks. Foster carers were provided with training on the use of the PR approach and were encouraged to use the approach a minimum of three times a week for twenty minutes. The authors found that the children made a statistically significant improvement on reading scores by the end of the intervention. The average reading age of the sample improved from 8 years to 9 years in 4 months. Ratio gains were also reported. The mean ratio gain for the children was found to be 2.96. As Brooks (2013) has illustrated, ratio gains are more informative than reading ages as they allow for comparisons to be made of a

heterogeneous research base, which reading scores do not. Also they take into account the length of an intervention, which reading scores cannot do (Brooks, 2013). However, time effect sizes could not be calculated as standard deviations were not provided.

This study partially replicated the study by Osborne *et al.*, as it was considered that this would contribute to the evidence base on PR with children in care. As Newby (2010) has identified, replicating studies does not only provide a check on how effective research processes are, but also provides a way of generalising findings which is not possible with a single study. When a study is repeated under the same and similar circumstances, there is a basis for contributing to an evidence base. As Newby (2010) identifies, the end aim of quantitative research is the generation of theory. This is only possible through duplication of studies. This is arguably what occurs most commonly in educational research whereby researchers publish their work singly and it is not until their work is collated together that patterns can be seen.

The current study aimed to build upon this study by employing an improved mixed-methods design with multiple baseline measures. To my knowledge and at the time of submission of this thesis, there is no other published study in the UK which has attempted to do this. This study therefore offers attempts to offer a novel contribution to the previous literature on improving the educational attainment of children in care.

5.4 Method and design

For the purposes of this study, a mixed methods methodology was employed. I felt that such an approach was appropriate as the purpose of the research was to evaluate the

Key features of Osborne <i>et al.</i>, study	Section of study	Critique	How current study aimed to improve on these features	Evidence base?
<i>Pre and post design used.</i>	Design	Simple pre and post design used with no control or comparison group. This does not allow for causal links to be made between intervention and outcome as other factors which have not been controlled for may have affected the outcomes. See below: 'The results revealed an average improvement in reading age of 12 months during this time, suggesting that the programme offers a constructive way of enhancing foster children's literacy skills'.	More complex design using repeated measures was selected to reduce likelihood of drawing erroneous conclusions from results.	Gorard, 2007; Haynes <i>et al.</i> , 2012. Robson (2002) recommends that such pre-test post-test single group designs are avoided due to difficulties with interpreting the results.
<i>No follow-up of participants.</i>	Design	No follow-up of participants mentioned.	No follow-up conducted however follow-design considered and disregarded for reasons explained in Section 5.4.3, however it has not been ruled out as a possible project in the coming academic year in conjunction with the CPTs.	Topping (1995) has recommended that follow-up studies of paired reading interventions be undertaken where possible. Brooks (2007) has identified that gathering follow-up data in literacy interventions is rare. With so few studies reporting follow-up data in the 2007 review (21 out of 121), the author reported that it was not possible to comment on whether gains in literacy interventions are typically maintained (Brooks, 2007).

Table 3: Design Section - Critique of Osborne *et al.*, (2010) study

<i>Incorporating the Voice of the Child.</i>	Method	Children's views were not sought in this study. Only the views of carers were sought.	In the current study, an attempt was made to elicit children's views through administering a child-focused questionnaire. It was considered to be of paramount importance to include children's views of the project in the analysis.	The UN Convention on the rights of the Child (UNCRC) includes guidance on and highlights the importance of gathering children's views (Articles 12 and 13). Recent policy and legislation such as Working Together (DfES, 2004), the Primary National Strategy (DfES, 2005), the Disability Equality Duty (2006) introduced by the Disability Discrimination Act (2005) and the Young Person's Paper (DfES, 2005b) have all made it clear that eliciting the views of children and young people should be central to professional practice.
<i>Diverse nature of sample used.</i>	Method	Open to all children looked after by foster carers. No fixed criteria for admission onto project.	Attempt made to secure a more homogenous sample in my study. Fixed criteria were given to CPTs to select sample (i.e. two National Curriculum levels below chronological reading age and in stable placement).	Sample selection is crucial to any good research design (Robson, 2002). Where possible, concerted effort should be made to secure as homogenous a sample as possible. As large a sample as possible is also desirable. Although this was not possible in the present study, attempts were made to secure the largest possible sample.
<i>In this study, reading ability was assessed using pre and post measures on a single dimension reading test – the Salford Reading Test.</i>	Method	In this study, reading ability was assessed using pre and post measures on a single test – the Salford Reading Test, which did not differentiate the different components of reading.	I used the YARC which has been recently standardised and which incorporates the three main areas of reading: reading accuracy, rate and comprehension.	Topping (1995) recommends that more comprehensive measures of reading are used when evaluating PR to give a more textured picture of reading ability.
<i>Intervention implemented only three</i>	Method	Participants were asked to implement the programme for 16 weeks, but for only 3 sessions per week for a minimum of 20	The study which is being replicated is of a longer duration than	The recommendation to participants to deliver the session on a 'little but often' basis in the present study was based upon the principle of distributed

<i>times a week.</i>		minutes per session.	the current study, however the intervention was more frequently implemented in the current study i.e., participants were asked to trial the intervention for six weeks for two five to ten minute sessions per day.	practice (Solity, 2003). Rose (2009) also recommended that interventions are most effective when delivered in this manner.
<i>Training delivered to professionals only</i>	Method	Training was not delivered to children, but only to professionals such as carers, teachers and social workers.	A strength of the current study was that training was delivered to children and carers together. This gives primacy to the children's needs and directly involves them as participants in multiple aspects of the research.	Morrow and Richards (1996) identify that as a society, we tend not to be respectful of children's views. They propose that researchers strive to design research methods that are inclusive and respectful of children's views. This is what I strove to achieve through involving children as key participants at multiple stages of this research.

Table 4: Method Section - Critique of Osborne *et al.*, (2010) study

<i>No detail on statistical tests used.</i>	Results	Results were analysed using statistical analysis, however detail is not provided of the specific tests used. Also, because no control group was used, the conclusions drawn (i.e. children made 1 year's progress in 4 months) should be interpreted with caution.	In this study, a robust statistical test was used (i.e. MANOVA), which addressed the multiple baseline design of the study. This design allows the researcher greater confidence in drawing conclusions about their results.	Details of statistical procedures used should always be reported. 'Researchers must make their data and methods amenable to reasonable external scrutiny. The assessment of the quality of the evidence supporting any inferences is an especially important feature of any research and must be open to scrutiny' (BERA, 2011, p. 10).
<i>Dropout rate.</i>	Results	They had a high dropout rate – nearly	Dropout rate in current	Participant dropout is a key challenge for any

		50%. This is likely to have affected the validity of results obtained.	study was 14%. This occurred between Time 1 and Time 2 and the participant's data was removed from the database, in line with ethical guidelines.	research in the social sciences, (Hoerger, 2010). As Hoerger (2010) has identified, as the dropout rate increases, there is potential for the sample to become increasingly less representative and so the results become less generalisable to the wider population.
<i>Reading ages were used.</i>	Results	Reading ages were reported which are unreliable and should be avoided where possible as they do not take into account the non-linear pattern of reading development (Brooks, 2007; 2013).	Standard scores derived from YARC were used in present studies which are more reliable.	Brooks, 2007; 2013.

Table 5: Results Section - Critique of Osborne *et al.*, (2010) study

effectiveness of a reading intervention, for which both quantitative and qualitative research methods were required. In addition, the previous authors Osborne *et al.* (2010) had also adopted a mixed methods approach. This was one of the aspects of this previous study that I strove to keep similar. The current study aims to address the following research questions:

- Is a Paired Reading intervention effective in raising the literacy levels of looked after children in County A?
- Is the intervention effective in improving the relationship between carers and children?
- What are the benefits of the intervention observed by participants?

5.4.1 Repeated Measures Design

Answering the first question necessitated the use of experimental methods to determine whether the intervention was effective, and therefore, the intervention was evaluated using a repeated measures design. A standardised test of reading ability was used to collect data at three points in time. A repeated measures method necessitates measuring the same subject on the same measures at different points in time. In this way, the subject acts as their own control. For example, in the present study, measures of reading ability were taken at Time 1, 2 and 3, each of which was theoretically six weeks apart. The participants received the intervention between Time 2 and 3, but did not receive any intervention between Time 1 and 2. This can be clearly seen in the graphical representation included overleaf. Participants' performances across these three time points were then analysed using a repeated measures multivariate analysis of variance (MANOVA) test.

To my knowledge, there are no previous published studies using Paired Reading with LAC in the UK that have employed this experimental methodology. It was decided to

Time 1	—————>	Time 2	—————>	Time 3
Baseline measurement of reading scores	Six weeks of no intervention	Second measurement of reading scores	Six weeks of intervention	Third measurement of reading scores

Table 6: Graphical representation of intervention procedure

use a time series repeated measures design to evaluate this aspect of the intervention for several reasons. Firstly, the use of a repeated measures design allows the researcher to control a larger amount of the variance in the data by controlling for individual differences between participants. Using a repeated measures design therefore controls for subject heterogeneity (Newby, 2010). This could also be controlled for by matching participants in groups, however this is very difficult to organise when working with such a specific population as LAC. If a matched control group had been used, they would need to have been matched in terms of both reading ability and age which would have been very difficult. In addition, if matching had been used as a design feature, the individual differences within each group would have been contaminated with the possible treatment effects from the Paired Reading intervention and it is not possible to untangle these two sources of variation. The subsequent increase in error variance would have resulted in a decrease in power and economy and would represent a statistical outcome with far less power.

A further advantage to repeated measures designs over comparison groups is in terms of economy as fewer participants are required. In addition, as Newby (2010) has identified, the design must fit the research questions, but must also be achievable for the researcher within a limited time frame. The repeated measures design employed in the present study is a form of quasi-experimental design as neither random assignment to treatment nor comparison groups have been used (Robson, 2002). These type of repeated measures designs do suffer from

certain disadvantages such as practice effects – for example, the measure that was administered had an ‘A’ and ‘B’ version for multiple administrations however, as the measure was administered three times in the format A-B-A, it is possible that practice effects from the first administration of the version A at Time 1 to Time 3 impacted on the results obtained. This is further explored in Section 5.5.1. Tanguma (1999) identifies that practice effects occur when subjects modify their behaviour in some way over the course of an intervention. The changes may be positive or negative. An example in an educational context is when participants improve their performance on a test over time. This may be due to the intervention or it may be due to the subjects being retested on the same measure. Other practice effects may include boredom with the technique, complacency or fatigue over the course of the intervention. Furthermore, there is the risk that statistical assumptions will be violated (Tanguma, 1999).

5.4.2 Randomised Controlled Trials

An alternative to the use of a matched group design which was also considered was that of the randomised control trial (RCT). The repeated measures design was chosen over a RCT as the sample size was found to be too small to allow for both a treatment and a control group and in addition, the LA were not convinced of the appropriateness of the RCT design on ethical grounds. As Haynes *et al.*, (2012) have identified however, there are significant ethical grounds to be argued in favour of RCTs. These authors argue that RCTs are a financially sound investment in the long-term, and they are a more ethical way of researching expensive interventions which are publicly funded.

5.4.3 Follow-up design

A further possible design which I considered was that of the follow-up design. However, the repeated measures design was chosen over the follow-up design as the results from such a procedure are complex to interpret as the process does not provide for a single omnibus test (Henson, 2006). Additionally, the use of a follow-up design inflates the familywise Type I error rate. This means that the probability levels that are reported provide an overestimation of the statistical significance of the mean differences (Hinkle *et al.*, 2003). A further disadvantage to follow-up designs is the risk of increased attrition which is a potential disadvantage of any longitudinal research (Newby, 2010). Given the inherent instability in the LAC population which is characterised by a high number of placement and educational moves, this is even more likely to have occurred. As Maxwell and Delaney (2004) have identified, there are two main advantages to the repeated measures design over follow-up designs. These are sample size and precision. As alluded to in Section 5.4, the sample size can be less as each person is contributing more than one score. For example, in the case of a repeated measures design, each person contributes n number of scores. This particularly stands for multivariate repeated measures designs. Stevens (2002) proposes that an additional advantage to repeated measures designs is that of precision as each subject acts as their own control. This allows for variability in individual differences to be removed from the error term (Maxwell and Delaney, 2004). Stevens (2002) argues that repeated measures designs are, in fact, more powerful designs than completely randomised designs due to the removal of variability from the error term.

5.4.4 Multiple case-study approach

A multiple case study design is another possible research design option that was considered. This would have involved comparing a series of case studies with each other in order to search for similarities. This contributes to what Yin (2008) describes as ‘analytical generalisation’ and is a form of exploratory research. Such an approach would have explored in greater depth why the intervention was effective for some children and not for others. A case study is defined as a ‘detailed analysis of an individual circumstance or event that is chosen either because it is typical or because it is unusual or because there was a problem or because something worked well’ (Newby, 2010, p. 51). Multiple case study analysis is a lengthy and involved process (Yin, 2008). It is rare for multiple case study approaches to be carried out in tandem with experimental research due to the involved and complex nature of the design (Yin, 2008), and so it was not considered to be a viable method to use in the present study. It also focuses on a different level of evaluation and as this was a replication of a mixed-methods study with a paradigmatic emphasis on experimental methods, it was not considered an appropriate approach for this particular study.

5.5 Reading Measures

In this study reading levels were measured three times – at Time 1, 2 and 3. Reading was assessed using three measures of reading contained within a single reading test: reading accuracy, rate and comprehension. The intervention took place between Time 2 and 3. If participants’ scores significantly increased between Time 2 and 3, but not between Time 1 and Time 2, the assumption was that this was due to the reading intervention. In this study, the independent variable is the Paired Reading intervention delivered over time and the dependent variables are the reading levels of the children, as measured by a standardised

assessment of reading on three dimensions of reading. In this case, the measure used was the York Assessment of Reading for Comprehension (YARC) (University of York, 2011). The YARC enables teachers and other professionals to assess pupils' reading skills from an early age through to the end of primary school. It assesses children's decoding skills, but also provides a standardised score for reading comprehension and reading rate. A further advantage to this test is that it has parallel forms (A and B versions), which make administering the test within a short time interval more valid than those tests which only have one form. Furthermore, it is economical to administer and score in terms of time and cost, it is possible to score online which then generates a report and it is consistent with the latest pedagogy and curricula for England. In fact, the authors designed the comprehension questions to align specifically with the comprehension strand of the National Strategy in England (University of York, 2011). The passages are also designed to be gender and culturally neutral so that no cultural group or gender is discriminated against when tested.

In addition, it is very widely used (SCHOOLS NorthEast, 2010) and provides standard age scores, age equivalent scores and percentile ranks for pupils aged 5 years to 11 years 11 months. The YARC was standardised in 2007 using norms constructed from a 4:06 to 12:04 representative standardisation sample. Further information about the standardisation of this test can be found in Appendix 3.

The format of the assessment consists of an initial screening test using the Single Word Reading Test (SWRT) (Foster, 2007) to determine at which level to begin the assessments and then a number of passages are administered to pupils. After they have read a passage, they are asked a series of comprehension questions. The number of reading errors and comprehension errors they make determines the difficulty of the next passage which is administered to them. As there was only six weeks between each assessment, an alternative

set of passages (Set B) were used with participants at Time 2 to minimise practice effects. Set A was then used again at Time 3.

5.5.1 Administration of A-B-A versions

The advantage of using Set B passages at Time 2 was so that practice effects could be minimised between the three trials, as the instructions for administering the passages state that administrators must provide the child with the correct word if they are struggling on a word during reading. This could contribute to practice effects which affect the internal validity of a repeated measures experiment (Shaughnessy *et al.*, 2012). To my knowledge, the test guidelines do not make explicit mention of how long administrators should wait before administering version A again. An alternative way to minimise variance as the result of practice effects is to randomise the order in which items are presented to participants, however this was not possible with the YARC reading passages as performance on a certain level determines which level is administered next. As there was a 12 week gap between Time 1 and Time 3, at which point the same set of passages (Set A) was administered, it was anticipated that this would be a sufficient length of time for practice effects to be considerably diminished, however this is an acknowledged weakness of the study which is further discussed in Sections 5.5.2 and 7.7.6.

5.5.2 Limitations of YARC test

There are of course some limitations to the YARC. As acknowledged in the preceding section, the YARC only has two parallel forms, which means that practice effects are a definite consideration (Riedel *et al.*, 1999). Although the YARC has good reliability for accuracy and rate, according to its authors (University of York, 2011), comprehension reliability is lower than desirable for many of the levels. No overall reliability figures are

provided as reliability figures are provided for each separate level. Measures of reliability should ideally be .70 or above in order to be considered sufficient (Field, 2009). This reflects the multi-faceted nature of comprehension. This is a substantial limitation of the test.

Content validity of the measures was also assessed. The authors concluded that the oral reading component and comprehension questions were valid tests of decoding and comprehension skills. However, the content validity of the comprehension question was only assessed with a small number of children (N = 14 in each year group).

Alternative reading measures were considered, but none were able to provide three parallel forms. If such a test had been available, with similar advantages in terms of time administration and ease of access with respect to testing materials, it would have been used.

5.6 Questionnaire

A questionnaire was administered to participants on the final home visits. The aim of the questionnaire was to ascertain participants' views on the effectiveness of the project. Adult and child versions were devised. A Likert rating scale of 1 to 5 was used, in which 4 opinion questions were presented to participants (3 in the case of the children). Participants were required to rate statements on a scale of 1 to 5 with respect to where they saw themselves on the scale.

Three open-ended questions (in the case of the adult version and 2 in the case of the child version) were also included in the questionnaires for participants to expand on the benefits, if any, they saw from the project and what they would like to see improved. Furthermore, because the questionnaire was designed to be administered by me, open-ended questions were considered to be appropriate as clarification of meaning could be sought at the time of

administration. The purpose of asking the question about how the intervention could be improved was so that, if the intervention was incorporated into future training for foster carers, the LA could modify the intervention in the light of this feedback. Care was taken to ensure that questions were not leading. The language used was clear and unambiguous and I went through the questions with respondents to provide clarity where necessary. Appendix 4 provides copies of each of the questionnaires.

As the second research question was attempting to gather participants' views about the project and its usefulness, it was deemed appropriate to capture this data using a semi-structured questionnaire. Questionnaires were selected as they are easy to administer and they have the practical advantage of being a relatively quick means of gathering data (Newby, 2010). The majority of Paired Reading interventions have been evaluated using standardised reading measures, but some researchers have also used questionnaires and semi-structured interviews to gather more qualitative data (Topping, 2001).

The questionnaire offers distinct advantages over the semi-structured interview, to which it is frequently compared. As Cohen *et al.* (2007) have identified, while the interview may allow for a more in-depth treatment of a topic, it also means that participants are more likely to change their answers in response to the behaviour and attitude of the researcher. This can be inadvertent or intentional on the part of the researcher. This introduces a possible source of bias into the method. Questionnaires are also useful in that the same questions are asked to every participant in the same order. During the planning stage of the research, it was not clear whether multiple researchers would be carrying out the final home visits or whether I would be carrying them out myself. This led me to consider using questionnaires so that information that was gathered was at least gathered using the same measurement tool.

Furthermore, questionnaires are designed to directly address the research question(s) (Newby, 2010). The decision to use questionnaires was also influenced by previous research (e.g. Menmuir, 1994; Osborne *et al.* 2010), as these researchers used this method in their research to ascertain participants' perceptions of effectiveness.

Lastly, questionnaires were chosen over semi-structured interviews as the paradigmatic emphasis was on the quantitative elements of the study and I was looking to carry out an evaluation of the intervention as opposed to exploring the underlying processes.

5.7 Process of selection

Due to the small numbers of LAC in Key Stages 1 and 2 in County A, a decision was made to use purposive sampling (Thomas, 2009) to identify the sample. Members of the corporate parenting teams (CPTs) identified a sample through accessing information held on the children's NC levels. This meant that LAC with low levels of literacy were actively identified, and their carers approached to ascertain their interest in participating in a literacy project. Twenty carers were approached and 14 agreed to participate in the project. Two carers subsequently dropped out before the second assessment could be completed (i.e. between Time 1 and Time 2). Therefore, only 12 pairs of carers and children took part in the intervention. There were no screening measures adopted beyond the use of initial NC levels which is an acknowledged weakness of the study. Table 8 provides further details of the participants.

The decision to narrow the intervention to children in primary school was to preserve homogeneity in the sample and to address the concerns which were raised by the CPTs about the low literacy levels of the primary aged pupils in the care of the LAs in particular. The decision to extend the research to both LAs was made on an equitable basis so that children

who were under the care of a different LA would not be disadvantaged through exclusion from the project. This is important as the EP Service I work for currently services two local authorities. It is against the backdrop of this complex setup that this project was set up.

5.8 Participants

Twelve children and their foster carers took part in this study. Originally there were 14 children in the sample. Two children dropped out after Time 1. This meant that 12 pairs of children and carers completed the intervention. The data from the two participants who withdrew from the study has not been included in any part of the analysis as these participants were considered from an ethical point of view to have withdrawn their consent to participate in the study, and hence to have withdrawn their data (BPS, 2010).

Of the 12 children who completed the intervention, one of the children returned home to his birth mother following the period of six weeks of intervention and the intervention was continued by his mother. For the purpose of this project, the term ‘carers’ is used to refer to all the adults who took part however, it should be noted that one of the adults was a birth parent and not a carer. The children ranged in age from 5:03 to 10:09. The mean age of the children was 9:05 and the gender divide was 9 boys to 3 girls. The children had been in their current foster placement from 6 months to 5 years and all placements were reported by social workers to be ‘stable’. The children were spread geographically across the whole of County A and all were ‘looked after’ by the LAs. All of the participants were of white British descent and spoke English as their first language. They were in Key Stages 1 and 2 and the majority attended mainstream primary schools across County A. One child was on roll at a special school. Some of the children were on placement with siblings, whilst others were placed

separately from their siblings. Further information about the sample can be found in Table 8 overleaf.

5.9 Procedure

Table 7 below is a useful linear representation of the different elements to this research.

<i>Steps</i>	<i>Actions taken</i>
<i>Step 1</i>	CPTs identify sample from records held using National Curriculum Reading levels.
<i>Step 2</i>	CPTs approach carers to ascertain interest in participating in project.
<i>Step 3</i>	CPTs advise researcher about carers' interest in becoming involved in project.
<i>Step 4</i>	Researcher contacts carers via telephone to provide further information about project and book in initial home visits.
<i>Step 5</i>	Time 1 - Initial home visits carried out and YARC assessments completed. Consent forms signed and collected.
<i>Step 6</i>	Time 2 - Carers attend training session with children. Children's reading ages tested again. In the event that carers cannot attend training sessions, alternate home visits organised.
<i>Step 7</i>	Carers carry out intervention for six weeks.
<i>Step 8</i>	Time 3 - Post-intervention home visits carried out and participants retested. In the event where home visits cannot be arranged, school visits to collect final data are carried out. Questionnaires administered where possible to carers and children.
<i>Step 9</i>	Reading data are analysed using statistical analysis. Questionnaire responses are summarised.
<i>Step 10</i>	Research reports sent out to carers summarising findings of results.

Table 7: Linear representation of steps involved in the project

Participant ID Code	Age at start of intervention	Gender	Ethnicity	Reading Ages at start of intervention -Accuracy -Rate -Comprehension	Standard Scores at start of intervention -Accuracy -Rate -Comprehension	Year Group	Known Special Educational Needs
Child A	9:09	Male	White British	5:10 Not available 5:03	<70 Not available <70	Attending special school behavioural unit	Social, Emotional and Behavioural Difficulties (SEBD) and diagnosis of Attachment Disorder. Some learning difficulties.
Child B	9:05	Male	White British	7:02 6:08 6:10	83 73 84	5	Physical disability.
Child C	10:09	Male	White British	7:09 8:07 Above 12:05	81 83 109	6	Some literacy difficulties.
Child D	5:03	Male	White British	5:10 Not available 5:11	104 Not available 112	Reception	None.
Child E	9:03	Male	White British	7:06 10:02 10:06	86 102 105	5	None.
Child F	10:06	Female	White British	6:10 7:00 7:03	75 70 82	6	Some general learning difficulties.
Child G	8:03	Male	White British	6:10 7:00 7:03	87 83 92	5	None.
Child H	9:04	Female	White British	7:06 7:09 9:01	86 85 98	5	None.

Child I	9:09	Female	White British	7:11 7:01 9:10	86 75 101	5	SEBD.
Child J	9:03	Male	White British	8:07 7:09 11:06	95 85 110	5	None.
Child K	9:02	Male	White British	6:07 6:04 9:10	79 73 105	5	Some general learning difficulties.
Child L	7:09	Male	White British	8:03 7:01 9:07	103 90 110	4	None.

Table 8: Summary table detailing participants' information

Participants were first identified through accessing records that the CPTs held in both LAs. Members of the two teams then approached foster carers to determine their interest in participating in the project. If the carers expressed an interest in participating, then this initial contact was followed up by a telephone call from me. The purpose of this telephone call was to explain further about the project to the carers. If carers were still willing to participate, a date for an initial visit was organised and an information letter and adult consent form was sent out (see Appendix 5). The information letter provided participants with further information about the project. The consent form consisted of a list of criteria which carers had to tick to indicate they understood and accepted the conditions of the research. Information letters were also sent to the social workers who held parental responsibility for the children in the sample and verbal consent was sought from these professionals.

