Storybook reading strategies and academic literate cultural capital: Closing the literacy gap before it opens.

A thesis presented in partial fulfilment of the requirements for the degree of

Master of Education

at Massey University, Palmerston North, New Zealand

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2012

Abstract

While New Zealand reading achievement ranks highly in the international arena, the gap between high- and low-ability readers is far greater than that in most other countries. The lower-ability readers hail disproportionately from homes with low income, and their cultural capital often does not match the culture of their schools. They commonly have less academic literate cultural capital (ALCC), which encompasses skills, knowledge, values and attitudes that are related to conventional literacy. Prior to conventional literacy development, ALCC and emergent literacy skills are similar. Storybook reading is a beneficial parent-child activity which has been harnessed by intervention research as a vehicle through which to build on emergent literacy skills. Much print-referencing and dialogic reading-strategy research has been conducted, showing positive effects on children's emergent reading development and therefore on their ALCC.

The quasi-experimental study, on which this thesis is based, used two DVDs to educate parents from low-income areas about print-referencing and dialogic reading strategies. Thirty parent-child dyads were recruited through kindergartens which were geographically close to a decile one school. Fifteen dyads formed the intervention group, which was given two DVDs over a four week intervention period, and 15 dyads formed the control group. Data was collected before, during, and after the intervention from parents and their young children, using a mix of quantitative and qualitative measures. Parental reading behaviours and beliefs appeared to change as a result of the intervention; parents from the intervention group reported the use of more print-referencing behaviours during storybook reading than their control group counterparts. In particular, intervention parents made significantly more references to letter knowledge (LK). Most parents believed the intervention to have been beneficial to them and their children, and deemed the study material effective. Children from the intervention group reported more reading to occur post-intervention than it did pre-intervention. While the majority of their tested emergent literacy skills increased more than those of the control children after the study, the differences were not significant. The thesis concludes by recommending more research of a similar nature, taking into account several important changes. Additionally, it recommends qualitative research into the cultural capital of New Zealand's ethnic minorities.

Acknowledgements

My warm thanks go out to the large number of people who were integral to this post-graduate journey. The support and encouragement received from friends and family along the way have been incredible, and are greatly appreciated.

I take my hat off to my main supervisor, Alison Arrow, who has steadfastly guided me through this tremendous project. Thank you for your continuous critique of my writing and ideas, and for your expertise in kindly scaffolding my initial scratching towards this finished product. I am also appreciative of the guidance received from Valerie Margrain and Brian Finch, my secondary supervisors. Valerie, you encouraged me to think outside the box, which led to a thesis quite different from the one I initially imagined. Brian, thanks for coming on board so late in the piece, and for your cultural capital inspiration.

Thank you to the kindergarten association for giving me access to your network of centres, and to the two participating kindergartens who welcomed me into your rooms. I am very grateful to the obliging children and their parents who took time out from their sure-to-be-busy lives to be a part of this study. Without you all, there would be no study. I appreciate the window into your lives that you provided and the time you took to trial this programme.

Finally, heart-felt gratitude goes out to my home and community support. To my mother, Dyana Wells, who has been a rock throughout my study, always encouraging and perfectly realistic. To my young son, Will, for providing a rich contrast and balance to hours in front of the computer, and for so willingly accepting the care of others when Mama was not available. Finally to my partner Ted; while he may not have understood exactly what was being done all this time, he has never stopped supporting me.

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Abbreviations

ALCC	Academic literate cultural capital
ANCOVA	Analysis of covariance
CAP	Concepts about print
CGC	Control group children
CGP	Control group parents
DVD	Digital video/versatile disk
HIPPY	Home Interaction Programme for Parents and Youngsters
IEA	International Association for the Evaluation of Educational Achievement
IGC	Intervention group children
IGP	Intervention group parents
LK	Letter knowledge
OECD	Organisation for Economic Co-operation and Development
OM	Onset matching
PA	Phonological awareness
PIRLS	Progress in International Reading Literacy Study
PISA	Programme for International Student Assessment
RM	Rime matching
SES	Socio-economic status

CHAPTER ONE

Introduction

Research Focus

This study investigated whether parental storybook reading using a combination of print-referencing and dialogic reading strategies had a positive effect on the emergent reading skills of three- and four-year-old children. It targeted families from areas known to be populated with low socio-economic status (SES) households. Children from these homes are considered more 'at risk' for reading difficulty at primary school (Justice & Pullen, 2003; Tunmer, Chapman, & Prochnow, 2004), and therefore have a greater chance of increased added value due to the intervention. DVDs were used to convey the storybook reading strategies to parents.

Contextual Setting

International achievement studies, such as the Progress in International Reading Literacy Study (PIRLS) (Mullis, Martin, & Gonzalez, 2003; Tunmer, et al., 2008) and the Programme for International Student Assessment (PISA) (OECD, 2004, 2010) have found New Zealand to have a history of high reading achievement relative to other countries (Tunmer, Chapman, & Prochnow, 2006). In 1991, the International Association for the Evaluation of Educational Achievement (IEA) assessed the reading skills of nine- and 14-year-old students from 32 countries. New Zealand ranked sixth out of the 32 counties in the nine-year-old assessments and fourth in the 14-year-old assessments (Elley, 1992). In 2001, the PIRLS assessed the reading achievement of children from 35 countries, in grades equivalent to Year 5 in New Zealand. New Zealand ranked 13th out of 35 countries (Mullis, et al., 2003). The 2006 PIRLS ranked New Zealand 24th out of the 45 participating countries (Tunmer, et al., 2008). In 2003, the PISA assessed reading skills in 15-year-olds. New Zealand was placed sixth out of the 40 countries assessed (OECD, 2004). Finally, the most recent PISA (2009) assessed reading achievement in 15-year-olds, and ranked New Zealand fourth out of the participating Organisation for Economic Development (OECD) countries (OECD, 2010). New Zealand does consistently achieve relatively-high rankings in the international reading achievement arena.

However, in contrast to this relatively high international reading achievement, New Zealand appears to have an extraordinarily large gap between its high- and low-ability readers. The 1991 study by the IEA found New Zealand to have the largest spread of reading scores of all 32 participating countries in the fourteen-year-old age group (Elley, 1992). The low-achieving readers in the IEA study consisted disproportionately of children from low-income backgrounds. In the aforementioned 2001 PIRLS study, the spread of our scores caused concern again. Standard deviations for the 35 countries ranged from 57 – 106; New Zealand ranked 30th with a standard deviation of 93 (Mullis, et al., 2003). In 2006, PIRLS ranked New Zealand's spread at 36th out of 45 countries, with a standard deviation of 87 (Tunmer, et al., 2008). The 2003 study by PISA found the spread in New Zealand reading scores to be greater than almost all 40 countries that were assessed (OECD, 2004). Like the 1991 IEA study, it found low-achieving readers to come mainly from low-income backgrounds (OECD, 2004). Finally, the 2009 PISA study ranked New Zealand as having one of the widest distributions of all the participating countries (OECD, 2010; Telford & May, 2010).

While international studies have found that school-aged children in New Zealand display a large spread in reading achievement, this spread has also been observed upon school entry. School entry literacy skills of children from low-income backgrounds are not as developed as those of their peers from middle-income backgrounds (Tunmer, et al., 2006). This difference correlates to the variation in reading achievement scores between children from low-income backgrounds and children from middle-income backgrounds seven years later (Tunmer, et al., 2006).

Reading achievement is associated with socio-economic factors and New Zealand would be expected to have a comparatively small spread in reading achievement, as the degree of economic difference between low- and middle-income families is relatively small (Tunmer, et al., 2006). It has been proffered that the sizeable gap between high- and low-ability readers in New Zealand is the "single biggest challenge confronting literacy education in New Zealand" (Tunmer, et al., 2006, p. 184), and the home literacy environment (e.g., presence of books, occurrence of reading and writing, frequency of library visits) is suggested as the main contributing factor (Tunmer, et al., 2006). A child's home environment determines their "academic literate cultural capital" (ALCC), which is a set of

factors associated with conventional literacy development (e.g., Tunmer, et al., 2006).

Upon school entry, ALCC can be determined by assessing emergent literacy skills, such as letter knowledge (LK), concepts about print (CAP), and phonological awareness (PA). Emergent literacy skills affect children's success at school and are linked to their reading achievement many years later (Tunmer, et al., 2006). Children from homes with low SES tend to have lower levels of emergent literacy than their more affluent peers (Tunmer, et al., 2006), and therefore have less ALCC. Fostering the development of emergent literacy skills at home, and thus increasing ALCC, may substantially enhance later reading achievement (Whitehurst, et al., 1999).

Aims of the Research

While completing a post-graduate diploma, it became apparent to the author that helping parents to integrate some of the school culture into their "curriculum of the home" might be a more successful way of expanding existing cultural capital than waiting until formal schooling begins. One way to augment the ALCC of these children may be to encourage parents to read to their children and to use specific strategies while doing so. This study aims to encourage the development of emergent literacy skills and ALCC by showing parents how to use print-referencing and dialogic reading strategies when reading to their young children.

Organisation of the Thesis

Chapter Two reviews and summarises the New Zealand and international literature on early literacy, storybook reading and intervention research. Firstly, the early literacy paradigm of cultural capital is presented as a lens through which to view the current literacy gap in New Zealand. Children whose cultural capital is in line with school culture have a greater chance of academic success. The emergent literacy skill set, which allows for tracking changes in ALCC, is described. Secondly, storybook reading is defined and presented as a beneficial activity that offers a context for emergent literacy development. Two strands of storybook intervention research are defined and relevant studies are described. Finally, a model of literacy development is presented and the research questions introduced.

Chapter Three links the research questions to the chosen research design: a pretest-posttest quasi-experimental design with a control group. It describes the parents and young children who participate and the methodology and materials that are used. Finally, details about the storybook reading intervention are presented.

Chapter Four details the results of this study. It first describes the home literacy environments of the participants and then looks at changes in parental behaviours and beliefs around storybook reading as a result of the intervention. Parental effectiveness scores for the intervention are presented and, finally, changes to the emergent literacy skills of the children are analysed.

Chapter Five discusses the results and attempts to explain them. The findings are linked to the literature described in Chapter Two and changes for improvement are suggested. This chapter presents several limitations of the study and recommends avenues for future research. It finishes with a concluding statement summarising the study.

CHAPTER TWO

Literature Review

Introduction

This chapter introduces four literacy paradigms and selects two to expand on: cultural capital and emergent literacy. It describes how the first may be useful in explaining some of the causes of the literacy achievement gap in New Zealand and how the second can be employed to look more accurately at these differences in achievement. Storybook reading is outlined as a commonly-occurring home-literacy activity, and its usefulness in developing emergent literacy is described. Print-referencing and dialogic reading strategies are discussed as two types of storybook reading activities that can be used to build emergent literacy skills, such as alphabet knowledge and PA. Research involving the use of DVDs is presented as a cost-effective and viable way to educate parents in using these strategies and helping to develop the emergent literacy skills of their young children. Finally, a model of literacy development is presented.

Early Literacy Paradigms

In this first section, four early literacy paradigms are presented in chronological order of theoretical development. The last two, emergent literacy and literacy as cultural capital, are expanded on, as these two provide the framework for the study. These paradigms are described and relevant research is presented.

The pathway to formal literacy has been conceptualised in different ways over the last half-century. Maturationist views of the 1950s, those of Arnold Gesell for example, saw "reading readiness" as a biologically-determined mental state which was reached at around six or seven years of age (Makin, Jones Diaz, & McLachlan, 2007). Preschool literacy experiences and "pre-reading" behaviour were viewed as separate from "real" reading and the formal task of learning to read (Clay, 1991; Whitehurst & Lonigan, 1998). Educators were concerned with what skills children needed to obtain before they would benefit from formal reading instruction (Whitehurst & Lonigan, 1998). Developmentalist views of the 1960s, such as those of Jean Piaget, recognised the importance of specific experiences in the child's environment in readying them for the formal tasks of learning to read and write (Makin, et al., 2007). Both theoretical approaches saw formal literacy as

an isolated set of skills, and believed a certain developmental point needed to be reached before the child was ready to learn to read and write (Makin, et al., 2007).

In the late 1960s, a new concept was put forward by Marie Clay: "emergent literacy" (Clay, 1985). The emergent literacy paradigm was based on the idea that skills acquired during the preschool years continued to develop in an unbroken continuum through the period of school entry and beyond (Clay, 1991; Whitehurst & Lonigan, 1998). It viewed reading, writing and oral language as developing concurrently and in an enmeshed way, as literacy was encountered naturally in social contexts, independent of formal instruction (Whitehurst & Lonigan, 1998). Literacy development was now seen to flow from early childhood experiences into the more formal instruction found at school (Whitehurst & Lonigan, 1998).

With the 1970s, came a new way of viewing literacy learning that recognised the profound influence of a child's social, cultural and environmental milieu on their literacy development and use (Makin, et al., 2007). This view saw literacy experience as part of a child's cultural capital, arguing that one could not separate literacy from the context in which it was used (Makin, et al., 2007). Children were seen to be advantaged or disadvantaged depending on how closely their early experiences matched those at school and how similar the school assessment practices were to their prior experiences (Makin, et al., 2007). Children from homes that had values, attitudes and practices similar to those of their schools tended to have more academic success than children from other cultural backgrounds (Parkhill, 2001/2002). Some of these values and practices were associated with literacy, and for the purposes of this paper have been termed "literate cultural capital".

Cultural Capital

Pierre Bourdieu (Bourdieu 1973, cited in Gaine & George, 1999) was one of the more influential sociologists who studied social class and the way it related to the accumulation of *cultural capital*. Cultural capital describes an orientation to the world and an expectation of the way it operates, for example the ways knowledge is taught, sought and thought about. It can be described as a composite of values, attitudes, skills and knowledge that are acquired at home and in the community (Gaine & George, 1999). For some children, typically those from well-off families belonging to the ethnic majority, the assumptions and principles of home are in tune with those encountered once formal schooling is begun, and so the transition

from home to school is relatively easy. For others, typically those with less income and belonging to a cultural or ethnic minority, the culture that they have grown up with is not reflected at school, and the ideas and experiences that they encounter at school are alien and removed from their previous experience. This mismatch between home and school culture can create barriers to learning: motivation and interest are likely to be lowered and the child's understanding of what is happening in the classroom is marginalised (Gaine & George, 1999).

The cultural capital paradigm recognises the association between homes with low SES and the higher likelihood of a cultural mismatch between home and school. Socio-economic status has been cited as one of the strongest predictors of school performance (Weigel, Martin, & Bennett, 2010), with children from poorer homes typically reading at a more basic level at school (Tunmer, et al., 2004; Whitehurst, et al., 1999; Wylie, Thompson, & Hendricks, 1996). New-entrant children from higher-income homes are much more likely to develop basic literacy skills, such as letter-name knowledge and PA, in their preschool years and display significant differences in all School Entry Assessment measures of early literacy when compared with their lower-income peers (Parkhill, 2001/2002). Children from homes with little money have been found to have a higher risk of delayed literacy development than their more well-off peers, both in New Zealand (Tunmer, et al., 2004) and overseas (Justice & Ezell, 2002; Justice & Pullen, 2003; Lonigan, Anthony, et al., 1999). Reading is less likely to be valued in these homes, perhaps due to limited adult education and low adult literacy levels (Tunmer, et al., 2004) and there tend to be fewer literacy resources (Votruba-Drzal, 2003). Children may be read to less often, with simpler books (Kaderavek & Justice, 2002; Karweit & Wasik, 1996). This home learning environment may not support young children's emergent literacy development (Machida, Taylor, & Kim, 2002) in a way that is expected by schools. None of this suggests a lack of parental desire for a good education for their children, but is the result of financial, social and cultural obstacles (Gaine & George, 1999).

The home culture of different social classes, and its effects on schooling, has been explored using longitudinal studies. Gordon Wells studied language development and its relationship to educational achievement in the United Kingdom (Wells, 1985b) and Shirley Heath compared white middle-class, white working-class and black working-class communities in the United States (Heath,

1982, 1983, 1986). Both sets of research demonstrate the effect of cultural capital on academic success.

In the 1980s, Wells (1985a, 1985b) carried out an extensive longitudinal study into language and its relationship to school achievement. He conducted a systematic investigation of the preschool environment and subsequent success at school of 32 children from different classes, using a tape recorder and follow-up details from the parents. He observed each child once every 3 months for 2 years, from between the ages of one-and-a-quarter and three-and-a-half, and during each observation recorded 24 90-second samples over a day. By the time they reached school, all children had a basic command of the English language and communicated effectively at home.

He found socio-economic class to be significantly related to children's knowledge of literacy (CAP and LK) at five years of age, and to reading comprehension at seven years of age. Children from homes with less income were more likely to achieve lower scores in all categories. Wells attributes this in part to familiarity with context-independent discussion: talking about something when it is not currently happening. While middle-class children tended to be surrounded by such talk at home, working-class children were often not. In class and during assessment time, this type of talk was common and the children who were not familiar with it were disadvantaged (Wells, 1985b). He also found socio-economic class to correlate with a child's interest in literacy, concentration during literacy activities and the number of books owned. In all categories, lower scores were more common in the lower socio-economic classes (Wells, 1985b).

In addition to cultural differences linked to socio-economic class, cultural differences with relation to race have also been the subject of extensive investigation. Heath (1982, 1983, 1986), mentioned above, conducted a five-year longitudinal ethnographic study on the home and community environment of white middle-class, white working-class and black working-class inhabitants. She describes some of the differences in the narrative and literacy practices of these homes and communities (1983, 1986) and how the practices of the middle-class community led naturally to the routines at school (1986).

By the time they started school, the white middle-class children were familiar with many of the expected book-related behaviours, for example, labelling pictures, answering 'what' questions, linking real-life events to their stories, and reading stories containing decontextualised content. They tended to be well-versed

in question-answer evaluation sequences, having practiced these with their parents during storybook reading. For example, the mother would ask a question beginning such as "What is that?", the child would respond, and the mother would provide an evaluation and the name of the item (Heath, 1986). These interactions are like those used at school between a teacher and her students (Heath, 1986).

The white working-class families had differing storybook reading behaviours (Heath, 1986). From about three years of age, the children were familiar with labelling things but were expected to 'sit and listen' to stories rather than to participate in the reading. Written and oral stories were about real events and never fictional and were largely from the Bible. Stories were not linked to their lives and there was little use of decontextualised language.

The customs of the black working-class community were even more estranged from the school culture. Children were not used as conversation partners or information givers in these communities; there were plenty of other adults around for this purpose (Heath, 1982). Questions that asked for labels, attributes of objects or events isolated from their context were absent (Heath, 1982). When questions were used, they commonly asked for an analogy to be made, were used as prompts for a story or formed an accusation (Heath, 1982). Children were asked for reason-explanations rather than what-explanations and told stories that had a kernel of truth but were largely fictitious. Perhaps most importantly, questions commonly used at school where the questioner knows the answer, were rare in the black community (Heath, 1982). Comments were often made in place of questions. For example, instead of "What colour is that?" a grandmother might say "That colour is like your pants". Written texts such as newspapers, mail or brochures were orally negotiated by many people at once (Heath, 1986). Social interaction took the place of bedtime stories and children's books were rare.

The practices of both black and white working-class communities were significantly different from those at school. Children from these communities found the school culture foreign and typically did not achieve as highly as the children from the white middle-class community (Heath, 1986). This research exemplifies the way that children learn about literacy from their family and community (Makin, et al., 2007). The more the home and community literacy practices differ from those at school, the harder it is for children to display

knowledge and competence when they reach school, and the lower their measured achievement is likely to be (Makin, et al., 2007).