5.9.1 Initial home visits

Home visits to each of the participants were made in the month prior to the start of the period of no intervention. The purpose of the visits was multi-fold. Firstly, it was to meet with carers and children in a non-threatening environment, to explain my role as a researcher and what the purpose of the project was. The purpose was also to collect written consent from the children and carers and to carry out the initial reading assessment (Time 1 assessment). In addition, I encouraged participants to ask me any further questions they had about the research.

5.9.2 Training

The training on the Paired Reading technique was planned for two consecutive Saturday mornings following the period of six weeks of no intervention. Two central town locations were decided upon. These were in separate parts of the county to facilitate carers who lived in

different parts of the county to attend. EP colleagues were recruited to help with the delivery of the session and the supervision of children after the session when the baseline reading assessments were carried out. Stickers, tea, coffee, juice and biscuits were provided at the end of the session. The first session was carried out on the appointed date, however the second session was postponed because of adverse snowy weather conditions and had to be rearranged for two weeks later. Not all of the carers could attend the training sessions and alternative home visits were arranged for these carers. Five carers attended the first Saturday session and three attended the second Saturday session. Four home visits were made to those carers who could not attend either of the Saturday sessions to deliver the training and to collect the data at Time 2.

Telephone calls were made to carers in the weeks leading up to the training to remind them about the details of the training sessions and to determine attendance numbers. The training input lasted one hour and consisted of a PowerPoint presentation on the PR technique (provided in Appendix 6), and the opportunity to practice the technique with supervision from psychologists trained in the use of the technique. Following the training session, the children were assessed one more time using the YARC.

5.9.3 Programme length

Although the intervention itself ran for only six weeks, the total span of the intervention was 12 weeks. This is within the recommended amount of time for a literacy intervention (Brooks, 2013). The research to date on literacy programmes would suggest that there is an optimal length of intervention, which appears to be between four and 13 weeks (Brooks, 2007). Previous research on PR indicates that studies typically run between four and 39 weeks (Topping, 1995), and that six weeks is a reasonable time in which to expect a significant

result or a ‘good impact’. In this study, six weeks was chosen as the length of intervention in view of the time series design, which required that the overall research period ran for 12 weeks in total. Time constraints over the Spring term of 2013 therefore necessitated that the period of intervention itself run for no more than six weeks, however this should be reconsidered if the project is to be rolled out again in the future.

5.9.4 Session frequency

This study differed from the previous study by Osborne *et al.*, (2010) in that the participants were asked to trial the intervention for six weeks for two sessions per day, whereas in the study by Osborne *et al.*, participants were asked to implement the programme for 16 weeks, but for only three sessions per week. The recommendation to participants to deliver the session on a ‘little but often’ basis in the present study was based upon the principle of distributed practice (Baddeley, 1997; Solity, 2003). Rose (2009) also recommended that interventions are most effective when delivered in this manner.

5.9.5 Programme duration

The decision to recommend implementing the intervention for five to ten minutes was based on a recommendation by Topping (2001), who has suggested PR be delivered for a maximum of 15 minutes. The advice is not consistent however and The Dyslexia- SpLD Trust (2012) notes that the duration of sessions for PR is variable. Similar interventions to Paired Reading such as *Catch Up Literacy* are typically delivered for 15 minutes (Holmes *et al.*, 2011) and an evaluation of *Catch Up Literacy* delivered by carers to older children at home found that 15 minutes was appropriate (Fraser *et al.*, 2008). However, due to the younger age group in this sample, it was considered appropriate to reduce the time to five to ten minutes. A further consideration for choosing five to ten minutes was because of the nature of the difficulties that

LAC typically experience such as reduced attentional capacity (Bomber, 2011). It was felt that an intervention longer than ten minutes might be too difficult for carers to implement and may become a source of tension in the household.

5.9.6 School liaison

Liaison with the school the child was attending was not possible prior to the commencement of the intervention (for the purpose of gathering further information about the child's current reading activities for example), however a letter was sent to the schools where each child was attending, following the start of the intervention and this letter contained information about the purpose of the intervention and the technique. This is an acknowledged weakness of this study which is discussed further in Section 7.6.3.

5.9.7 Final home visits

During the final home visits to collect the post-intervention data, participants were again briefed about how the results would be made available to them and any further questions they had were answered. Questionnaires to ascertain participants' perspectives on the intervention were administered and the completed questionnaires collected. The final home visits took place after the six weeks of intervention (or as close to this date as was possible for me to manage). After the post-intervention data had been analysed, a brief research report was sent to each participant summarising the findings of the research, providing the carers with their child's individual scores and thanking the participants for their assistance with the project. Appendix 7 provides further details on these reports.

5.9.8 Data analysis

Data from the repeated measures experiment (reading scores) were analysed using both descriptive and inferential statistics. A doubly multivariate analysis of variance test (MANOVA) was used to analyse the results. The MANOVA calculates the variance in a sample set tested over three points in time. The use of the MANOVA was based on the assumption of sphericity i.e. that the variance between the different time points was cancelled out because the same participants were being tested at three different points. In other words, the participants acted as their own controls and individual differences were minimised.

With respect to the adult and child questionnaires, descriptive statistics were used to collate and analyse the data. As the first four questions from the adult version used a rating scale, the responses from these questions were collated and percentages drawn up. Percentages were also drawn up for the first 3 questions from the children's questionnaire. Data from the latter part of the adult and child questionnaires was also collated.

5.10 Ethical concerns

Guidelines from the University of Birmingham, (UoB, 2010-2011), BERA (2011) and the BPS (2010) have been followed in considering the ethical implications of this research project. These have been outlined in the application for ethical approval which was submitted in May 2012 to the Research Committee at the University of Birmingham which can be found in Appendix 8. In addition, some of the specific ethical considerations for the LAC population have been explicated below.

5.10.1 Ethical challenges of collecting data on LAC

There are numerous ethical challenges to be addressed when carrying out research with LAC. The main challenges in this study were concerned with the vulnerability of the children and ensuring the confidentiality of the participants in the sample. Research with this population in the UK is typically small scale and qualitative (Jackson and Cameron, 2012), which makes it potentially easier to identify participants and research shows that LAC are concerned about their information being shared in inappropriate ways (DfES, 2006a). This was a particular consideration in this study where there was a small sample size and children's individual reading scores were reported.

Furthermore, it was not possible to use data already held by the LA on participants (for example their PEPs), after the initial data collection process had been completed as this contravened the Data Protection Act (1998). As stated in the guidelines to following this Act for those working in social research, 'data collected for one purpose cannot be subsequently used for a different purpose unless the individual has given their permission' (Market Research Society and Social Research Association, 2013, p. 7). This means that collecting further data or using pre-existing data held on participants was not possible without seeking permission from them again, as they had initially only given their permission for reading data to be collected and reported on.

Chapter 6 – Results

6.1 Hypotheses

The following hypotheses were made in this study:

1. It was expected that there would not be a significant difference in participants' scores on Measures 1, 2 and 3 (reading accuracy, rate and comprehension respectively) between Times 1 and 2 because participants would not engage with the experimental literacy intervention during this period.
2. It was expected that participants' scores would be significantly higher on Measures 1, 2 and 3 at Time 3 than at Time 2 following the PR intervention which would have been delivered on a twice-daily basis for a period of six weeks.
3. It was expected that the qualitative information gathered post-intervention would show an improvement in the relationship between carers and children.
4. It was expected that the qualitative information gathered post-intervention would show benefits from the intervention such as increased confidence and engagement with reading, as reported by carers and children through the self-report questionnaire measure.

6.2 Quantitative data

6.2.1 Descriptive statistics

With respect to the third hypothesis, the data were analysed using descriptive statistics. The means and standard deviations of the participants' standard scores across the three time points are described in Table 9 below.

	Time 1	Time 2	Time 3
Measure 1: Reading Accuracy mean score	86.17	89.83	93.42
Measure 1: SD	10.39	12.32	13.43
Measure 2: Reading Rate mean score	79.75	81.67	86.25
Measure 2: SD	10.07	8.74	12.97
Measure 3: Reading Comprehension mean score	98.08	97.83	106.25
Measure 3: SD	13.62	11.01	14.45

Table 9: Mean scores and standard deviations of the group on all three reading measures at Times 1, 2 and 3

The following hypothesis is supported by the visual descriptive data seen in Table 9 above and in the figures below.

3. It is expected that participants will score higher at Time 3 compared to Time 1 and Time 2 on the measures of reading.

As can be seen, the mean scores for all three reading measures are higher at Time 3 than at Time 1. The group means are represented visually in the graphs below.

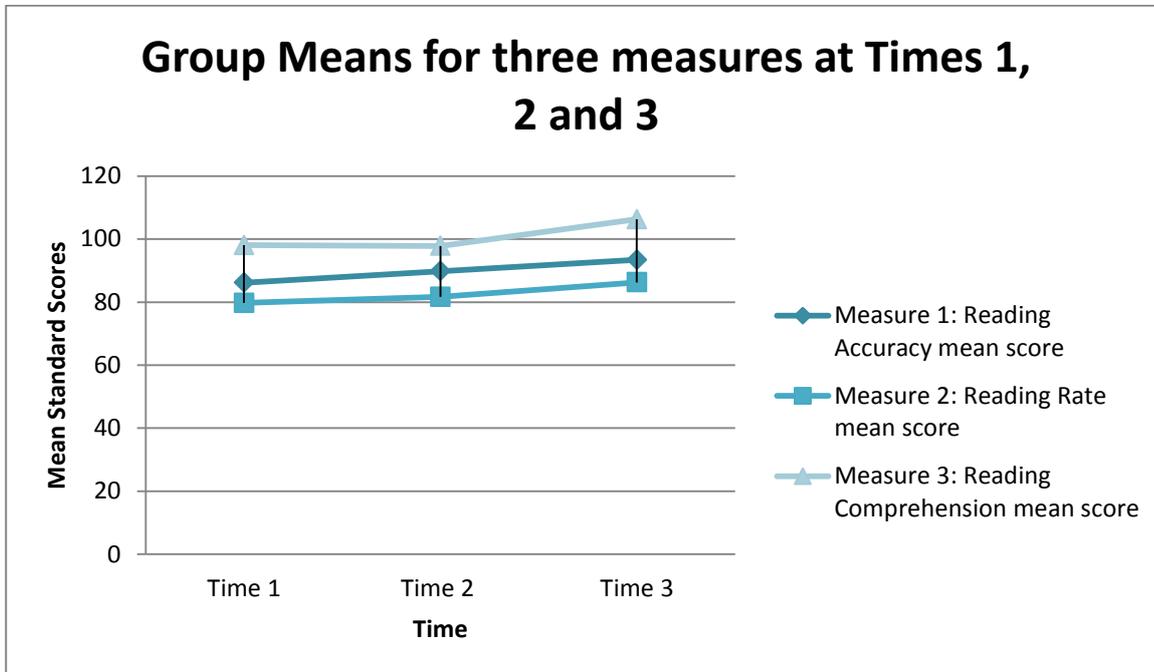


Figure 4: Group Means displayed in Line Chart with Markers

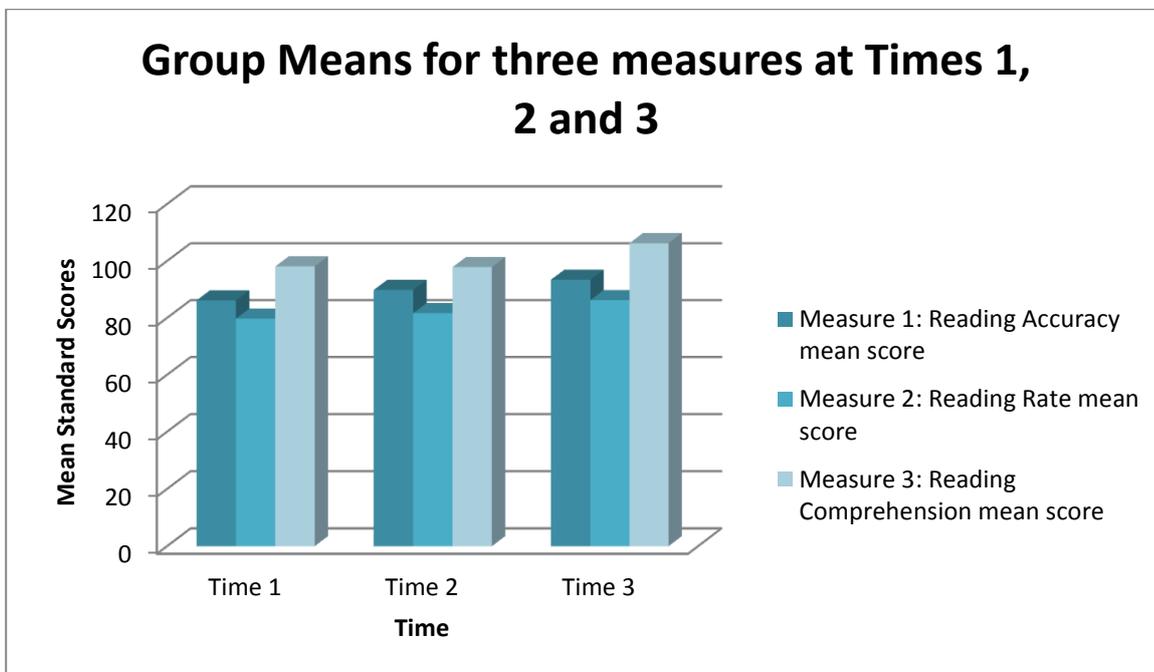


Figure 5: Group Means displayed in 3D Clustered Column

The trends illustrated in the figures provided above indicate that increases in standard scores were observed for all three measures across time, except for between Time 1 and Time 2 for reading comprehension, where there was a slight decline in the performance observed between these points in time. These trends suggest that an improvement in overall reading ability was seen between Time 1 and Time 3.

6.2.2 Multivariate ANOVA

The following two hypotheses were tested.

- 1 It was expected that there would not be a significant difference in participants' scores on Measures 1, 2 and 3 (reading accuracy, rate and comprehension respectively) between Times 1 and 2 because participants would not engage with the experimental literacy intervention during this period.
- 2 It was expected that participants' scores would be significantly higher on Measures 1, 2 and 3 at Time 3 than at Time 2 following the PR intervention which would have been delivered on a twice-daily basis for a period of six weeks.

Due to the nature of the dependent measures employed in this study, there was a resulting threat to the assumption of sphericity which states that variances across conditions are held to be equal (Field, 2009). The data were checked to ascertain that the assumption of sphericity using Mauchly's Test had not been violated for all three measures (Field, 2009). Mauchly's Test was non-significant for reading accuracy and comprehension, but was significant for reading rate. Appendix 9 provides further details on the results of Mauchly's Test and the corrected significance figure for reading rate used in light of the test's findings.

The data were then analysed using a doubly multivariate analysis of variance (MANOVA) test. The study is multivariate because multiple measures are being measured on multiple occasions (i.e. reading comprehension, reading accuracy and reading rate at Time 1, Time 2 and Time 3). This is known as a squared (3x3) variance matrix. A repeated measures analysis was conducted in which the nine dependent variables representing 3 variables (reading accuracy, reading rate and reading comprehension) were measured at three levels of the within-subjects factor Time: Time 1, Time 2 and Time 3.

With respect to hypotheses 1 and 2, the findings would appear to largely support these hypotheses. That is, the results indicate that overall there was a significant effect of Time $F(6, 6) = 6.80, p < .05$; Wilk's $\Lambda = 0.13$. The follow-up contrast results indicate that there were significant differences found for two of the measures between Time 2 and Time 3, but not between Time 1 and Time 2. However, a significant difference was not found for the third measure, reading accuracy, between Time 2 and Time 3.

The contrast for reading rate between Time 1 and Time 2 has a significance value greater than 0.05, however the contrast for reading rate between Time 2 and Time 3 has a significance value less than or equal to 0.05, $F(1, 11) = 4.84, p = .05$. This indicates that the reading intervention did have a significant impact on reading rate between Time 2 and Time 3, but not between Time 1 and Time 2 (when the intervention was not going on).

The contrast for reading comprehension between Time 1 and Time 2 has a significance value greater than 0.05, however the contrast for reading comprehension between Time 2 and Time 3 has a significance value less than or equal to 0.05, $F(1, 11) = 9.04, p < .05$. This suggests that the reading intervention did have an impact on reading comprehension between Time 2 and Time 3 (when the intervention was on-going), but not between Time 1 and Time 2.

The hypotheses are only partially supported as the contrast for reading accuracy between Time 1 and Time 2 has a significance value less than or equal to 0.05, $F(1, 11)=8.19$, $p<.05$. The contrast for reading accuracy between Time 2 and Time 3 has a significance value greater than 0.05, $F(1, 11)=3.29$, $p=.097$. This suggests that the reading intervention did not have a significant effect on reading accuracy, but that learning did occur between Time 1 and Time 2 (when the intervention was not on-going). Appendix 10 provides further details of the statistical procedures used.

For the measures of reading accuracy, there is a steady increase of standardised scores over time (increase of 4.07% between Time 1 and Time 2 and an increase of 3.84% between Time 2 and Time 3). There is an increase of 2.35% for reading rate between Time 1 and Time 2 and an increase of 5.31% between Time 1 and Time 2. Reading comprehension decreased 0.25% between Time 1 and Time 2 and then increased 7.92% between Time 2 and Time 3. The visual evidence for the intervention's effect on reading ability shows greatly different effects for reading comprehension and reading rate, when compared with reading accuracy. This suggests that the intervention may be most effective for improving reading comprehension and reading rate. This data is summarised in Table 10 below.

Independent and Dependent Variables (IVs and DVs)	Significant effect found at 0.05 level of significance?	Details
Time (IV)	Yes – overall significant effect of time	$F(6, 6)=6.80$, $p<.05$; Wilk's $\Lambda=0.13$
Reading Accuracy (DV)	Yes – between Time 1 and 2 when intervention was not on-going, but not between Time 2 and 3	$F(1, 11)=8.19$, $p<0.05$
Reading Rate (DV)	Yes – between Time 2 and 3 when intervention was on-	$F(1, 11)=4.84$, $p=.05$

	going, but not between Time 1 and 2	
Reading Comprehension (DV)	Yes – between Time 2 and 3 when intervention was on-going, but not between Time 1 and 2	$F(1, 11)=9.04, p<.05$

Table 10: Summary of results found

6.2.3 Ratio gains

As ratio gains were reported for the study by Osborne *et al.*, (2010), it was considered appropriate to report ratio gains for the present study as a further means of comparing the two studies. Ratio gains are an additional way of evaluating the impact of an intervention. Ratio gain is defined by Topping and Lindsay (1992, p. 201) as ‘the gain in reading age made by a subject on a reading test during a chronological time span, expressed as a ratio of that time span; that is, ratio gain equals reading age gain in months divided by chronological time in months’. The concept can also be thought of in terms of ‘average monthly progress’ or AMP (Brooks, 2013). The advantages of calculating ratio gains are that they take account of the length of time of an intervention. The disadvantage to using them is that they neglect to take into account the spread of scores in a sample and are therefore not statistically robust measures. Ratio gains for the group were calculated and found to be 5.5 for reading accuracy, 3.37 for reading rate and 10 for reading comprehension. This indicates that in 1.5 months, children on average made 5.5 months progress in reading accuracy, 3.37 months progress in reading rate and 10 months progress in reading comprehension. Contrasted with the ratio gains reported by Osborne *et al.*, (2010) (i.e. 2.96), this would appear to show a greater rate of progress. This would suggest that the intervention had a positive impact on children’s reading ability. However, ratio gain is a statistically limited device as it does not take account of the

spread of scores in a sample. It is important to note that there was a large spread of scores in the present sample.

6.2.4 Summary of quantitative results

These results indicate that there was a significant effect of the intervention on reading comprehension and reading rate between Time 2 and Time 3. Whilst there was also a difference for reading accuracy scores found between Time 2 and Time 3 in a positive directional trend, this difference did not reach statistically significant levels. A significant effect was found however, for reading rate between Time 1 and 2. This suggests that where learning did occur (between Time 1 and 2 when the intervention was not on-going), it was not as a result of the intervention. Overall, the findings suggest that the intervention did have an effect on reading comprehension and reading rate, but not on reading accuracy. Ratio gains calculated for this group would appear to suggest improvement was seen over the course of the intervention and particularly so for reading comprehension for which an AMP gain of 10 was found.

6.3 Individual data

Although a group statistical analysis of the children's results suggests that reading comprehension and rate improved significantly between Time 2 and Time 3, but not between Time 1 and Time 2, the results were also analysed on a child-by-child basis in an attempt to discern whether there were general trends that were not evident from the statistical analysis. Section 6.3 provides a detailed breakdown of each child's results. This approach offers a more textured and in-depth analysis of the data, with explicit links made to current research where relevant. Some factors, which it was not possible to control for in the intervention, included the ease of engagement of both the child and carer, behavioural difficulties, and prior and on-

going literacy interventions. These confounding variables are commented further upon in the discussion section of this thesis.

6.3.1 Individual data on a child-by-child basis

	Ease of engagement	Behavioural problems			Known SEN
Child A	Child was easy to engage on home visits, as was carer.	No noticeable behavioural difficulties, however prior knowledge of this pupil suggests a high level of complex and challenging behavioural difficulties, particularly in educational settings. Required carers with specialist knowledge of caring for children with complex emotional needs.			Social, emotional and behavioural difficulties (SEBD) and diagnosis of Attachment Disorder. Some learning difficulties.
Time	Chronological Age	Standard Score: Accuracy	Percentile Accuracy	Rank:	Age Equivalent Score: Accuracy
Time 1	9:09	<70	Below 2nd		5:10
Time 2	9:10	<70	Below 2nd		5:07
Time 3	10:10	74	4th		6:06
		Standard Score: Rate	Percentile Rank: Rate	Rank:	Age Equivalent Score: Rate
Time 1	9:09	Not available	Not available		Not available
Time 2	9:10	<70	Below 2nd		6:04
Time 3	10:10	<70	Below 2nd		6:04
		Standard Score: Comprehension	Percentile Comprehension	Rank:	Age Equivalent Score: Comprehension
Time 1	9:09	<70	Below 2nd		5:03
Time 2	9:10	79	8th		6:04
Time 3	10:10	79	8th		6:07

Table 11: Child A data

Child A was experiencing significant difficulty with adjusting to the demands of a mainstream school and so transferred to a special school prior to beginning the intervention.

As can be seen from the above analysis, Child A's literacy levels prior to beginning the intervention were very low. Despite the limited progress seen over the course of the intervention, Child A was still experiencing difficulty in all three reading areas and had made

no discernible progress in reading rate at Time 3. A possible reason for this may be that Child A's early reading abilities were not yet secure, which limited his access to the texts which were used, even though the starting level passages were administered to him. A phonological analysis carried out with Child A using the Early Reading materials from the YARC indicated that his knowledge of phonics blends was secure, but that his knowledge of high frequency words was not. This can be an indicator of key gaps in learning. As Fletcher-Campbell (2003) has identified, where children have experienced multiple placement and educational moves and have experienced trauma and neglect (as was the case for this particular child and for the majority of children who are looked-after), there are likely to be significant gaps in their learning. Child A was also one of the older children in the group (9:09 at the start of the intervention), which is why his very low literacy levels are of particular concern. It is also known that Child A was a child who was exhibiting extremely challenging behaviours in the school setting, which were likely to impact on his access to the curriculum and to learning. Research suggests that even when children are considered to be in a 'stable placement' as this child was where there are firm boundaries in place, this does not mean that children are automatically ready to settle into learning (Comfort, 2007).

	Ease of engagement		Behavioural problems		Known SEN
Child B	Child was easy to engage on home visits. Carer was enthusiastic and receptive to project.		No known behavioural difficulties.		None known, although does have a physical disability.
Time	Chronological Age	Standard Score: Accuracy	Percentile Rank: Accuracy	Age Equivalent Accuracy	Score:
Time 1:	9:05	83	13th	7:02	
Time 2	9:08	82	12th	7:02	
Time 3	9:10	89	23rd	8:03	
		Standard Score: Rate	Percentile Rank: Rate	Age Equivalent Score: Rate	
Time 1	9:05	73	4th	6:08	
Time 2	9:08	74	4th	6:11	

Time 3	9:10	78	7th	7:03
		Standard Score: Comprehension	Percentile Rank: Comprehension	Age Equivalent Score: Comprehension
Time 1	9:05	84	14th	6:10
Time 2	9:08	86	18th	7:03
Time 3	9:10	95	37th	8:10

Table 12: Child B data

Child B was a child who exhibited severe reading difficulties in reading rate prior to starting the reading intervention. However, post intervention examination of the data indicates that he is still experiencing difficulties in this one area of functioning: i.e. reading rate. Child B's slow reading rate is likely to be impacting on all other areas of his reading, and is an area in which Child B will continue to need support. Child B's carer reported on the weekly monitoring sheets that she found it difficult to pace her reading with his in the initial stages of the project, as Child B was reading so slowly. She reported that the Reading Alone phase worked better for them.