Literate cultural capital. The portion of cultural capital that is concerned with literacy has been termed *literate cultural capital* (Tunmer, et al., 2006). Literate cultural capital describes a disposition towards all things literate and encompasses practices that surround the child as well as qualities of the individual. It encompasses all literacy practices, whether they support conventional literacy development or not. Home factors associated with conventional literacy are included, such as the presence of printed material and established reading habits, the use of questioning in the home, whether children are read to and how, and the general value that the family gives to literacy (Nash & Harker, 1992). Non-conventional literacy practices are also included, such as the reading of baseball scores or graphic texts. It also encompasses personal skills, practices, values and attitudes that result from the particular literacy experiences one has been surrounded by. The concept of literate cultural capital may help to better explain the link between low SES, cultural diversity and poor achievement on literacy competency measures (Parkhill, 2001/2002), as exemplified by the following two New Zealand examples.

New Zealand researchers Nash and Harker (1992) endeavoured to explore the relationship between "literary" cultural capital and reading achievement. Their measure of reading achievement was the reading scores from the PAT Reading Comprehension assessments of 977 students. Literary cultural capital was measured using a parental questionnaire that collected information about home literacy practices: the number of books in the household, whether a daily paper was purchased, and the parent's frequency of reading, library usage and educational qualifications. In addition, information was gathered on the types of books read, television programmes watched and radio stations listened to. Homes with higher incomes tended to have more literary cultural capital than those with lower incomes and literary cultural capital was found to be positively associated with reading achievement (Nash & Harker, 1992).

A second New Zealand research team, Tunmer, Chapman and Prochnow (2006), completed a seven-year longitudinal study in New Zealand looking at the links between literate cultural capital and future reading achievement. They defined literate cultural capital as reading–related factors (e.g., knowledge of letter sounds, PA) present at school entry that are linked to home-based activities (e.g.,

storybook reading, singing nursery rhymes) which promote early literacy development. These reading-related factors were measured with a range of standard school entry tests. Children from low-income backgrounds were found to have considerably less literate cultural capital than children from middle-income backgrounds, and therefore were often not as well prepared for school. These differences were long lasting, accounting for almost 50% of the variance in reading achievement at year seven (Tunmer, et al., 2006).

The disparity of literate cultural capital with income level, shown in both studies, is likely to be due to the different literacy culture of the lower-income homes and the fact that school assessments tended to test skills that had not received as much attention in these homes (Whitehurst, Epstein, et al., 1994). These findings of a mismatch between home and school culture in New Zealand echo those of Wells (1985a, 1985b) in the United Kingdom and Heath (1982, 1986) in the United States.

ALCC. Nash (1992) and Tunmer et al. (2006) define literate (or literary) cultural capital differently. Literate cultural capital, as described by this thesis, encompasses both of their definitions and includes the individual and his/her orientation towards literacy, along with his/her surrounding environment. Literate cultural capital carries the implication that cultural variation is at work, which can result from factors such as ethnicity, economic status or other influencing factors. Literate cultural capital has no absolute value; its worth is relative to the culture that creates it. Therefore, a preferred term for literate cultural capital as used by Tunmer et al. (2006) might be *academic literate cultural capital*. The definitions used in their study refer to literacy skills that support conventional reading and writing, which typically occurs in an academic environment (i.e. at school). The sole use of literate cultural capital for such a meaning risks devaluing other forms of literacy, such as reading graphic or non-narrative texts. The instruments used by Tunmer et al. (2006) to measure literate cultural capital (termed ALCC in this study) are also used to measure emergent literacy, indicating that ALCC and emergent literacy are related.

Prior to the development of conventional literacy, ALCC and emergent literacy are very similar and can be measured using the same instruments. However, while both theoretical concepts are associated with conventional literacy and recognise the importance of environment, emergent literacy is related to the preschool development of conventional literacy and to specific environments that

promote this. ALCC encompasses conventional literacy skills at all levels of development and acknowledges the effects of different cultural environments on the development of these skills. For example, a middle-class university student may have more ALCC than a working-class truck driver.

There is no research on ALCC as the term has been developed during the writing of this thesis. However, there is a breadth of research on emergent literacy, both defining it and linking it with the development of conventional literacy. In addition, the instruments used to measure emergent literacy can also be used to measure ALCC. The main theoretical paradigm of this thesis is cultural capital; emergent literacy is therefore a vital supporting paradigm.

Emergent Literacy

Most children know much about literacy before formal instruction begins at school (Booth, 2005; Elias, Hay, Homel, & Freiberg, 2006). These understandings can be grouped together under the heading *emergent literacy* and can be described as a set of knowledge, skills and attitudes that are presumed to be developmental precursors to conventional literacy success (Elias, et al., 2006; Justice & Ezell, 2000; Whitehurst & Lonigan, 1998). These competencies are usually acquired during the preschool years and prepare young children for the ultimate mastery of accurate reading and writing for meaning, with independence (Clay, 1985; Ezell, Justice, & Parsons, 2000; Justice & Pullen, 2003; Kaderavek & Justice, 2002; Weigel, et al., 2010). Conventional literacy builds on the emergent literacy skill set and encompasses both reading and writing. Reading can be described as the ability to accurately decode and derive meaning from printed text, and writing as the skill of writing words so that others can derive meaning from them (Arrow, 2010).

While the enmeshed nature of these developmental paths is acknowledged, each can be looked at separately in order to achieve a greater understanding of the whole. This study will look at the pathway of emergent reading in greater depth. "Preschool" is not a term used in New Zealand within early childhood education or by the Ministry of Education. However, due to its use within broader international literacy research literature (e.g., Anthony & Lonigan, 2004; Justice, Pullen, & Pence, 2008), for the purposes of this study the term will be used to describe children from birth to five years of age.

Literacy research shows that skills developed during the emergent reading period support the growth of other emergent reading skills and ultimately the development of conventional reading (Lomax & McGee, 1987). Emergent reading skills and future reading achievement show positive correlations, and emergent reading-skill development tends to predict achievement in conventional reading at school (Bus, van IJzendoorn, & Pellegrini, 1995; Justice & Ezell, 2000; Kaderavek & Justice, 2002; Korat, 2005; Lomax & McGee, 1987; Lonigan, Anthony, Bloomfield, Dyer, & Samwel, 1999; McBride-Chang, Wagner, & Chang, 1997; Sénéchal & LeFevre, 2002; Whitehurst, et al., 1999). For example, Lomax and McGee (1987) tested the print concept and word reading skills of 81 children who were between the ages of three and seven years old and used the results to create a model of reading development.

A five-component model was developed, which found knowledge of print conventions to influence graphic awareness (attention to the graphic details and orientation of printed letters and words), which then influenced phonemic awareness, which in turn influenced knowledge of grapheme-phoneme correspondences, which influenced word reading ability. Developmental analyses showed that, as children got older, their knowledge in each of these components grew. This study shows that skills picked up in the emergent reading period support the growth of other emergent reading skills and conventional reading development (Lomax & McGee, 1987).

There are many ways to quantify emergent literacy; the one presented here is based on the typology of Whitehurst and Lonigan (1998) and has some empirical support (Whitehurst & Lonigan, 1998). While the skills, knowledge and attitudes are not truly separable, each one can be looked at individually to gain a deeper understanding of the whole (see Figure 1 for a list of components).

Whitehurst and Lonigan (1998) divide their literacy components into two interdependent sets, differentiated by whether the skill originates within the word or outside it. Outside-in skills are concerned with one's understanding of the context in which they are reading (or writing) and include skills that help with comprehension of the text. Inside-out skills are print-specific and are concerned with translating text into sound (or sound into text). Examples of outside-in skills include vocabulary and knowledge of print conventions, and examples of inside-out skills include alphabet knowledge and PA.

Outside-in skills	Inside-out skills
- Language (e.g., vocabulary)	- Knowledge of graphemes
- Narrative	- Phoneme-grapheme correspondences
- Conventions of print	- Phonological awareness
- Emergent reading	- Syntactic awareness
	- Emergent writing
	- Phonological memory
	- Rapid naming
	- Print motivations

Figure 1. Emergent reading components taken from Whitehurst and Lonigan (1998).

Vocabulary (a subset of Language, Figure 1) is one of the more important components of language with regards to emergent literacy development, as it correlates more highly with emergent literacy development than other language components (e.g., knowledge of syntactic structure or familiarity with decontextualised language). It is both a component of emergent literacy and necessary for the development of other components. The breadth of a child's vocabulary can affect their decoding and comprehension processes. In the early stages of reading, decoding tends to be the limiting factor and this is affected by the breadth of vocabulary and its effect on PA. A greater vocabulary is associated with more-highly-developed PA, which impacts on decoding (Arrow, 2010; McDowell, Lonigan, & Goldstein, 2007; Ouellette & Haley, 2011; Walley, Metsala, & Garlock, 2003).

In the early stages of vocabulary acquisition, words are stored in the mental lexicon as whole units (Ouellette & Haley, 2011). As vocabulary increases, words are stored in the brain in a more segmented fashion: as syllables, onset-rime units, and finally as phonemes (Arrow, 2010; Ouellette & Haley, 2011; Walley, et al., 2003). The storing of words as phoneme sequences helps the decoding process of matching sounds to letters and combining the sounds to read words. A large vocabulary is associated with increased PA, which is associated with word reading ability (Garlock, Walley, & Metsala, 2001; Walley, et al., 2003).

A larger vocabulary also increases the likelihood that a child will understand what he/she is reading (Arrow, 2010; Whitehurst & Lonigan, 1998).

Reading is a process of extracting meaning from the text (Whitehurst & Lonigan, 1998), and if it contains unfamiliar words it will be more difficult to understand (Arrow, 2010). Oral language development is most strongly related to future reading achievement at these later stages, when reading comprehension becomes important (Ezell, et al., 2000; Hood, Conlon, & Andrews, 2008).

Print conventions are the rule-governed, organisational properties of print (Justice, Bowles, & Skibbe, 2006) and knowledge of these can be described as print concepts (Clay, 1991). Print concepts can be gained before and as we learn to read conventionally (Clay, 1991). In English, these include conventions such as reading from top-to-bottom and left-to-right on a page; reading the front of one page then the back before moving on to the front of the next page; the difference between print and pictures; the meaning of punctuation; and concepts such as first, last, letter and word (Clay, 2000). Developmental literature on knowledge of print conventions is relatively scarce when compared with that on other areas of emergent literacy (Justice, et al., 2006). This is partly due to a lack of measurement tools (i.e. assessments) that reliably and validly show growth or delay in print concept knowledge (Justice, et al., 2006).

Knowledge of print conventions begins to develop early and takes years to master, with three-year-olds displaying some knowledge (e.g., recognising what could be read, distinguishing between letters and between some words) and six-year-olds still gaining concepts (Lomax & McGee, 1987). It has also been found to correlate with reading ability for children in their second year of school (Johns, 1980). Knowledge of print conventions has been found to have a significant influence on word and letter awareness, and knowledge of grapheme-phoneme correspondences for three- to six-year-old children (Lomax & McGee, 1987). Correlations between print-concept knowledge and the alphabetic principle have been found in four- to six-year-old children (Purcell-Gates, 1996) and between print-concept knowledge and future word recognition for preschool children (approximately three to five years of age) (Justice, Kaderavek, Fan, Sofka, & Hunt, 2009). Children from low-income families are likely to develop print knowledge more slowly than their more affluent peers (Cadima, McWilliam, & Leal, 2010; Justice, et al., 2008; Tunmer, et al., 2004; Whitehurst, et al., 1999) and display significantly reduced skill across a range of print awareness tasks (Justice & Ezell, 2002; Justice & Pullen, 2003; Lonigan, Anthony, et al., 1999).

Alphabet knowledge (represented by knowledge of graphemes, and phoneme-grapheme correspondences in Figure 1) encompasses letter-name knowledge and letter-sound knowledge. The former involves visually distinguishing one letter from another and associating a sound with a letter (e.g., the letter *b* is called /bee/) and is the beginning of a phonologically-based reading strategy (Foulin, 2005). Letter-sound knowledge is the most advanced emergent literacy skill. It involves knowledge of the sound (phoneme) that each letter (grapheme) represents (e.g., the letter *b* is read using the sound /b/). Letter-name knowledge is a strong indicator of early reading achievement (Tunmer, et al., 2006).

Substantial correlations have been found between letter-name knowledge and emergent reading ability for four-and-a-half to five-year-old children (Arrow, 2010), letter-name knowledge measured just before school entry and reading ability upon school entry (Foulin, 2005) and letter-name knowledge upon school entry and reading ability in later grades (Stevenson & Newman, 1986). In addition, children from low-income homes have been found to know fewer letter names than their middle-income counterparts (Lonigan, Anthony, et al., 1999). This knowledge supports the development of letter-sound knowledge and phonological sensitivity (Tunmer, et al., 2006), which are required for the acquisition of the alphabetic principle: the understanding that graphemes in printed text represent the spoken sounds in words (Moats, 2000). With knowledge of the alphabetic principle, children will be able to read with some phonemic accuracy (Nicholson, 2005) as they will be able to match the sounds of some letters to their graphic representation.

In its entirety, the PA domain comprises a complex awareness of, and the ability to manipulate, every level of the sound structure of oral language (Ouellette & Haley, 2011) including words, syllables, onsets, rimes, and phonemes (Ezell & Justice, 2000; Justice & Ezell, 2001; Justice & Ezell, 2002; Lonigan, Burgess, Anthony, & Barker, 1998). Phonological Awareness encompasses a range of competencies that result from a single underlying cognitive ability, which enables tasks of increasing complexity to be completed as development occurs (Anthony & Francis, 2005; Anthony & Lonigan, 2004; Arrow & McLachlan, 2010). Word awareness tends to develop first, enabling one to discriminate, for example, between the spoken words *frog* and *dog* (Anthony & Francis, 2005; Arrow, 2010; Arrow & McLachlan, 2010). This is typically followed by syllable awareness (e.g.,

rat is comprised of one syllable; *rodent* is comprised of two) and then rime awareness (Anthony & Francis, 2005; Arrow, 2010; Arrow & McLachlan, 2010). Rime awareness enables a distinction to be made between words that rhyme and permits rhyming words to be produced (Arrow & McLachlan, 2010). Rime awareness also involves knowledge of onsets and rimes. The onset is the initial sound of a word and the rime is the rest of the word, the part that usually rhymes with another word (for example, the word *bird* has the onset /b/ and the rime /ird/ and rhymes with the word *herd*) (Anthony & Francis, 2005). At the advanced end of the continuum is the development of phonemic awareness (Anthony & Francis, 2005; Anthony & Lonigan, 2004).

Phonemes are the smallest units of sound that a spoken word can be broken into, e.g., the word *cat* can be broken into the phonemes /c-a-t/ (Moats, 2000) and phonemic awareness describes the ability to discriminate between and manipulate these units. This competency builds on from rime awareness, usually when conventional literacy instruction is begun at school (Lonigan, Burgess, & Anthony, 2000). Some mastery of this area enables early readers to sound out words using grapheme-phoneme correspondences and onset-rime knowledge (Tunmer & Nesdale, 1985). For example, a child may see the letters *s*, *u*, and *n*, know they represent the sounds /s/, /u/ and /n/, and blend the sounds together to form the word *sun*. Or, if a child can read the word *bike* and is reading a story about going on a hike, they may notice that the rime /ike/ is familiar. By removing the /b/ from *bike* and replacing it with /h/, they are able to blend /h/ with /ike/ and read the new word *hike*. Phonological skills that have been previously acquired are refined as new skills are learnt, indicating the absence of strict stages of development (Anthony & Francis, 2005). An advanced grasp of PA involves a metalinguistic awareness of these units: the ability to relate to language as an object and to possess knowledge about its use (Whitehurst & Lonigan, 1998).

Phonological awareness is the emergent reading skill most predictive of future reading ability at school entry (Tunmer, et al., 2004). It strongly influences letter-sound knowledge and so contributes to variance in early reading achievement (Tunmer, Chapman, & Prochnow, 2003). Children with lower levels of phonemic awareness will find it more difficult to make links between letters and their sounds, and to grasp the alphabetic principle (Tunmer, et al., 2004, 2006). Children from low-income homes show more foundational phonological sensitivity (Lonigan, Anthony, et al., 1999); their phonemic awareness scores appear to be

substantially lower than those of children from middle income families (Lonigan, et al., 1998). Consistent with the continuous nature of the emergent literacy paradigm, these differences were observable in three-years-olds, present in four-year-olds for blending and elision, and in five-year-olds for rhyme and alliteration oddity (Lonigan, et al., 1998).

Print motivation is an essential component of emergent literacy and refers to children's interest in and enjoyment of reading activities such as being read to, relating to environmental print and looking at books. It can be measured in the proportion of time children spend on literacy-related activities and by their degree of engagement when participating in them (Whitehurst & Lonigan, 1998). A child's interest in literacy can determine the frequency and quality of literacy-relevant experiences, with interested children more likely to initiate reading sessions and notice environmental print (Dale, Crain-Thoreson, Notari-Syverson, & Cole, 1996; Dunning, Mason, & Stewart, 1994; Hood, et al., 2008; Whitehurst & Lonigan, 1998). It has been suggested that reading success is more closely related to a child's interest in interacting with books than to other emergent reading skills (Whitehurst, et al., 1999). Forcing unwilling children to interact with print risks causing the 'broccoli effect', where children who do not like an activity become increasingly disenchanted with it as a result of having it force-fed to them (Scarborough & Dobrich, 1994). Print motivation is correlated with an increased frequency of storybook reading, which is linked to knowledge of literacy upon school entry, overall attainment two years later (Wells, 1985b), and LK (Frijters, Barron, & Brunello, 2000; Hood, et al., 2008).

The smoothness of the transition from an emergent (e.g., home) to a conventional (e.g., school) literacy environment can be affected by the amount of knowledge and awareness of literacy that children have gained during their preschool years (Tunmer, et al., 2006). Studies show that children are most at risk of having reading difficulties when they start school with less developed verbal skills, fewer CAP, less alphabet knowledge, and a cruder PA (Burns, Griffin, & Snow, 1999). Children who have fewer emergent literacy skills are at risk of finding learning to read more challenging (Justice & Ezell, 2000). These children often do have trouble learning to read and rarely overcome this setback (Cadima, McWilliam, & Leal, 2010; Justice & Pullen, 2003; Lonigan, Anthony, et al., 1999). It is too late to wait until formal reading instruction begins to assist those who are at risk of reading difficulty (Whitehurst, et al., 1999).

Emergent literacy skills are developed in a variety of social contexts, the primary one being the family (Votruba-Drzal, 2003; Weigel, et al., 2010). Children require frequent high-quality, literacy-rich interactions that are in familiar, naturally-occurring settings and are supported by an adult (Justice & Pullen, 2003). The behaviours of parents are particularly important as parents are largely responsible for the creation of literacy-rich activities and the modelling of important skills (Booth, 2005; Votruba-Drzal, 2003; Weigel, et al., 2010). The family is a social and cultural context that highly influences a child's emergent literacy skill set, with family literacy practices greatly influencing literacy development (Elias, et al., 2006; Justice & Pullen, 2003).

This section introduced four emergent literacy paradigms, two of which constitute the framework for this research. Cultural capital is a composite of skills, knowledge, values and attitudes that are formed in the early years at home and in the community and affect children's experiences at school. Literate cultural capital forms a subset of cultural capital associated with literacy and ALCC describes capital that is associated with conventional literacy development. Before children learn to read and write conventionally, ALCC and emergent literacy are similar. Both describe literacy skills which can be developed in the early years, prior to the development of conventional literacy abilities. The emergent literacy paradigm provides measures and a framework to track the development of these skills. Research that applied to each paradigm has been presented in this section.