	Ease of engagement		Behavioural problems		Known SEN
Child C	Child was very easy to engage on home visits, as was carer. Both keen to get as much support for child's reading as possible.		No known behavioural difficulties.		Some literacy difficulties.
Time	Chronological Age	Standard Score: Accuracy	Percentile Rank: Accuracy	Age Equivalent Accuracy	Score:
Time 1	10:09	81	10th	7:09	
Time 2	10:11	83	13th	8:01	
Time 3	11:01	83	13th	8:03	
		Standard Score: Rate	Percentile Rank: Rate	Age Equivalent Score: Rate	
Time 1	10:09	83	13th	8:07	
Time 2	10:11	80	9th	8:03	
Time 3	11:01	82	12th	8:07	
		Standard Score: Comprehension	Percentile Rank: Comprehension	Age Equivalent Comprehension	Score:
Time 1	10:09	109	73rd	Above 12:05	
Time 2	10:11	109	73rd	Above 12:05	
Time 3	11:01	114	82nd	Above 12:05	

Table 13: Child C data

Child C was a child who did not make accelerated progress over the course of the intervention, remaining relatively static for two of the three areas of reading. Standard scores are related to a child’s age and so, no change in a standard score over time is an indication that ability is remaining constant (i.e. neither decreasing nor improving) (Brooks, 2012). As can be seen from the table above, Child C already had well-developed comprehension skills prior to the beginning of the intervention which improved by five standard score points. What is of interest is that his reading accuracy ability was very low prior to the intervention, and yet this did not appear to adversely impact on his comprehension abilities. Child C’s carer reported that she felt that Child C needed more processing time than did other children his age, but she did not necessarily see that as a concern. It may be of relevance as Child C progresses into Key Stage 3 and is required to undertake more written assessments which require a certain level of speed reading (Rasinski, 2012). One of the key executive functions affected by trauma is thought to be processing speed, so some children will require greater time than others to take in information (Wilson *et al.*, 2011; Bomber, 2012).

	Ease of engagement		Behavioural problems		Known SEN
Child D	Child was easy to engage on home visits. Parent was less easy to engage in the project, although she did cooperate.		No known behavioural difficulties.		None.
Time	Chronological Age	Standard Score: Accuracy	Percentile Rank: Accuracy	Age Equivalent Score: Accuracy	
Time 1	5:03	104	61 st	5:10	
Time 2	5:05	111	77 th	6:02	
Time 3	5:07	116	86 th	6:10	
		Standard Score: Rate	Percentile Rank: Rate	Age Equivalent Score: Rate	
Time 1	5:03	Not available/recorded	Not available/recorded	Not available/recorded	
Time 2	5:05	<84 (calculated from 6 to 6:02 on)	<14 th	5:07 or less	

Time 3	5:07	108 (but not given for below 6 years)	70th	6:10
		Standard Score: Comprehension	Percentile Rank: Comprehension	Age Equivalent Score: Comprehension
Time 1	5:03	112	79th	5:11
Time 2	5:05	111	77th	5:10
Time 3	5:07	130	98 th	8:10

Table 14: Child D data

Child D was the youngest child in the sample. He began the intervention at a chronological age of 5:03. At the start of the intervention, Child D was in a temporary foster placement, however before the intervention began (at Time 2) he was returned to his birth mother who then continued on the intervention with him. It is not clear why Child D was referred to the intervention as his literacy levels were good prior to starting the intervention however due to the nature of the transitions, it was felt by the corporate parenting team that this would be a beneficial intervention for himself and his mother to be part of. No information is known about the particular circumstances which led to the child being placed on a temporary care order. His scores are included as part of the overall group. He has made considerable progress in comprehension, scoring at the 98th percentile overall. His results demonstrate that despite enduring a massive upheaval throughout the intervention (leaving his foster placement and returning home), he managed to benefit from the intervention and demonstrate resilience. This is perhaps not what we would expect would occur given the research on how disruptive to schooling placement changes can be (Newton *et al.*, 2000).

	Ease of engagement		Behavioural problems		Known SEN
Child E	Child was easy to engage on home visits, as was carer. Both keen to receive extra support.		No known behavioural difficulties.		None.
Time	Chronological Age	Standard Score: Accuracy	Percentile Rank: Accuracy	Age Equivalent Accuracy	Score:
Time 1	9:03	86	18 th	7:06	

Time 2	9:05	96	40 th	8:09
Time 3	9:07	94	34 th	8:09
		Standard Score: Rate	Percentile Rank: Rate	Age Equivalent Score: Rate
Time 1	9:03	102	55 th	10:02
Time 2	9:05	93	32 nd	8:09
Time 3	9:07	103	58 th	10:07
		Standard Score: Comprehension	Percentile Rank: Comprehension	Age Equivalent Score: Comprehension
Time 1	9:03	105	63 rd	10:06
Time 2	9:05	103	58 th	9:10
Time 3	9:07	120	91 st	Above 12:05

Table 15: Child E data

Child E is a child who was performing within the average range prior to the start of the intervention in all three areas of reading. Child E's carer told me that Child E's reading had improved since coming to live with him two years ago. He highlighted the importance of regularly reading with your child as a way of improving a child's reading ability. As Topping (2005) has identified, shared reading approaches such as Paired Reading can be a very effective way to read with your child. Child E's carer commented that they would use the intervention as a way of scaffolding Child E onto more challenging books, as he presently was content to read and reread books of a certain ability level. This pattern of behaviour is commonly found in children in care. Bomber (2012) identifies that this may reflect a fear of making mistakes in learning and hypothesises about what that might mean for the child's sense of self, particularly for those children whose sense of self is closely bound up with what they do.

	Ease of engagement		Behavioural problems		Known SEN
Child F	Child was very easy to engage on home visits, as was carer.		No known behavioural difficulties.		Some general learning difficulties.
Time	Chronological Age	Standard Score:	Percentile Rank: Accuracy	Age Equivalent Accuracy	Score:

		Accuracy		
Time 1	10:06	75	5 th	6:10
Time 2	10:08	76	5 th	7:01
Time 3	10:10	77	6 th	7:03
		Standard Score: Rate	Percentile Rank: Rate	Age Equivalent Score: Rate
Time 1	10:06	70	2 nd	7:00
Time 2	10:08	70	2 nd	7:00
Time 3	10:10	<70	Below 2 nd	6:11
		Standard Score: Comprehension	Percentile Rank: Comprehension	Age Equivalent Score: Comprehension
Time 1	10:06	82	12 th	7:03
Time 2	10:08	88	21 st	8:02
Time 3	10:10	94	34 th	9:07

Table 16: Child F data

Child F experienced considerable difficulties in all three areas of reading prior to intervention, but particularly so in the areas of rate and accuracy and her standard score for rate actually decreased over the course of the intervention. She made limited progress over the course of the intervention, but both she and her carer reported having found the experience to be of value. Her reading rate was particularly slow (2nd and below 2nd percentiles), but this did not appear to inhibit her understanding of the text unduly. Her carer reported that ‘personally, I have seen a good improvement in her’ and was keen to introduce the scheme to the primary school where she worked as a TA. She reported that they had not been able to carry out the intervention every night due to other commitments, but had done so the majority of the time.

	Ease of engagement		Behavioural problems		Known SEN
Child G	Child was easy to engage on home visits. Carer was initially sceptical about project but became more engaged after it was explained to him.		No known behavioural difficulties.		None known.
Time	Chronological Age	Standard Score: Accuracy	Percentile Rank: Accuracy	Age Equivalent Score: Accuracy	
Time 1	8:03	87	19 th	6:10	
Time 2	8:05	93	32 nd	7:06	
Time 3	8:07	97	42 nd	8:03	

		Standard Score: Rate	Percentile Rank: Rate	Age Equivalent Score: Rate
Time 1	8:03	83	13 th	7:00
Time 2	8:05	90	25 th	7:04
Time 3	8:07	89	23 rd	7:06
		Standard Score: Comprehension	Percentile Rank: Comprehension	Age Equivalent Score: Comprehension
Time 1	8:03	92	30 th	7:03
Time 2	8:05	92	30 th	7:03
Time 3	8:07	105	63 rd	9:07

Table 17: Child G data

Child G is a child who did not demonstrate a severe reading difficulty in any area of reading prior to the start of the intervention. However, he was one of the children who appeared to benefit most from the intervention in the sample. His carer was very receptive to the intervention, seeing similarities in it to how he himself was taught as a child to read and adapting the paired reading to use it with Child G's brother. This is an example of where individual perspectives influence the extent to which a participant will engage in a research project (Draper, 2012). Child G's carer was one of the four carers who returned the weekly monitoring sheets to me. From these, I could see that there were some issues with the child's motivation to read in that on some days his carer reported that he was engaged and on some days 'he flat out refused to read'. His willingness to read appeared to be greatly affected by how tired he was as numerous comments were made about the child feeling tired and needing encouragement to read. There was also mention of the level of difficulty of the books brought home. Child G was inclined to bring easy books home from school and not challenge himself. It is a key recommendation of the reading intervention that children choose their own reading material, however the expectation is that the children will choose increasingly more difficult books as they feel supported to access this material with the structured support of the adult. However, as Solity and Vousden (2009) have identified, it is difficult to grade books

according to the level of difficulty as the amount of critical high-frequency words and grapheme-phoneme correspondences (GPCs) appears to be consistent across books, regardless of type or perceived difficulty of book. The data gathered through the monitoring sheets indicates that this carer and child did not find the intervention particularly easy to implement and a high degree of encouragement was required to complete the target of daily reading, despite the progress seen.

	Ease of engagement		Known problems	Behavioural	Known SEN
Child H	Child was easy to engage on home visits. Carer was less easy to engage in the project and remained quite negative about the project until the end.		Carer reported having to manage challenging behaviours during implementation of intervention. Not evident on home visits I carried out.		None known.
Time	Chronological Age	Standard Score: Accuracy	Percentile Rank: Accuracy	Age Equivalent Score: Accuracy	
Time 1	9:04	86	18th	7:06	
Time 2	9:07	90	25th	8:03	
Time 3	9:08	100	50th	9:07	
		Standard Score: Rate	Percentile Rank: Rate	Age Equivalent Score: Rate	
Time 1	9:04	85	16th	7:09	
Time 2	9:07	86	18 th	8:02	
Time 3	9:08	87	19th	8:03	
		Standard Score: Comprehension	Percentile Rank: Comprehension	Age Equivalent Score: Comprehension	
Time 1	9:04	98	45th	9:01	
Time 2	9:07	90	25th	7:10	
Time 3	9:08	97	42nd	9:01	

Table 18: Child H data

Child H was a child who made very good progress in reading accuracy in particular over the course of the intervention (going from a standard score of 86 to 100 from Time 1 to Time 3). Despite this significant progress, her carer reported that she found it very difficult to

implement the intervention with Child H and encountered a high degree of prevarication and oppositional behaviour from Child H. As Berridge (2007) has identified, the challenging behaviour displayed by some children in care can be a contributing factor to their poor educational outcomes. She was one of two carers who reported seeing no discernible benefits from the intervention and was quite negative about it. On reflection, it may be that the objectives of the intervention were not clearly explained to this carer on the initial training day or she may have felt pressured into taking part by members of the corporate parenting team. As research guidelines on ethics stipulate (BERA, 2011), participants should never feel that they have been coerced into participating in a research project.

	Ease of engagement		Behavioural problems		Known SEN
Child I	Child was easy to engage on initial home visit and less so on final visit to school. Carer was supportive of the project, but reported finding it very challenging to implement for her child in particular.		High levels of challenging behaviour, at home and at school.		SEBD.
Time	Chronologic al Age	Standard Score: Accuracy	Percentile Rank: Accuracy	Age Equivalent Score: Accuracy	
Time 1	9:09	86	18th	7:11	
Time 2	9:11	99	47th	9:07	
Time 3	10:02	89	23rd	8:05	
		Standard Score: Rate	Percentile Rank: Rate	Age Equivalent Score: Rate	
Time 1	9:09	75	5th	7:01	
Time 2	9:11	82	12 th	7:09	
Time 3	10:02	86	18th	8:06	
		Standard Score: Comprehension	Percentile Rank: Comprehension	Age Equivalent Score: Comprehension	
Time 1	9:09	101	53rd	9:10	
Time 2	9:11	102	55th	10:02	
Time 3	10:02	105	63rd	10:10	

Table 19: Child I data

Child I was a child who made progress in two areas but whose standard score in fact decreased for reading accuracy. However, there are contextual issues which need to be explored for this particular child. For example, it was not possible to arrange a final home visit to this particular child's house as the child was exhibiting quite severe emotional and behavioural difficulties, including dissociative behaviours. These types of behaviours are commonly found in children who have experienced high levels of trauma (Bomber, 2012). The carer gave her permission for the child to be seen in school and the assessment was completed there. The assessment was challenging to complete and the child stayed in the character of a cat for some of the assessment. In conversation with the carer subsequent to this final visit, it emerged that she had found it extremely challenging to implement the intervention. The child had not responded well to sharing the reading and issues of control had arisen. This surprised me as Paired Reading is considered to be effective, partly because it is thought to give control back to the child (i.e. the child decides when to move to the Reading Alone phase and is allowed to select their own reading material). This carer reported that the child could not relinquish any control to her and, as a result, each reading session was fraught with difficulty. Despite this, she persisted with it and was keen to know the results of the assessment. This is an example of where the emotional needs of the child impacted directly upon their ability to access learning opportunities (Comfort, 2007).

	Ease of engagement		Behavioural problems		Known SEN
Child J	Child was easy to engage on home visits, as was carer.		No known behavioural difficulties.		None.
Time	Chronological Age	Standard Score: Accuracy	Percentile Rank: Accuracy	Age Equivalent Score: Accuracy	
Time 1	9:03	95	37 th	8:07	
Time 2	9:06	96	40 th	9:00	
Time 3	9:08	114	82 nd	Above 12:05	
		Standard Score: Rate	Percentile Rank: Rate	Age Equivalent Score: Rate	

Time 1	9:03	85	16th	7:09
Time 2	9:06	85	16th	7:11
Time 3	9:08	90	25 th	8:07
		Standard Score: Comprehension	Percentile Rank: Comprehension	Age Equivalent Score: Comprehension
Time 1	9:03	110	75 th	11:06
Time 2	9:06	98	45th	9:04
Time 3	9:08	109	73rd	11:06

Table 20: Child J data

Child J was one of the children who made considerable progress during the intervention. His carer however, also reported having difficulty managing the behaviour of Child J and his brother as well who was living in the same placement as him. When I telephoned his carer for an interim progress report, he told me that he was finding it a challenge to implement the intervention even once a day. Despite this however, Child J's scores do indicate that he made progress over the course of the intervention. Although some of this progress may of course be due to uncontrolled factors such as on-going literacy support that was being provided at school, the use of the repeated measures design is thought to allow for this variance to be equally distributed (i.e. if there was on-going literacy support at school, it was likely to be on-going between Time 1 and Time 2, as well as between Time 2 and Time 3).

	Ease of engagement		Behavioural problems		Known SEN
Child K	Child was very easy to engage on home visits. Carer was equally easy to engage and enthusiastic about the project.		No known behavioural difficulties.		Some mild learning difficulties.
Time	Chronological Age	Standard Score: Accuracy	Percentile Rank: Accuracy	Age Equivalent Score: Accuracy	
Time 1	9:02	79	8th	6:07	
Time 2	9:04	79	8th	6:08	
Time 3	9:06	84	14th	7:06	
		Standard Score: Rate	Percentile Rank: Rate	Age Equivalent Score: Rate	
Time 1	9:02	73	4th	6:04	
Time 2	9:04	73	4th	6:08	
Time 3	9:06	73	4th	6:10	

		Standard Score: Comprehension	Percentile Rank: Comprehension	Age Equivalent Score: Comprehension
Time 1	9:02	105	63rd	9:10
Time 2	9:04	115	84th	Above 12:05
Time 3	9:06	102	55th	9:10

Table 21: Child K data

Child K was a child who presented with severe difficulties in two of the three main areas of reading (i.e. accuracy and rate). As appeared to be common in this sample, Child K's abilities were stronger in the area of comprehension than in the other two areas. Child K's scores are puzzling as, although he made progress in reading accuracy, he did not appear to make progress in reading rate and his standard score for comprehension in fact decreased. Child K's carer reported however, that the intervention had been positive and that Child K had benefitted from the intervention in terms of confidence with reading and dictionary work.

This is another example of where the qualitative information is of import and portrays a very different picture to what the results show. Even though there is an acknowledged potential bias in that participants may be seeking to please the researcher, I am reasonably confident that carers would have honestly reported their true feelings via the questionnaire. This is one of the advantages to using a questionnaire over a semi-structured interview (Newby, 2010).

	Ease of engagement		Behavioural problems		Known SEN
Child L	Child was very easy to engage on home visits. Carer was equally easy to engage and enthusiastic about the project.		No known behavioural difficulties.		None.
Time	Chronological Age	Standard Score: Accuracy	Percentile Rank: Accuracy	Age Equivalent Score: Accuracy	
Time 1	7:09	103	58th	8:03	
Time 2	8:00	104	61st	8:07	
Time 3	8:02	104	61st	8:07	
		Standard Score: Rate	Percentile Rank: Rate	Age Equivalent Score: Rate	
Time 1	7:09	90	25th	7:01	

Time 2	8:00	95	37th	7:08
Time 3	8:02	101	53rd	8:04
		Standard Score: Comprehension	Percentile Rank: Comprehension	Age Equivalent Score: Comprehension
Time 1	7:09	110	75th	9:07
Time 2	8:00	101	53rd	8:02
Time 3	8:02	125	95th	Above 12:05

Table 21: Child L data

Child L is a child who also did not present with discernible reading difficulties prior to intervention. However as was the case for some of the other children, it was considered by the Corporate Parenting Team that he would benefit from the opportunity to spend some quality time with his carer and to receive some extra support for his literacy. He had recently made significant educational progress since starting his present foster placement and it was hoped that some extra support would enable this progress to continue. His carer filled out the weekly monitoring sheets as well. Perusal of these sheets indicates that Child L responded well to the new techniques, enjoying the ‘poke’ and the element of control which the child has. She noted that he did have a tendency to race through the words without allowing himself time to read for meaning. She also identified that as the weeks progressed and after careful and continued prompting from her, Child L was slowing down to read for meaning which was aiding comprehension (Rasinski, 2012) and so was better able to answer questions about the passages he had just read.

6.4 General trends in individual data

6.4.1 Reading rate

A trend which emerged from examining the individual child data was that the greatest area of weakness for nine out of twelve children at Time 1 was reading rate. Reading rate can be

defined as ‘the number of words a reader can read on grade level text in a minute’ (Rasinski, 2012, p. 516). Previous research on Paired Reading has found that reading rate is highly correlated with reading comprehension (Wood, 2006) and it is widely considered to be the best measure of reading fluency. However, fluency encompasses more than reading rate in that it is possible for a child to read quickly but not to understand what they are reading (Topping, 2006).

A possible reason why reading rate was so low in this group is that many of children were reluctant readers prior to the intervention and so had not had the experience of reading regularly to boost their reading rate skills.

6.4.2 Heterogeneous nature of LAC population

The heterogeneous nature of children in care was evident in this project. For example, although there were some similarities between the children’s reading scores (as suggested above, reading rate was the greatest area of weakness for all children), the levels at which the children came into the project were so disparate as to call attention to the quality and relevance of the information held by the corporate parenting teams. This appears to reflect the difficulty in collecting up-to-date data on looked after children, particularly that held by schools (Berridge, 2005). Furthermore, some of the children displayed extreme behavioural difficulties, whilst still appearing to make progress, whereas other children appeared to make very little progress, but did not display the same level of challenging behaviour. As Berridge (2012a) has identified, the heterogeneous nature of the population is one of the main challenges of undertaking research with this group and this is reflected in this study.

6.4.3 Summary

Even though significant results were found for two dimensions of reading, a more textured analysis of the children's individual results suggests that improvements were not uniform across all participants. For example, some participants made no progress, some made progress in only one area and some made considerable progress in all areas of reading. In my view, this highlights the heterogeneous nature of the sample and means that caution must be taken when recommending this intervention as a suitable intervention for children in care, as clearly, it was not appropriate for all the children in the sample. However no clear patterns emerged from the data to suggest which LAC the intervention is most suitable for, which suggests that further research would be needed to specifically address this question.

6.5 Qualitative data

Short questionnaires were administered to participants following the completion of the final home visit. Adult and child versions were devised. Ten completed adult questionnaires and ten completed child questionnaires were administered. The results are summarised below. Where appropriate, tables have been included to provide a visual representation of the data.

Adult participants were asked to rate 3 statements according to the following scale.

Please use the rating scale below in your response to the following statements, where 1 represents 'Strongly Disagree' and 5 represents 'Strongly Agree'.

1	2	3	4	5
Strongly Disagree	Disagree	Neither	Agree	Strongly Agree

The three statements were as follows:

- 1) I thought that the intervention had a positive impact on my child's reading levels.
- 2) I enjoyed carrying out the reading intervention.
- 3) I would recommend this intervention to other foster carers.

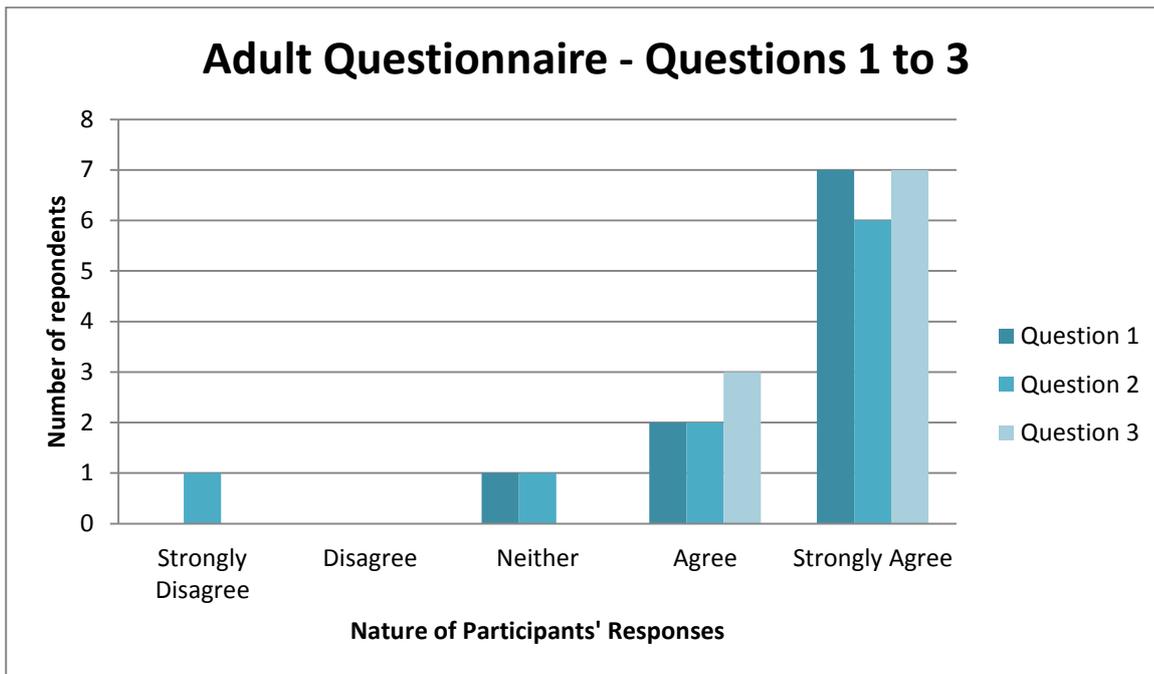


Figure 6: Summary of Responses for Questions 1, 2 and 3 from Adult Questionnaire

As can be seen from Figure 6 above, the majority of participants agreed or strongly agreed with all three statements.

Three opinion questions were also included in the adult questionnaire. The first opinion question, Question 4: Did you feel that the intervention had an impact on your relationship with your child? If so, in what way? was included to test the following hypothesis:

1. It is expected that the qualitative information gathered post intervention will show an improvement in the relationship between carers and children, as reported by participants through the self-report questionnaire measure.

The responses to this opinion question can be divided into negative, positive and neutral comments. Two participants reported that the intervention had not had any impact on their relationship. This is supported by the following comments:

‘No impact whatsoever... sometimes it felt like he was not interested and just did it because he had to’.

‘Not really... if we had not had a good relationship it would have, but because we did, it didn’t really have an impact’

Six participants reported that the intervention had had a positive impact on their relationship.

This is supported by the following comments:

‘Yes it did... he’s always enjoyed reading but he really enjoyed the extra time we had together’

‘Yes reading became something we got together quietly on’

‘Time spent together’

‘Brought us closer together’

Two participants reported that the intervention had had a negative impact on their relationship. This is supported by the following comments:

‘Yes... the wrong impact... even though deep down she enjoyed it, she felt like she’d lost control’

‘Yes and not necessarily in a good way... at times it was very frustrating as at times she wouldn’t read’

These responses would appear to indicate that the hypothesis that the intervention would have a positive effect on the carers' relationship with their child was only partially supported by the data. Whilst in some cases the intervention undoubtedly had a positive effect on the relationship, in other cases carers reported that there was a negative effect on their relationship with their child.