Storybook Reading

The second section of this review introduces and defines the activity of storybook reading between an adult and child. It describes the benefits of storybook reading and presents some of the research that links it to emergent literacy development. Connections between maternal beliefs about storybook reading and their effects on emergent literacy development are discussed. Finally, possible and typical discussion topics between parent and child during storybook reading are given, along with the results of eye-gaze analysis research that compares the amount of time children spend looking at pictures and at print.

Storybook reading is perceived as a natural interaction between parent and child in Western middle-class, mainstream society (Heath, 1986). It is argued that it is a rich and focused activity and is a highly-beneficial vehicle for the development of emergent reading skills (Ezell & Justice, 2000; Ezell, et al., 2000;

Justice & Ezell, 2000; Kaderavek & Justice, 2002; Whitehurst, Epstein, et al., 1994). It involves an adult and child sharing a young children's fictional book that follows a common narrative structure: a problem, attempts to solve the problem, and a resolution of the problem (Price, van Kleeck, & Huberty, 2009). Storybook reading often includes a discussion about the book (Hindman, Connor, Jewkes, & Morrison, 2008), which can include the illustrations, the plot, the print, or relate the book to everyday activities and the life of the child (Sonnenschein & Munsterman, 2002). Children's contact with the print can range from a little to a lot and be implicit or explicit, depending on the practices of the parent and/or features of the text (Justice, et al., 2008). During storybook reading, children are exposed to written language culture (Bus, et al., 1995) and can learn about the spoken and visual aspects of print, and those to do with meaning (Ezell, et al., 2000) in a low-risk environment (Bus, et al., 1995). Storybook reading provides a setting for the development of knowledge and skills such as CAP, the learning of new vocabulary, LK, and rhyme play (Makin, et al., 2007) and has been lauded as the single best preparation for school (Wells, 1985b).

In New Zealand, Alan Duff's "Books in Homes" project exemplifies the effects of increased storybook reading in low-income areas. It gifts new storybooks to children of low-SES families and has proved highly successful. Benefits for the children include increased enthusiasm for, interest in, caring and valuing of books, and more frequent reading, book sharing, library visiting, and book purchasing. Reading skills (word-picture matching, sentence completion, cloze reading [replacing the missing words in text], and vocabulary) of years five and six students have been reported to increase 35% more over one year than they otherwise would have (Elley, 1997). While this does not relate directly to emergent literacy, it exemplifies the positive effects that storybooks can have on children's orientation to literacy and on their reading skills.

Many studies have documented the strong relationship between storybook reading and oral language development (Arnold, Lonigan, Whitehurst, & Epstein, 1994; Dale, et al., 1996; Ezell, et al., 2000; Frijters, et al., 2000; Hood, et al., 2008; Sénéchal & LeFevre, 2002; Sénéchal, LeFevre, Thomas, & Daley, 1998; Whitehurst, Arnold, et al., 1994; Whitehurst, Epstein, et al., 1994; Whitehurst, et al., 1988). Correlations show a direct path from parent-child book reading to receptive language skill upon school entry (Hood, et al., 2008; Sénéchal & LeFevre, 2002; Sénéchal, et al., 1998), and the studies conclude that a greater frequency of

parent-child book reading leads to more developed language skills (Hood, et al., 2008). These skills have been linked to reading achievement in later grades, once decoding is rapid and comprehension is involved (de Jong & Leseman, 2001; Sénéchal & LeFevre, 2002). A recent meta-analysis concluded that frequent storybook reading in the home environment leads to children starting school with bigger vocabularies and better comprehension skills than their peers from poorer literacy environments (Mol & Bus, 2011).

Storybook reading also promotes knowledge and skills that are required for learning to read and encourages a positive attitude towards reading (Mol & Bus, 2011). It has been linked to technical reading skills (e.g., print concepts, LK) that help children learn to read (Mol & Bus, 2011) and has been suggested to be as predictive of future reading achievement as phonemic awareness (Bus, et al., 1995). When books are regularly read with low-income children, their school entry reading scores are higher (Wade & Moore, 1998). A report commissioned by the New Zealand Ministry of Education supports the importance of storybook reading. It found reading to children to be part of a rich home learning environment and connected with better reading achievement (Biddulph, Biddulph, & Biddulph, 2003). Wells (1985b), whose study is described previously, found the frequency of storybook reading to be significantly associated with knowledge of literacy at five years old and reading comprehension at seven years old. In spite of all the positive findings, some researchers continue to question whether storybook reading actually enhances emergent literacy and to what extent (Bus, et al., 1995; Mol, Bus, de Jong, & Smeets, 2008; Scarborough & Dobrich, 1994).

During the last two decades, a number of meta-analyses have questioned the actual contribution of storybook reading to literacy skill development (Bus, et al., 1995; Mol & Bus, 2011; Mol, et al., 2008; Scarborough & Dobrich, 1994). Scarborough and Dobrich (1994) reviewed 31 studies conducted between the years 1960 and 1993. These looked at various aspects of parent-preschooler reading and its effects on literacy achievement during formal schooling. Twenty of these studies were correlational and 11 looked at the effects of intervention programmes. The authors suggested that the influence of storybook reading on emergent literacy skill development had been over-emphasised and that other factors such as parental income level, child motivation and skill level may be more predictive of the child's literacy skill. They did concede that reading to children benefitted literacy skill development, but clarified that this was only evident in some of the

studies they reviewed. They determined that storybook reading explained eight per cent of the variance in literacy-related abilities across the studies in the meta-analysis.

There were two rejoinders to this study, both agreeing that a variety of home factors affect reading development (Dunning, et al., 1994) and that the evidence for causative association was thin (Lonigan, 1994). However, they suggested that the 'small' contribution allegedly made by storybook reading to literacy achievement was significantly manipulable and that this contribution may increase with improved research measures (Dunning, et al., 1994). In addition, they found the meta-analysis to be excessively negative and to have failed to take sufficient account of the following factors: (a) the indirect effects of storybook reading on learning, (b) the possibility that small early gains in literacy development may in fact be magnified over time due to the "Matthew effect" [some reading practice encourages more reading practice], and (c) the methodology of the studies analysed (Lonigan, 1994). In summary, the positive effects of parental storybook reading on young children's emergent literacy skills were acknowledged and a request was made for more well-designed research to more accurately discern these effects.

Bus, et al., (1995) published a meta-analysis the following year which investigated 29 studies that examined the frequency of parent-preschooler storybook reading and its relationship to language growth, emergent literacy and reading achievement. They found the effects of storybook reading to be robust, showing consistent benefits for language growth, emergent literacy and reading achievement. However, the researchers agreed with the need for more well-designed research in this area. They concurred with the eight per cent variance in literacy achievement explained by storybook reading practices, but reminded us that this falls between a medium and strong effect and therefore carries reasonable weight. Their findings stated that "storybook reading is one of the most important activities for developing the knowledge required for eventual success in reading" (Bus, et al., 1995, p. 15). Most recently, Mol and Bus (2011) analysed a different group of studies that looked at exposure to print from early childhood to young adulthood. Again, they found preschool storybook exposure to explain eight percent of basic reading skill development. In addition, they found evidence of reciprocal causation: exposure to print increases language and reading skill development, which in turn increases print exposure.

One of the strengths of this research was that it compared studies that used one of three different methods of measuring children's exposure to print: a single question to parents about book reading frequency, a questionnaire that asked a variety of literacy-related questions (e.g., what age they started reading to their child, library visit frequency, and the number of books in the home) or a print-exposure checklist. Research using the single question found weaker correlations between storybook reading and oral language and basic reading skill than research using the print-exposure checklist. However, studies using the parental questionnaire found correlations between storybook reading and oral language and reading skills similar to those found in studies using the checklist (Mol & Bus, 2011). Therefore, the choice of methodology, and the way print exposure is measured, can influence the findings of a study.

Maternal Belief

While most parents are willing to assist their children as well as they can (Biddulph, et al., 2003), motivation to take part in their children's education depends on their sense of efficacy (Elias, et al., 2006). Parental beliefs about their children's learning and their role in this process can affect their facilitation of the child's literacy development (Parkhill, 2001/2002). Maternal beliefs about storybook reading have been related to the frequency of storybook reading, the quality of the interactions that occur, and children's interest in books (DeBaryshe, 1995). DeBaryshe investigated the beliefs and practices of 60 mothers and their children living at or below the poverty line and the relationship of these beliefs to storybook reading. A positive maternal belief indicated that mothers agreed with statements such as (a) parents are important teachers, (b) the goals of reading are enjoyment, knowledge, and oral language growth rather than reading instruction, (c) limited time and material resources should not prevent parents from reading aloud and (d) language is influenced by environmental stimulation. Positive maternal belief was associated with increased frequency of storybook reading, higher-quality interactions during reading, and increased child interest in books (DeBaryshe, 1995).

A second study sampled 45 children and their families in a poorly-educated region with average income, and used the same parental questionnaire to assess maternal beliefs about shared reading. It found positive maternal belief to have a

beneficial effect on children's knowledge of print concepts and the meaning of print (Curenton & Justice, 2008; Wylie, Ferral, Hodgen, & Thompson, 2006).

The beliefs of parents can influence their storybook reading practices, such as whether they focus on the print, pictures or story meaning (Justice, Skibbe, Canning, & Lankford, 2005), or whether they read to their children at all. Storybook reading interventions for parents are likely to be effective, in part, because they develop parental efficacy, elucidate the role parents can play in their child's education, and give parents practical tools to use.

Natural Verbalisations about and Fixations on Print

The association between storybook reading and literacy development remains weaker than that between storybook reading and oral language development (Justice, et al., 2008). This may be partly because explicit print contact for children during storybook reading sessions is consistently rare; adults seldom point to or mention the text (Justice, et al., 2008). Adult discussions during storybook reading typically focus on illustrations, plot events and links between the story and the child's life (Ezell & Justice, 2000; Justice & Ezell, 2000) rather than the print.

Hindman, Connor, Jewkes and Morrision (2008) videotaped over 100 parent-child dyads sharing a storybook. They found meaning-related book talk (e.g., talk about plot and characters or relating to life experiences) to occur much more often than code-related utterances. Only 15% of adult speech was print-related. Letters and sounds were rarely discussed, even in books including visually-obvious alphabet and phonological features. A New Zealand study analysed the utterances of three- and four-year-old children and their parents during a storybook reading session (Phillips & McNaughton, 1990). The findings were similar: only three per cent of all utterances were related to print. A third study found adult print references to be similarly scant (Ezell & Justice, 2000). Verbal references to print numbered less than one per minute and non-verbal references to print totalled two per minute. Children rarely talked about print: less than four per cent of their utterances were focused on print (Ezell & Justice, 2000). The evidence appears to consistently indicate that adults and children naturally attend to illustrations and storylines when reading together, rather than to print (Anderson, Anderson, Friedrich, & Kim, 2010; Justice, et al., 2008).

Research into children's visual attention to print confirms these findings. Several studies used eye-gaze analysis to track the aspects of the page that

children fixate on (pause to look at) when they are being read a storybook, and to measure how much time they spend looking at the text as opposed to the illustrations (Justice & Lankford, 2002; Justice, et al., 2008; Justice, et al., 2005). These studies found that children rarely look at print, with between two and six per cent of their total fixations and between two and four per cent of total visual attention being directed at print (Justice & Lankford, 2002; Justice, et al., 2008; Justice, et al., 2005). Children naturally look at illustrations more frequently than print when being read a storybook (Justice, et al., 2005).

Print saliency is of interest, as children are more likely to look at print when it is visually attractive and clear (Justice & Lankford, 2002; Justice, et al., 2008; Justice, et al., 2005). It then promotes children's print-oriented discourse (Ezell & Justice, 2000) and increases their visual attention to print (Justice, et al., 2005). Salient print is noticeable and eye-catching. Books containing salient print have fewer words per page, large print (Justice & Lankford, 2002), print incorporated within an illustration (e.g., speech bubble), type change in print (colour, font, size, orientation), text forming a pattern (e.g., a spiral), three-dimensional words, and/or letters in isolation (e.g., an alphabet book) (Smolkin, Conlon & Yaden 1988, cited in Justice, et al., 2005).

This section of the literature review introduced storybook reading as an activity occurring between adult (typically parent) and child, and described some of the research-based benefits of this practice on children's emergent literacy development. It discussed the effects that the parents' beliefs about literacy and storybook reading can have on their children's emergent literacy. Finally, the findings of several studies were presented. These found adult-child storybook discussion to centre on meaning-related topics and children's visual attention to focus on pictures more than print.

Storybook Reading Interventions

The final section of this literature review is concerned with intervention research that uses storybook reading as a vehicle for the enhancement of emergent literacy development. Print-referencing and dialogic reading strategies are presented as two pathways of storybook reading intervention research that have shown positive impacts on children's emergent literacy development. Several studies have used a DVD to convey these strategies to parents and this research is described. The

section finishes by defining family-centred practice and presents a successful family-centred programme in New Zealand.

Storybook reading is highly valued for providing a familiar, meaningful, and naturalistic context for literacy intervention (Kaderavek & Justice, 2002). Adult behaviour can be changed to maximise children's acquisition of particular emergent literacy skills (Justice & Pullen, 2003), such as knowledge of written language features, print and oral language relationships, and grammatical conventions (Justice & Ezell, 2000). This may lead to increased proficiency in knowledge of print conventions, letter names, PA, and grapho-phonemic correspondences, which are all required for reading achievement (Kaderavek & Justice, 2002). The opportunities for emergent reading skill growth offered by storybook reading enable children to get contextual and social support for language development that is related to their needs.

Two strands of strategy research show promising results in storybook-reading interventions: print-referencing strategies (Ezell & Justice, 2000) and dialogic reading strategies (Whitehurst, et al., 1988). The first is designed to increase children's awareness and interactions with print, leading to increased proficiency in the many print-based aspects of emergent reading. The second is designed to encourage oral interaction with the print, leading to the development of children's oral language ability. The latter also serves to increase children's motivation for storybook reading by keeping it fun, and helps to retain the meaning and context of the story. It protects against a "skill and drill" approach which could result from too much print-referencing. This is particularly relevant for low-SES families, where literacy activities tend to focus more on the learning of isolated skills such as naming letters of the alphabet and the repetition of these skills, and less on the enjoyment associated with reading (Anderson, et al., 2010; Parkhill, 2001/2002).

There is some dispute in the literature about the success of book-reading interventions for low-SES families. Some researchers have found dialogic reading interventions to be less effective for low-SES parents than for their middle-class counterparts (Mol, et al., 2008). Others, however, have concluded that the effects of parent-child reading do not differ according to SES and that more shared reading positively affects all children's emergent literacy (Bus, et al., 1995; Hood, et al., 2008).

Print-referencing Strategies

The first strand of intervention research looks at adult usage of print-referencing strategies during storybook reading. Children need to be engaged with print in order to develop knowledge and awareness of it (Justice, et al., 2005), and adults can deliberately encourage this print engagement by increasing their own print-referencing behaviours during storybook reading (Justice, et al., 2008). Print-referencing strategies are verbal and non-verbal behaviours that adults can adopt during storybook reading to draw children's attention to the written word. Verbal strategies include asking questions about print, making comments about print, and posing requests about print; non-verbal strategies include pointing to print when talking about it and tracking print while reading (Ezell & Justice, 2000). Both sets of strategies can focus on words, letter names and sounds, rhyming words and CAP (Figure 2). Print-referencing behaviour is "designed to encourage a child's implicit and explicit interactions with and attention to oral and written language" (Justice & Pullen, 2003, p.108), allowing children to interact with a text at a higher level than they are able to achieve alone (Justice & Pullen, 2003).

Verbal strategies	Non-verbal strategies
asking questions about print	pointing to print
making comments about print	tracking print
posing requests about print	

Topics
Words, letter names, letter sounds, rhyming words, concepts about print

Figure 2. Print-referencing strategies and topics, adapted from Ezell and Justice (2000).

The following studies illustrate the promising effects of incorporating print-referencing strategies into storybook-reading sessions. The majority of the studies involve adult-child dyads that appear to be from middle- to high-income homes, whereas the final study takes place in a low-income preschool. All of the research focuses on observable effects of increased adult print-referencing on young children.

It appears that only a small amount of training is required for adults to increase their print-referencing behaviour during storybook reading. Ezell and

Justice (2000) recorded 24 female graduate students reading to 24 typically-developing four-year-olds. The control group (n=12) read as they normally would on pretest and posttest. The experimental group (n=12) read as they normally would for pretest, but prior to their posttest the graduate students viewed a seven minute video containing brief descriptions and vignettes of print-referencing strategies. They were then videoed reading to the children a second time. This small amount of training led to significant gains in their referencing to text both verbally and non-verbally. In addition, the increased adult print referencing resulted in an increase in children's verbal communication with the text (Ezell & Justice, 2000). This shows that children's vocalisations about print during storybook reading are highly dependent on the adult's explicit attention to print (Whitehurst, et al., 1988); when adults talk about print and reference it non-verbally, preschoolers' verbal and non-verbal responses to print significantly increase (Ezell & Justice, 2000).

A similar study, using parents in place of university graduates, produced similar results, and differentiated between types of print-referencing. Fifteen parents (most of whom held university degrees or higher levels of education) were trained by video to use verbal print-referencing behaviours. These were then revised orally by the first author (Justice, Weber, Ezell, & Bakeman, 2002). Directly afterwards, each parent was videotaped reading to their child. The children responded to 60% of parental verbal print references and were more likely to respond to prompts and questions as opposed to comments (87% vs. 20%). This indicates that parental verbal print references, particularly prompts and questions, are highly likely to increase children's direct interactions with print (Justice, et al., 2002).

In addition to responding verbally and non-verbally to print-referencing, children's emergent literacy skills have been found to increase with adult print-referencing behaviours (Justice & Ezell, 2000; 2002). Justice and Ezell (2000) conducted a third related study, this time with 28 parents (most of whom held university undergraduate or master's degrees) and their 28 typical four-year-old children. Prior to the intervention, the parents were videotaped reading to their child and an early literacy pretest was administered to the children. The parents were then trained by the first author to use print-referencing strategies during a 15-minute group session. They were sent home to read to their children using these strategies for four weeks. Finally, the dyads returned, a second reading

session was videotaped, and the posttest was administered to the children. A significant increase was observed in adult verbal and non-verbal print-referencing behaviour and parents reported significantly increased satisfaction with the perceived benefits of storybook reading on their children's alphabet knowledge and print concepts (Justice & Ezell, 2000). In addition, there were significant increases in children's print concepts, word concepts and word segmenting ability (Justice & Ezell, 2000).

A fourth print-referencing intervention study was conducted in a Head Start preschool: an early childhood centre for children in low-SES areas in the United States (Justice & Ezell, 2002). Intervention children received an average of three reading sessions per week for eight weeks, during class time, and with the researchers rather than their parents. Children in the intervention group exhibited significant increases in measures of words in print and print recognition, significantly greater gains in alphabet knowledge, and almost three times as much gain in their overall print awareness. They also showed greater gains in letter orientation and discrimination, print concepts, and literacy terms.

The literature (Ezell & Justice, 2000; Justice & Ezell, 2000; Justice, et al., 2002) shows examples of well-educated (and probably well-off) adult-child and parent-child dyads using print-referencing strategies with significant results on the child's emergent literacy. There appears to be a lack of studies that trial this type of intervention with people from low-income homes. The study described, which did take place in a poorer neighbourhood, contained a researcher reading to a group of children at a preschool, which is significantly different from a parent-child storybook reading environment.