The second opinion question, Question 5: What were the greatest benefits of the intervention? was included to test the following hypothesis:

5. It is expected that the qualitative information gathered post intervention will show benefits from the intervention such as increased confidence and enjoyment in reading, as reported by carers and children through the self-report questionnaire measure.

Some of the following comments were made by participants:

'The intervention boosted his confidence a lot... he had very low self-esteem before...'

'She would listen and understand more'

[The greatest benefit was] 'accepting reading as a regular part of our day'

[He is] 'reading more fluently and being able to read bigger words'

'To see him feeling confident to go to level 2' [step 2 of the intervention where child taps to signal they wish to read on their own]

'He has become more concentrated on his reading'

'Child now has more confidence reading'

These responses would appear to indicate that the fifth hypothesis that the intervention would have benefits for the child such as increased confidence and engagement with reading was partially supported by the data. Carers reported increases in confidence with respect to reading and also more generally, and referred to increased levels of engagement with reading.

In response to the question:

4. What could have improved the intervention?

Several respondents highlighted the length of the intervention as being a barrier to its success and also referred to the difficulty of trying to fit in two sessions per day. Some of the following comments made by participants reflect these viewpoints:

‘Some days it was difficult to get in the two sessions’

‘Six weeks was not long enough’

In addition, a short questionnaire was also administered to the children (N = 10). Again, children were presented with a rating scale of 1 to 5 (see below).

Please use the scale below when answering these statements, where 1 means ‘Disagree a lot’ and 5 means ‘Agree a lot’

1 2 3 4 5

Disagree a lot Disagree a little bit Not sure Agree a little bit Agree a lot

The three statements were as follows:

- 1) I thought that doing the Paired Reading helped my reading.
- 2) I enjoyed carrying out the Paired Reading.

3) I would recommend the Paired Reading to other children

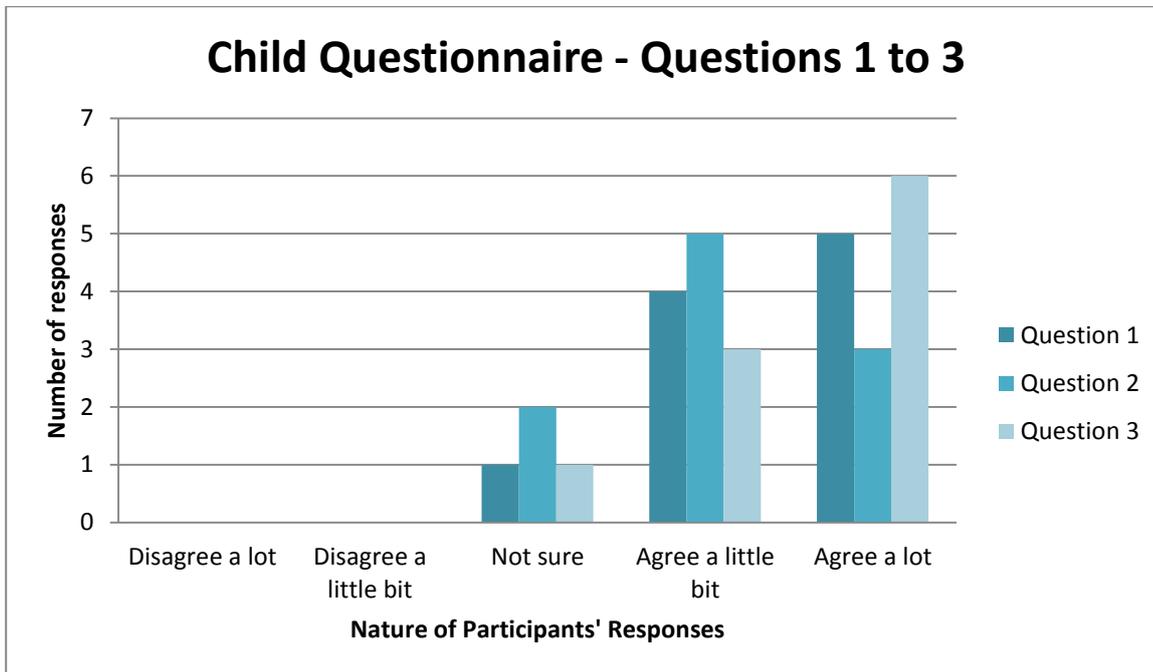


Figure 7: Summary of Responses for Questions 1, 2 and 3 from Child Questionnaire

As can be seen from Figure 7 above, the majority of children agreed or strongly agreed with all three statements. Four responses were recorded as 'not sure'. Two opinion questions were also included in the child questionnaire.

For the question:

1) What did you most like about the Paired Reading?

All of the comments made were positive. Three of the children made specific reference to the intervention being 'fun' and 'interesting', and four referred to particular aspects of the intervention such as switching to Stage 2 and having the adult help them with the harder words. These data were used to support the fifth research hypothesis that the intervention would have benefits for the children. Some of the comments that the children made to support these points are included below:

‘I think it was fun’

‘I like it the most tapping the table’

‘It was fun’

‘Your parents helped with the harder words’

‘Because I could tap if I wanted to’

‘Interesting’

‘I get to read on my own!’ [referring to step 2]

One child referred to feeling more competent with reading and another child referred to having enjoyed the training session. See below for these comments.

‘I met an old friend’ [at the training session]

‘I got better at reading’

For the question:

2) What would have made the Paired Reading better?

Some of the children commented:

‘If we could do it on computer!’

‘We could have some joke books!’

‘Having comics’

‘Nothing’

6.5.1 Summary of qualitative results

The qualitative data collected suggests that the intervention was positively received by the majority of participants. According to adult participants, the greatest benefit reported appears to be the improved confidence of the children with reading and their improved engagement with reading. With respect to the relationship between carer and child, the comments were more mixed with only some respondents reporting an improvement in their relationship with their child. All the adult participants reported that they would recommend the intervention to other carers. One carer suggested that the requirement to implement the intervention twice a day was too difficult and another carer queried whether the intervention delivered over six weeks was long enough.

Overall, the children reported that they had enjoyed the intervention and would recommend it to other children. Some children mentioned that it could be improved with the introduction of comics and joke books. They reported that some of the best things about it were that they could signal to the adult when they wanted to read on their own and that the adult would help them with the hard words.

6.6 National and LA Data on LAC and relevance to current sample

Of note from the data supplied by the DfE (2012b) and LA 'B' (for 2012-2013) were the following observable trends. Appendix 11 provides a graphical representation of this data. Although data is not available on category of need for the group of children in the present sample, data is available on children who have come into care in LAs 'A' and 'B' in the year leading up to March 2012. The majority of this group was classified as coming into care because of the experience of abuse or neglect. This was true for both LAs (42% and 80% respectively), however an almost equal percentage in LA 'A' was also classified as becoming

‘looked after’ because of family dysfunction (40%). Overall, this reflects the national picture, which suggests that the primary reason children come into care is because of the experience of abuse and/or neglect and the secondary reason is family dysfunction (DfE, 2012a).

Another relevant observation is that there is very little ethnic variation in the group of children in care in both LAs. 96% and 89% of LA ‘A’ and ‘B’ children and young people respectively were designated as being of White background. Although not reflective of the national picture which holds that only 74% of CYP in care are from a White British background, it is reflective of the sample in the present study who were all from White British backgrounds. County A (within which both LAs are contained) is a large, predominantly rural county with urban areas contained within it. This pattern of ethnicity reflects the overall ethnic diversity in the county however, which historically has been a predominantly White, conservative-led county.

Relevant to the present study is the gender and age spread in LAs ‘A’ and ‘B’. The majority of looked after children in both LAs were between the ages of 10-15 years, with the second most common age group being between 5-9 in LA ‘A’ and 16 or over in LA ‘B’. The current sample was composed of participants from key stage 1 and 2 only and so is not reflective of the average age spread in the county. Gender was equally divided between males and females also in the data provided for both LAs. This does not reflect the national picture which depicts a gender imbalance in favour of males (DfE, 2012a), nor does it reflect the sample used in the present study, of which 9 out of 12 were males.

In addition, the majority of children and young people in both LAs were placed with foster carers. This reflects the national picture which sees 75% of children placed in foster care in 2012. Only a small minority were placed in children’s homes or secure units. This reflects the

growing tendency to place children in foster placements as the number of LA managed residential homes declines in the face of budget cuts (Berridge *et al.*, 2012).

6.6.1 Summary

Analysis of the data supplied by the DfE (2012a) suggests that the data held on looked after children in LAs 'A' and 'B' is largely representative of the national picture. Although not wholly representative of the sample in this study, there are some similarities with respect to ethnicity and placement. Although the results of the present study were not generalisable to the wider LAC population, further larger scale studies should consider the particular characteristics of the local LAC population when considering who to include in their participant sample.

Chapter 7 – Discussion

7.1 Introduction

This study aimed to evaluate the effectiveness of a Paired Reading intervention when implemented by foster carers with LAC. The study investigated whether the intervention was effective when delivered twice a day over a six week period.

The results demonstrated that there was no significant difference found in reading scores of participants on the dimensions of reading accuracy, but that there was a significant difference observed on measures of reading comprehension and reading rate. Although a positive directional trend was observed for reading accuracy, the improvement was not great enough to be significant at the 0.05 level of significance for this reading domain. Ratio gains were also calculated and were found to be 5.5 for reading accuracy, 3.37 for reading rate and 10 for reading comprehension, providing tentative support for the efficacy of the intervention. A more textured qualitative analysis of the data illustrated that it was a largely heterogeneous sample, with wide variation in actual scores. There was also variation in the reading ages measured using a standardised test, at the start of the intervention.

The qualitative data gathered indicated that the intervention was well-received by most of the participants and that improvements in confidence and engagement with reading were observed by some of the participants. The effect on the relationship between carers and children was more ambiguous, with only some carers reporting an improvement in their relationship.

Considerations which need to be taken into account when implementing such interventions concern the individual characteristics of the children and the complex profile of needs with

which they present at the time of intervention. LAC are subject to profound disadvantage prior to coming into care and the impact that these experiences have on development, both in childhood and in later life cannot be ignored (Berridge, 2007; Cameron and Maginn, 2011). In addition, the experiences that LAC will have had prior to coming into care vary and impact differentially on individual children, depending on the combination of potentiating and buffering factors present in their lives at different ecological levels (Cicchetti and Lynch, 1998).

7.1.1 Research questions

The research questions that formed the basis for this study are outlined below:

1. Is Paired Reading an effective intervention for raising the literacy levels of looked after children?
2. Is the intervention effective in improving the relationship between carers and children?
3. What are the benefits of the intervention observed by participants?

7.2 Quantitative results

The quantitative results from this study suggest that PR is effective in increasing levels of reading comprehension and rate, but not reading accuracy. The diverging results from this study are surprising given the previous large body of research on Paired Reading suggesting that the intervention is effective in increasing both comprehension and accuracy (Topping, 1995; 2001). Of the 19 control or comparison group studies reviewed by Topping (1995), the mean experimental gain for reading accuracy was 2.5 times greater than that of the control group. The mean experimental gain for reading comprehension was also 2.1 times greater than that of the control group. However, in the large scale naturalistic evaluation of PR in

Kirklees (Topping, 1995), in which a similar design to that employed in this study was used, gains in reading accuracy in the intervention period were found to be twice as effective as gains made during the baseline period, whereas differences in comprehension gains were not found to be significant across time. This would suggest that the picture is complex and may depend on the strength of the measures and research designs used to detect the presence of an intervention effect. The results may also have been affected by a number of confounding variables which are explored in Sections 7.6 and 7.7.

In addition, the following factors may have meant that both comprehension and reading rate were more positively affected by the intervention than reading accuracy. It is possible that carers provided more questioning of participants before and after reading than they did of the ‘long-pause-modelling’ correction procedure. That is, carers may have used more questioning strategies to promote comprehension than correction procedures to enhance accuracy. They may have lapsed into prompting children phonetically to provide the correct word instead of waiting the recommended four seconds before correcting the child’s error. They may also have ignored some errors, allowing the child to continue reading without switching to ‘Reading Together’ if the child was reading alone. This is because some tutors have reported finding it difficult to adhere strictly to the technique as it is taught (Winter, 1996). It would be advisable to collect observational process data in the future to uncover whether process factors do adversely affect the results of the experiment. The above is an example of underdetermination of theory by evidence whereby multiple explanations are available to explain a single set of data (Johnson and Onwuegbuzie, 2004).

7.3 Qualitative results: Participant feedback

The following hypotheses were addressed through the data gathered using the adult and child questionnaires:

1. It was expected that the qualitative information gathered post-intervention would show an improvement in the relationship between carers and children.
2. It was expected that the qualitative information gathered post-intervention would show benefits from the intervention such as increased confidence and engagement with reading, as reported by carers and children through the self-report questionnaire measure.

Overall, the data would appear to indicate that these two hypotheses are only partially supported by the results. For example, for the first hypothesis, previous research had suggested that this is a common outcome of reading partnership interventions (Osborne *et al.*, 2010). However in the present study, only 4 out of 10 carers reported that the intervention had made a positive difference to their relationship with their child. Two carers reported that it had had a negative impact on their relationship and two carers reported that it had not made any difference. Two carers opted not to answer this question. Through making reading more enjoyable and through spending time together, it had been hypothesised prior to the intervention that this relationship would be strengthened. It may be that for those pairs who did not spend quality time together before the intervention, it had a positive effect, but for those who already had established a warm relationship, the intervention merely reinforced this relationship. It may also be the case that where the carers reported having to manage more oppositional behaviour from their children when faced with carrying out the reading intervention (in the case of two carers in particular), the experience was not as enjoyable as

for other carers and was seen as more of an arduous challenge. As has been discussed previously in Sections 2.3 and 2.4, one of the greatest challenges of working with LAC is the high levels of challenging behaviour they display (Berridge, 2012a). It is likely that individual personality differences and relationship dynamics at the ontogenic and microsystemic levels impacted heavily on the extent to which the intervention was engaged with. This suggests that the hypothesis that the intervention would have a positive effect on carers' relationships with their children was not fully supported by the results.

In addition, the hypothesis that carers and children would report positive outcomes from the intervention can be considered to be only partially supported by the qualitative data. Three direct references were made to improved confidence by carers following the intervention and one of these comments referred to confidence in a more general sense. This hypothesis was made on the basis of previous literature suggesting that Paired Reading increases children's confidence with reading, overall confidence and engagement with reading (Topping, 2001; Osborne *et al.*, 2010). None of the children reported that they were more confident with reading, however this is not surprising given their young ages and the levels of self-reflection such an answer would have required. They did report however, that they had found the intervention to be fun, and that they had felt more in control of their reading. They also reported that they liked having the support of an adult to help them with the harder words. Although there is an indisputable social desirability bias found in questionnaire reporting (Robson, 2002), the findings do appear to indicate that some of the carers and children saw benefits from the intervention.

For the other questions asked, the perceptions of participants of the project overall were largely positive. These findings are commensurate with previous adult participant feedback research from PR projects carried out with LAC (Menmuir, 1994; Osborne *et al.*, 2010). For example, Osborne *et al.* (2010) reported that 15 out of 16 carers reported having enjoyed the intervention.

Considered together with the reading data analysis, the participant feedback would suggest that although the PR intervention was well-received by some of the carers and children, and some benefits were reported by carers with respect to confidence with reading, these benefits were not universally experienced and some of the carers found it a challenging intervention to implement.

7.4 Comparison with study by Osborne *et al.*, 2010

This study strove to extend research by Osborne *et al.* (2010), who reported a ratio gain of 2.96 for reading over the course of the intervention. The present study found ratio gains of 5.5 for reading accuracy, 3.37 for reading rate and 10 for reading comprehension which means that the present study also appeared to demonstrate the benefits of a PR approach for LAC. Furthermore, the qualitative results of the current study suggest that the majority of carers and children were positive about the intervention, similarly to what was reported by Osborne *et al.* (2010), even if specific benefits of the intervention such as an improved relationship between carer and child were not found.

7.5 Implications of results

Considered together, the qualitative and quantitative results suggest that a PR intervention delivered in the home can be a viable approach to boosting the reading levels of LAC, and that carers are uniquely placed to be able to deliver this intervention. As identified in Section

7.4, this lends support to previous research by Osborne *et al.*, (2010) which has examined the use of PR with LAC. It also provides support for the argument that involving foster carers in education is crucial in facilitating the engagement of LAC with education (SEU, 2003), and supports one of the core recommendations from the APPG (2012) on LAC, which is to provide more educational training for foster carers.

However, the interpretation of the results should be tempered by acknowledgment of the heterogeneity of the LAC sample who participated in this study and by the disparate nature of the reading difficulties with which they presented. In addition, carers reported having to deal with high levels of challenging behaviour in order to deliver the intervention. It is likely that Paired Reading is not a suitable intervention for all LAC, and that careful consideration of individual child characteristics, and the quality of relationship with the carer is required prior to implementation. Such considerations will be further explored in Section 7.6 below.

7.6 Confounding variables: LAC specific considerations

The results of this study need to be interpreted with caution due to a number of reasons which will be addressed within the context of the different ecological levels explored in Chapter 2.

7.6.1 Ontogenic level of development

Berridge (2007) has identified that the challenging behaviour displayed by some children in care can be a contributing factor to their poor educational outcomes. As referred to already, two carers made reference to the extreme behavioural difficulties which they encountered when trying to implement the intervention. As a result, final home visits to three of the participants could not be carried out and the visits had to be carried out at school instead. Halfway through the intervention, another child was permanently excluded from his special

school for extremely challenging and violent behaviour, although he was not reported to be displaying this behaviour in the foster placement. Authors such as Comfort (2007) and Fletcher-Campbell *et al.* (2003) suggest that it is the challenging behaviour that LAC display at the ontogenic level that is the primary cause of school exclusions and placement breakdowns. Although there will be an inevitable environmental impact on this behaviour at the microsystemic level (e.g. how carers respond to children will affect their behaviour), the behaviour is largely considered to be the result of emotional difficulties caused by the experience of previous maltreatment. As Perry *et al.* (1995) identify, the experience of child maltreatment has wide-ranging implications for children, including impaired neurological development, difficulties with forming relationships and emotional regulation, leading to high levels of challenging behaviour. Foster carers need skilled support to manage these extremely challenging behaviours (Briskman *et al.*, 2012), as they present a substantial threat to the stability of school and foster placements.

7.6.2 Microsystemic level

Challenges to the implementation of the intervention were also observed at the microsystemic level. To begin with, some of the children were experiencing instability in their current educational and foster placements. For example, Child A had been excluded from his special school and Child D returned home to live with his birth mother during the course of the intervention. As identified by Jackson and Cameron (2012), instability impacts greatly on educational achievement. Although the research on children in care is replete with references to the ‘disruption and instability’ (Jackson, 2007, p. 3) experienced by these children, I had not fully appreciated this until directly challenged by it during the study. Despite this instability, Child D made the most improvement over the course of the intervention, possibly indicating a high level of buffering factors in his environment.

7.6.3 Exosystemic level

Furthermore, factors at the exosystemic level could have impacted on the intervention. A factor which was not controlled for was the literacy interventions which could have been running simultaneously or prior to the PR intervention. As ethical approval was not sought to access the children's PEPs, and liaison with schools was limited, this information was not readily available to me in my capacity as a researcher. This is an acknowledged limitation of this study. However as Berridge (2012a) has identified, the information held by LAs on LAC in their PEPs is not always reliable nor up-to-date, and so I could not have relied solely on historical information provided in children's PEPs as to whether they had received literacy interventions in the past.

7.6.4 The progress of LAC using PR compared with non-LAC children

There are a number of reasons why LAC may experience more difficulty with a PR intervention than non-LAC children. For example, with respect to the ET model previously discussed, children in care typically have experienced multiple disadvantages at multiple ecological levels which mean that they can find it difficult to engage with learning. For example, the experience of trauma and abuse has negative implications for brain development and functioning, affective regulation, attention control and the ability to form meaningful relationships with others (Perry *et al.*, 1995; Schore, 2001). It is widely recognised that early maltreatment results in increased risk of adversely affected brain development (Egeland *et al.*, 2000). This makes it difficult for LAC to 'settle to learn'. In addition, in many cases, the behaviours that LAC display at the ontogenic level mean that the relationships at the micro-systemic level (e.g. with carers) are negatively impacted upon. This was highlighted by Fletcher-Campbell *et al.* (2003) who identified that participants in the study (which included

school staff and young people in care) cited challenging behaviour as the greatest challenge to be overcome when working with children and young people in care. It is therefore possible that Paired Reading is a particularly challenging intervention for LAC in terms of the demands it places on them through emphasising the carer-child relationship and the requirement to carry it out for 5-10 minutes twice daily.

7.7 Threats to Validity: Research design

It is also possible that Paired Reading is an effective intervention for raising levels of reading accuracy for LAC, but that flaws in the research design did not allow for the effectiveness of the intervention with respect to the measure of reading accuracy to be demonstrated. As Topping (1995) has identified, even though statistical significance was not obtained for all three measures, this does not mean that the results are not educationally significant as obtaining significant results with a small sample is notoriously difficult. However, for a number of reasons such as the small sample size and disparate nature of the sample, the results found in this study should be treated with caution.

7.7.1 Sample selection

The sample was selected using purposive sampling. The LAC population in County A was screened to identify a smaller sample that - it was considered by the CPTs - would benefit from a reading intervention. NC reading levels were used as a screening tool. The criteria for entry onto the programme was two NC levels behind chronological age. However, when the children were first assessed at Time 1, some of their reading ages were age-appropriate. This means that the screening measures used to identify the children on entry were not wholly accurate as they did not reflect up-to-date information on some of the children's levels of basic skills. This inaccuracy in reporting children's levels may reflect a lag in the data held by

the LAC teams, but it may also reflect the low expectations held by professionals such as the teachers of LAC (APPG, 2012). Berridge has written extensively about the problems pertaining to the assumption that LAC consistently underperform academically and the failings in the data held on this group (2012a). Berridge argues that although progress is seen on an individual scale, this is not sufficient to impact on the national data picture for LAC.

7.7.2 Sample size

Sample size is another important consideration. Twelve children took part in the final evaluation. Whilst this sample is not too small to not permit statistical analyses to be carried out on the results (Topping, 1995), it does mean that it would not be valid to generalise the results of this study to the wider population. The sample size was restricted because purposive sampling was used and it was not possible to either randomly select pupils from a larger population to be part of the sample or to randomly allocate pupils to treatment groups as there was only one treatment group (Gorard, 2007). The small sample size may mean that with a larger sample, the effect of the intervention would have reached statistical significance for all measures of reading (Brooks, 2007). However, taking the specific population under investigation into account, it was not possible in this study to procure and retain a larger sample. The rate of attrition was relatively low in this sample (14%), however initially it was difficult to recruit participants. Some participants also alluded to the fact that they felt pressured into agreeing to take part when they had been first approached by the CPTs and others felt that the child was receiving sufficient input at school, despite explanations that the intervention was home-based and complementary to school approaches.

7.7.3 Length of intervention

The intervention ran for six weeks (although the total span of the intervention was 12 weeks) and although this is within the recommended amount of time for a literacy intervention (Brooks, 2013), it may not have been of sufficient length. Indeed, two carers reported verbally to me that they thought the intervention should have been longer. Previous research on PR indicates that six weeks is a reasonable time in which to expect a significant result or a ‘good impact’ (Brooks, 2007). In this study, six weeks was chosen as the length of intervention in view of the time series design, which required that the overall research period ran for 12 weeks in total. Time constraints over the Spring term of 2013 therefore necessitated that the period of intervention itself run for no more than six weeks, however this should be reconsidered if the project is to be rolled out again in the future.

7.7.4 Frequency and duration of sessions

This study required participants to deliver the sessions twice a day for five to ten minutes. It appears from comments made by carers that some found it difficult to implement the intervention twice daily for the recommended period of five to ten minutes. For example, for all but three of the carers, there were other children at home so some carers reported finding it challenging to find time to deliver the intervention for the required two sessions a day. Some of the participants reported being able to deliver the intervention twice a day the majority of the time, while most reported it delivering once a day or less frequently. It may be that the requirement to deliver the intervention twice daily was too great a commitment for carers, particularly when they had other children to look after. The recommendation to deliver the session on a ‘little but often’ basis was based upon the principle of distributed practice (Baddeley, 1997). This has also been recommended in the Rose Report (2009). Therefore,

although this recommendation was based on research, it may not have been feasible to ask for this commitment from carers and demonstrated a naiveté on my part. As the evaluation by Fraser *et al.* (2008) of the *Catch Up Literacy* programme delivered by carers to LAC demonstrates, incidences of challenging behaviour and instability in the children's lives meant that implementation of the intervention was not always possible.

7.7.5 Follow-up data

Another limitation of the current study was that there was no follow-up to see if improvements were maintained over a longer period. However, as Brooks (2007) has identified, gathering follow-up data in literacy interventions is rare. With so few studies reporting follow-up data in the review (21 out of 121), the author reported that it was not possible to comment on whether gains in literacy interventions are typically maintained (Brooks, 2007). Topping (1995) recommends that follow-up of Paired Reading projects is carried out where possible as it can reveal useful data. This would be useful to explore in the future and was, in fact, suggested by two of the participants during the final home visits.