Dialogic Reading Strategies

Dialogic reading strategies are designed to promote activity by the child, informative feedback by the parent, and sensitivity to the child's developing abilities. These strategies were originally designed to explore the relationship between storybook reading and oral language skills (Whitehurst, et al., 1988), but they also function to maintain the children's enjoyment and build the motivation for reading. Print-referencing strategy researchers have suggested that too much emphasis on print-referencing may diminish a child's enjoyment of the activity and have recommended supplementing their strategy set to keep the reading fun for the children involved (Justice & Ezell, 2000). Several of the dialogic strategies

appear to serve this purpose (e.g., helping the child with answers, following the child's interests, giving praise and encouragement) (Figure 3).

Asking open-ended questions

Asking W and H questions e.g., who, where, how, etc.

Following the child's answers with additional questions

Pausing for responses from the child

Helping the child with answers as needed

Repeating and expanding what the child says

Following the child's lead and interests

Giving praise, encouragement, and feedback

Having fun

Figure 3. Dialogic reading strategies, adapted from Valdez-Menchaca and Whitehurst (1992).

Dialogic reading strategies aim to alter the natural roles of parent and child by increasing the engagement and active participation of the child (Justice & Pullen, 2003). The child is encouraged to take responsibility for telling the story and the parent practices active listening (Chow & McBride-Chang, 2003; Whitehurst, et al., 1999). The adult prompts and questions the child, assists where necessary and adds information to what they are saying. The aim is to increase the sophistication of the child's descriptions and ideas (Lonigan, Anthony, et al., 1999) and heighten developmental opportunities (Whitehurst, et al., 1988). The parental expansion and repetition of children's dialogue provide opportunities for children to contrast their own syntactic strings with those of their parents. Central to positive child motivation is the presence of a strong parent-child bond, with the parent displaying high sensitivity to the child's interests and needs (Bus, et al., 1995). Corrective responses provide important motivational and informational feedback to the child (Whitehurst & Valdez-Menchaca, 1988). They also helps children to connect reading with positive parental social interactions and attention, thereby increasing motivation (Elias, et al., 2006). These changes in attitude and motivation towards reading may be more responsible than anything else for the effects of parent-child storybook reading on emergent literacy development (Whitehurst, et al., 1999).

A great deal of research has been conducted on dialogic reading, most of it documenting positive effects on oral language development (Crain-Thoreson & Dale, 1999; Dale, et al., 1996; Valdez-Menchaca & Whitehurst, 1992; Whitehurst, Arnold, et al., 1994; Whitehurst, et al., 1988). A meta-analysis examining 16 pieces of research, that compared dialogic reading sessions with storybook reading that didn't require any child interaction, found the quality of reading to be important for language development (Mol, et al., 2008). It found that the use of dialogic strategies had a medium-sized effect on expressive vocabulary, explaining eight per cent of the variance in expressive language skill (Mol, et al., 2008).

However, the effects on other text-based aspects of emergent literacy, such as knowledge of print concepts and phonemic awareness, have also been researched (Chow & McBride-Chang, 2003; Lonigan, Anthony, et al., 1999; Whitehurst, Epstein, et al., 1994; Whitehurst, et al., 1999). Because of the effects on oral language, dialogic reading strategies are likely to assist comprehension rather than decoding ability (Lonigan, Anthony, et al., 1999). However, Chow and McBride (2003) compared the effects of dialogic storybook reading with regular storybook reading and a control group that did little reading. They found the school entry literacy skills of the dialogic group to be significantly greater than both other groups post-intervention. Parents also reported their children's motivation for storybook reading to increase following the intervention (Chow & McBride-Chang, 2003).

DVD Medium

Much literacy intervention research is either conducted by the researcher or educates adults using face-to-face training. However, some such research makes use of a DVD (Digital Video/Versatile Disk) to convey information about the intervention. There is research indicating that multimedia training can be as successful as face-to-face sessions (Arnold, et al., 1994; Ezell & Justice, 2000; Huebner & Meltzoff, 2005). One such study found parent instruction in dialogic reading strategies by video to be more effective than direct instruction for middle to upper-SES families (Arnold, et al., 1994). Sixty-four children, from middle- and upper-class families, ranging in age from two years to two years ten months were recruited with their mothers (Arnold, et al., 1994). The children had average or above-average expressive and receptive language skills, the mothers had been educated for an average of 15 years, and they read to their children an average of

12.8 times per week. The study contained three groups: (a) a direct instruction group who were instructed on a variety of dialogic reading strategies by a graduate student and assistant, (b) a video instruction group who were instructed on the same dialogic reading strategies via a video recording, and (c) a control group who read to their children as normal. Groups (a) and (b) were given didactic instruction on each strategy and modelling of each strategy. The modelling for group (a) was done by the researcher and assistant. This group also received direct feedback while attempting each strategy. The information was disseminated to group (b) via video. After the didactic video instruction, this group watched several videoed examples of each strategy modelled by mothers and their children. They were warned about common mistakes, shown examples of incorrect strategy use, given time to identify the mistake, and then had the mistake identified for them. Children who were read to by the parents instructed by video outperformed the children read to by the direct-instruction group. The difference was significant on measures of expressive language and not significant on measure of receptive language. A suggested reason for the success of this video was the inclusion of real-life modelling by mothers and their children.

A subsequent study (described earlier), using video to describe and model print-referencing strategies, also found the video method of delivery to be successful (Ezell & Justice, 2000). This time, only brief descriptions and short vignettes of each strategy were combined into a seven minute video. The intervention graduate students displayed significantly more verbal and non-verbal print-referencing behaviour at posttest and the four-year-old children made significantly more print-related utterances.

In a third study, that taught dialogic reading strategies using three different methods, 109 parents and their two- to three-year-old children were recruited (Huebner & Meltzoff, 2005). The families were randomly placed in one of four instructional groups: (a) in person using video, (b) video with phone follow-up, (c) video only, and (d) control. Baseline reading sessions showed that all parents rarely used dialogic reading strategies. After the intervention, the greatest increase in dialogic reading behaviour was observed with the first instruction method, however there was an increase in dialogic reading behaviour after all three instructional methods. When parent education was controlled for in an ANCOVA (analysis of covariance), the in-person group was favoured, although not significantly. The number of child utterances was similar across conditions, as was

the length of the longest child utterance. This all indicates that the cost-effective video instruction methods produced similar results to the more costly in-person instruction (Huebner & Meltzoff, 2005).

This method of parental education is likely to be chosen for several reasons. Most family homes have either a DVD player or a computer with a DVD reader which enables DVDs to be viewed. The production and distribution of a DVD is more cost effective in terms of labour than conducting several training sessions, particularly when the study has a large number of participants. If parents miss the face-to-face sessions, additional sessions must be run in the hope that they will attend those or the parent must be dropped from the study. The use of a DVD also allows parents to view the training in their own time, when their attention is not on other things, and the content is able to be reviewed as many times as desired. However, this method of training works on the assumption that the parents will actually view the DVD.

Family-centred Research

A set of principles has been developed for use when conducting intervention research within families (Mahoney & Wheeden, 1997). These can help to ensure that parents and caregivers are supported and empowered to capitalise on their capacities and resources to benefit their children's growth and welfare (Mahoney & Wheeden, 1997). Interventions have been found to be more successful when they operate from a family-centred philosophy (Mahoney & Wheeden, 1997). Ways of making an intervention family friendly include providing child development information, conducting parent group sessions, supplying weekly parent instructional plans, assessing parent-child interactions, training parents and providing books when literacy is a focus (Ezell, et al., 2000). A report commissioned by the New Zealand Ministry of Education found that programmes are successful when they treat families with respect, add to current practices rather than replace them, and contain structured and specific guidance (Biddulph, et al., 2003).

HIPPY (Home Interaction Programme for Preschool Youngsters) is one such family-centred, home-based intervention programme which targets children who are educationally and economically disadvantaged. It is designed to help parents (usually the mothers) familiarise their preschool children with the challenges of starting school (Cotching, 2000). The main aim of the programme is to facilitate

language, particularly with books, although it also seeks to develop numeracy and problem-solving skills and sensory and perceptual discrimination (Barhava-Monteith, Harre, & Field, 1999). It was developed in Israel, and is now found internationally, including in New Zealand. The results of a range of school tests, in particular the Reading Diagnostic Survey (Clay, 1985) and the Burt Word Reading Test (Gilmore, Croft, & Reid, 1981), were obtained for 77 New Zealand HIPPY children and just over 700 New Zealand non-HIPPY children, all six years old. Children involved in HIPPY showed statistically significant gains in both measures of reading, compared with children not involved in the programme (Barhava-Monteith, Harre, & Field, 1999). However, there doesn't appear to be any data measuring the emergent reading skills of children prior to entry into the programme or at school entry.

Model of Literacy Development

The model of literacy development presented below draws from the literature (Whitehurst & Lonigan, 1998; Whitehurst, Epstein, et al., 1994) and illustrates the way in which literacy development was envisaged in this study. It provides an example of the relationship between emergent literacy experiences which help to create ALCC, the development of emergent literacy skills/ALCC and conventional reading/ALCC (Figure 4).

A rich emergent literacy environment is full of direct and indirect literacy experiences. When surrounded by such activity, children are supported in developing a range of emergent literacy skills, knowledge and attitudes, thus augmenting their ALCC. Competencies in oral language, print conventions, letter name and letter sound knowledge and PA develop, and interactions with print form a regular part of these children's lives. These emergent literacy competencies form the precursory building blocks for the development of formal reading. Conventional reading is also part of ALCC, and can be broken into two parts, decoding and comprehension. The former is concerned with matching correct sounds to letters in a word and so being able to pronounce it correctly, and the latter with understanding the word. This model of literacy development elucidates the way this study perceives the road to literacy development and has led to the development of the research questions.
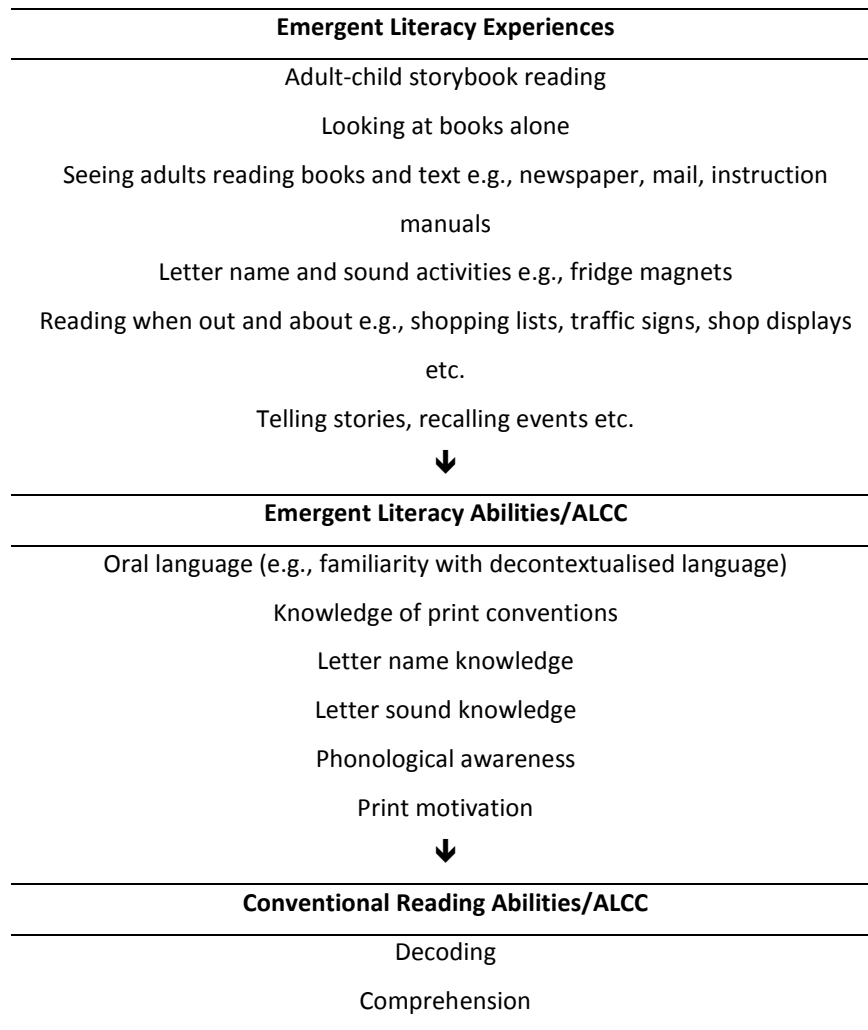
Emergent Literacy Experiences
Adult-child storybook reading
Looking at books alone
Seeing adults reading books and text e.g., newspaper, mail, instruction manuals
Letter name and sound activities e.g., fridge magnets
Reading when out and about e.g., shopping lists, traffic signs, shop displays etc.
Telling stories, recalling events etc.
↓

Emergent Literacy Abilities/ALCC
Oral language (e.g., familiarity with decontextualised language)
Knowledge of print conventions
Letter name knowledge
Letter sound knowledge
Phonological awareness
Print motivation
↓

Conventional Reading Abilities/ALCC
Decoding
Comprehension

Figure 4. Model of literacy development.

This third section of this chapter introduced two strands of storybook-reading intervention research that aim to enhance emergent literacy skills with the use of specific strategies during reading: print-referencing and dialogic reading strategies. It went on to describe the use of a DVD as a medium for teaching parents how to use these strategies. The concept of family-centred research was introduced and HIPPY, an international family-centred programme that is being used in New Zealand, was presented. The chapter finished with a model of literacy development that illustrated the relationship between environment, emergent literacy and conventional reading.

Conclusion

This review has provided evidence to support the idea that the emergent literacy development of children from homes with little money needs to be supported

(Lonigan, Bloomfield, et al., 1999), as these are the children who have an increased risk of difficulty when learning to read. Emergent literacy skills are presumed to be developmental precursors to formal literacy skills (Elias, et al., 2006; Justice & Ezell, 2000; Whitehurst & Lonigan, 1998) and form the beginning of a literacy continuum which culminates in fluent reading. These skills form a child's ALCC, and the better the match between the cultural capital of a child and their school, the greater the chance of success for that child (Heath, 1986). The curriculum of the home (e.g., reading materials, home atmosphere, home literacy experiences) may predict academic achievement twice as well as income level (Walberg 1984, cited in Scarborough & Dobrich, 1994) as it is the basis of the cultural capital that children bring to school (Bourdieu, 1973). Figure 4 ties these factors together in a model of literacy development.

There appears to be a need for emergent literacy programme development that encourages storybook reading between parents and their preschoolers in low-SES communities (Elias, et al., 2006). Storybook reading is part of a rich emergent literary environment that helps to develop emergent literacy abilities and thus ALCC (Figure 4). The aim of this research thesis has been to help bridge the cultural gap between community and school that is more likely to occur in areas of low-SES. It has sought to achieve this by encouraging the emergent literacy skill development of children from low-SES homes, thus augmenting their ALCC and giving them and their future schools more common ground. This was done by educating parents about the importance of reading to their children using particular strategies and supporting them in doing so. With all this in mind, two research questions were developed to assess the effectiveness of the intervention:

Question One: What is the extent of the change in parental storybook-reading behaviour and belief following the viewing of two educational DVDs?

Question Two: To what extent will four-year-olds' emergent literacy skills be affected by parental storybook reading following the viewing of two educational DVDS?

With regard to question one, it was hypothesised that changes in parental behaviours and beliefs would occur, with parents reporting an increase in the use of print-based strategies in storybook reading. Regarding question two, it was hypothesised that children's emergent literacy skills would improve as a result of the intervention, indicating enhanced ALCC. This would be likely to enable them

to learn to read at school with greater ease. Additionally, the study aimed to evaluate the effectiveness of the intervention.

CHAPTER THREE
Methodology

Introduction

The literature review identified that the literate cultural capital of children from low-SES homes is often quite different from that expected by a typical school. It proposed that storybook reading with the use of print-referencing and dialogic reading strategies could be successfully incorporated into the culture of these children's homes to help prepare them for literacy learning at school. The resulting quasi-experimental study design is presented in this chapter. It is followed by a description of the participants and the process of recruitment. The materials and methods of data collection are laid out, followed by information about the intervention. Finally, in the procedure, the intervention timeline is described.

Research Design

A pretest posttest quasi-experimental design was used to examine the effects of parental storybook reading on parental behaviour and belief and on their young children's emergent reading skills. This type of design was chosen as it had proved successful in other studies with similar goals (Justice & Ezell, 2000; Whitehurst, et al., 1988) and full experimental control with randomised subjects was not possible. This was partly because kindergartens were used as recruitment venues, thus limiting the selection of children (and their parents) to those attending. In addition, parent-child dyads were not put into intervention and control groups randomly as it was possible that parents would share intervention information with other parents from the same kindergarten. For this reason, one kindergarten was used to recruit the intervention dyads and the other for the control pairs. Finally, one of the kindergartens that were willing to participate would only do so if they could be part of the control group.

These two intervention and control groups of parent-child dyads were the focus of this research. They were comprised of a parent (usually the mother) and his or her three- or four-year-old child. The study was designed to look for cause-and-effect relationships between the intervention, which targeted parental storybook-reading practices, and two sets of outcomes: any changes in (a) parental storybook reading practices and beliefs and (b) children's emergent reading skills.

Questionnaires and reading diaries were used to reveal differences in parental reading practices following the intervention. Of most interest were differences in the amount of reading that took place and the types of conversation that accompanied the reading. This data was used to answer the first research question. A short survey, which provided data on the effectiveness of the intervention, was attached to the intervention parents' post-intervention questionnaire. Pretesting and posttesting of the children was conducted to measure any difference in the emergent reading skills of the intervention and control groups after the intervention had taken place. In particular, the author was interested in the comparative development of LK, CAP, and PA. This data was used to answer the second research question.

As the author was the sole data collector and the primary researcher, it was not possible to have a blind or double-blind study. However, the use of a single researcher enhanced the reliability of the study through consistency of approach. The anonymity of parents and children was maintained as much as possible to help prevent any bias when conducting the pre- and posttesting. This was also designed to give the parents a greater freedom to be honest when answering the questions. The parental consent forms were the only places where parents and children were named.

The study attempted to target families with low income, as children in these families are more likely to begin school with different cultural capital from that of their school (Heath, 1982, 1983, 1986). Upon school entry these children tend to have simpler text-based skills, such as PA, LK, and print concepts (Justice & Ezell, 2002; Lonigan, Anthony, et al., 1999; Lonigan, et al., 1998; Parkhill, 2001/2002), and are less likely to have come from a rich home literacy environment (Votruba-Drzal, 2003; Wells, 1985b). This piece of research was designed with some of the family-centred principles introduced in the literature review in mind (Mahoney & Wheeden, 1997). The design aimed to treat families with respect, add to current practices rather than replace them, contain structured and specific guidance (Biddulph, et al., 2003), supply weekly instructions for parents, train parents with skills, and provide books to the families (Ezell, et al., 2000).

Participants

This study was conducted in a New Zealand city. Children were recruited from kindergartens that were geographically near decile one schools. This facilitated the

participation of children who were more likely to come from low-SES homes. New Zealand schools are put into one of ten categories depending on the extent to which they contain children from low socio-economic communities, each containing one tenth of the schools in New Zealand. Decile one schools contain the largest proportion of children from low-SES households. The decile ratings for this study were obtained from data collected in the latest national census (2006). Kindergartens are state-funded, sessional early-childhood education services catering for three- and four-year-old children. Two three-hour sessions are run each day and up to 40 children attend each session. Kindergartens were chosen as recruitment venues because they provided a centralised location, catered for three- and four-year-old children, were regularly visited by the families who attend, and are utilised in areas of low SES.