7.7.6 Measures and practice effects

Another confounding factor which must be acknowledged is that of practice effects related to the measure used i.e. the YARC test. The measure that was administered had an 'A' and 'B' version for multiple administrations however, as the measure was administered three times in the format A-B-A, it is possible that practice effects from the first administration of the version A at Time 1 to Time 3 had a positive effect on the results obtained. This is one of the key disadvantages to a design of this nature, i.e. a time series repeated measures design. At the time of implementing the intervention there was no other reading measure available which had three versions to allow for repeated administration. If there had been a measure available

which had been as recently standardised as the YARC and which had three comparable versions, it would have been used. However even when comparable versions are used, there are inevitably considerations as to the comparability of different versions. Introducing a third version would have introduced an additional source of variability into the results (Riedel *et al.*, 1999).

Other practice effects may include boredom with the technique, complacency or fatigue over the course of the intervention. Practice effects may account for the significant increase in comprehension which was affected to a greater extent than reading accuracy was. However, because there was a lapse of three months (and in some cases a longer length of time), between the two administrations of version A, I considered it to be a sufficient length of time for practice effects not to be of significant concern. Furthermore, if this was the case, then accuracy would also have been affected to a similar degree as the administrator is encouraged to correct the child's errors as they read. As this was not the case, it suggests that practice effects did not unduly influence the increases seen in comprehension levels. Furthermore, some of the sample scored below the standardised scores provided by the YARC. In these cases (at Time 1 and Time 2), a standardised score one below the cut-off point was used in the analysis. This may have inflated the results recorded at Time 1 and Time 2, however it was considered to be the most appropriate way of including the results in the final analysis. Appendix 10 provides further details of the statistical analysis carried out.

7.8 Strengths of research

There are a number of strengths of this study. One of the key strengths of the research is that the design was largely experimental and was chosen with narrowly defined hypotheses in view. This was considered to be the optimum way of exploring whether Paired Reading had

an effect on reading levels. As Gorard (2007) has identified, experiments which rigorously control for external variables offer the researcher the best chance to uncover the effect of interventions. Although it was not possible to carry out a ‘true’ experiment using a randomised control trial, a time series repeated measures design was chosen as it was felt that this had more experimental power than a simple pre and post-trial design. On a pragmatic level, I was keen to implement an intervention that I felt would make a difference and considered that this was most easily achieved through evaluating an intervention such as PR in a novel way. Much PhD research in education is purely qualitative and exploratory and has limited impact upon its conclusion (Bassegy, 1999). The aim of this research was to improve outcomes for children in care and I am reasonably confident that, in this particular sample, the PR intervention has had a positive effect on the majority of the children’s reading levels.

A further strength of this research is that it combines both qualitative and quantitative research methods. This allowed for a deeper exploration of the issues under investigation and for two different types of research question to be answered (i.e. does X work and what do participants think about X?). As Shaffer and Serlin (2004) have identified, where researchers only focus on one type of data and exclude data (for example reporting only statistical data), they are limiting the richness of the final data.

7.8.1 Advantages of YARC over other reading measures

The YARC is a useful test to use to evaluate PR as it allows the researcher to examine a wider range of reading behaviours (i.e. reading accuracy, rate and comprehension), whereas previously researchers have used single reading tests such as the Salford Reading test (e.g, Osborne *et al.*, 2010) to evaluate PR programs. It allows therefore for greater detail to be studied about the impact of the intervention on different aspects of reading. This practice of

using such tests is recommended by Topping (2001). This is particularly apt given the wide range of reading abilities exhibited by the children in this sample with respect to accuracy, rate and comprehension ability.

7.9 Future research

There are a number of potential areas for further exploration using this technique. Future research should explore in greater depth what factors are important in influencing whether the intervention is successful for an individual child or not. For example, factors such as the stability of the foster placement, the level of complex learning and behavioural difficulties the child presents with, the quality of the relationship with the carer prior to intervention and the length of time in care should be explored on an individual basis.

If the intervention is to be rolled out with a greater number of children, then control or comparison groups should be used to increase the statistical power of the design. Although the current design failed to find a significant effect for reading accuracy, previous research on PR has demonstrated a significant improvement in this area (Topping, 1995; 2001). It may be that the small sample size limited the ability of the statistical tests to detect a positive effect of the intervention.

Future research could also explore the use of video with this technique. Similarly to how Video Interactive Guidance (Feliciano *et al.*, 2012) uses solution-focused principles to identify positive moments of interaction between children and adults, pre and post-video clips could be used to evaluate the intervention and also to demonstrate to carers the improvement in their reading style with their child. This would be a novel way of exploring the relationship dynamics between carer and child. The importance of the carer-child relationship cannot be

over-emphasised. As Martin and Jackson (2002) have identified, the relationship with the carer is often identified by LAC as the key protective factor in their lives.

Detailed semi-structured interviews with participants following the intervention would also be useful to uncover some of the variables which are implicated at the middle level of analysis of the Hawthorne Effect (Draper, 2012). For example, the researcher could interview participants in an attempt to find out what their understanding of the intervention was, whether they felt they needed to please the experimenter, what their views on reading had been previously and how these had impacted on their adoption of the Paired Reading method. Several participants told me that the PR technique was very similar to how they had been taught to read themselves as children, which may have influenced how committed they were to the approach. Another participant did not see the benefit in the technique from the beginning of the intervention and this is likely to have affected her implementation of the technique (she reported seeing no benefit from the technique over the six weeks). In these instances, it is likely that the prior belief systems the participants held with respect to reading affected how they responded to what I was asking them to do (Draper, 2012).

7.10 Implications for educational psychologists

The implications for the practice of EPs are numerous. In the current challenging economic climate, EPs have to demonstrate their clear psychological contribution and effectiveness (Gersch, 2009). Working with children who are in care is one area where EPs can make a valued and distinct contribution. As Gersch (2009) has identified, the entire profession is undergoing a radical change which may see EPs operating in an increasingly distinct way from previously, and the greater the extent to which EPs can demonstrate a unique role for

themselves (perhaps in terms of specialisms), the more secure the future of the profession will be.

Furthermore, EPs are one of the few professions in the educational and social care sectors who have specialised knowledge of the impact of adversity and maltreatment on early child development. In addition, they have knowledge of theoretical frameworks such as attachment theory and models such as the Ecological-Transactional model which provide an understanding of how potentiating and protective factors work independently but also combine in the development of resilience at multiple levels of human development (Cicchetti and Lynch, 1993; 1998).

As MacDonald (2010) has identified, reading difficulties can affect an individual on an emotional level for their entire life, in addition to impacting on their academic skills. MacDonald (2010) maintains that professionals who work in the care system have a duty of care to young people ‘to make them literate’ (p. 21) and so provide them with the opportunity to achieve in life. The publication, *Education Matters in Care* (APPG, 2012) also recommends that there is a ‘strengthening of [the] component on supporting education in recruitment training for foster carers and residential staff’ (p. 7). EPs therefore have an important role to play in supporting LAC, both through addressing their educational and emotional needs, but also through supporting those who work closely with children such as foster carers and social workers (Norwich *et al.*, 2010). Providing input into training for foster carers is an important aspect of what EPs can do. However the role of EPs in this area should extend beyond delivering training. As this study demonstrates, children who are in care experience educational disadvantages which are likely to be a result of prior early experiences. These disadvantages mean that EPs should be involved from an early stage where possible and, once children are taken into care, they should be automatically assessed

by an EP who can then contribute to and monitor their PEP and who is an advocate for that child or young person.

The APPG (2012) identified that EPs could also make a valuable contribution to assessing the mental health needs of LAC and determining the impact that those needs may be having on the child's education. This is a firm recognition of the important contribution that EPs can make to working in this area. The draft SEN Code of Practice (DfE, 2013a) and Children and Families Bill (DfE, 2013b) indicate that LAC will remain a key priority for the Coalition Government and local government. EP services (private or funded by LA) will need to consider how they can respond to this need.

7.11 Implications for Corporate Parent and LA

There are clear implications for the LA in its role as a corporate parent. The corporate parent is frequently criticised for failing LAC (Department of Health, 1998; McClung and Gayle, 2010), and the present study suggests that at least one aspect of the intervention – the information shared between schools and the CPTs - was not sufficiently up to date. As Jacklin *et al.*, (2006) has identified, poor information sharing between services is a risk factor for LAC, leading to an inaccurate picture of the true educational attainment of this vulnerable group.

The findings from the present study indicate that one of the main barriers to implementing the intervention was the challenging behaviour of the children in the sample. Foster carers are asked to cope with what can be very high and demanding levels of challenging behaviour and are in need of greater support to cope with this high level of behaviour (Berridge, 2005). Although interventions such as the Fostering Changes Programme (Briskman *et al.*, 2012) can

provide carers with a greater understanding of the complex needs of the children they are looking after, this programme is not yet available to all foster carers.

Foster care offers a unique opportunity for many children who have experienced developmental trauma to develop quality relationships in the context of a loving family. However, the challenges of fostering must be recognised (i.e. coping with the complex difficulties which LAC bring with them and which can be further compounded by their experiences of the corporate parenting system). Fostering must be considered as part of the broader corporate parenting system, which is integrated with services for adoption and family support. Support should also be provided to carers to cope with their own emotional needs. Furthermore, there are still considerable challenges to be overcome with respect to issues of foster carer recruitment and appropriate placement.

A further challenge for LAs is concerned with issues around ensuring placement stability (DfES, 2006). Multiple changes in care placement can be seen as a risk factor for LAC, due to the associated anxiety around transition and the frequent resulting change in educational placement, not to mention the disruption to attachment relationships. LAs frequently move children out of placements at the expense of rupturing relationships they have built up with carers and staff at schools over time, and each move has cumulative negative effects for that child or young person. Moreover, children are often moved back prematurely to live with birth families and this can also have a detrimental impact on the child or young person (NSPCC, 2012). LAs need to take into account evidence from research on the effects of trauma and development on child development and the research highlighting the primacy of relationships for traumatised children. As Perry and Szalavitz (2008) have identified:

‘The most effective treatments to help child trauma victims is anything that increases the quality and number of relationships in the child’s life’ (p. 80).

In sum, although a wide range of policy initiatives have been introduced to address the needs of this group at a local and national level, much remains to be done to take into account evidence about the effects of trauma on the development of children and young people (Berridge, 2012a) and the impact of positive relationships in the lives of LAC. As Bomber (2011) has identified, to prevent CYP from attributing difficulties that they experience in life to their own perceived failings, these young people, above all else, require adults who ‘can understand their individual needs and provide appropriate support to meet them’ (p. xi).

Chapter 8: Conclusion

8.1 Summary

The current study demonstrated that there appeared to be a significant effect of the Paired Reading intervention when delivered by foster carers to the children in their care on reading comprehension and reading rate, but not on reading accuracy. The study was based on previous research by Osborne *et al.* (2010). Qualitative information gathered from carers and children suggests that the intervention was largely well-received and one of the reported benefits was the increase in the children's confidence when reading and their engagement with reading.

Although ostensibly a reading intervention, some of the potential mediating mechanisms through which this study could have impacted positively on children's outcomes are through the improved feelings of efficacy on the part of the carer, and the reported increased self-esteem and confidence of the child. Although there is only limited research to suggest that PR is effective for LAC, this study would appear to provide support for that assertion, provided the heterogeneous nature of the LAC population and competing influences on LAC at the ontogenic, microsystemic, exosystemic and macrosystemic levels are taken into consideration (Cicchetti and Lynch, 1993). Future research will need to address these difficulties prior to implementing interventions with LAC.

Some of the potential confounding variables in this study which could not be accounted for included the early, differing experiences of LAC, their prior experience of specific literacy interventions and issues specifically to do with the design of the study such as the short duration of the study. These confounding variables and others are addressed in this thesis at the different levels of the ET Model (Cicchetti and Lynch, 1993).

In conclusion, this study has striven to present an account of the relevant theoretical, research, professional and policy literature in this area, whilst recognising both how this small-scale study contributes to the field and also its substantial limitations. The author acknowledges that the difficulties that LAC face are often multi-faceted, longstanding and complex and cannot be addressed through a single 6 week literacy intervention. However, it is possible that PR could helpfully form part of a multi-level, multi-modal intervention to address these complex difficulties through providing evidence-informed support for literacy skill development, support for the carer-child relationship, and the promotion of potential growth in self-efficacy for both the carer and the child or young person.

References

Adair, J. G. (1973) *The human subject: The psychology of the psychology experiment*. Boston: Little, Brown.

Adair, J. G. (1984) The Hawthorne effect: A reconsideration of the methodological artefact. *Journal of Applied Psychology*, 69 (2), pp. 334-345.

Adams, M. J. (1990) *Beginning to read: Thinking and learning about print*. Cambridge, MA: MIT Press.

Ainsworth, M. D. S., & Bell, S. M. (1970). Attachment, exploration, and separation: Illustrated by the behavior of one-year-olds in a strange situation. *Child Development*, 41, pp. 49-67.

Alderson, P. (2004) Ethics. In Fraser, S., Lewis, V., Ding, S., Kellett, M. & Robinson, C. (Eds.), *Doing research with children and young people*, (pp. 97-112). London: Sage Publications.

Aldgate, J., Colton, M., Ghate, D. and Heath, A. (1992) Educational Attainment and Stability in Long-Term Foster Care, *Children and Society*, 6 (2), pp. 91-103.

All-Party Parliamentary Group (APPG) (2012) *Education Matters in Care. A report by the independent cross-party inquiry into the educational attainment of looked after children in England*. Available from:
http://www.thewhocaretrust.org.uk/data/files/Education_Matters_in_Care_September_2012.pdf [Accessed on 14.01.13].

All-Party Parliamentary Group (APPG) (2013) *The Entitlements Inquiry Report with recommendations*. Available from:
<http://www.thewhocaretrust.org.uk/news.php/364/entitlements-inquiry-report-launched-download-available> [Accessed on 15.12.13].

Azi-Lessing, L. (2011) Home visitation programs: Critical Issues and Future Directions. *Early Childhood Research Quarterly* 26 (4), pp. 387–398.

Baddeley, A. (1997) *Human Memory: Theory and Practice*. Hove: Psychology Press.

Bald, J., Bean, J. & Meegan, M. (1995) *A book of my own: report of a book-buying and supported reading scheme for looked after young people* London: The Who Cares? Trust.

Bassey, M. (1999) *Case Study Research in Educational Settings*. Berkshire: Open University Press.

Bell, C. C. & McBride, D. F. (2010) Affect regulation and prevention of risky behaviors. *The Journal of the American Medical Association*, 304 (5), pp. 565-566.

Berlin, M., Vinnerljung, B. & Hjern, A. (2011) School performance in primary school and psychosocial problems in young adulthood among care leavers from long term foster care. *Children and Youth Services Review*, 33 (12), pp. 2489-2497.

Berridge, D. (2005) Fostering Now: Messages from research: A summary. *Adoption & Fostering*, 29 (4), pp. 13-18.

Berridge, D. (2007) Theory and explanation in child welfare: education and looked-after children. *Child and Family Social Work*, 12, pp. 1–10.

Berridge, D. (2012a) Educating young people in care: What have we learned? *Children and Youth Services Review*, 34, pp. 1171–1175.

Berridge, D. (2012b) Reflections on Child Welfare Research and the Policy Process: Virtual School Heads and the Education of Looked After Children. *British Journal of Social Work*, 42, pp. 26–41.

Berridge, D., Biehal, N., & Henry, L. (2012) *Living in Children's residential homes*. London: DfE.

Berridge, D. & Saunders, H. (2009) The education of fostered and adopted children. In G. Schofield & J. Simmonds (Eds.) *The child placement handbook: Research policy and practice* (pp. 327–344). London: BAAF.

Bomber, L. (2011) *What about me? Inclusive strategies to support pupils with attachment difficulties make it through the school day*. London: Worth Publishing.

Borland, M., Pearson, C., Hill, M., Tisdall, K. & Bloomfield, I. (1998) *Education and Care Away from Home: A Review of Research, Policy and Practice*. Edinburgh: SCRE.

Bowlby, J. (1969). *Attachment and loss. Vol. 1: Attachment*. New York: Basic Books.

Bretherton, I. (1995) A communication perspective on attachment relationships and internal working models. Commentary. *Monographs of the Society for Research in Child Development*, 60 (2-3, Serial No. 244), pp. 310-329.

Briskman, J., Castle, J., Blackeby, K., Bengo, C., Slack, K., Stebbens, C., Leaver, W. & Scott, S. (2012) *Randomised Controlled Trial of the Fostering Changes Programme: Research Report DFE-RR237*. London: King's College London.

British Educational Research Association (BERA) (2011) *Ethical Guidelines for Educational Research*. London: BERA.

British Psychological Society (BPS) (2010) *Code of Human Research Ethics*. Leicester: BPS.

Brooks, G. (2007) *What works for pupils with literacy difficulties? The effectiveness of intervention schemes*. 3rd edn. UK: DCSF.

Brooks, G. (2013) *What works for children and young people with literacy difficulties? The effectiveness of intervention schemes*. 4th edn. UK: Dyslexia-SpLD Trust.

Bronfenbrenner, U. (1977) Towards an experimental ecology of human development.

American Psychologist, 32, pp. 513-531.

Bushell, R., Miller, A., & Robson, D. (1982) Parents as remedial teachers. *Journal of the Association of Educational Psychologists*, 5 (9), pp. 7-13.

Cairns, K. & Stanway, C. (2004) *Learn the child: helping looked after children to learn*. UK: BAAF.

Cameron, R.J. & Maginn, C. (2011) Living Psychology: The 'emotional warmth' dimension of professional childcare. *Educational & Child Psychology*, 28 (3), pp. 44-62.

Campbell, D.T. & Stanley, J.C. (1963). *Experimental and Quasi-Experimental Designs for Research*. Chicago, Illinois: Rand McNally.

Carroll, C., Patterson, M., Wood, S. Booth, A, Rick, J. & Balain, S. (2007) A conceptual framework for implementation fidelity. *Implementation Science*, 2 (40), pp. 239-248.

Children (Leaving Care) Act (2000) London: HMSO.

Children Act (1989) London: HMSO.

Children and Young Person's Act (2008) London: HMSO.

Christoffel, K. K., Scheidt, P. C., Agran, P. F., Kraus, J. F., McLoughlin, E. & Paulson, J. A. (1992) Standard definitions for childhood injury research: Excerpts of a conference report. *Pediatrics*, 89 (6), pp. 1027-1034.

Choe, D.E., Olson, S.L. & Sameroff, A.J. (2013) Effects of early maternal distress and parenting on the development of children's self-regulation and externalizing behavior. *Developmental and Psychopathology*, 25, pp. 437-453.

- Clay, M. M. & Cazden, C. B. (1990) 'A Vygotskian interpretation of reading recovery', in L. Moll (Eds.) *Vygotsky and Education*. New York: Cambridge University Press, pp. 206 – 222.
- Cicchetti, D. & Lynch, M. (1993) Towards an ecological-transactional model of community violence and child maltreatment: Consequences for children's development. *Psychiatry*, 56, pp. 96-118.
- Cicchetti, D. & Lynch, M. (1998) An ecological-transactional analysis of children and contexts: The longitudinal interplay among child maltreatment, community violence and child symptomatology. *Development and Psychopathology*, 10, pp. 235-257.
- Cicchetti, D. & Rogosch, F. A. (1996) Equifinality and multifinality in developmental psychopathology. *Development and Psychopathology*, 8 (4), pp. 597-600.
- Cicchetti, D., Toth, S.L. & Maughan, A. (2000). An Ecological-Transactional Model of Child Maltreatment. In Sameroff, A.J., Lewis, M. & Miller, S. M. (Eds.) *Developmental Psychopathology* (pp. 689-723). New York: Springer.
- Cohen, L., Manion, L. & Morrison, K. (2007) *Research Methods in Education*. 6th edn. Oxon: Routledge.
- Comfort, R. L. (2007) For the love of learning: Promoting educational achievement for looked after and adopted children. *Adoption & Fostering*, 31 (1), pp. 28-34.
- Commission for Social Care Inspection (CSCI) (2007) *About Education: A Children's Views Report*. Newcastle: The Office of the Children's Rights Director.
- Cook, T.D. & Campbell, D.T. (1979) *Quasi-Experimentation: Design and Analysis for Field Settings*. Chicago, Illinois: Rand McNally.
- Creswell, J. W. (2003) *Research design: Quantitative, qualitative, and mixed methods approaches*. 2nd edn. Thousand Oaks, CA: Sage.
- Crittenden, P. M. (1992) Quality of attachment in the preschool years. *Development and Psychopathology*, 4, pp. 209-241.

Crittenden, P. M., & Claussen, A. H. (2000). Adaptation to varied environments. In P. M. Crittenden & A.H. Claussen (Eds.). *The organization of attachment relationships: Maturation, culture, and context* (pp. 234-250). New York: Cambridge University Press.

Crittenden, P.M. & Dallos, R. (2009) All in the family: Integrating attachment and family systems theories. In *Clinical Child Psychology and Psychiatry*, 14, (pp. 389-409). London: SAGE Publications.

Cupolillo, M., Silva, R., Socorro, S. & Topping, K. (2007) Paired Reading with Brazilian First-Year School Failures. *Educational Psychology in Practice: theory, research and practice in educational psychology*, 13 (2), pp. 96-100.

Data Protection Act (1998, modified 2003) London: HMSO.

Department for Children, Schools and Families (DCSF) (2008) *Care Matters: Time to Deliver for Children in Care*. London: DCSF.

Department for Children, Schools and Families (DCSF) (2009) *The Role and Responsibilities of the Designated Teacher for Looked after Children: Statutory guidance for school governing bodies*. DCSF-01046-2009, Nottingham: DCSF.

Department for Children, Schools and Families (DCSF) (2010) *Promoting the Educational Achievement of Looked After Children: Statutory guidance for local authorities*, DCSF-00342-2010, Nottingham: DCSF.

Department for Communities and Local Government (DCLG) (2011) *Accountability: Adapting to decentralisation*. London: DCLG.

Department for Education (DfE) (2010) *Outcomes for children looked after by local authorities in England, as at 31 March 2010*. London: DfE.

Department for Education (DfE) (2012a) *Outcomes for Children Looked After by Local Authorities in England, as at 31 March 2012*. SFR 32/2012 Statistical First Release. London: DfE.

Department for Education (DfE) (2012b) *Children in Care*. Available from: <http://www.education.gov.uk/childrenandyoungpeople/families/childrenincare> [Accessed on 03.02.13]

Department for Education (DfE) (2013a) *Draft SEN Code of Practice*. London: DfE.

Department for Education (DfE) (2013b) *Children and Families Bill*. London: DfE.

Department for Education (2013) *Working Together to Safeguard Children: A guide to inter-agency working to safeguard and promote the welfare of children*. Available from: www.education.gov.uk/aboutdfe/statutory [Accessed on 05.12.13].

Department for Education, (DfE), HM Revenue & Customs (HMRC) & Department for Work & Pensions (DWP) (2013) *Staying put: arrangements for care leavers aged 18 years and above to stay on with their former foster carers*. London: DfE, HMRC and DWP.

Department for Education and Employment (DfEE) (1998) *The National Literacy Strategy: Framework for teaching (PP3/31981/298/124)*. London: DfEE.

Department for Education and Employment (DfEE) and Department of Health (DoH) (1994) Circular 13/94 LAC (94)11, *The Education of Children Looked After by Local Authorities*, London: DfEE/DoH.

Department for Education and Employment (DfEE) and Department of Health (DoH) (2000) *Guidance on the Education of Children and Young People in Public Care*, London: DfEE/DoH.

Department for Education and Skills (DfES) (2003) *Targeting support: choosing and implementing interventions for children with significant literacy difficulties*. London: DfES.

Department for Education and Skills (DfES) (2004) *Working together: Giving children and young people a say*. London: DfES.

Department for Education and Skills (DfES) (2005a) *The Primary National Strategy*. London: DfES.

Department for Education and Skills (DfES) (2005b) *Young Person's Paper*. London: DfES.

Department for Education and Skills (DfES) (2006a) *Care Matters: Transforming the lives of children and young people in care, Green Paper*. London: DfES/The Stationery Office.

Department for Education and Skills (DfES) (2006b) *Independent Review of the Teaching of Early Reading*. Nottingham: DfES Publications.

Department for Education Office and Skills (DfES) (2007) *Care Matters: Time for Change*. Norwich: The Stationary.

Department of Health (DoH) (1991) *Children in the Public Care: A Review of Residential Child Care (The Utting Report)*. London: DoH Publications.

Department of Health (DoH) (1998). *Modernising social services*. Cm 4169. London: DoH Publications.

Department of Health (DoH), Social Services Inspectorate (SSI) and Office for Standards in Education (Ofsted) (1997) *The Education of Children who are Looked After by Local Authorities*. London: DoH Publications.

Disability Discrimination Act (2005) London: HMSO.

Dobson, F. (1998) *Quality protects: transforming children's services: the role and responsibilities of councillors: an open letter by Frank Dobson to lead members (September 1998)*. Available from: www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH_4007153 [Accessed on 04.12.12].

Draper, S.W. (2012) *The Hawthorne, Pygmalion, Placebo and other effects of expectation: some notes*. Available from: <http://www.psy.gla.ac.uk/~steve/XXXX.html> [Accessed on 01.04.03].

Education Act (1992) London: HMSO.

Egeland, B., Weinfield, N. S., Bosquet, M. & Cheng, V. K. (2000). Remembering, repeating, and working through: Lessons from attachment-based interventions. In J. D. Osofsky, & H. E. Fitzgerald (Eds.), *Infant mental health in groups at high risk*. WAIMH handbook of infant mental health (pp. 35–89). New York: Wiley.

Elliot, (1989) An investigation of home reading styles: variations in technique and project organisation. *Paired Learning*, 5, pp. 4-13.

Essen, J., Lambert, L. & Head, J. (1976) School Attainment of Children Who Have Been in Care. *Child Care, Health and Development*, 2, pp. 339-351.

Ercikan, K. & Roth, W. M. (2006) What good is polarizing research into qualitative and quantitative? *Educational Researcher*, 35 (5), pp. 14 – 23.

Farrell, P., Woods, K., Lewis, S., Rooney, S., Squires, G., & O'Connor, M. (2006) *A Review of the Functions and Contribution of Educational Psychologists in England and Wales in the light of Every Child Matters: Change for Children*. Nottingham: Department for Education and Employment (DfEE).

Feinstein, L. (2003). Inequality in the early cognitive development of British children in the 1970 cohort. *Economica*, 70, pp. 73–97.

Feliciano, F., Santos, P., & Silva, C. (2012) VIG - Strengths, Depression Symptoms at Risk Children Families' Under Video Home Training and Video Interaction Guidance (VHT/VIG) Intervention. *Procedia Social and Behavioural Sciences*, 69, pp. 1059-1067.

Field, A. (2009) *Discovering Statistics Using SPSS*. 3rd edn. London: Sage Publications Limited.

Fletcher-Campbell, F. (1997) *The Education of Children who are Looked-After*. Slough: National Foundation for Educational Research.

Fletcher-Campbell, F., Archer, T. & Tomlinson, K. (2003) *The Role of the School in Supporting the Education of Children in Public Care: Research Report No. 498*. Nottingham: DfES.

Fonagy, P., Gergely, G., & Jurist, E. (2002) *Affect Regulation, Mentalization and the Development of the Self*. New York: Other Press.

Forsman, H. & Vinnerljung, B. (2012) Interventions aiming to improve school achievements of children in out-of-home care: A scoping review. *Children and Youth Services Review*, 34, pp. 1084–1091.

Foster, H. (2007) *Single Word Reading Test 6-16*. London: GL Assessment Limited.

Fraser, A., Barratt, G., Beverley, J. & Lawes, J. (2008) *Compass/Catch Up Literacy Intervention Pilot For LAC*. UK: Catch Up Literacy Organisation.

Gersch, I. (2009) A positive future for educational psychology – if the profession gets it right. *Educational Psychology in Practice*, 25 (1), pp. 9-19.

Gilligan, R. (1998) The importance of schools and teachers in child welfare. *Child and Family Social Work*, 3, pp. 13-26.

Gorard, S. (2007) *Experimental Designs*. London: TLRP. Available from: <http://www.tlrp.org/capacity/rm/wt/gorard> [Accessed on 08.04.13].

Gough, P.B. & Tunmer, W.E. (1986) Decoding, Reading, and Reading Disability, *Remedial and Special Education*, Hammill Institute on Disabilities and Sage, Available from: <http://rse.sagepub.com/cgi/content/abstract/7/1/6> [Accessed on 22.07.12].

Greene, J. C., & Caracelli, V. J. (2003). Making paradigmatic sense of mixed methods practice. In A. Tashakkori & C. Teddlie (Eds.), *Handbook of mixed methods in social and behavioral research* (pp. 91–110). Thousand Oaks, CA: Sage.

Griffiths, R. (2012). The letterbox club: An account of a postal club to raise the achievement of children aged 7 to 13 in foster care. *Children and Youth Services Review*, 34, pp. 1101–1106.

Griffiths, R., & Comber, C. (2011). *Letterbox Green 2010: An evaluation of the Letterbox Club pilot for children in secondary school*. London: Booktrust.

Halligan, S. L., Cooper, P. J., Fearon, P., Wheeler, S. L., Crosby, M. & Murray, L. (2013) The longitudinal development of emotion regulation capacities in children at risk for externalizing disorders. *Development and Psychopathology*, 25, pp. 391-406.

Hanson, W. E., Cresswell, J. W., Plano Clark, V. L., Petska, S. K. & Creswell, D. (2005) Mixed Methods Research Designs in Counseling Psychology. *Journal of Counseling Psychology*, 52 (2), pp. 224–235.

Harker, R.M., Dobel-Ober, D., Berridge, D. & Sinclair, R. (2004) *Taking Care of Education: An evaluation of the education of looked after children*. London: National Children's Bureau.

Haynes, L., Service, O., Goldacre, B. & Torgerson, D. (2012) *Test, Learn, Adapt: Developing Public Policy with Randomised Controlled Trials*. UK: Cabinet Office Behavioural Insights Team.

Henson, R. (2006) Personal Communication. In Nimon, K. & Williams, C. (2009) Evaluating performance improvement through repeated measures: A primer for educators considering univariate and multivariate designs. *Research in Higher Education*, Vol. 2, pp. 117-129.

Hewison, J. (1988) The long term effectiveness of parental involvement in reading: a follow-up to the Haringey Reading Project. *British Journal of Educational Psychology*, 58, pp. 184–190.

Hibbert, H. (2003). *Education Matters: For Everyone Working with Children in Public Care. London: The Who Cares? Trust.*

Hinkle, D. E., Wiersma, W. & Jurs. S. G. (2003) *Applied statistics for the behavioral sciences(5th Ed.)*. Boston, MA: Houghton Mifflin Company.

HM Government (2010) *The Children Act 1989 Guidance and Regulations Volume 2: Care Planning, Placement and Case Review*. Nottingham: DCSF.

Hoerger, M. (2010) Participant dropout as a function of survey length in internet-mediated university studies: Implications for study design and voluntary participation in psychological research. *Cyberpsychology, behaviour, and social networking*, 13(6), pp. 697-700.

Hoffman, C., Crnic, K.A. & Baker, J.K. (2006) Maternal depression and parenting: Implications for children's emergent emotion regulation and behavioural functioning. *Parenting: Science and Practice*, 6, pp. 271-295.

Holmes, W., Lawes, J., Reid, D., Dowker, A. & Walker, S. (2011) *Catch Up Literacy: an intervention for struggling readers*. Thetford: Catch Up.

Holmes, W., Reid, D. & Dowker, A. (2012) Early intervention to prevent long-term literacy difficulties: the case of Catch Up Literacy, Fourth World Conference on Educational Sciences. *Procedia-Social and Behavioural Sciences*, WCES: Barcelona, February 2012.

Honey, K. L., Rees, P., & Griffey, S. (2011). Investigating self-perceptions and resilience in looked after children. *Educational Psychology in Practice*, 27(1), pp. 37-52.

Hopkins, B., Barr, R. G., Michel, G. F. & Rochat, P. (2005) *The Cambridge Encyclopaedia of Child Development*. Cambridge: Cambridge University Press.

House of Commons (2009) *Looked-after Children: Third Report of Session 2008–09: Volume I*. London: The Stationery Office Limited.

Howe, D. (2005) *Child Abuse and Neglect: Attachment, Development and Intervention*. US: Palgrave Macmillan.

- Howe, D. (2011) *Attachment across the life-course*. US: Palgrave Macmillan.
- Jacklin, A., Robinson, C. & Torrance, H. (2006) When lack of data is data: Do we really know who our looked-after children are? *European Journal of Special Needs Education*, 21 (1), pp. 1–20.
- Jackson, S. (1987) *The Education of Children in Care. Bristol Papers*. Bristol: University of Bristol.
- Jackson, S. (2007) Progress at last? *Adoption and Fostering*, 31 (1), pp. 3-5.
- Jackson, S. & Ajayi, S. (2007) Foster care and higher education. *Adoption & Fostering*, 31 (1), pp. 62-72.
- Jackson, S., Ajayi, S. & Quigley, M. (2005) Going to university from care: Final report from the ‘By Degrees’ project. London: Institute of Education.
- Jackson, S., & Cameron, C. (2012) Leaving care: Looking ahead and aiming higher. *Children and Youth Services Review*, 34, pp. 1107–1114.
- Jackson, S. & Martin, P.Y. (1998) Surviving the care system: Education and resilience. *Journal of Adolescence*, 21, pp. 569–583.
- Jackson, S. & McParlin, P. (2006) The Education of Children in Care. *The Psychologist*, 19 (2), pp. 90-93.
- Jackson, S. & Sachdev, D. (2001) *Better education, better futures: Research, practice and the views of young people in public care*. Ilford: Barnardo’s.
- Jackson, S. & Simon, A. (2005) The costs and benefits of educating children in care. In Chase, E., Simon, A. & Jackson, S. (Eds.), *In Care and After: A Positive Perspective* (pp. 44-62). London : Routledge.
- Johnson, R. B. & Onwuegbuzie, A. J. (2004) Mixed Methods Research: A Research Paradigm Whose Time Has Come. *Educational Researcher*, 33 (7), pp. 14-26.

Johnson, R. B., & Turner, L. A. (2003). Data collection strategies in mixed methods research. In A. Tashakkori, and C. Teddlie (Eds.), *Handbook of mixed methods in social and behavioral research* (pp. 297-319). Thousand Oaks, CA: Sage.

Kim, J. & Cicchetti, D. (2010) Longitudinal pathways linking child maltreatment, emotion regulation, peer relations and psychopathology. *Journal of Child Psychology and Psychiatry*, 51, pp. 706-716.

Kochanska, G. & Knaack, A. (2003) Effortful control as a personality characteristic of young children: Antecedents, correlates and consequences. *Journal of Personality*, 71, pp. 1087-1112.

LA 'B' (2013) *Data supplied on LAC via personal correspondence*. County A: LA 'B'.

Leslie, L. & Allen, L. (1999) Factors that predict success in an early literacy intervention project. *Reading Research Quarterly*, 34 (4), pp. 404-424.

MacDonald, P. (2010) Paired Reading: a structured approach to raising attainment in literacy. *Support for Learning*, 25, pp. 15-23.

Market Research Society (MRS) and Social Research Association (SRA) (2013) *MRS/SRA Data Protection Act 1998: Guidelines for social research*. Available from:

<http://the-sra.org.uk/wp-content/uploads/MRS-SRA-DP-Guidelines-updated-April-2013.pdf>

[Accessed on 04.09.13].

Martin, P., & Jackson, S. (2002) Educational success for children in public care: Advice from a group of high achievers. *Child & Family Social Work*, 7, pp. 121–130.

Matheson, I. (2011) 'Education of Children and Young People in Care: Research on What Works'. *IFCO 2011 Biennial World Conference*, IFCO, Victoria, British Columbia, Canada, 10-15 July. Canada: IFCO.

- Maxwell, S. E., & Delaney, H. D. (2004). *Designing experiments and analyzing data: A model comparison perspective* (2nd ed.). NJ: Lawrence Erlbaum Associated, Publishers.
- McClung, M. & Gayle, V. (2010). Exploring the care effects of multiple factors on the educational achievement of children looked after at home and away from home: an investigation of two Scottish local authorities. *Child and Family Social Work*, 5 (4), pp. 409-431.
- McParlin, P. (1996) Children 'Looked after' (in care): implications for Educational Psychologists. *Educational Psychology in Practice*, 12 (2), pp. 11-117.
- Menmuir, R. (1994) Involving Residential Social Workers and Foster Carers in Reading with Young People in their Care: the PRAISE reading project. *Oxford Review of Education*, 20 (3), pp. 329-338.
- Merrett, F. (1998) Helping readers who have fallen behind. *Support for Learning*, 13 (2), pp. 59 - 64.
- Miller, A., Robson, D. & Bushell, R. (1986) Parental participation in paired reading: a controlled study. *Educational Psychology* 6 (3), pp. 277-284.
- Miller, D., Topping, K. & Thurston, A. (2009) A randomized trial of paired tutoring in elementary schools: effects on self-esteem. *Procedia Social and Behavioral Sciences* 1, 1645–1647. Available from: www.sciencedirect.com [Accessed on 03.02.13].
- Montgomery, S. M., Cook, D. G., Bartley, M. J. & Wadsworth, M. E. J. (1998) Unemployment, cigarette smoking, alcohol consumption and body weight in young British men. *European Journal of Public Health*, 8(1), pp. 21-27.
- Morgan, D. L. (1998). Practical strategies for combining qualitative and quantitative methods: Applications to health research. *Qualitative Health Research*, 3, pp. 362-376.
- Morgan, R. & Lyon, E. (1979) 'Paired Reading' – preliminary report on a technique for parental tuition of reading-retarded children. *Journal of Child Psychology and Psychiatry*, 20, pp. 151-160.

Morgan, R. (1976) 'Paired Reading' tuition: a preliminary report on a technique for cases of reading deficit. *Child Care Health and Development*, 2, pp. 13-28.

Morgan, R. (1986) *Helping Children Read: The Paired Reading Handbook*. London: Methuen Children's Books Ltd.

Morrow, V. & Richards, M. (1996) The ethics of social research with children: An overview. *Children and Society*, 10, pp. 90-105.

Morse, J. M. (1991). Approaches to qualitative-quantitative methodological triangulation. *Nursing Research*, 40, pp. 120-123.

Narey, M. (2011). The Narey report on adoption: Our blueprint for Britain's lost children. The Times, 5 July 2011. Available from: <http://www.mnarey.co.uk/publications.php> [Accessed on 05.09.13]

National Children's Bureau (NCB) (2013) *Why is corporate parenting important?* Available from: www.ncb.org.uk/corporateparenting [Accessed on 14.10.13].

Newby, P. (2010) *Research Methods for Education*. United Kingdom: Pearson Education Limited.

Nimon, K. & Williams, C. (2009) Evaluating performance improvement through repeated measures: A primer for educators considering univariate and multivariate designs. *Research in Higher Education*, Vol. 2, pp. 117-129.

Nissim, R. (2006). More Than Walls: the Context Of Residential Care. In K.S. Golding, R.H. Dent, R. Nissim & L. Stott (Eds.) *Thinking Psychologically About Children Who Are Looked After And Adopted: Space for Reflection* (pp. 255–278). Chichester: Wiley.

Norman, G. R. & Streiner, D. L. (2008) *Biostatistics: The Bare Essentials*. 3rd edn. Ontario: BC Decker Inc.

Norwich, B., Richards, A. & Nash, T. (2010): Educational psychologists and children in care: practices and issues. *Educational Psychology in Practice: theory, research and practice in educational psychology*, 26 (4), pp. 375-390.

NSPCC (2011) *ChildLine casenotes: Looked after children talking to ChildLine*. NSPCC: London. Available from: www.nspcc.org.uk [Accessed on 04.02.13].

NSPCC (2012) *Returning Home from Care: What's Best for Children*. Available from: www.nspcc.org.uk/childrenincare. [Accessed on 14.11.13].

O'Sullivan, A. & Westerman, R. (2007) Closing the gap: Investigating the barriers to educational achievement for looked after children. *Adoption and Fostering*, 31 (1), pp. 13-20.

Ofsted (2001) *Raising achievement of children in public care: A report from the office of Her Majesty's chief inspector of schools*. Manchester: Ofsted.

Ofsted (2011a) Inspection of safeguarding and looked after children services: LA 'A'. Available from: www.ofsted.gov.uk Accessed on: 12.10.13.

Ofsted (2011b) *Younger children's views: A report of children's views by the Children's Rights Director for England*. Manchester: Ofsted.

Ofsted (2012a) Inspection of local authority arrangements for the protection of children: LA 'A' Available from: www.ofsted.gov.uk Accessed on: 11.10.13.

Ofsted (2012b) Inspection of safeguarding and looked after children services: LA 'B' Available from: www.ofsted.gov.uk Accessed on: 15.10.13.

Ofsted (2012c) *The impact of virtual schools on the educational progress of looked after children*. Manchester: Ofsted.

Osborne, C., Alfano, J. & Winn, T. (2010) Paired Reading as a literacy intervention for foster children. *Adoption and Fostering*, 24 (4), pp. 17-26.

Pawson, R. & Tilley, N. (1997) *Realistic Evaluation*. London: Sage.

Perry, B. & Szalavitz, M. (2008) *The Boy Who Was Raised As a Dog: And Other Stories from a Child Psychiatrist's Notebook - What Traumatized Children Can Teach Us About Loss, Love, and Healing*. UK: Basic Books.

Perry, B. D., Pollard, R. A., Blaichley, T., L., Baker, W. L. & Vigilante, D. (1995) Childhood Trauma, the Neurobiology of Adaptation, and "Use-dependent" Development of the Brain: How "States" Become "Traits". *Infant Mental Health Journal*, 16 (4), pp. 272-291.

Pikulski, J. & Chard, D. (2005) Fluency: Bridge between decoding and reading comprehension. *International Reading Association* (pp. 510-519) doi:10.1598/RT.58.6.2
Available from: <http://www.uwosh.edu/coehs/wi-test/documents/Reading%20305%20Pikulski%20Fluency.pdf> [Accessed on 04.03.13].

Rasinski, T. (2012) Why reading fluency should be hot. *The Reading Teacher*, 65 (8), pp. 516–522.

Rasinski, T., Blachowicz, C. & Lems, K. (2006) *Fluency Instruction: Research-based best practices*. United States: The Guildford Press.

Rees, C. A. (2010) Understanding emotional abuse. *Archives of disease in childhood*, 95 (1), pp. 59-67.

Riedel, W. J., Klaassen, T., Deutz, N. E. P., Someren, A., & Praag, H. M. (1999) Tryptophan depletion in normal volunteers produces selective impairment in memory consolidation. *Psychopharmacology*, 141, pp. 362-369.

Robinson, D.R., Schofield, J.W., & Steers-Wentzell, K.L. (2005). Peer and cross-age tutoring in math: Outcomes and their design implications. *Educational Psychology Review*, 17 (4), pp. 327–362.

Robson, C. (2002) *Real World Research: 2nd edn*. Oxford: Blackwell Publishing.

Rohner, R. P. (2004) The Parental "Acceptance-Rejection Syndrome": Universal Correlates of Perceived Rejection. *American Psychologist*, 59, pp. 830-840.

Rohner, R.P., Khaleque, A. & Couronoyer, D.E. (2004) *Parental Acceptance-Rejection: Theory, methods and implications*. Available from: www.cspar.uconn.edu/INTROPAR.HTML. [Accessed on: 12.10.13].

Rohner, R.P., Khaleque, A. & Couronoyer, D.E. (2005). Parental Acceptance-Rejection: Theory, methods, cross-cultural evidence and implications. *Ethos*, 33(3), pp. 299–334.

Rohrbeck, C.A., Ginsburg-Block, M.D., Fantuzzo, J.W., & Miller, T.R. (2003). Peer-assisted learning interventions with elementary school students: A meta-analytic review. *Journal of Educational Psychology*, 95 (2), pp. 240–257.

Rose, J. (2006) *Independent review of the teaching of early reading: Final report*. London: Department for Education and Skills.

Rose, J. (2009) *Independent Review of the Primary Curriculum: Final Report*. Nottingham: DCSF.

Rust, J., Golombok, S., & Trickey, G. (1993) *Wechsler Objective Reading Dimensions (WORD)*. UK, Sidcup: The Psychological Corporation.

Salford City Council (2005) *Our Children First: Report of the Corporate Parenting Commission in Salford*. Available from: <http://www.salford.gov.uk/d/exec-summary.pdf> [Accessed on 03.02.13].

Scannapieco, M. (2008). Developmental outcomes of child neglect. *The APSAC Advisor*. Elmhurst, IL: American Professional Society on the Abuse of Children.

SCHOOLS NorthEast (2013) *How the York Assessment of Reading for Comprehension can be used to improve literacy outcomes*. Available from: <http://www.schoolsnortheast.com/marketplace/case-study/how-the-york-assessment-of-reading-for-comprehension-can-be-used-to-improve-literacy-outcomes/994/> [Accessed on 04.09.13].

Schore, A. N. (2001) The effects of early relational trauma on right brain development, affect regulation, and infant mental health. *Infant Mental Health Journal*, 22 (1–2), pp. 201–269.

Schore, A.N. (1996) The experience-dependent maturation of a regulatory system in the orbital prefrontal cortex and the origin of developmental psychopathology. *Development and Psychopathology*, 8, pp. 59– 87.

Scott, J. (1983) Process evaluation of Paired Reading. *Occasional Papers of the Division of Educational and Child Psychology, British Psychological Society*, 7 (1), pp. 64-74.

Scottish Executive (2007) *Looked after children & young people: We can and must do better*. Scottish Executive: Edinburgh.

Shaffer, D. W., & Serlin, R. C. (2004). What good are statistics that don't generalize? *Educational Researcher*, 33, pp. 14–25.

Shaughnessy, J. J., Zechmeister, E. & Zecmeister, J. (2012) *Research Methods in Psychology*. 9th edn. New York: McGraw-Hill.

Sieber, S. D. (1973) The integration of fieldwork and survey methods. *American Journal of Sociology*, 78 (6), pp. 1335-1359.

Sinclair, R. (1998) *The Education of Children in Need: A research overview*. Devon: National Children's Bureau.

Slater, J. (2002). Unqualified disaster in caring, *Times Educational Supplement*, 4464 (18), pp. 24–25.

Snowling, M. J. & Hulme, C. (2011). Evidence-based interventions for reading and language difficulties: creating a virtuous circle. *British Journal of Educational Psychology*, 8, pp. 1-23.

Snowling, M. J., Stothard, S. E., Clarke, P., Bowyer-Crane, C., Harrington, A., Truelove, E., Nation, K. & Hulme, C. (2009) *York Assessment of Reading for Comprehension: Passage Reading Primary*. UK: GL Assessment.

Social Exclusion Unit (SEU) (2003) *A better education for children in care: Social Exclusion Unit Report*. London: SEU.

Solity, J. (2003) Teaching Phonics in Context: A Critique of the National Literacy Strategy, *DfES Seminar Teaching Phonics in the National Literacy Strategy*, DfES 17th March. London: DfES.

Solity, J.E. & Vousden, J.I. (2009) Real books vs. reading schemes: A new perspective from instructional psychology. *Educational Psychology*, 29, pp. 469-511.

SSI/Ofsted (1995) *The Education of Children who are Looked After by Local Authorities*, London: Department of Health and Ofsted.

St Claire, L. & Osborn, A.F. (1987) The ability and behaviour of children who have been 'In-Care' or separated from their parents. *Early Child Development and Care (special issue)*, 28 (3), pp. 187-354.

Standards and Testing Agency (STA) (2013) *Check administrators' guide: Phonics screening check*. Available from: www.education.gov.uk/ks1. [Accessed on 01.03.13].

Stevens, J. P. (2002). *Applied multivariate statistics for the social sciences* (4th ed.). NJ: Lawrence Erlbaum Associates, Publishers.

Stewart, W. (2011) 'Phonics expert on national curriculum review accused of 'conflict of interest'. 9th June. Times Educational Supplement. Available from: <http://www.tes.co.uk/article.aspx?storycode=6086551> [Accessed on 04.02.13].

Swinson (1986) Paired Reading: a critique. *Support for Learning*, 1 (2), pp. 29–32.

Tanguma, J. (1999). Repeated measures: A primer. In B. Thompson (Ed.), *Advances in social science methodology* (Vol. 5, pp. 233 – 250). Stanford, CT: JAI Press.

The Dyslexia- SpLD Trust (2012) *Interventions for Literacy*. Available from: <http://www.interventionsforliteracy.org.uk/assets/S4/Paired-Reading-.pdf> [Accessed on 07.11.13].

Spear, L. P. (2010) *The behavioral neuroscience of adolescence*. New York: Norton.

The Who Cares? Trust (2003) *Education Matters*. London: Lizban Press.

The Who Cares? Trust (2004) *Measuring progress: The role of the Educational Psychologist*. London: Lizban Press.

The Who Cares? Trust (2012a) *Open Doors, Open Minds: Is the care system helping looked-after children progress into further and higher education?* United Kingdom: The Who Cares? Trust.

The Who Cares? Trust (2012b) *Life in Care: Leaving Care*. Available from:
<http://www.thewhocarestrust.org.uk/pages/leaving-care-what-happens-post-16.html>
[Accessed on 04.11.12].

The Who Cares? Trust (2012c) *Laws about care*. Available from:
<http://www.thewhocarestrust.org.uk/pages/the-law-about-care.html> [Accessed on 03.11.12].

Thomas, G. (2009) *How to do Your Research Project: A Guide for Students in Education and Applied Social Science*. London: Sage.

Thomson, A. I. (2007) Looked after children: Non-local authority placements and meeting educational needs. *Educational Psychology in Practice*, 23 (3), pp. 273–282.

Topping, K. J, Miller, D., Thurston, A., McGavock, K. & Conlin, N. (2011) Peer tutoring in reading in Scotland: thinking big, *Literacy*, 45 (1), pp. 3–9.