This study required two kindergartens as venues for family recruitment, the distribution of materials, and pre- and posttesting of the children: one centre for the intervention group and one for the control group. These were recruited during the first week of the fieldwork (Table 1). A letter was sent to the local kindergarten association (Appendix A), which then recommended five kindergartens situated in areas of low SES. Two of these kindergartens were selected by random and randomly assigned to the intervention and control groups. They were invited to take part in the research, first by email and then by phone; both centres declined. One was involved in another literacy research project, and the other did not think that their parents would be motivated enough to take part. A third kindergarten was not contacted as the researcher was informed that they were also taking part in the aforementioned literacy research. The remaining two kindergartens were contacted by email and then by phone. One agreed to take part, but only if they were able to be the control kindergarten as they didn't think their parents would be hugely motivated to be part of the intervention. This left the other kindergarten as the intervention kindergarten. Introductory letters, information sheets and consent forms (Appendices B-E) were given to both kindergartens. These contained information about the study and informed participants of their rights. Informed consent was received from both kindergartens. There were 40 children in each of the morning sessions, ranging from three to four years old.

During week two, information letters (Appendices C-D) and consent forms (Appendices F-G) were sent home with all children attending the kindergartens' morning sessions. Sixteen signed consent forms were received from the

intervention kindergarten, but only two were received from the control kindergarten. A morning spent at the control kindergarten recruiting parents resulted in a total of 19 signed consent forms. Four children from this kindergarten left the study over the next few weeks and one child from the intervention kindergarten dropped out. This left 15 intervention and 15 control dyads.

The 30 participating children ranged in age from 36 months to 58 months (M=51.38, SD=5.26). The intervention group contained five boys and ten girls, aged from 46 months (three years ten months) to 58 months (four years ten months) (M=52.91, SD=3.94). None of the children had identified special needs. Further information for 11 of the intervention families was available: the primary caregiver for nine of them was the mother and, for the remaining two, the father. Nine of the intervention families spoke English at home and two spoke Cambodian and English. The control group contained eight boys and seven girls aged from 36 months (three years) to 56 months (four years eight months) (M=50.08, SD=6.01). One of these children had identified special needs. Thirteen of the control group families provided further information: the mother was the primary caregiver for all these families, 12 families spoke English at home, and one family spoke both Maori and English. Family ethnicity was not recorded. As parent and child names were known to the researcher, confidentiality was important. No true names were disclosed in the write-up and, when case studies were discussed, pseudonyms were used.

Materials and Procedure

After the initial two weeks of recruitment, two weeks were spent collecting pretest data from the children and their parents (Table 1). Pretesting of the children took place at the kindergartens, in a small room adjoining the main kindergarten area. The assessments took about 20 minutes to complete with each child. Children were verbally asked for consent prior to taking part in the pre- and post-intervention assessments and only participated if they were happy to; all children took part. Pretesting assessed the emergent reading skills of all children, using six assessments covering LK, CAP, PA, motivation and the home reading environment.

All parents were asked to complete a pre-intervention questionnaire, which was distributed and collected during the second two weeks of the research phase.

Several parents were phoned or texted as a reminder to complete the questionnaires and return them to the kindergartens.

Table 1

Fieldwork Timeline

Week	Phase	Action
1	**Pre-intervention**	Kindergartens recruited
2		Parents recruited
3		Children pretested; parental pre-intervention questionnaires distributed
4		Child pretesting continued; parental pre-intervention questionnaires collected
5	**Intervention**	DVD 1 distributed to intervention parents; reading diaries distributed to all parents
6		
7		DVD 2 distributed to intervention parents
8		
9	**Post-intervention**	Children posttested; parental post-intervention questionnaire distributed; survey distributed to intervention parents
10		Child posttesting continued; parental post-intervention questionnaires and surveys collected

The four-week intervention phase began in week five, with the distribution of DVD 1, a handout and two storybooks to all parents in the intervention group. The storybooks contained a variety of salient texts and were included to illustrate these to parents and to exemplify the types of books suited to the intervention strategies. They were also provided in case some families didn't have children's books at home and to strengthen the family-centred practice element of the study (Mahoney & Wheeden, 1997). Intervention parents were asked to view the DVD as soon as possible. Reading diaries were given to both intervention and control parents on the first day of the intervention and collected after it was complete. Parents were instructed to fill in the diaries each time they read to their child. At the beginning of week seven, DVD 2 and a handout were distributed to intervention parents. A box for book-swapping, with several other children's storybooks in it, was left at the kindergarten. These books provided additional examples of salient text and

allowed families to change the books they had been reading. Children and parents were advised to swap their storybooks when they liked.

Following the intervention, there was the post-intervention phase of data collection. The format of this was very similar to that of the first phase. The children received almost identical assessments in the same room adjoining their main kindergarten room. The parental post-intervention questionnaires were distributed to all parents and the additional survey was sent out to parents in the intervention group. Again, several parents were phoned or sent text messages as a reminder to complete and return their diaries, questionnaires and surveys. Once it became apparent that no further research material was to be obtained from any of the parents, the research phase was deemed over; this decision was reached a couple of weeks after the formal end to the research timeline.

Parent Materials

Questionnaires. Initial parental questionnaires (Appendix H) asked a variety of demographic questions of the parents and questions about the home-reading environment. They finished with questions specifically targeting any reading practices involving the child. Post-intervention questionnaires were largely identical, with the demographic questions omitted. The questionnaires were designed to answer question one, about parental reading practices and beliefs. A number of parents failed to answer some of the questions in one of their two questionnaires. When this occurred, their single answer was dropped from the analysis. When parents selected two answers in a single questionnaire, the highest one was used. For example, if a parent circled four times and five times for the question "How often per week do you or other family members read to your child?", five times was recorded.

Several multi-choice questions were designed to gain information on the home literacy environment. These answers were coded to show the presence and magnitude of change between the pre- and post-intervention questionnaires. Pretest and posttest values were calculated for the home literacy environment; however, there was no change between pretest and posttest. The pretest values were reported in the Results section (Chapter Four) to give an indication of the home literacy environments of the study families. Details of this coding are contained in Appendix I.

Reading diary. During the four-week intervention period, parents were asked to complete a reading diary (Appendix J) every time they read to their children. They recorded the date, title of the book, time spent reading, associated conversation, and what was enjoyed about the experience. These records were also designed to answer question one.

Survey. Information for answering question three was collected using a post-intervention survey (Appendix K). This asked questions about the parent-child storybook reading before and after viewing the two DVDs, inquired into the perceived value of the intervention, and gave parents an opportunity to report on the usefulness of the DVDs and handouts. This survey was designed to answer question one and to evaluate the intervention.

Child Materials

The following tools were used for pre- and posttesting the children. The recording sheets can be found in Appendix L. The first five assessments were used to answer question two about emergent reading skills. The last assessment was used to help answer question one.

LK. All 26 lower-case letters of the alphabet were presented to the children, one by one in random order, on 8cm x 8cm cards. Lower-case letters were used as they appear more frequently in written texts. Children were asked to name any of the letters that they knew e.g., "Do you know the name of this letter?" They were then asked if they knew the sound of any of the letters. The LK posttest was identical to the pretest one, except that the letters were reshuffled so that the order was different. The test-retest reliability using Pearson's r-correlation was 0.81. LK has been found to be indicative of future reading achievement (Stevenson & Newman, 1986; Tunmer, et al., 2006).

CAP. The full "Concepts About Print" test (Clay, 2000) was administered, using the book "Sand". Although most of the questions were too difficult for many of the children, they provided an opportunity for the more able children to show the extent of their skills and thus protected against an overall ceiling effect. An alternate text, "Stones", was used in the posttest to prevent the occurrence of a practice effect. The test-retest reliability using Pearson's r-correlation was 0.74. Research has shown that young children's scores on tests of written-language knowledge (e.g., Clay's "Concepts About Print" test) correlate with measures of their reading ability (Lomax & McGee, 1987).

PA – Onset matching (OM). Children were shown a picture e.g., a book. Two more pictures were placed underneath this picture e.g., a hat and a bird. The child was to identify which of the lower pictures started with the same sound as the initial picture. The dialogue followed this pattern: "Here is a picture of a book. Here are two more pictures, this is a hat and this is a bird. Which word starts with the same sound as book, hat or bird?" Initially two teaching examples were used and feedback and/or further explanation was given to the child following their answer. The practice examples were followed by eight test questions; no feedback was given on the test questions other than positive encouragement, e.g., "Well done." See Appendix M for an example of this assessment. The same text was used at posttest. The test-retest reliability using Pearson's r-correlation was 0.23 and the split-half reliability was 0.08. These results indicate that the test had low reliability and that its results should be interpreted with caution. Perhaps, as rime develops first, OM was too difficult for the children, and thus the results were more subject to the effects of chance.

PA – Rime matching (RM). Children were shown a picture, e.g., a dog. Two more pictures were placed underneath this picture, e.g., a frog and a house. The child was to identify which of the lower pictures sounded like the initial picture. The dialogue followed this pattern: "Here is a picture of a dog. Here are two more pictures, this is a frog and this is a house. Which word sounds like dog, frog or house?" Again, two teaching examples were used and feedback and/or further explanation was given to the child following their answer. The practice examples were followed by eight test questions. Again, only positive encouragement followed the child's answer, e.g., "Good thinking." See Appendix M for an example of this assessment. The same test was used at posttest. The test-retest reliability calculated using Pearson's r-correlation was 0.71. Both RM and OM tasks were adapted from Anthony and Lonigan (2004). It has been suggested that PA is the skill most predictive of future reading achievement (Tunmer, et al., 2004).

Motivation. Four sets of motivational statements were presented to each child, accompanied by pictures of a happy and a sad girl or boy. Children had to pick which girl or boy they were most like. The dialogue followed this pattern: "This boy is happy when he goes to the library. This boy is sad when he goes to the library. Which boy is like you?" See Appendix M for an example of this assessment. The same test was used at posttest. The test-retest reliability calculated, using Pearson's r-correlation, was 0.49. This was based on a child

motivational assessment which was found to influence letter-name knowledge (Frijters, et al., 2000).

     Home reading survey. Each child was asked seven questions about their home reading environment, e.g., "Who helps you to read at home?" These questions were designed to assess the home literacy environment before and after the intervention. The same test was used at posttest.

Intervention

The intervention information was delivered by two DVDs. This medium was chosen to ensure that all parents received the information at the same time, and to avoid the need for catch-up sessions if several parents missed a face-to-face training. It was a time-effective strategy which aimed to avoid scheduling difficulties between parents and researcher. The use of DVDs also allowed for the replaying of information, as parents were able to watch them as many times as they wished.

     The fidelity of this study relied largely on parental efficacy and motivation to carry out the storybook reading. Maximising this was partly achieved through the inclusion of dialogic reading strategies, but for parents to utilise these strategies they needed to believe in themselves and their power to create change. Therefore the DVDs also contained, in the author monologues, information that validated parents and gave them a sense of the difference they can make to their child's emergent reading skills. The print-referencing strategies were the main focus of the study, and the dialogic strategies were included to keep the storybook reading sessions enjoyable for both parents and children.

     Storyboards for the two DVDs can be found in Appendices N and O. DVD 1 focused on motivation, print-referencing strategies and dialogic reading strategies. The DVD began with a slide and dialogue addressing children's motivation. This encouraged parents to value having fun while reading, in part to protect against the broccoli effect (Scarborough & Dobrich, 1994), and also because a positive motivation for literacy in preschoolers has been associated with emergent literacy skill development (Crain-Thoreson & Dale, 1992; Scarborough & Dobrich, 1994). Three print-referencing strategies (Ezell & Justice, 2000) were introduced: tracking print, pointing to print and asking questions about print (about letter names, rhyming words and CAP). Each strategy was orally described by the author, as the information was presented on a stationary slide, and was then modelled by the

author acting as a mother and a high-school-aged friend acting as the child. The first two strategies were included to help develop children's CAP, and the third was incorporated to help develop the emergent literacy skills of LK and PA as well as CAP. These three print-referencing strategies have been used with success by Justice and Ezell (2000; 2002) to support the development of the aforementioned emergent literacy skills.

Finally, three dialogic reading strategies were described and then modelled as outlined above: asking W and H questions (beginning with who, what, why, when, where, or how), pausing for response and giving feedback (Whitehurst, et al., 1988). These were included to support children's motivation for storybook reading and to protect against overuse of print-referencing strategies which may threaten this motivation (Justice & Ezell, 2000). The DVD culminated in a video clip of the author thanking parents for taking part and revising what parents were asked to do during the intervention phase.

DVD 2 revised the content of DVD 1 and added a fourth print-referencing strategy and three new dialogic reading strategies. It finished with a short discussion about the types of print to look for and cost-effective ways to source books. The DVD began with a revision of the print-referencing strategies from DVD 1 and added two new question topics: letter sounds and words. A final print-referencing strategy of making comments about print was described and modelled as in DVD 1, using all five topics (letter names, rhyming words, CAP, letter sounds and words). This strategy has also been used to support emergent literacy development with success (Justice & Ezell, 2000; 2002).

The three new dialogic reading strategies were asking open-ended questions, using expansions, and helping with answers (Whitehurst, et al., 1988). These were described by the author and then modelled, and were included to keep the reading sessions interactive and fun. The final section introduced second-hand shops and libraries as cost-effective places to source storybooks from, and gave details of the local library. It finished with several examples of salient print (large print, few words per page, embedded print, speech bubbles, font or size changes, rhyming words and alphabet books), which were included as children are more likely to look at and talk about salient print (Ezell & Justice, 2000; Justice, et al., 2005). Finally, the author thanked parents for taking part and revised what parents had been asked to do for the intervention.

Parents also received handouts (Appendix P) which contained a short summary of the DVD contents. This presented the information in a novel way and allowed for quick referencing of the strategies without having to view the DVDs.

Summary

Chapter Three presented the quasi-experimental design employed by this study to measure the effectiveness of a storybook-reading intervention aimed at parents from low-income neighbourhoods. The participants and the recruitment processes were outlined and the procedure, materials and methods of data collection were described. This was followed by a description of the intervention, which consisted of two educational DVDs designed to teach parents about print-referencing and dialogic reading strategies, and to encourage their use.

CHAPTER FOUR

Results

Introduction

Chapter Four presents the results from this study, which was designed to document the effects of a storybook reading intervention on parents' storybook reading behaviours and beliefs, and on their three- and four-year-old children's emergent reading skills, and to assess the helpfulness of the intervention. The results are grouped by their corresponding research questions. The first question looked at change in parental reading behaviour and is answered using the parental reading diaries, the pre- and post-intervention questionnaires and the post-intervention survey. This is followed by an assessment of the effectiveness of the intervention, which is evaluated using data from the post-intervention survey. Question two was designed to investigate whether children's emergent reading skills (and therefore their ALCC) changed as a result of their parents viewing the DVDs and is answered using pre-and post-intervention assessment data collected by the researcher from both the intervention and the control children.

Parental Practices

Home Literacy Environment

Nine parents from the intervention group and seven parents from the control group completed and returned both pre- and post-intervention questionnaires. This limited the questionnaire data that was available to answer research questions one and two, as the questionnaires were only analysed if both pre- and post-intervention questionnaires were completed and returned.

Several questions in the questionnaires were designed to gain information on the home literacy environment. The answers were coded to show the presence and magnitude of change between the pre- and post-intervention questionnaires, and an average score for each question was calculated. However, no change in the home environment was apparent after the intervention. The pre-intervention questionnaire data is presented in Table 2 to give an indication of the average home literacy environments of the study families.

Table 2

Home Literacy Environments of Intervention and Control Group Parents Pre-Intervention

	Intervention	Control
Number of Children's Books at Home	42 books	46 books
Frequency of Library Visits	Under once a month	Once a month
Bedtime Reading (per week)	4 times	4 times
Daytime Reading (per weeks)	4 times	4 times
Parent-initiated Reading (per week)	3 times	5 times
Child-initiated Reading (per week)	Twice	5 times

Print-referencing

The reading diaries contained two prompts: "What you talked about" and "What you and your child enjoyed", with space for parents to respond. Initially each diary was looked at individually and the responses to each prompt coded for the mention of print - LK, CAP, and/or PA.
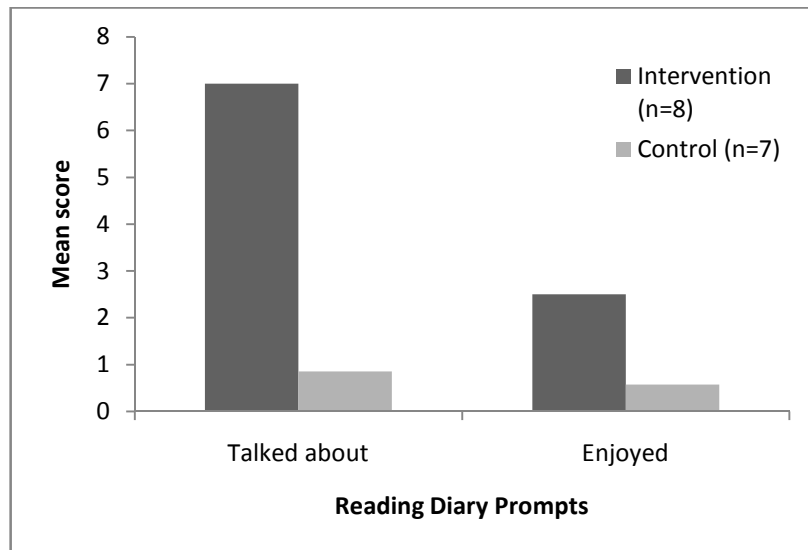
Figure 5. Average number of times that print was mentioned in the intervention and control reading diaries.

To check these differences for significance, parental responses to each prompt were separated into those that referred to LK, CAP and PA. Each diary was given a total score of LK, CAP and PA mentions for each prompt, and the diaries were grouped into intervention and control groups. Mean scores for the

intervention and control diaries were calculated for mention of LK, CAP and PA under the two prompts, and an independent t-test was run for each set of data. Mean occurrence of LK in response to the "What you talked about" prompt was significantly higher in the intervention group. Mean scores were higher for all other measures in the intervention group, but none of these differences reached significance (Table 3).

Table 3

Mention of Print in Reading Diaries

		Intervention (*n*=8)		Control (*n*=7)		T-test	
		Mean	SD	Mean	SD	*t*-value (df)	*p*-value
"What you talked about"	LK	1.78	1.79	0.29	0.49	2.39 (9.49)	0.04
	CAP	2.33	4.80	0.14	0.38	1.37 (8.13)	0.21
	PA	2.11	3.06	0.43	0.79	1.58 (9.33)	0.15
"What you and your child enjoyed"	LK	0.67	0.87	0.14	0.38	1.63 (11.48)	0.13
	CAP	0.89	1.83	0.14	0.38	1.19 (8.86)	0.27
	PA	0.67	1.12	0.29	0.49	0.84 (14)	0.42

Data collected from the parental questionnaires provided some support for the reading diary findings of increased print-referencing in the intervention group. Parents were questioned about their own and their child's storybook reading behaviours and, in their answers to these questions, parents from both groups initially mentioned print-based behaviours questions five times. In the post questionnaire these behaviours were again mentioned by the intervention group parents (IGP) five times, but only twice by the control group parents (CGP).