Topping, K. J. & Lindsay, G.A. (1992) Paired Reading: a review of the literature, *Research Papers in Education*, 7 (3), pp. 199–246.

Topping, K. J. (1995) *Paired Reading, Spelling and Writing: The Handbook for Teachers and Parents*. London: Cassell.

Topping, K. J. (2001) *Thinking Reading Writing. A Practical Guide to Paired Learning with Peers, Parents and Volunteers*. London: Continuum.

Topping, K. J. (2006) 'Paired Reading: Impact of a tutoring method on Reading Accuracy, Comprehension and Fluency', in Rasinski, T., Blachowicz, C. & Lems, K. *Fluency Instruction: Research-based best practices*. United States: The Guildford Press, pp. 173-184.

Tronick, E.Z. (1989) Emotions and emotional communication in infants. *American Psychologist*, 44, pp. 112-119.

Tronick, E.Z. (2007) *The neurobehavioral and social-emotional development of infants and children*. New York: W. W. Norton & Co.

United Nations (UN) (1989) *United Nations Convention on the Rights of the Child (UNCRC)*. Available from: <http://www.unicef.org/crc/> [Accessed on 12.10.13].

University of Birmingham, (UoB) (2010-2011), *Code of Practice for Research*. Birmingham: University of Birmingham.

University of York (2011) *York Assessment of Reading for Comprehension (YARC)*. 2nd edn. London: GL Assessment.

Usher, R. & Scott, D. (1999) *Researching education: data, methods and theory in educational enquiry*. London: Cassell.

Veltman, M., & Browne, K. (2001) Three decades of child maltreatment research: Implications for the school years. *Trauma, Violence & Abuse*, 2(3), pp. 215-239.

Vygotsky, L. S. (1978) *Mind in Society: The Development of Higher Psychological Processes*. Cambridge, MA: Harvard University Press.

Walker, R. (2001) Great expectations: Can social science evaluate new labour's policies? *Evaluation*, 7(3), pp. 305-30.

Warner, N. (1992) *Choosing with Care: The Report of the Committee of Inquiry into the Selection, Development and Management of Staff in Children's Homes*. HMSO: London.

What Works Clearinghouse (2007) *Beginning reading: WWC topic report*. Available from: http://ies.ed.gov/ncee/wwc/reports/beginning_reading/topic/ [Accessed on 03.11.13].

Wilkinson, L. A. (2006) Monitoring treatment integrity: An alternative to the 'consult and hope' strategy in school-based behavioural consultation. *School Psychology International*, 27 (4), pp. 426-438.

Wilson, K. R., Hansen, D. J. & Li, M. (2011) The traumatic stress response in child maltreatment and resultant neuropsychological effects. *Aggression and Violent Behavior*, 16 (2), pp. 87-97.

Winnicott, D. W. (1965) *Maturational Processes and the Facilitating Environment: Studies in the Theory of Emotional Development*. London: Hogarth Press.

Winter, S. (1990) Paired Reading: Two questions. *Educational Psychology in Practice*, 6 (2), pp. 96-99.

Winter, S. (1996) Paired Reading: Three Questions. *Educational Psychology in Practice*, 12 (3), pp. 182-190.

Wolfendale, S. & Bryans, T. (2004) *Evaluation of the Looking After Literacy Project in Kent for Children in Public Care*. London: University of East London.

Wood, D. (2006). Modeling the relationship between oral reading fluency and performance on a statewide reading test. *Educational Assessment*, 11, pp. 85-104.

Wyse, D. & Styles, M. (2007) Synthetic phonics and the teaching of reading: the debate surrounding England's 'Rose Report'. *Literacy*, 41 (1), pp. 35-42.

Yin R. K. (2008) *Case Study Research: Design and Methods*. UK: SAGE publications.

Young Person's Learning Agency (YPLA) (2011) 16-19 Bursary Fund – Guide for 2011/12.
Available from: ypla.gov.uk. [Accessed on: 11.09.13]

Appendices

Appendix 1: Explanation of different types of care order (taken from Volume 2: Care Planning, Placement and Case Review)

Appendix 2: Paired Reading - Flowchart of Technique (adapted from Topping, 1995)

Appendix 3: YARC assessment details (adapted from University of York, 2011)

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Appendix 6: Paired Reading Training Presentation to Participants

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Appendix 8: Ethical Approval Form

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Appendix 12: Literature Search Method

Appendix 13: The development of Reading Difficulties

Appendix 1: Explanation of different types of care order (taken from Volume 2: Care Planning, Placement and Case Review)

A child is looked after by a local authority if s/he is in their care by reason of a care order or is being provided with accommodation under section 20 of the 1989 Act for more than 24 hours with the agreement of the parents, or of the child if s/he is aged 16 or over (section 22(1) and (2) of the 1989 Act).

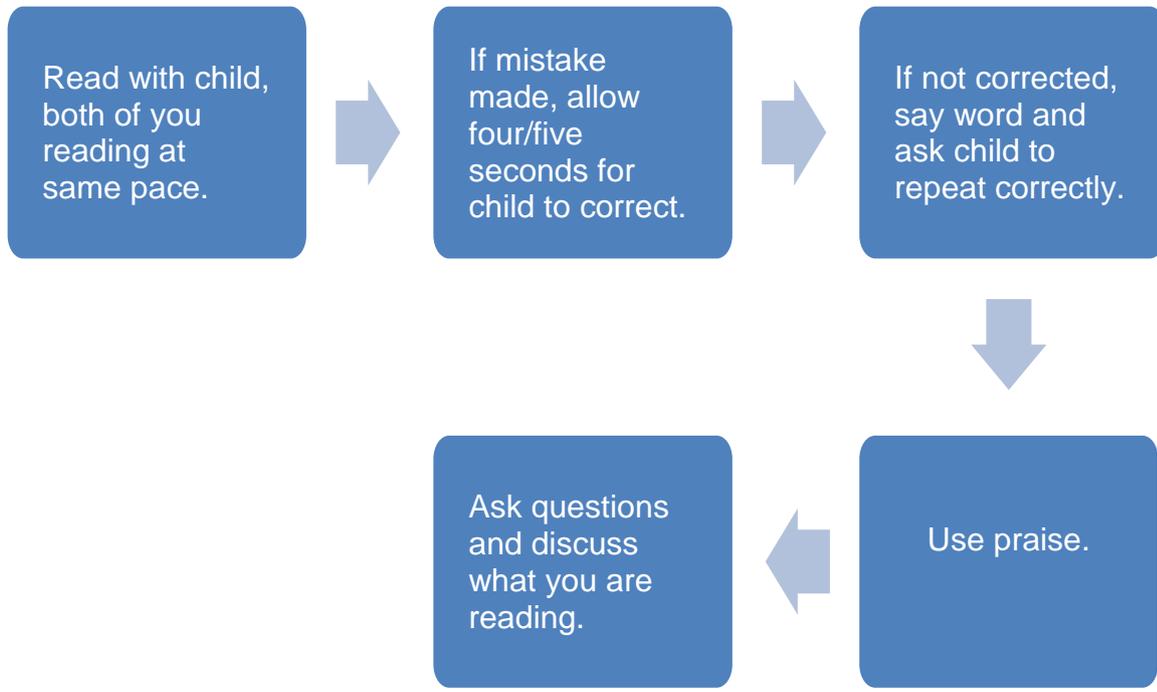
For a child who is 'accommodated' under a section 20 voluntary arrangement ('an accommodated child'), the local authority does not have parental responsibility for the child – parental responsibility remains with the parents. However, the authority must comply with the duties set out in the 1989 Act and with the relevant regulations.

Although a care order gives the local authority parental responsibility for the child, any person who is a parent or guardian also retains their parental responsibility and may continue to exercise it to the extent that their actions are not incompatible with the care order (as set out in section 2(8) and section 33(3)(b) of the 1989 Act).

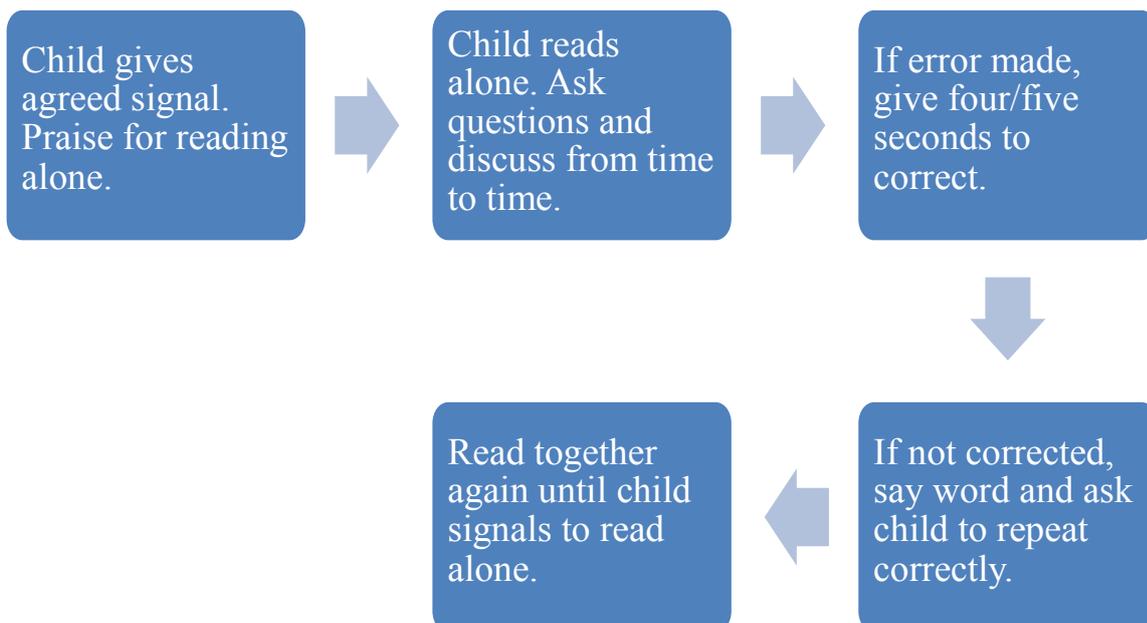
Children who are placed away from home under an emergency protection order, where they are accommodated by or on behalf of the local authority, are looked after children. So, too, are those children on remand to local authority accommodation or under supervision with a residence requirement requiring them to live in local authority accommodation and those children in police protection or arrested and at the police's request accommodated by the local authority (section 21 of the 1989 Act).

Appendix 2: Paired Reading - Flowchart of technique (adapted from Topping, 1995)

STEP 1: READING TOGETHER



STEP 2: READING ALONE



Appendix 3: YARC assessment details (adapted from University of York, 2011)

The *YARC Test* offers a continuous assessment of reading from age 5 to 11. It has been developed by the Centre for Reading and Language at the University of York.

The York Assessment of Reading for Comprehension (YARC) offers teachers and other educational professionals a reliable way of assessing their pupils' emerging and developing skills in reading and reading comprehension from age 5 to 16. It is an individually administered test designed to evaluate the accuracy, rate and comprehension of oral reading in primary school children.

Standard scores, percentile ranks and reading ages for accuracy, rate and comprehension are obtained. Norms, constructed from a 4:06 to 12:04 representative standardisation sample, cover the age range 5:00 to 11:11.

Standardisation took place in UK schools during the Summer term 2008. The standardisation sample was drawn from 10 regional centres that were distributed across the UK. The overall project was managed by researchers in the Centre for Reading and Language at the University of York. In total, 34 schools took part in the standardisation. A total of 1376 pupils participated in the standardisation project.

Appendix 4: Post Intervention Questionnaires – Adult and Child Versions

Adult Questionnaire

Please use the following rating scale in your response to the following questions, where 1 represents 'Strongly Disagree' and 5 represents 'Strongly Agree'.

1	2	3	4	5
Strongly Disagree	Disagree	Neither	Agree	Strongly Agree

- 4) I thought that the intervention had a positive impact on my child's reading levels.
- 5) I enjoyed carrying out the reading intervention.
- 6) I would recommend this intervention to other foster carers.

Opinion questions

- 7) Did you feel that the intervention had an impact on your relationship with your child? If so, in what way?

.....

- 8) What was the greatest benefit about the intervention?

.....

- 9) What could have improved the intervention?

.....

Child Questionnaire

Please use the following rating scale in your response to the following questions, where 1 represents 'Strongly Disagree' and 5 represents 'Strongly Agree'.

1	2	3	4	5
Strongly Disagree	Disagree	Neither	Agree	Strongly Agree

- 1) I thought that doing the Paired Reading helped my reading.

- 2) I enjoyed carrying out the Paired Reading.

- 3) I would recommend this intervention to other children.

Opinion questions

- 4) What did you most like about the Paired Reading?

.....

- 5) What would have made the Paired Reading better?

.....

Appendix 5: Information Letter and Adult and Child Consent Forms

PARTICIPANT INFORMATION SHEET

You are being asked to take part in a research study. Please see below for further information.

What is the purpose of the study?

The purpose of the study is to trial a reading intervention (Paired Reading) to raise the reading ages of looked after children in County.

What is Paired Reading?

Paired Reading is a simple and effective way of improving a child's reading. It helps to improve their basic reading ability (i.e. the ability to read words quickly and accurately) and their ability to understand whatever is being read.

What will I have to do?

If you decide you wish to take part, you will be asked to attend a brief training session on the technique and also to implement the technique with your child a minimum of three times a week for about 10 minutes. The intervention will go on for 8 weeks. Your child's reading age will be assessed both before and after the intervention to see if there is any improvement. You will also be asked to fill in a short questionnaire following the intervention. The purpose of this questionnaire is to seek your views on the effectiveness of the intervention.

Can I leave the study at any time?

Yes, you and the child in your care are free to withdraw from the study at any time and you do not have to provide an explanation as to why you may wish to do this.

Will I receive anything for being in this study?

No, you won't receive anything for being in this study.

Will it cost me anything to take part in this study?

No it won't cost you anything to take part.

What are the benefits to participating in this study?

You will receive training in a very useful technique which will help improve the literacy levels of the child in your care if it is implemented correctly. This training session will also incorporate some information on how reading is currently taught in schools which may be of interest to you in supporting the children who you foster.

What are the possible risks to participating in this study?

I don't anticipate any risks to you or to your child from being involved in this study.

Who are you?

My name is Rachel Gately and I am a trainee educational psychologist working in for
Council. This project is for my final year thesis.

What if I have questions about the study?

You have the right to ask questions and have those questions answered at any point during the study. If you have any questions or concerns, please do not hesitate to contact me on the number or email address below:

CHILD CONSENT FORM



Hello, my name is Rachel.

I am doing a project on reading and I would like your help with it. It is especially to do with children who are in care like you. I would like to do some reading with you and then come back in a few weeks and do a little bit more work with you. In the meantime, I would like you to practice reading a few times a week with your foster carer in a new way. The idea is that this will help you with your reading and literacy at school.

Would you like to be part of my project? Please tick one of the boxes.

Yes I would

No I would not

Ok thanks, that's great!

There are a few things I need you to understand before we carry on. If you understand these things, can you tick the box and then write your name at the end please?

- I can stop doing the reading if I want to.
- Other people will know my scores but they won't know my name.
- I can ask Rachel any questions I have about the research.
- I understand what Rachel has said to me and I would like to be part of her project.

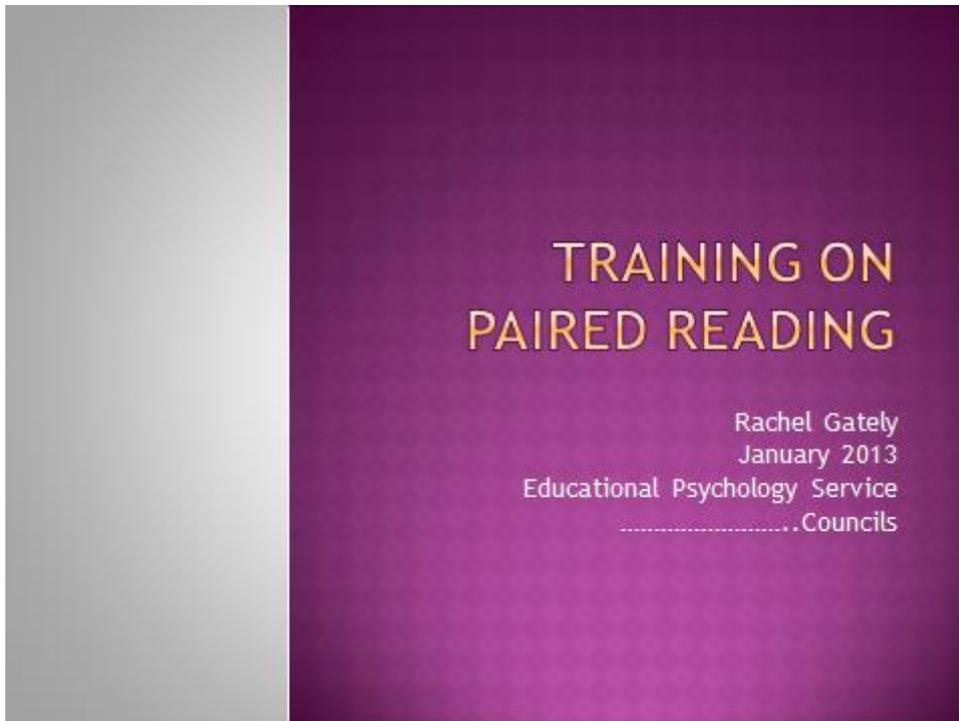
My name

My age

Date

Thank-you!





AIMS OF TODAY

- Explain the technique
- Give you opportunity to practice
- Answer any questions you have
- Reassess on reading test

BENEFITS

◉ Reading improves:

- Imagination
 - Concentration
 - Empathy
 - All school subjects
 - Vocabulary and grammar
 - Knowledge of the world
 - Relaxes body and calms the mind
-

ICE BREAKER

WHAT IS PAIRED READING?

Fun way for adults to help children with their reading

Does not interfere with school teaching

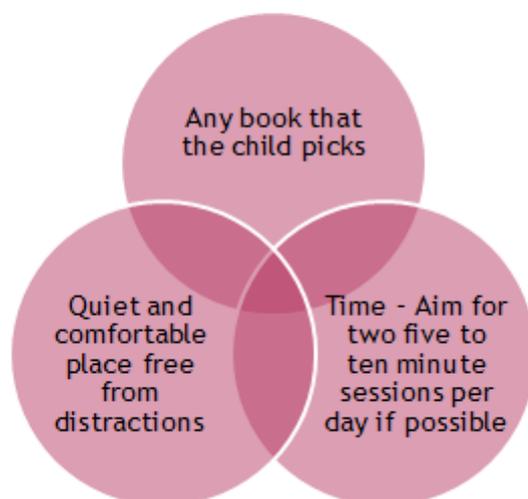
Is quick and easy to implement

Improves both fluency and comprehension

WHY IS IT BETTER THAN JUST HEARING YOUR CHILD READ?

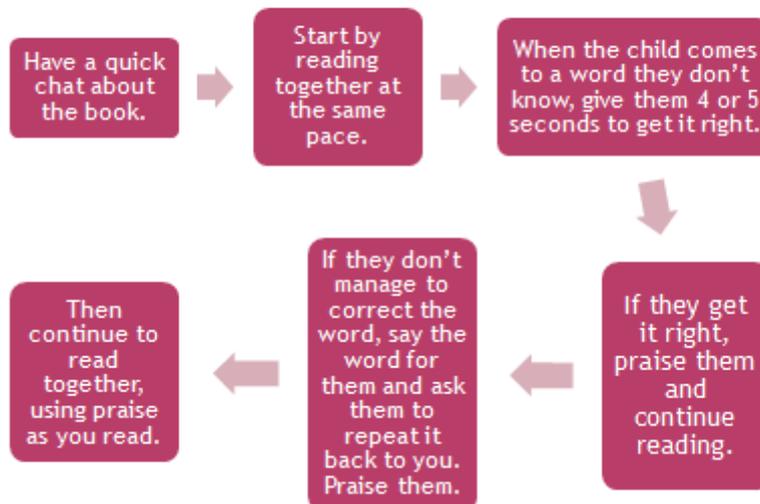
- ◉ Child controls how much help they need
- ◉ Adult provides the correct words quickly
- ◉ High level of constant praise
- ◉ Adult models good reading patterns
- ◉ Lot of emphasis on understanding
- ◉ Child can read any material

WHAT YOU NEED

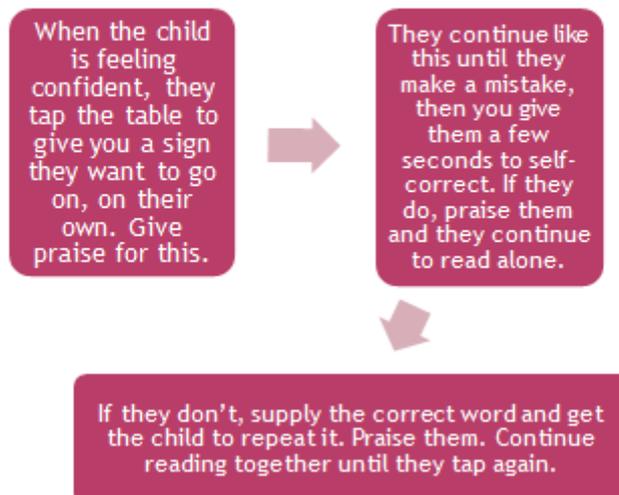


TOP SELLING CHILDREN'S BOOK 2012?

WHAT YOU DO - STEP 1 READING TOGETHER



WHAT YOU DO - STEP 2 READING ALONE



DOS AND DON'TS!



Don't try 'sounding out' or any other word-building techniques



Do give loads of positive praise - more than you would naturally



Do discuss the book before and after the reading

WHAT HAPPENS NOW?

- I will phone you over the next few weeks to see how it is going.
- I will send a letter to schools letting them know you are doing this.
- I will call out to see you again after 6 weeks to collect final set of data.

IN PACK...

- ◉ Information sheet
 - ◉ 6 recording sheets
 - ◉ Flow chart for quick reference
-

FINALLY.....

- ◉ Thank-you for listening and good luck!



- ◉ Rachel Gately

- ◉
-

Appendix 7: Letter for Adult and Child Participants

CARER LETTER

Dear Carer [INSERT NAME],

Thank-you for your recent participation in the Paired Reading intervention which was carried out over the period of Autumn 2012 to Spring 2013. I am pleased to be able to tell you that the project was a success overall and that significant improvements for the 12 children who took part in the project were seen in the area of reading speed (how fast the child reads) and reading comprehension (how much they understand what they are reading).

I am currently in discussions with both Telford & Wrekin and Shropshire Councils about how this project can be rolled out in the future so your participation in this project has been invaluable in allowing this to happen.

Please see below for an individual account of your child's progress [INSERT NAME] across the span of the intervention.

- [INSERT NAME] made months progress in reading comprehension. Their reading age at the time of the last assessment was
- [INSERT NAME] made months progress in reading comprehension. Their reading age at the time of the last assessment was
- [INSERT NAME] made months progress in reading comprehension. Their reading age at the time of the last assessment was

Although some of this progress would have happened anyway (as the child [INSERT NAME] got older for example), the statistics I used on the data show that for the whole group, reading comprehension and reading rate improved more than would be expected within the six weeks of the intervention. This is really positive and shows that the intervention did have a positive effect overall.

If you need to ask me any further questions, please do not hesitate to contact me on the number provided below. Many thanks again for your assistance with this project.

Kind regards,

Rachel Gately

Trainee Educational Psychologist

..... [INSERT NUMBER]

CHILD LETTER

Dear Child [INSERT NAME],

Thank-you for your help with the Paired Reading project. Twelve children took part in the final project. I am really glad that you took part and I hope you feel it helped your reading.