Nine intervention parents returned the post-intervention survey. Comments from the surveys supported the findings from the reading diaries and indicated an increased focus on the text during reading sessions:

> *I was more aware of talking about text rather than just pictures and what was happening in story*
> (CAP, increased verbalisations about print)

51

More talking about letter sounds and rhyming
(LK, PA, increased verbalisations about print)

Pointing where we start on the page; more
involvement by child; pick words to read and
what letter the word starts with
(CAP, LK, increased child involvement)

Reading Sessions

Reading diaries were used to gain information about the reading practices that occurred during the four-week intervention period. Eight intervention and seven control parents completed and returned reading diaries. Parents recorded the number of times they read a storybook to their child (frequency), the length of each reading session, and the total time spent reading during the intervention. There were no apparent differences between the intervention and control groups for each of these measures. An independent t-test was calculated for each set of data to check for any significant differences, of which none were found (Table 4).

Table 4

Information from Reading Diaries on Storybook Reading Session Frequency,
Length of Session and Total Time Spent Reading During the Intervention

	Intervention (*n*=8)		Control (*n*=7)		T-test	
	Mean	SD	Mean	SD	*t*-value (df)	*p*-value
Frequency	14.50	6.55	15.71	7.30	-0.34 (13)	0.74
Length of Session (min.)	12.25	2.12	13.14	7.06	-0.32 (6.95)	0.76
Total Time (min.)	176.88	98.91	206.14	148.92	-0.45 (13)	0.66

Qualitative analysis of the answers given to the open-ended questions on the children's assessment of home reading suggested that, for the intervention group children (IGC), more reading took place after the intervention than before. Two of the IGC who indicated that they didn't read before the intervention said that they

read after the intervention. Four of the IGC reported an increased frequency of reading after the intervention. In contrast, one of the control group children (CGC) said they read every day before the intervention and only sometimes after the intervention. All other answers were similar before and after the intervention period.

The open-ended questions from the children's home reading assessment also indicated that the IGC were helped to read more after the intervention. Two of the IGC said nobody helped them to read at home pre-intervention and that their mother helped them to read post-intervention. One of the CGC gave a similar answer, another changed from reading alone to reading with their little brother post-intervention and one was helped to read by their mother, sister and father prior to the intervention and by their sister afterwards. All other answers were equivalent pre- and post-intervention.

Parental Beliefs

The post-intervention survey allowed parents to indicate how beneficial they felt the intervention to have been for themselves and their children. One question allowed parents to indicate how much they believed their knowledge had increased as a result of the intervention. Most parents thought their knowledge had increased (Figure 6). The survey also examined how much parents perceived their child to have benefited due to them taking part in the intervention. Most parents felt that their child had benefited from the intervention (Figure 6).
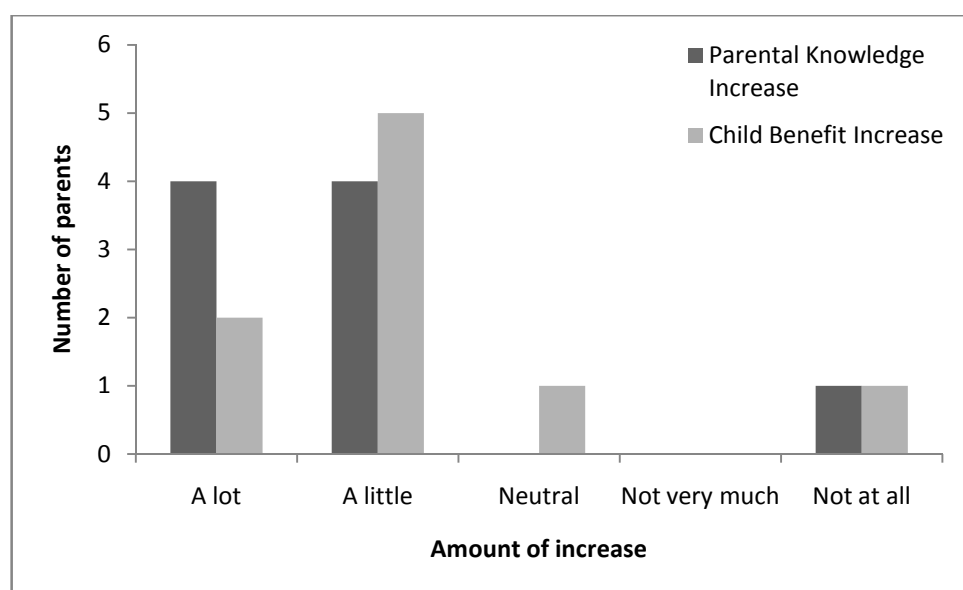
Figure 6. Perceived benefit of the intervention to parents and their children.

Changes in parental belief due to the intervention were examined by the parental questionnaires. Self-efficacy beliefs were investigated using the following question: How much difference do you think you make to your child's development by reading to them? The initial self-efficacy beliefs of the IGP indicated that six parents thought they made a lot of difference to their child's development, one thought they made a little bit of difference, and one gave a neutral response. All beliefs remained unchanged after the intervention, except that the neutral response became a response of no change. Pre-intervention responses to the same question by the control group indicated that all seven parents thought they made a lot of difference to their child's development by reading to them. Self-efficacy beliefs of the CGP after the intervention period found five parents believing they made a lot of difference, one a little bit of difference and one giving a neutral response.

Effectiveness of Intervention

The post-intervention survey was used to assess how effective the intervention had been at conveying new ideas to parents and at supporting their change in storybook reading practice. Parents scored three aspects of the intervention: the instructional sections of the DVD, the parent-child modelling sections of the DVD, and the handouts. Their answers were coded in the following way: 1 = not effective at all, 2 = not very effective, 3 = neutral, 4 = a little effective, 5 = very effective. A mean effectiveness score was calculated for each parent. This score indicated that 77% of the parents found the intervention material a little or very effective, as shown in Figure 7.
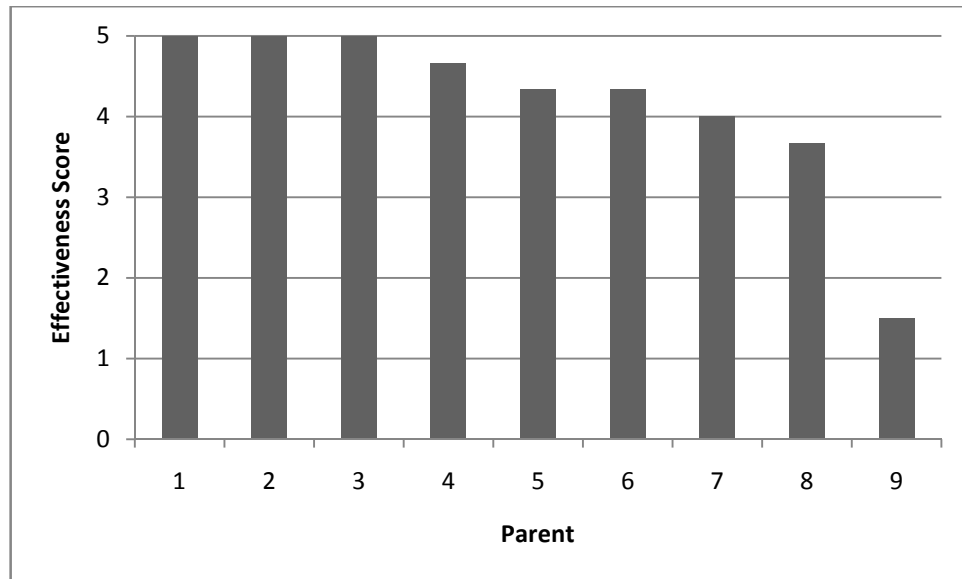
Figure 7: Parental scores for effectiveness of the intervention.

Several parents made comments about their satisfaction with the intervention and some indicated that they found the content helpful:

> *Found it very helpful as before I didn't know where to start teaching J to read*

> *I thought the DVD would be a must have for first time parents, I wish there was something like that when I had my first child*

> *Great, gave good support of what I was already doing, plus gave some new ideas of how to further develop my child*

Others liked the clarity and presentation:

> *Very professional, well thought out and well communicated*

> *Was good, clear, concise, easy to understand*

One parent made a suggestion for improvement:

> *Maybe combine a book to follow, such as read along*
> *with DVD*

Emergent Literacy Skills of the Children

Emergent literacy skills of the children were evaluated using four assessments administered before and after the intervention: LK, CAP, OM and RM. Pretest and posttest scores were recorded for all assessments. Four independent t-tests were conducted to compare LK, CAP, OM and RM pretest scores for the IGC with those of the CGC. There was no significant difference in scores between the groups for any of the assessments, indicating that there was a degree of equivalence between them (Table 5).

Table 5

Comparison of the Emergent Reading Skills of Intervention and Control Children before the Intervention

	Intervention $n=(15)$		Control $n=(15)$		T-test	
	Mean	SD	Mean	SD	*t*-value (df)	*p*-value
LK	2.53	6.07	2.27	3.73	0.15 (28)	0.89
CAP	2.87	2.70	2.93	2.34	-0.07 (28)	0.94
OM	5.47	1.46	4.33	1.91	1.82 (28)	0.08
RM	4.13	2.29	4.00	1.89	0.17 (28)	0.86

Posttest scores were compared by running four independent t-tests. While means for the IGC were consistently higher than those for the CGC, there were no significant differences between groups for any of the tasks (Table 6).

Table 6

Comparison of the Emergent Reading Skills of Intervention and Control Children after the Intervention

	Intervention n=(15)		Control n=(15)		T-test	
	Mean	SD	Mean	SD	*t*-value (df)	*p*-value
LK	3.87	6.07	2.47	4.05	0.74 (28)	0.46
CAP	3.87	3.34	3.53	2.75	0.30 (28)	0.77
OM	5.13	1.25	5.00	1.20	0.30 (28)	0.77
RM	4.60	2.26	4.33	2.09	0.34 (28)	0.74

As there was an observable difference between the pretest scores for OM, it was decided to calculate gain scores to neutralise this discrepancy. Four gain scores were calculated for each child, one for each assessment, by subtracting their pretest scores from their posttest scores. These gain scores accounted for any prior knowledge variability between intervention and control groups. Mean gain scores were then calculated for each assessment, one for the intervention group and one for the control group. As shown in Table 7, the IGC had a higher mean gain score for LK, CAP and RM, but not for OM. Independent t-tests were run for each of the assessments. None of the differences reached significance.

Table 7

Total Gain Scores and t-test Results for Child Assessments

	Intervention n=(15)		Control n=(15)		T-test	
	Mean	SD	Mean	SD	*t*-value (df)	*p*-value
LK	1.33	3.31	0.20	2.96	0.99 (28)	0.33
CAP	1.00	1.89	0.60	2.23	0.53 (28)	0.60
OM	-0.33	1.72	0.67	1.99	-1.47 (28)	0.15
RM	0.47	1.46	0.33	1.80	0.22 (28)	0.83

Children were asked four questions designed to assess their motivation for reading. They were asked to indicate whether they liked or disliked looking at books alone,

getting books for presents, going to the library and reading books with Mum and Dad. Prior to the intervention, the IGC reported 42 total "likes" out of a possible 56, and the CGC reported 46 "likes". After the intervention, the IGC total had become 49 and the CGC total was 47. As there appeared to be a greater change in the IGC, gain scores were calculated by taking away the pretest number of "likes" from the posttest number of "likes" for each child. An independent t-test was calculated and no significant difference was found between the IGC ($M = 0.50$, $SD = 0.94$) and the CGC [$M = 0.07$, $SD = 1.07$, $t(26) = 1.13$, $p = 0.27$].

Summary

This chapter has presented the results from a range of measures employed to establish whether parental storybook reading behaviour and belief changed as a result of watching two instructional DVDs, how effective parents found the intervention, and whether there was any effect on the emergent reading skills of their three- or four-year-old children. The home literacy environment of the IGP appeared to be more focused on literacy after the intervention than the CGP, a finding which was strengthened by the answers to the children's home-reading questions. The latter indicated that more reading took place post-intervention for the IGC and that there was more parental involvement.

Data from the reading diaries indicated that while frequency of reading, session length and total reading time were comparable for both groups, intervention parents used more print-referencing behaviour during their storybook-reading sessions. Findings from the parental questionnaires and post-intervention surveys gave some support to this finding. The majority of parents felt their knowledge had increased as a result of the intervention and believed that it had benefitted their children. Effectiveness scores were calculated and suggested that the majority of parents found the intervention materials to be effective.

Finally, the emergent literacy assessments showed that the emergent reading skills/ALCC of the IGC children did not change in a significant way due to the intervention. Their motivation for reading appeared to have increased more than the CGC, but not significantly.

CHAPTER FIVE

Discussion

Introduction

The previous chapter discussed changes in parental reading behaviours and associated beliefs, the effectiveness of the intervention, and changes to the emergent reading skills/ALCC of the children as a result of storybook reading using print-referencing and dialogic reading strategies. This chapter answers the two research questions, in light of the results presented in Chapter Four, and links the findings to the literature review of Chapter Two. Limitations of the research are then considered and directions for future research are suggested.

Question one asked about changes to parental behaviour and belief as a result of the intervention, which involved the viewing of two DVDs designed to educate parents about the use of print-referencing and dialogic strategies while reading storybooks to their children. The hypothesis of parental change in the form of increased print-referencing strategies was supported by the results of the study. Parents in the intervention group used more print-referencing strategies after the intervention than did parents in the control group. These results corroborate the findings of print-referencing intervention strategy research presented in the Literature Review (Ezell & Justice, 2000).

The second question enquired into the effects of the intervention on the children's emergent literacy skills. The hypothesis of skill improvement was not supported by the results of this intervention. There was no significant change in the emergent literacy skills of the children as a result of the intervention. These findings are not consistent with the results of similar studies, which reported gains to children's emergent literacy skills after similar interventions (Justice & Ezell, 2000; 2002).

Parental Practices

Home Literacy Environment

The home literacy environments of both groups were fairly similar before the intervention, with the exception of both parent- and child- initiated reading which was reported to occur with a greater frequency by the CGP. This is interesting given that the frequency of daytime and bedtime reading was very similar for both

groups. The different questions appear to have targeted different information; it is not apparent which count of storybook reading frequency is likely to be the more accurate representation of what actually went on in these homes.

Print-referencing

Parental use of print-referencing strategies was investigated in three different ways. Firstly, the reading diaries indicated that, during the intervention, print-referencing strategies were used more by the IGP than the CGP. The IGP reported that more of these were used in response to both of the prompts: "What we talked about" and "What we enjoyed" in the reading diaries. Means were higher in the intervention group for measures of LK, CAP and PA for both prompts, and the difference between means for LK in response to "what we talked about" reached significance. This indicates that the intervention parents talked about LK markedly more than the control parents. The other differences did not reach significance, most likely due in part to the large variation in the scores. The intervention may have been more effective for some parents than for others, causing some of them to use the strategies more readily. The apparent increase in print-referencing by the IGP supports research discussed in Chapter Two, which found that parental verbal and non-verbal references to print increased after viewing an educational video describing these strategies (Ezell & Justice, 2000; Justice & Ezell, 2000).

Secondly, survey comments by the IGP indicated an increased focus on the text during reading post-intervention. The IGP reported increased verbalisations about the print, more child involvement and more discussion involving LK, CAP and PA.

Finally, reports of print-referencing in the questionnaires also indicated that the IGP referenced the text more often than the CGP after the intervention, although not more than they had done prior to the intervention. The mention of print-referencing prior to the intervention was equal for both groups. Post-intervention, the IGP maintained the same mention of print-referencing as pre-intervention, whereas the CGP mentioned it less.

There is a discrepancy between the findings of the reading diaries, the surveys, and the questionnaires. The reading diaries and survey results imply that the IGP used more print-referencing after the intervention than they did before. However, the questionnaires do not show this increase. They show the IGP and

the CGP to have similar print-referencing behaviour prior to the intervention, the IGP to show little change due to the intervention, and the print-referencing behaviour of the CGP to be less prevalent after the intervention. Self-report questionnaires, which were used in this study, are thought to suffer from a social-desirability bias (DeBaryshe, 1995; Mol & Bus, 2011). The higher reporting of print-referencing in the pre-intervention questionnaires may have been due to parents over-reporting an activity that they assumed was valued, and this over-reporting may have weakened by the time the post-intervention questionnaires were received. Several of the analyses point towards the presence of a social-desirability bias, which may have led all parents to over-report the presence of literacy activities in their home environment prior to the intervention.

Reading Sessions

There was little discrepancy between the frequency and length of storybook reading sessions as reported by the IGP and the CGP. Both groups appeared to read to their children with a similar frequency and spent a comparable amount of time reading to them, both per reading session and in total over the four-weeks of the intervention. However, six IGC indicated that reading occurred with an increased frequency post-intervention. Dialogic strategies encourage parents to interact positively with their children and to give them attention, and it has been suggested that this may increase children's motivation for reading (Elias, et al., 2006). Perhaps the post-intervention reading was more memorable for the IGC because they experienced more interaction and assistance, and thus enjoyed it more.

Parental Beliefs

Changes in parental beliefs around storybook reading were examined by three questions. The first question contained in the questionnaire looked at the difference parents believed they made to their child's development by reading to them before and after the intervention. All but one of the IGP responses to this question remained unchanged as a result of the intervention. The responses of the CGP revealed two of them to have weaker self-efficacy beliefs after the intervention, in spite of the fact that they had received no material during this time. While this question indicated little change to self-efficacy beliefs for the IGP, the two survey questions examining parental belief did suggest change. Most

intervention parents felt their knowledge had increased as a result of the intervention and that their child had benefitted from it. These three questions do explore different things; however it is interesting that there is an obvious increase in the latter two and no change in the first one. Perhaps the different wording was helpful? Or perhaps this is another instance where social-desirability bias affected the pre-intervention questionnaire responses.

Changes to parental behaviours and beliefs support each other; changes to thoughts are likely to be reflected in practice. Parents appear to believe that their knowledge has increased, which is observable in their increased use of print-referencing strategies. They also seem to feel that their children have benefitted from their use of these strategies. This is consistent with the findings of DeBaryshe (1995), that positive parental storybook reading beliefs appear to be associated with higher-quality interactions during reading.

Effectiveness

The majority of parents found all aspects of the intervention to be effective: the instructional sections of the DVD, the modelling of reading strategies and the handouts. Parental comments indicated that they appreciated being given practical information in a clear, professional and accessible format, which both supported what they were currently doing and provided ideas to extend their practices. These findings of parental satisfaction support the earlier findings of a change in parental behaviour and belief as a result of the intervention. An intervention that is perceived as effective is more likely to result in behavioural change. If this intervention had been ineffective, one would expect to find little behavioural and psychological change. The positive effectiveness scores indicate that future low-cost interventions, such as this one, are likely to be positively received by parents. Previous studies using a DVD to convey storybook reading strategies have produced positive results, indicating that the medium has previously been deemed effective by parents (Arnold, et al., 1994; Huebner & Meltzoff, 2005).

Emergent Literacy Skills

The emergent literacy skills of the intervention children showed no significant change as a result of the intervention. Pretest scores for LK, CAP and RM showed both intervention and control groups of children to be relatively equal. Posttest

scores for LK, CAP and RM were all higher for the IGC, but none of the differences reached significance. Gain scores confirmed these finding, with larger gains apparent in the IGC for LK, CAP and RM. Again none of the differences reached significance. These findings do not endorse the studies described in the literature review which found significant changes in children's emergent literacy skills after similar interventions (Justice & Ezell, 2000; 2002). One of these studies used parents of higher SES and perhaps these parents achieved greater compliance with the requests of the study. The other study used a researcher as the 'adult' and in this way removed the issue of parental compliance.

The results of the OM assessment did not follow the same pattern. The IGC portrayed higher levels of OM knowledge than the CGC at pretest, a difference that almost reached significance. OM posttest scores for the IGC revealed lower levels of onset knowledge when compared with the pretest results, whereas the CGC displayed greater OM knowledge after the intervention period. Gain scores reflected this discrepancy, with the CGC displaying more gain that the ICG, however not significantly more. The reliability scores for the OM test were low. This indicates that the results of this test must be interpreted with caution. While there are possible reasons for the greater gain in OM displayed by the CGC, this may be solely the result of an inadequate test. One of the possible reasons for the higher OM gain score for the CGC may be the parental focus on rhyming during the intervention, as the phonological focus of the DVD was on rhyming words. This was deemed to be a developmentally-appropriate phonological activity for four-year-old children (Whitehurst & Lonigan, 1998), particularly as children from low-SES homes have been found to have lower levels of PA (Lonigan, Bloomfield, et al., 1999; Lonigan, et al., 1998). Child assessments focused on OM and RM, the latter assessing rhyming ability and the former being used to cater for possible ceiling effects of the rhyming activity for phonologically-competent children. In hindsight, this was unnecessary as no child attained a perfect score in the RM assessment.

The overall lack of significance in the children's emergent literacy skill change could have been due to small sample sizes, each group containing only 15 children. However, it may also have been due to the length of the intervention. While four weeks appeared to be long enough for behavioural and belief changes to be made by the parents, it was apparently not long enough for significant changes to be made to the emergent literacy skills of the children. Parental behavioural change may be a precursor to child skill change, in which case a change in the

emergent literacy skills of the children would have come after the observed parental behavioural changes.

New Zealand children involved in a home interaction programme (HIPPY) that has similarities to this intervention were assessed when they were six years old, after two years on the programme. If the current study had continued for longer, or if follow-up testing had been conducted several months later, there may have been an observable and significant change to the emergent literacy skills, as observed in the HIPPY research (Barhava-Monteith, et al., 1999).

The children's motivation for literacy did not change significantly as a result of the intervention. While the IGC appeared to like the mentioned literacy activities more after the intervention, this difference was not enough to produce a significant result. Again, this may have been due to the small sample size: only 14 out of the 15 children in each group appeared able to understand the activity and the questions well enough to be able to answer them. Perhaps the motivational questions were too difficult for young children to answer with full understanding.

Literate Cultural Capital and ALCC

The home literacy environment of the intervention families, including the storybook reading behaviours and beliefs of parents, changed as a result of the study. Intervention homes reported a greater use of print-referencing behaviours, particularly with regards to LK, during storybook reading. In addition, parents felt they had a greater knowledge of storybook-reading practices that would support the development of their children's ALCC. Therefore, while there were no significant changes to the children's ALCC, the children's literate cultural capital is likely to have been altered by the study. Nash (2002) claims one of the greatest causes of educational inequity to be the mental habits developed in early childhood. Changes to the home literacy environment of the intervention children as a result of this study are likely to change the way these children perceive and relate to literacy, and may therefore address one of the greatest causes of educational inequality.

Model of Literacy Development

The model of literacy development presented in Chapter Two was not supported by this study, as improvements to the children's emergent literacy skills did not register in the recorded data. The study was not able to assess the model

effectively for reasons discussed in the limitations below, such as the small sample size and the short duration of the intervention. The model, which proposes a direct pathway from literacy activities based in the home to future reading skill development, remains research based and theoretically robust. Future research designs based on such a model would do well to be longer and include more participants.

Divergent Results

One intervention parent gave consistently negative results to all questions. They noted on the questionnaire that they "never read a book to [their child]". Interestingly, they took the time to complete and return all intervention material, except for the reading diary. Perhaps they valued higher education and research, "doing their bit", or felt it important to represent their sector of society. When they were phoned and reminded to return the diary, they said that neither parent read to their child and that they were both very busy. Their responses can be seen in Figure 6 (parental belief) as the two responses of "not at all" and in Figure 7 (effectiveness) as Parent 9 who ranked the intervention between "not very helpful" and "not helpful at all".

The reasons for such responses are purely speculative. These parents may not have valued reading to their child or may have been too busy working to find the time to read to him. Demographic information indicated that neither parent passed School Certificate, both parents had jobs, and the family appeared to belong to an ethnic minority, judging by the two languages spoken at home. Perhaps reading to their child was culturally foreign to them and the intervention did not alter this.

There are two ways of responding to this participant. Firstly, they could be seen as an outlier, presenting an inaccurate representation of the population and skewing the data. However, the small sample set of this study does not provide enough information to warrant such a conclusion. Alternatively, they could be seen to represent the 10% of the population that did not respond favourably to an intervention such as this, perhaps for reasons surmised earlier. This second rationale must be adopted in this case, due to the size of the study. A larger study would be needed to prove otherwise.

Limitations of this Study

There are many aspects to this piece of research, each with its limitations. The study took place in two kindergartens with different teachers and a different structure; all children from the intervention group came from one kindergarten and all control children came from the other. The differing kindergarten practices could have affected the child assessment results and may have created differences between the groups that were not due to the intervention. This possible presence of a confounding variable (history) may have compromised the internal validity of the study.

Language development is a core aspect of emergent literacy development. In the planning phases of this research, the inclusion of a language assessment was decided against to prevent the child assessments from taking too much time. However, in hindsight, it would have been valuable to have had a measure of language in the child assessment battery. This could have helped to track any language growth due to the intervention, particularly as dialogic reading strategies have often been linked with language development in the literature (Mol, et al., 2008; Whitehurst, Arnold, et al., 1994).

This study may have found more robust results had it involved a greater number of families, been for a longer duration and involved an assessment of the children's emergent literacy skills after several months had passed. The data gathered from 15 intervention children, 15 control children, and fewer numbers of intervention and control parent did not provide a large enough sample size to produce many significant results. Four weeks appeared to be long enough for qualitative changes in parental practices and beliefs, but not long enough for these changes to show quantitative significance, or to be translated into significant quantitative differences in the emergent literacy skills of the children. Perhaps if there had been a second posttest, several months after the intervention, the changes in parental practices may have translated into emergent literacy skill increases for the children.

The study materials were likely to have been reviewed by parents in their own homes and any resulting storybook reading was also likely to have occurred there. The study relied heavily on parental responsibility and self-directed involvement, and this may have been one of its weaknesses. Parental compliance with the requests of the study was not under the author's control and parental

accounts of reading that occurred may or may not have been true: the information given was only as trustworthy as the parents.

Several of the questions in the parental questionnaires were open to ambiguous interpretation and required parents to think back to previous events, for example, "How often per week do you or other family members read to your child?". Some parents may have counted the reading of three books, one after the other, as one reading episode, others may have counted this as three sessions (Senechal, LeFevre, Hudson & Lawson, 1996, cited in Mol & Bus, 2011). There have been parents who have counted reading a piece of environmental print as a reading session (e.g., van Lierop-Debrauer, 1990, cited in Mol & Bus, 2011). It has been suggested that print exposure checklists provide a more objective view of the home literacy environment than parental questionnaires and avoid the issues of ambiguity and accurate remembering. However, the recent meta-analysis discussed in Chapter Two found studies that used either method to indicate similar correlations between storybook reading and emergent literacy skills (Mol & Bus, 2011). The use of a print-exposure checklist would avoid the problems of ambiguous interpretation and the need for retrospective judgements.

Initial questionnaire responses may have been affected by a social-desirability bias, leading to an over-reporting of literacy-related activity. This phenomenon is discussed in the literature with relation to self-report questionnaires, with parents being likely to overestimate their involvement in literate activities when they value them (DeBaryshe, 1995; Mol & Bus, 2011). Parents in this study may have truly valued reading to their children, talking about the print, and teaching them about letter names and rhyming, or may have suspected that the researcher would value such activities. If the latter was the case, they may have reported a higher occurrence of these types of activities than what actually took place. By the time the post-intervention questionnaires were received, this bias may have weakened, with parents being more honest and realistic about the amount of print-referencing contained in their storybook-reading sessions. In addition, the increased focus on storybook reading that was required in order to fill out the reading diaries would have given parents current experience to draw on, perhaps making the post-intervention questionnaire responses more accurate. These factors may have led to both groups over-reporting in the pre-intervention questionnaires and reporting more accurately in the post-intervention ones.

The possible presence of a social-desirability bias could be managed in two different ways. Print-exposure checklists could be used in place of the self-report questionnaires to indicate the amount of reading that takes place in the home and thus give a measure of the home literacy environment (Mol & Bus, 2011). These checklists require parents to indicate which children's book titles they recognise in a list of common titles interspersed with fake ones. An alternative way of measuring the amount of print-referencing that occurs could be to take video footage of parent-child dyads prior to the intervention and then again afterwards. This method of measurement has been used with success in some of the print-referencing studies mentioned in the literature review (Ezell & Justice, 2000; Justice & Ezell, 2000).

Cultural factors may have presented difficulties for some families. Storybook reading may not be a "natural" or "contextualised" activity in some low-income homes, particularly those with families that do not belong to the cultural majority. These parents may not read to their children if it is not part of their culture or if they feel uncomfortable with their own reading skills (Reese, Sparks, & Leyva, 2010). Some cultural groups seem to prefer a didactic approach to storybook reading and may have found the interactive methods proposed in this study (e.g., print-referencing, dialogic reading) awkward (Anderson, et al., 2010; Wells, 1985b).

It could be seen as arrogant and ignorant on the part of the researcher to value and force-feed a particular method of storybook reading (i.e., using print-referencing and dialogic reading strategies) to families that may have their own successful literacy practices (Anderson, et al., 2010). However, while some children from low-SES homes move onto school easily, the literature overtly describes these families as less successful in preparing their children for the challenges of learning to read (Parkhill, 2001/2002; Weigel, et al., 2010). Therefore, the literature can be seen to justify the promotion of a specific method of storybook reading.

Directions for Future Research

Several of the limitations presented above point to directions for future research. The promising findings of this study indicate that it would be valuable to undertake similar studies, with some changes. Firstly, conducting the study with larger sample sizes would amplify the statistical power and may increase the likelihood of obtaining significant results. This would better protect against

threats to the internal validity, such as the presence of possible compounding factors due to having all intervention children from one kindergarten and all control children from another. Secondly, a longer intervention period would be advisable as this would be likely to increase the positive effects of the intervention and make them easier to detect. Thirdly, in addition to posttesting directly after the intervention, it would be of interest to take the same assessments several months or years later, to ascertain whether the effects of the study were still present. The effects of the study will probably be more noticeable after a longer period of time, as parents are likely to continue to read to their children using the strategies after the intervention has finished. The "Matthew effect" (Stanovich, 1986) may also come into play, where parents who read to their children using the strategies are encouraged by their children's progress and so are more likely to continue to read to them using the strategies. The use of print-exposure checklists may help to alleviate the possible weaknesses of the self-report questionnaire: the need for retrospective time judgements, the possibility of ambiguous interpretation and the risk of social-desirability bias.

There is a dearth of New Zealand research concerning the cultural capital of its multicultural society. It would be valuable to learn more about the cultural capital of common ethnic minorities in New Zealand, particularly those that present a higher risk of experiencing difficulty with reading. Of particular interest would be the differences in literate cultural capital that children bring with them to school. It would also be interesting to conduct a larger study that was able to work with families to build on existing literacy practices on a case-by-case basis (Reese, et al., 2010), thus discovering more about what literacy learning goes on in the homes. Teachers would be better prepared to teach such children if they understood more about the particular skill set that was brought to school. Typical practices, strengths, and skills of these cultures could be incorporated into their curriculum design and gaps in knowledge could be better addressed.

Summary

This final chapter answered the two research questions and discussed the findings. The intervention appeared to lead to a change in parental practice and belief, a finding that was supported by positive parental efficacy ratings for the intervention. However, the emergent literacy skills of the children did not change

significantly as a result of the intervention. The limitations of this study were then discussed, followed by suggested directions for future research.

Concluding Statement

The range in literacy achievement of school-aged readers in New Zealand is larger than that of most other countries (OECD, 2004, 2010; Tunmer, et al., 2008), with low achievers being more likely to come from homes with low income (Elley, 1992; OECD, 2004). One reason for this may be that the cultural capital of children from homes with a low SES may not include the specific skill set expected by the schooling system (Heath, 1986; Wells, 1985a). These children may be less likely to have an abundance of ALCC and more likely to experience a delay in their literacy development (Justice & Pullen, 2003; Tunmer, et al., 2004).

The main aims of this research were to increase the use of print-referencing and dialogic reading strategies by parents during storybook reading and to monitor any changes in the emergent reading skills of their preschool children. These strategies have been used to enhance the emergent reading skills of young children (Chow & McBride-Chang, 2003; Justice & Ezell, 2000) and were therefore deemed to be likely to augment children's ALCC and provide them with some of the skills expected by schools.

In response to the intervention, parents reported an increase in the use of print-referencing and dialogic reading strategies. This indicates that replicable, low-cost, short-term interventions such as this one can have tangible effects in low-income households. While children's emergent reading skills did not show a significant improvement during the intervention time-frame, this may occur after a longer period of exposure to the new strategies.

Perhaps the literacy gap can be closed before it opens?

References

Anderson, J., Anderson, A., Friedrich, N., & Kim, J. E. (2010). Taking stock of family literacy: Some contemporary perspectives. *Journal of Early Childhood Literacy, 10*(1), 33-53.

Anthony, J., L., & Francis, D. J. (2005). Development of phonological awareness. *Current Directions in Psychological Science, 14*(5), 255-259.

Anthony, J. L., & Lonigan, C. J. (2004). The nature of phonological awareness: Converging evidence from four studies of preschool and early grade school children. *Journal of Educational Psychology, 96*, 43-55.

Arnold, D. H., Lonigan, C. J., Whitehurst, G. J., & Epstein, J. N. (1994). Accelerating language development through picture book reading: Replication and extension to a videotape training format. *Journal of Educational Psychology, 86*(2), 235-243.

Arrow, A. (2010). Emergent literacy skills in New Zealand kindergarten children: Implications for teaching and learning in ECE settings. *He Kupu, 2*, 57-69.

Arrow, A., & McLachlan, C. (2010). Alphabet and phonological awareness: Can it be enhanced in the early childhood setting? *International Research in Early Childhood Education, 1*(1), 84-94.

Barhava-Monteith, G., Harre, N., & Field, J. (1999). HIPPY New Zealand: An evalution overview. *Social Policy Journal of New Zealand, 12*, 106-121.

Biddulph, F., Biddulph, J., & Biddulph, C. (2003). *The complexity of community and family influences on children's achievement in New Zealand: Best evidence synthesis iteration (BES)*. Wellington, New Zealand: Ministry of Education.

Booth, S. (2005). Developing children's emergent literacy. *ACE working papers*(16), 67-79.

Bourdieu, P. (1973). Cultural reproduction and social reproduction. In J. Karabel & A. H. Hasley (Eds.), *Power and ideology in education*. New York, NY: Oxford University Press.

Burns, M. S., Griffin, P., & Snow, C. E. (Eds.). (1999). *Starting out right: A guide to promoting children's reading success*. Washington, DC: National Academy Press.

Bus, A. G., van IJzendoorn, M. H., & Pellegrini, A. D. (1995). Joint book reading makes for success in learning to read: A meta-analysis on intergenerational transmission of literacy. *Review of Educational Research, 65*(1), 1-21.

Cadima, J., McWilliam, R. A., & Leal, T. (2010). Environmental risk factors and children's literacy skills during the transition to elementary school. *International Journal of Behavioural Development, 34*(1), 24-33.

Chow, B. W., & McBride-Chang, C. (2003). Promoting language and literacy development through parent-child reading in Hong Kong preschoolers. *Early Education and Development, 14*, 233-248.

Clay, M. M. (1985). *The early detection of reading difficulties: A diagnostic survey with recovery procedures*. Auckland, New Zealand: Heinemann.

Clay, M. M. (1991). *Becoming literate: The construction of inner control*. Auckland, New Zealand: Heinemann.

Clay, M. M. (2000). *Concepts about print: What have children learned about the way we print language?* Portsmouth, NH: Heinemann.

Cotching, J. (2000). *Stories of change: Interviews with mothers of children enrolled in the Home Instruction Programme for Preschool and Year One Youngsters (HIPPY) in the Far North of New Zealand.* Unpublished Thesis, Massey University, Palmerson North.

Crain-Thoreson, C., & Dale, P. S. (1992). Do early talkers become early readers? *Developmental Psychology, 28*(3), 421-429.

Crain-Thoreson, C., & Dale, P. S. (1999). Enhancing linguistic performance: Parents and teachers as book reading partners for children with language delays. *Topics in Early Childhood Special Education, 19*, 28-39.

Curenton, S. M., & Justice, L. M. (2008). Children's preliteracy skills: Influence of mothers' education and beliefs about shared-reading interactions. *Early Education and Development, 19*(2), 261-283.

Dale, P. S., Crain-Thoreson, C., Notari-Syverson, A., & Cole, K. (1996). Parent-child book reading as an intervention technique for young children with language delays. *Topics in Early Childhood Special Education, 16*, 213-235.

de Jong, P. F., & Leseman, P. P. M. (2001). Lasting effects of home literacy on reading achievement in schools. *Journal of School Psychology, 39*(5), 389-414.

DeBaryshe, B. D. (1995). Maternal belief systems: Linchpin in the home reading process. *Journal of Applied Developmental Psychology, 16*, 1-20.

Dunning, D. B., Mason, J. M., & Stewart, J. P. (1994). Reading to preschoolers: A response to Scarborough and Dobrich (1994) and recommedations for future research. *Developmental Review, 13*, 324-339.

Elias, G., Hay, I., Homel, R., & Freiberg, K. (2006). Enhancing parent-child book reading in a disadvantaged community. *Australian Journal of Early Childhood, 31*(1), 20-25.

Elley, W. B. (1992). *How in the world do students read?* New York, NY: International Association for the Evaluation of Educational Achievement.

Elley, W. B. (1997). *An evaluation of Alan Duff's "books in homes" programme*. Wellington, New Zealand: Ministry of Education.

Ezell, H. K., & Justice, L. M. (2000). Increasing the print focus of adult-child shared book reading through observational learning. *American Journal of Speech-Language Pathology, 9*(1), 36-47.

Ezell, H. K., Justice, L. M., & Parsons, D. (2000). Enhancing the emergent literacy skills of preschoolers with communication disorders: A pilot investigation. *Child Language Teaching and Therapy, 16*, 121-140.

Foulin, J. N. (2005). Why is letter-name knowledge such a good predictor of learning to read? *Reading & Writing, 18*(2), 129-155.

Frijters, J. C., Barron, R. W., & Brunello, M. (2000). Direct and mediated influences of home literacy and literacy interest on prereaders' oral vocabulary and early written language skill. *Journal of Educational Psychology, 92*, 466-477.

Gaine, C., & George, R. (1999). *Gender, "race", and class in schooling: A new introduction*. London, England: Falmer Press.

Garlock, V. M., Walley, A. C., & Metsala, J. L. (2001). Age-of-acquisition, word frequency, and neighborhood density effects on spoken word recognition by children and adults. *Journal of Memory and Language, 45*(3), 468-492.

Gilmore, A., Croft, C., & Reid, N. (1981). *Burt word reading test. Teachers manual* (New Zealand revision ed.). Wellington, New Zealand: New Zealand Council for Educational Research.