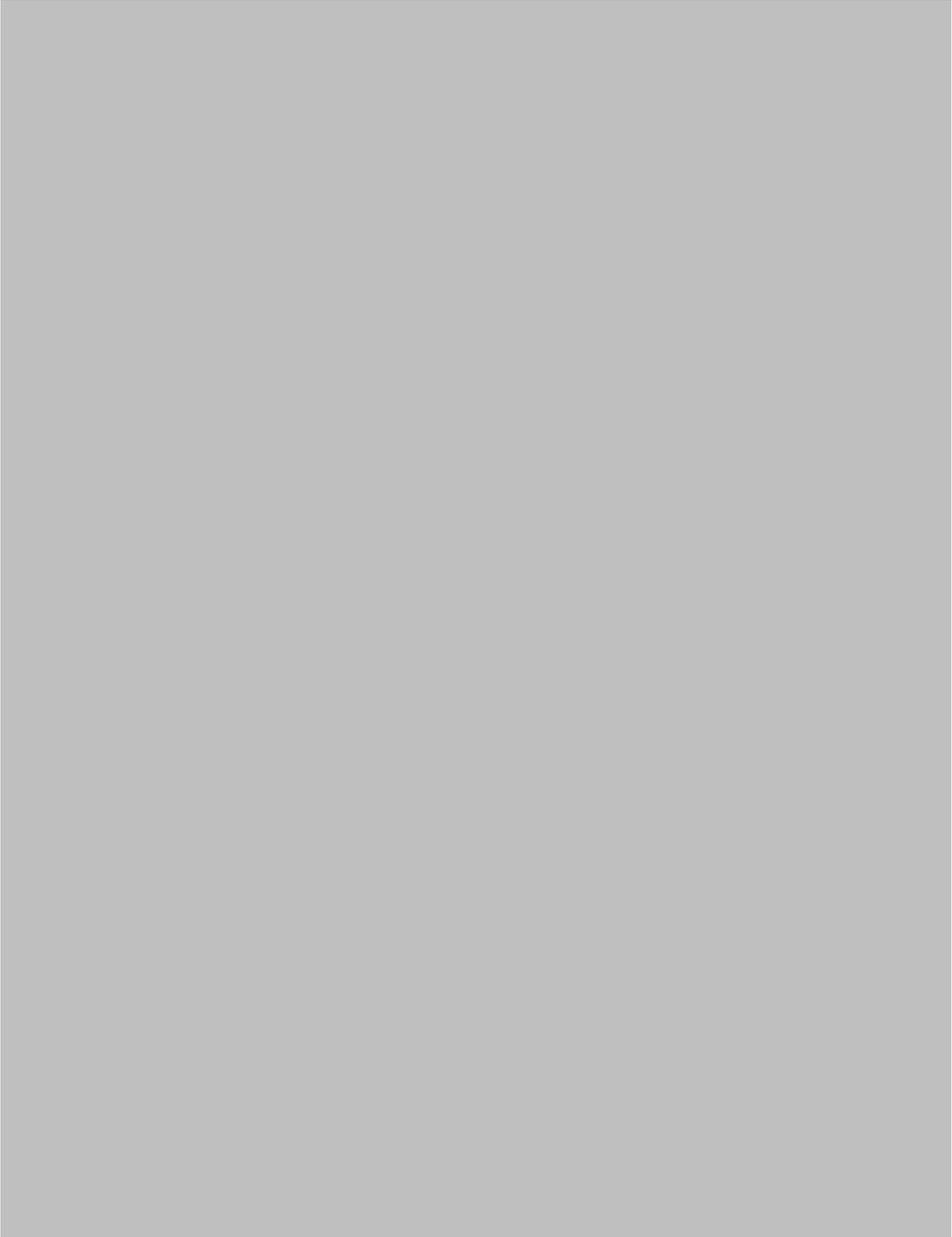
You made good improvements with your reading rate/accuracy/comprehension [INSERT DETAILS] in particular.

Good luck with your reading in the future. I know you will do really well.

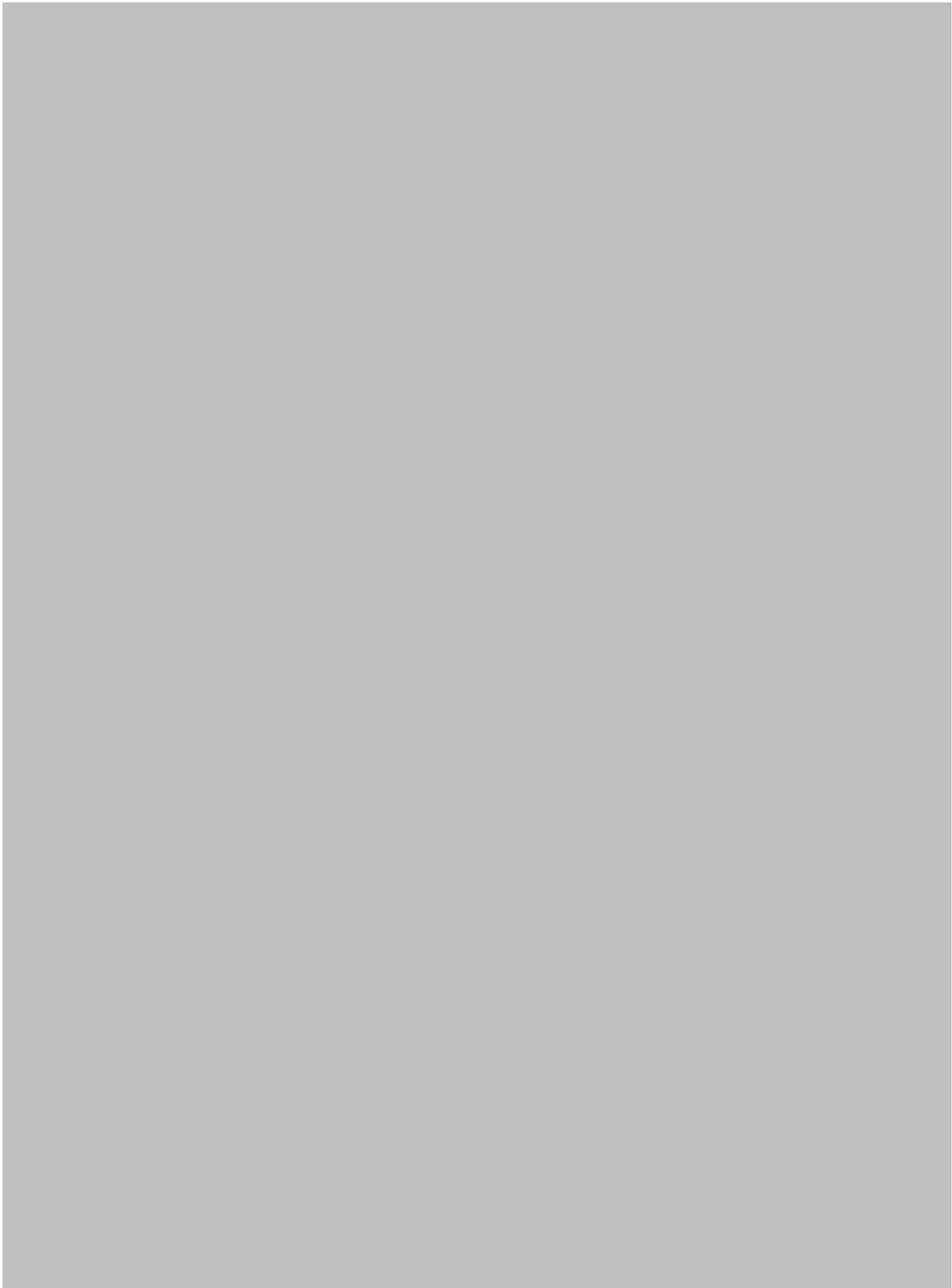
Rachel ☺



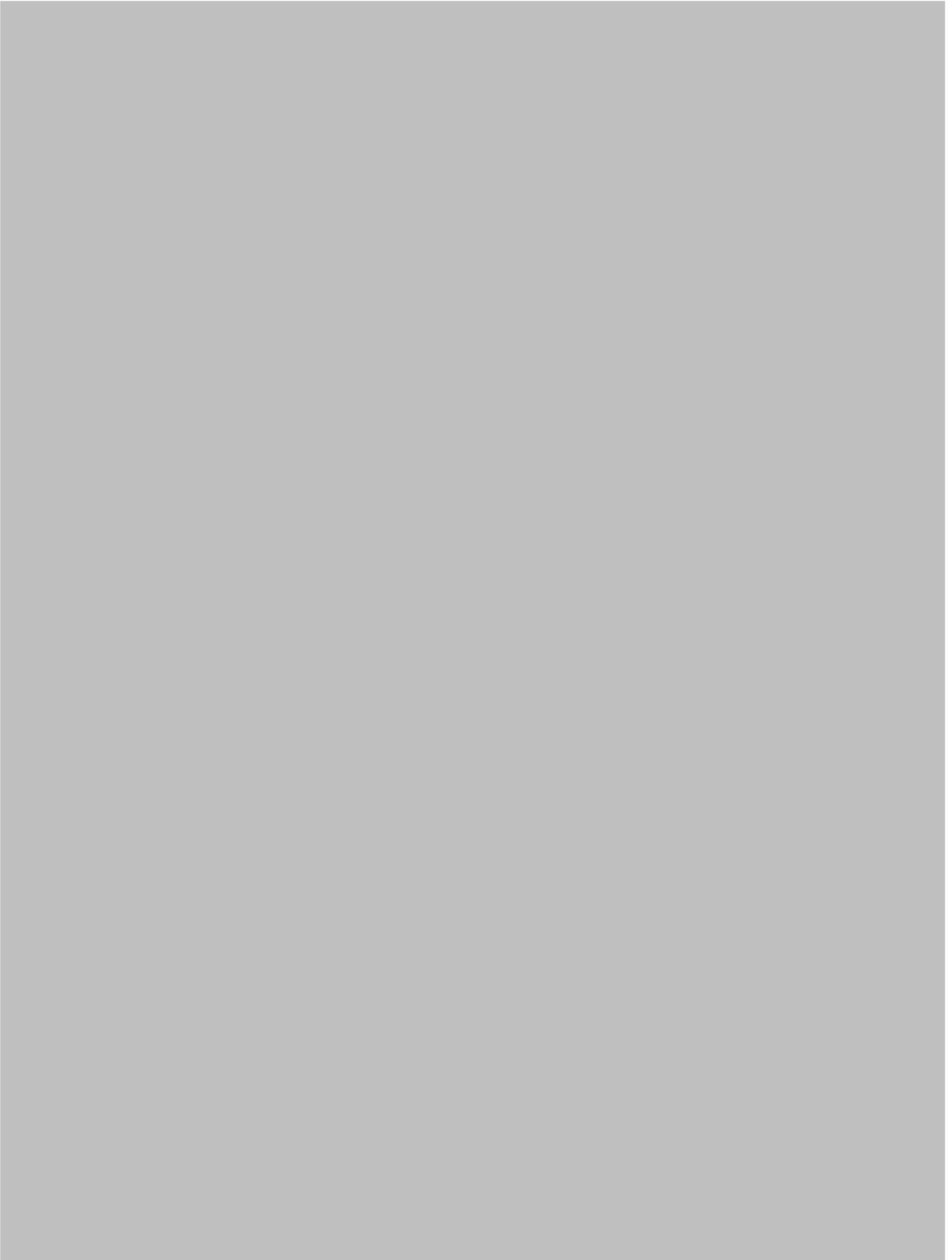
















Appendix 9: Details of Mauchly's Test

Mauchly's Test was carried out to test the assumption of sphericity. Because Mauchly's M was found to be significant for reading rate, an adjusted significance value was used. Because the sample was small in the current study, the corrected Huynh-Feldt value was used. This gave a significance value greater than 0.05 and allowed me to reject the null of sphericity (Norman, 2008). See below for further details of Mauchly's Test results.

Mauchly's Test of Sphericity^a

Within Subjects Effect	Measure	Mauchly's W	Approx. Chi-Square	df	Sig.	Epsilon ^b		
						Greenhouse-Geisser	Huynh-Feldt	Lower-bound
Time	ReadingAcc	.764	2.689	2	.261	.809	.928	.500
	ReadingComp	.789	2.365	2	.307	.826	.953	.500
	ReadingRate	.386	9.528	2	.009	.619	.659	.500

Tests the null hypothesis that the error covariance matrix of the orthonormalized transformed dependent variables is proportional to an identity matrix.

a. Design: Intercept

 Within Subjects Design: Time

b. May be used to adjust the degrees of freedom for the averaged tests of significance. Corrected tests are displayed in the Tests of Within-Subjects Effects table.

Appendix 10: Details of Statistical Procedures used

Because of the small sample size and the nature of the test used, where standard scores were unable to be computed to the low ability of some participants at Time 1 and Time 2 (in 4 cases), a cut-off standard score of 69 was used. This score was deemed to be the most appropriate way of addressing the problem of these particular scores without having to include them as missing data for which the test used did not have a tolerance for. In these 4 instances a conservative estimate of 69 was again used to avoid the issue of inserting missing data into a test which would not have been able to account for this data and would have discarded the scores of several participants on this basis. 69 was used as a conservative estimate and far from increasing the likelihood of finding a significant result, was more likely to reduce the likelihood of finding a significant result as these scores were included at Time 1 and 2 and not Time 3.

Appendix 11: Data provided by LAs 'A' and 'B'

Data provided by the DfE (2012a) for LA 'A' and 'B'									
		2011	2012	2013					
Number of children 'looked after'									
LA 'A'		220	205	Not available					
LA 'B'		270	300	320					
Legal Status	Interim care orders	Full care orders	Freed for Adoption	Placement order granted	Accommodated under S20	Detained on child protection grounds in LA accommodation	Youth justice legal Statuses		
LA 'A' numbers	25	70	x ²	15	95	0	x		
Percentages	13%	34%	x	6%	46%	0	x		
LA 'B' numbers 2012	40	125	x	25	105	0	0		
Percentages 2012	14%	41%	x	9%	35%	0	0		
LA 'B' numbers 2013 ³	33	148	3	33	100	0	3		
Placement	Foster	Placed for	Placement	Other	Secure units,	Other residential	Residential	Missing -	Other

² Figures not shown according to DfE (2012a) in order to protect confidentiality. The 'X' indicates where this is the case.

³ Some additional data supplied by LA 'B' for 2012 – 2013 – entered into table where relevant.

	placements	adoption	with parents	placement in the community	children's homes and hostels	settings	schools	Absent for more than 24 hours from agreed placement	placement
LA 'A' numbers	140	10	x	x	35	x	10	0	0
Percentages	69%	5%	x	x	18%	x	4%	0	0
LA 'B' numbers	240	15	x	x	30	x	5	0	0
Percentages	79%	5%	x	x	9%	x	2%	0	0
Age and gender	Gender			Age					
	Male	Female		Under 1	1 to 4	5 to 9	10 to 15	16 and over	
LA 'A' Numbers	110	95		10	30	30	85	45	
LA 'A' Percentages	54%	46%		5%	14%	16%	42%	23%	
LA 'B' Numbers 2012	150	150		25	50	65	115	45	
LA 'B' Percentages 2012	50%	50%		9%	17%	21%	38%	15%	
LA 'B' Numbers 2013	163	157		22	56	61	119	63	
LA 'B' Percentages 2013	49%	51%		7%	18%	18%	37%	20%	
Ethnic origin	White	Mixed	Asian or Asian British	Black or Black British	Other ethnic groups	Other			
LA 'A' numbers	195	x	x	x	x	0			
LA 'A'	96%	x	x	x	x	0			

Percentages									
LA 'B' numbers	265	25	5	x	x	0			
LA 'B' Percentages	89%	8%	2%	x	x	0			
Number of children who began to be looked after in year ending 31 March 2012	Children who started to be looked after	of which: children who were taken into care	Percentage of children taken into care						
LA 'A'	95	20	22%						
LA 'B'	150	60	42%						
Category of need (only for children who started to be looked after during year ending March 2012)	Abuse or neglect	Child's disability	Parents illness or disability	Family in acute stress	Family dysfunction	Socially unacceptable behaviour	Low income	Absent parenting	
LA 'A' numbers	40	x	x	x	35	x	0	x	
LA 'A' percentages	42%	x	x	x	40%	x	0	x	
LA 'B' numbers	120	5	5	x	10	x	0	x	
LA 'B' percentages	80%	5%	5%	x	7%	x	0	x	

Figures for year ending 31 March 2012 (DfE, 2012a) and limited data supplied by LA 'B' for period 2012-2013

Number of Children placed within LA Boundary for LA 'B' 2013	179
Number of Children placed out of LA Boundary for LA 'B' 2013	141

Number of children placed in and out of LA Boundary for LA 'B' 2012-2013

Appendix 12: Literature Search Method

I used the eLibrary search service provided by the University of Birmingham to conduct my literature search. This facility allowed the following databases to be searched automatically: PubMed Central, IngentaConnect, JSTOR, MEDLINE, ERIC, ScienceDirect and Taylor & Francis Online. During the first phase of my research, I searched for articles containing the words 'looked after children', 'children in care', 'paired reading' and 'literacy'. When this search returned very few results, the search was broadened to include 'looked after children', 'children in care' 'reading' and 'education'. Both UK and international sources were accepted for inclusion in the corpus of literature reviewed.

Phase 1 of the research was carried out between January 2012 and January 2013.

To meet the examiners' required amendments following the viva, a second literature review was carried out between August 2013 and December 2013. This entailed searching the same databases for 'looked after children', 'children in care' 'attachment' and 'trauma'. This produced a greater body of literature and the most salient articles were selected. Again, international studies were included.

UK government legislation and guidance were rendered readily accessible through the DfE website and archived government publications from the DirectGov website.

Approximately 70 papers were identified from both phases of the research, which were then examined in detail to determine relevance to the following research questions:

- Does a Paired Reading intervention raise the literacy levels of looked after children when carried out by foster carers?
- Is the intervention effective in improving the relationship between carers and children?
- What are the benefits observed by participants in the intervention?

Additionally, the second phase of the literature review process sought to explicate the principal mediating mechanisms through which LAC are disproportionately vulnerable to poor life outcomes, low educational achievement, and to delayed literacy development in particular.

The selected papers were from a range of journals and recent texts. Because there were very few studies published on looked after children and literacy in the UK, international papers were also included in this area of literature review, in particular.

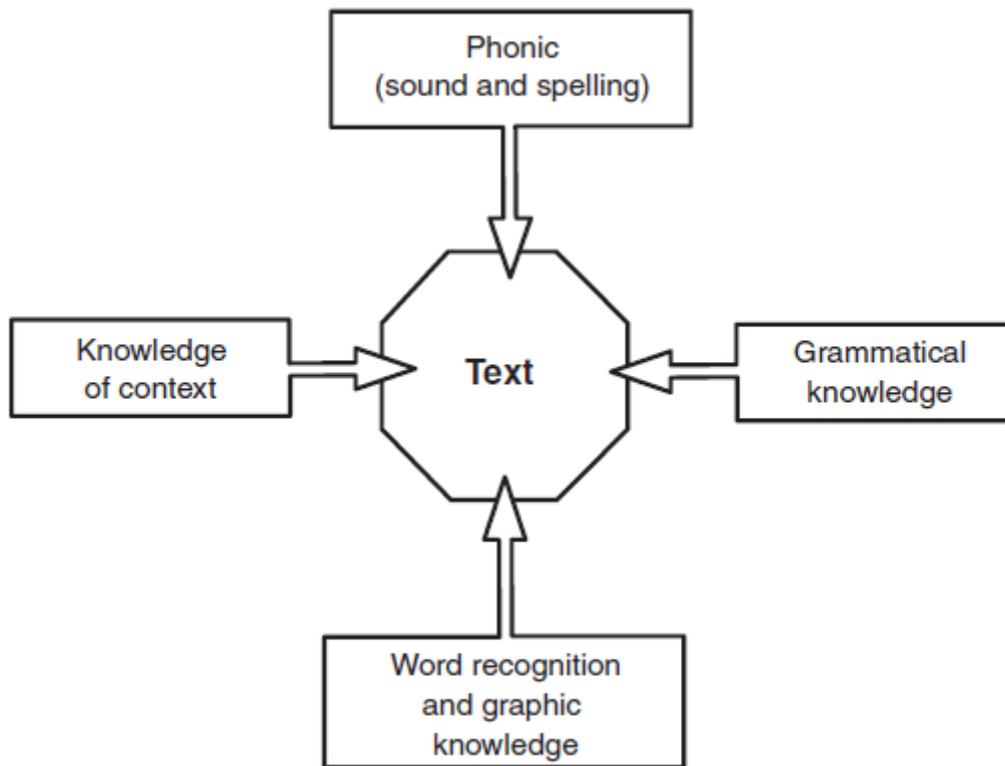
Within this Volume of my thesis, I have chosen to focus on the impact of pre-care experiences on the emotional and cognitive development of LAC, and how this affects their subsequent ability to ‘settle to learn’ at school. I have also addressed relevant policy and legislative developments which have sought to support the wellbeing of LAC.

I have situated the evaluation of the Paired Reading (PR) intervention within this context. The discussion of outcomes of this intervention has used literature drawn from both phases of my research.

Appendix 13: The development of Reading Difficulties

There has been widespread debate about the way that children learn to read for the past several decades. Two of the most prominent reading frameworks have been the Searchlights Model (DfEE, 1998) and the Simple View of Reading (Gough and Tunmer, 1986).

The Searchlights model is derived from Clay and Cazden (1990), who proposed that using multiple sources of information was crucial in order to derive understanding from written texts. The Searchlights Model (DfEE, 1998) was introduced as part of the National Literacy Strategy (NLS) in 1998. The four searchlights that were identified are represented in the figure below:



The Searchlights model (NLS, 1998)

The DfES implied that the role of the teacher was to ‘switch on’ those searchlights which were not being utilised by children. The model proposed that a range of different types of knowledge were required in order to read, and that all these types of knowledge needed to be acquired if a child was to learn to read fluently. The model implicitly acknowledged that both accurate word recognition and good language comprehension were necessary if readers were

to understand texts, but did not expressly state which aspects of fluent reading could be attributed to each of these components.

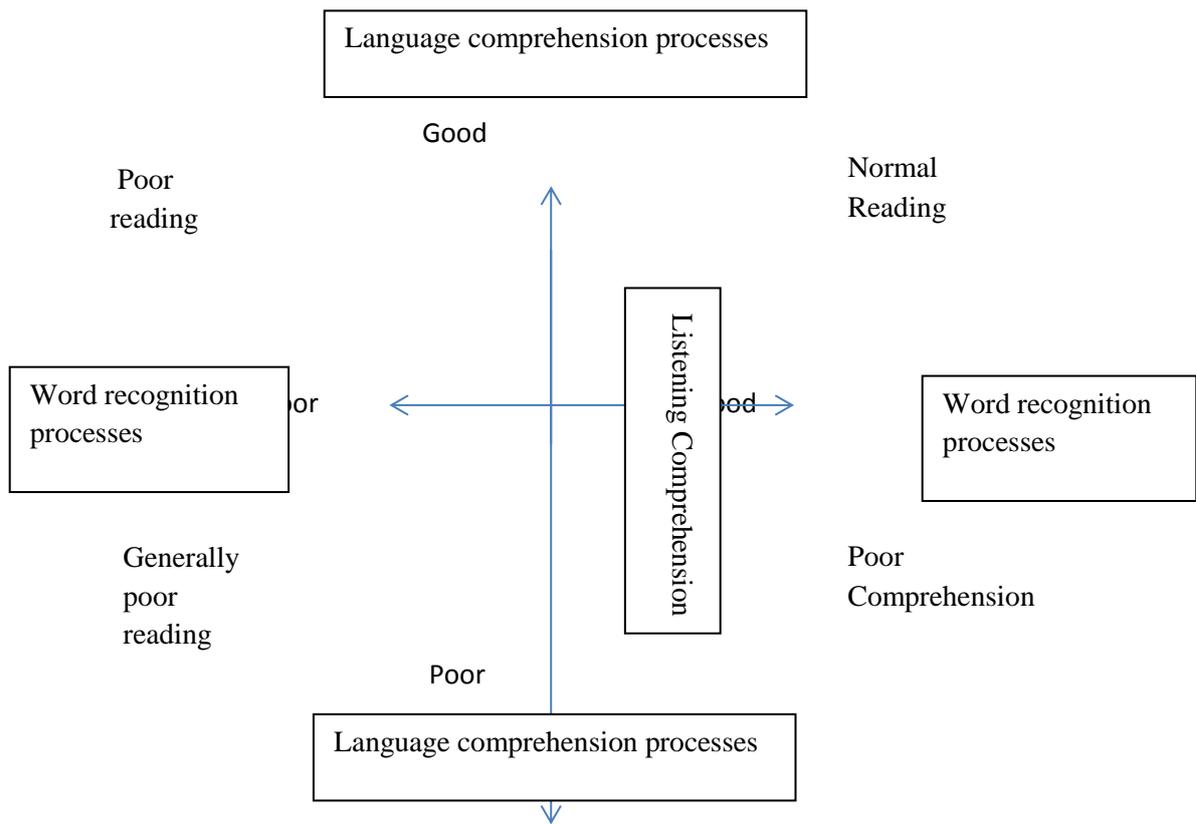
The model has been criticised for inaccurately representing the relationship between decoding and comprehension skills and also the role of vocabulary knowledge in facilitating children's acquisition of these areas of reading (Solity, 2003).

The Rose Review (DfES, 2006b) recommended that the Searchlights model be replaced by the Simple View of Reading, but acknowledged the positive role the model had played in highlighting the importance of the direct teaching of literacy.

The 'Simple View of Reading' (Gough and Tunmer, 1986) (see figure overleaf), is a framework which holds that fluent reading requires integration of two separate, but related reading processes: decoding and comprehension. Children are thought to either primarily develop difficulties with decoding or difficulties with comprehension (Snowling and Hulme, 2011), and so the model was thought to be conceptually stronger than the Searchlights model.

According to this model of reading, decoding difficulties are thought to be caused by phonological difficulties, while reading comprehension difficulties are caused by a combination of decoding difficulties and oral language difficulties, along with higher order difficulties with semantics and grammar. A child needs to be able to master both sets of skills to become a skilful reader.

Gough and Tunmer (1986) emphasise the importance of assessing both skills when assessing children's reading ability, as there is a danger that teachers and researchers will assume that the two abilities are at a similar level.



Simple View of Reading (Gough and Tunmer, 1986 adapted by University of York, 2011)