Heath, S. B. (1982). Questioning at home and at school: A comparative study. In G. Spindler (Ed.), *Doing the ethnography of schooling* (pp. 102-131). New York, NY: CBS College Publishing.

Heath, S. B. (1983). *Ways with words*. Cambridge, England: Cambridge University Press.

Heath, S. B. (1986). What no bedtime story means: Narrative skills at home and school. In B. B. Schieffelin & E. Ochs (Eds.), *Language socialization across cultures*. Cambridge, England: Cambridge University Press.

Hindman, A. H., Connor, C. M., Jewkes, A. M., & Morrison, F. J. (2008). Untangling the effects of shared book reading: multiple factors and their associations with preschool literacy outcomes. *Early Childhood Research Quarterly, 23*(3), 330-350.

Hood, M., Conlon, E., & Andrews, G. (2008). Preschool home literacy practices and children's literacy development: A longitudinal analysis. *Journal of Educational Psychology, 100*(2), 252-271.

Huebner, C. E., & Meltzoff, A. N. (2005). Intervention to change parent-child reading style: A comparison of instructional methods. *Journal of Applied Developmental Psychology, 26*(3), 296-313.

Justice, L. M., & Ezell, H. K. (2000). Enhancing children's print and word awareness through home-based parent intervention. *American Journal of Speech-Language Pathology, 9*(257-269).

Justice, L. M., & Ezell, H. K. (2001). Written language awareness in preschool children from low-income households: A descriptive analysis. *Communication Disorders Quarterly, 22*, 123-134.

Justice, L. M., & Ezell, H. K. (2002). Use of storybook reading to increase print awareness in at-risk children. *American Journal of Speech-Language Pathology, 11*, 17-29.

Justice, L. M., Kaderavek, J. N., Fan, X., Sofka, A., & Hunt, A. (2009). Accelerating preschoolers' early literacy development through classroom-based teacher-child storybook reading and explicit print referencing. *Language, Speech, & Hearing Services in Schools, 40*, 67-85.

Justice, L. M., & Lankford, C. (2002). Preschool children's visual attention to print during storybook reading: Pilot findings. *Communication Disorders Quarterly, 24*(1), 11-21.

Justice, L. M., & Pullen, P. C. (2003). Promising interventions for promoting emergent literacy skills: Three evidence-based approaches. *Topics in Early Childhood Special Education, 23*(3), 99-113.

Justice, L. M., Pullen, P. C., & Pence, K. (2008). Influence of verbal and nonverbal references to print on preschoolers' visual attention to print during storybook reading. *Developmental Psychology, 44*(3), 855-866.

Justice, L. M., Skibbe, L., Canning, A., & Lankford, C. (2005). Pre-schoolers, print and storybooks: An observational study using eye movement analysis. *Journal of Research in Reading, 28*(3), 229-243.

Justice, L. M., Weber, S. E., Ezell, H. K., & Bakeman, R. (2002). A sequential analysis of children's responsiveness to parental print references during shared book-reading interactions. *American Journal of Speech-Language Pathology, 11*, 30-40.

Kaderavek, J., & Justice, L. M. (2002). Shared storybook reading as an intervention context: Practices and potential pitfalls. *American Journal of Speech-Language Pathology, 11*(4), 395-406.

Karweit, N., & Wasik, B. A. (1996). The effects of story reading programs on literacy and language development of disadvantaged preschoolers. *Journal of Education for Students Placed at Risk, 1*(4), 319-348.

Korat, O. (2005). Contextual and non-contextual knowledge in emergent literacy development: A comparison between children from low SES and middle SES communities. *Early Childhood Research Quarterly, 20*(2), 220-238.

Lomax, R. G., & McGee, L. M. (1987). Young children's concepts about reading: Toward a model of reading acquisition. *Reading Research Quarterly, 15*, 237-256.

Lonigan, C. J. (1994). Reading to preschoolers exposed: Is the emperor really naked? *Developmental Review, 14*, 303-323.

Lonigan, C. J., Anthony, J. L., Bloomfield, B. G., Dyer, S. M., & Samwel, C. S. (1999). Effects of two shared-reading interventions on emergent literacy skills of at-risk preschoolers. *Journal of Early Intervention, 22*, 306-322.

Lonigan, C. J., Bloomfield, B. G., Anthony, J. L., Bacon, K. D., Phillips, B. M., & Samwel, C. S. (1999). Relations among emergent literacy skills, behavior problems, and social competence in preschool children from low- and middle-income backgrounds. *Topics in Early Childhood Special Education, 19*(1), 40.

Lonigan, C. J., Burgess, S. R., & Anthony, J. L. (2000). Development of emergent literacy and early reading skills in preschool children: Evidence from a latent-variable longitudinal study. *Developmental Psychology, 36*, 596-613.

Lonigan, C. J., Burgess, S. R., Anthony, J. L., & Barker, T. A. (1998). Development of phonological sensitivity in 2- to 5-year-old children. *Journal of Educational Psychology, 90*, 294-311.

Machida, S., Taylor, A. R., & Kim, J. (2002). The role of maternal beliefs in predicting home learning activities in head start families. *Family Relations, 51*(2), 176-184.

Mahoney, G., & Wheeden, A. C. (1997). Parent-child interaction: The foundation for family-centred early intervention practice. *Topics in Early Childhood Special Education, 17*(2), 165-184.

Makin, L., Jones Diaz, C., & McLachlan, C. (2007). *Literacies in childhood: Changing views, challenging practice*. Marrickville, Australia: Elsevier Australia.

McBride-Chang, C., Wagner, R. K., & Chang, L. (1997). Growth modeling of phonological awareness. *Journal of Educational Psychology, 89*(4), 621-630.

McDowell, K. D., Lonigan, C. J., & Goldstein, H. (2007). Relations among socioeconomic status, age, and predictors of phonological awareness. *Journal of Speech, Language, and Hearing Research, 50*, 1079-1092.

Moats, L. (2000). *Speech to print: Language essentials for teachers*. Baltimore, MD: Paul H Brookes Publishing Co.

Mol, S. E., & Bus, A. G. (2011). To read or not to read: A meta-analysis of print exposure from infancy to early adulthood. *Psychological Bulletin, 137*(2), 267-296.

Mol, S. E., Bus, A. G., de Jong, M. T., & Smeets, D. J. H. (2008). Added value of dialogic parent–child book readings: A meta-analysis. *Early Education & Development, 19*(1), 7 - 26.

Mullis, I. V. S., Martin, M. O., & Gonzalez, E. J. (2003). *International achievement in the processes of reading comprehension: Results from PIRLS 2001 in 35 countries*. Chestnut Hill, MA: Boston College.

Nash, R. (2002). Family resources and reading: Literacy practices, cognition and school success. In P. Adams & H. Ryan (Eds.), *Learning to read in Aotearoa New Zealand*. Palmerston North, New Zealand: Dunmore Press.

Nash, R., & Harker, R. (1992). Working with class: The educational expectations and practices of class-resourced families. *New Zealand Journal of Educational Studies, 27*(1), 3-20.

Nicholson, T. (2005). *At the cutting edge: The importance of phonemic awareness in learning to read and spell*. Wellington, New Zealand: NZCER Press.

OECD. (2004). *Learning for tomorrow's world: First results from PISA 2003*. Paris, France: OECD Publications.

OECD. (2010). *PISA 2009 results: What students know and can do: Student performance in reading, mathematics and science (Volume I)*. Paris, France: OECD Publishing.

Ouellette, G. P., & Haley, A. (2011). One complicated extended family: The influence of alphabetic knowledge and vocabulary on phonemic awareness. *Journal of Research in Reading*, 1-13. Retrieved from http://onlinelibrary.wiley.com/doi/10.1111/j.1467-9817.2010.01486.x/abstract;jsessionid=24CF12326470491A2BC4D72BDE6481CF.d02t04

Parkhill, F. (2001/2002). Children's literacy readiness at school entry: The influences and interplay of socioeconomic status and gender. *Journal of Educational Research, 6*(1), 5-26.

Phillips, G., & McNaughton, S. (1990). The practice of storybook reading to preschool children in mainstream New Zealand families. *Reading Research Quarterly, 25*(3), 196-212.

Price, L. H., van Kleeck, A., & Huberty, C. J. (2009). Talk during book sharing between parents and preschool children: A comparison between storybook and expository book conditions. *Reading Research Quarterly, 44*(2), 171-194.

Reese, E., Sparks, A., & Leyva, D. (2010). A review of parent interventions for preschool children's language and emergent literacy *Journal of Early Childhood Literacy, 10*(1), 97-117.

Scarborough, H. S., & Dobrich, W. (1994). On the efficacy of reading to preschoolers. *Developmental Review, 14*, 245-302.

Sénéchal, M., & LeFevre, J.-A. (2002). Parental involvement in the development of children's reading skill: A five-year longitudinal study. *Child Development, 73*(2), 445.

Sénéchal, M., LeFevre, J.-A., Thomas, E. M., & Daley, K. E. (1998). Differential effects of home literacy experiences on the development of oral and written language. *Reading Research Quarterly, 33*(1), 96-116.

Sonnenschein, S., & Munsterman, K. (2002). The influence of home-based reading interactions on 5-year-olds' reading motivations and early literacy development. *Early Childhood Research Quarterly, 17*, 318-337.

Stanovich, K. E. (1986). Matthew effects in reading: Some consequences of individual differences in the acquisition of literacy. *Reading Research Quarterly, 21*(4), 360-407.

Stevenson, H. W., & Newman, R. S. (1986). Long-term prediction of achievement and attitudes in mathematics and reading. *Child Development, 57*, 646-659.

Telford, M., & May, S. (2010). *Our 21st century learners at age 15*. Wellington, New Zealand: Ministry of Education.

Tunmer, W., & Nesdale, A. (1985). Phonemic segmentation and beginning reading. *Journal of Educational Psychology, 77*, 417-427.

Tunmer, W. E., Chapman, J. W., & Prochnow, J. E. (2003). *The structure of relationships between language-related factors, achievement-related beliefs, gender and beginning reading achievement*. Wellington, New Zealand: Ministry of Education.

Tunmer, W. E., Chapman, J. W., & Prochnow, J. E. (2004). Why the reading achievement gap in New Zealand won't go away: Evidence from the PIRLS 2001 International Study of Reading Achievement. *New Zealand Journal of Educational Studies, 39*(1), 127-145.

Tunmer, W. E., Chapman, J. W., & Prochnow, J. E. (2006). Literate cultural capital at school entry predicts later reading achievement: A seven year longitudinal study. *New Zealand Journal of Educational Studies, 41*(2), 183-204.

Tunmer, W. E., Nicholson, T., Greaney, K. T., Prochnow, J. E., Chapman, J. W., & Arrow, A. (2008). PIRLS before swine: A critique of New Zealand's national literacy strategy. *New Zealand Journal of Educational Studies, 43*(2), 105-119.

Valdez-Menchaca, M. C., & Whitehurst, G. J. (1992). Accelerating language development through picture book reading: A systematic extension to Mexican day care. *Developmental Psychology, 28*, 1106-1114.

Votruba-Drzal, E. (2003). Income changes and cognitive stimulation in young children's home learning environments. *Journal of Marriage and Family, 65*(2), 341-355.

Wade, B., & Moore, M. (1998). An early start with books: Literacy and mathematical evidence from a longitudinal study. *Educational Review, 50*(2), 135-145.

Walley, A. C., Metsala, J. L., & Garlock, V. M. (2003). Spoken vocabulary growth: Its role in the development of phoneme awareness and early reading ability. *Reading & Writing, 16*(1/2), 5-20.

Weigel, D. J., Martin, S. S., & Bennett, K. K. (2010). Pathways to literacy: Connections between family assets and preschool children's emergent literacy skills. *Journal of Early Childhood Research, 8*(1), 5-22.

Wells, G. (1985a). *Language, learning and education: Selected papers from the Bristol study: Language at home and at school*. Windsor, England: Nfer-Nelson.

Wells, G. (1985b). Preschool literacy-related activities and success in school. In D. R. Olson, N. Torrance & A. Hildyard (Eds.), *Literacy, language, and learning: The nature and consequences of reading and writing* (pp. 229-255). New York, NY: Cambridge University Press.

Whitehurst, G., & Lonigan, C. (1998). Child Development and Emergent Literacy. *Child Development, 69*(3), 848-872.

Whitehurst, G. J., Arnold, D. S., Epstein, J. N., Angell, A. L., Smith, M., & Fischel, J. E. (1994). A picture book reading intervention in day care and home for children from low-income families. *Developmental Psychology, 30*, 679-689.

Whitehurst, G. J., Epstein, J. N., Angell, A. L., Payne, A. C., Crone, D. A., & Fischel, J. E. (1994). Outcomes of an emergent literacy intervention in Head Start. *Journal of Educational Psychology, 86*, 542-555.

Whitehurst, G. J., Falco, F. L., Lonigan, C. J., Fischel, J. E., DeBaryshe, B. D., & Valdez-Menchaca, M. C. (1988). Accelerating language development through picture book reading. *Developmental Psychology, 24*, 552-559.

Whitehurst, G. J., & Valdez-Menchaca, M. C. (1988). What is the role of reinforcement in early language acquisition? *Child Development, 59*(2), 430-440.

Whitehurst, G. J., Zevenbergen, A. A., Crone, D. A., Schultz, M. D., Velting, O. N., & Fischel, J. E. (1999). Outcomes of an emergent literacy intervention from Head Start through second grade. *Journal of Educational Psychology, 91*, 261-272.

Wylie, C., Ferral, H., Hodgen, E., & Thompson, J. (2006). *Competencies at age 14 and competency development for Competent Children, Competent Learners study sample*. Wellington, New Zealand: New Zealand Council for Educational Research.

Wylie, C., Thompson, J., & Hendricks, A. K. (1996). *Competent children at 5: Families and early education*. Wellington, New Zealand: New Zealand Council for Educational Research.

Appendices

Appendix A: Kindergarten Association Letter of Invitation

Kindergartens Waikato Association
PO Box 4311
Hamilton East
Hamilton 3247

10 August 2010

Dear Sir/Madam

My name is Laura Wells and I am an extramural student at Massey University undertaking research for my Masters of Education. The project I am working on is investigating the benefits associated with parents reading storybooks to their four-year-old children. I am writing to ask you for permission to conduct this project in two or more of your kindergartens.

I have chosen to conduct my study in kindergartens as they tend to have a greater percentage of four-year-old children and cater to children from one geographical area. This will provide a centralised venue for recruitment, distribution of material, and assessment, and will increase the manageability of the workload for this project. I am also hoping that you will be able to recommend two or three kindergartens to me that may be willing to assist with this research.

Kindergartens that feed into Decile 1 schools would be ideal for the purposes of this study. I am particularly interested in families with low income levels as children from these homes are considered more 'at risk' for reading difficulties at primary school. I believe that the parents of these families can make a difference and would like to work with them to positively effect change. I hope to give the parents some effective tools and strategies to increase their self-efficacy and as a result, the skills of their children. This population has a greater chance of increased added value due to the intervention.

I would require assistance from the kindergartens in three ways:

- Firstly, with the recruitment of families containing four-year-old children, by distributing an information letter and consent form to parents through the kindergarten's usual channels of communication.
- Secondly, with the distribution of a DVD containing storybook reading strategies to the parents who agree to take part in the study (for the intervention group only), and a pre- and post-questionnaire for all parents to fill out.
- Thirdly, as a venue to conduct pre- and posttesting activities with the children involved in the research. This could be a table in the centre that I would use for about 12 mornings: 6 in September and 6 in November.

The attached information sheet will provide you with further information about this project, including the extent of participant involvement and rights. If, after reading the enclosed information sheet, you would like to assist with this research, please contact me on justislaura@gmail.com. You are welcome to contact me if you have any questions; I look forward to working with you.

Warm regards,

Laura Wells
MEd student
PGDipEd, GDipTchg(Primary), BSc
Massey University College of Education

Laura Wells
26 Cross Street, Raglan 3225
(07) 825 6712; justislaura@gmail.com

Insoll Kindergarten
65 Halberg Crescent
Chartwell 3210
Hamilton
insoll@kindergarten.org.nz

1 September 2010

Dear Annette,

Parental story-book reading: can it enhance emergent reading skills?

My name is Laura Wells and I am an extramural student at Massey University undertaking research for my Masters of Education. The project I am working on is investigating the benefits associated with parents reading storybooks to their four-year-old children.

I have contacted your kindergarten as Kindergartens Waikato has suggested that your centre may be able and willing to help me with my research.

I am hoping that your centre will be able to assist me in three ways:

- Firstly, I hope that you can help me with the recruitment of families containing four-year-old children, by distributing an information letter and consent form to parents through your usual channels of communication.
- Secondly, I would like to distribute two DVDs containing storybook reading strategies to the parents who agree to take part in the study, along with a reading diary, and a pre- and post-questionnaire for them to fill out.
- Thirdly, I am looking for a place to conduct pre- and posttesting activities with the children involved in the research. This could be a table in your centre that I would use for about 12 mornings: 6 mornings in September and 6 mornings in November.

The attached information sheet will provide you with further information about this project, including the extent of participant involvement and rights.

If, after reading the enclosed information sheet, you would like to assist with this research, please complete and return the Kindergarten Consent Form, or contact me at justislaura@gmail.com, 07 825 6712 or 027 2097983. You are welcome to contact me if you have any questions; at no stage will you be under any obligation to participate, and you are free to withdraw at any time. If you do decide to take part, I look forward to working with you.

Warm regards,

Laura Wells
PGDipEd, GDipTchg(Primary), BSc
MEd student
Massey University College of Education

Parental story-book reading: can it enhance emergent reading skills?

INFORMATION SHEET FOR CHILDREN AND PARENTS

Researcher Introduction

Kia Ora and Hello,

My name is Laura Wells and I am a student at Massey University undergoing research for my Masters of Education. The project I am working on is about parents reading storybooks to their four-year-old children. I believe that reading storybooks to children before they start school can make learning to read easier. This project is supervised by two lecturers at Massey University: Dr Alison Arrow and Dr Valerie Margrain. As well as studying, I am a primary school teacher.

A summary of the project

The aim of this project is to find out what children know about language that assists them to read words, and what you do when reading with your children. I will be supplying a DVD on good ways to read to your children, and I would also like know what you think about the DVD.

Project Procedures

I will invite you to fill in a questionnaire about your family and your home reading environment at the start of the project. You will then be given two educational DVDs which will show you some good ways to read to your children. You will also be given an information booklet and two storybooks. During the next four weeks I invite you to keep track of what storybook reading you do with your child using a reading diary. At the end of the four weeks you will be invited to retake the questionnaire and complete a short survey about the programme.

I am interested in your child's knowledge of written language and sounds and how much they like reading. I will spend some time with them, at kindergarten, at the beginning of the research and again at the end. During this time I will do short activities with your child to find out how much they know about written language and sounds, and their interest in reading.

The information that I collect will be used to assess children's knowledge of reading before their parents watch the educational DVDs, and after. The parental questionnaires will tell me whether reading at home changes after parents watch the educational DVDs. I hope that children will benefit from any changes to the way you read books and talk about them afterwards. I also hope that parents find the DVDs helpful.

Participant Involvement

I estimate that you will spend the following time helping me with our research:

Caregiver		Child	
Initial Questionnaire	10 mins	Pretesting	30 mins
Watching educational DVD	20 mins		
Reading Diary	40 mins over 4 weeks		
Final Questionnaire	10 mins	Posttesting	30 mins
Survey	10 mins		
Total time	90 mins		60 mins

I estimate that each child will spend 30 minutes with the researcher at the beginning of the project and 30 minutes at the end of the project, totalling about one hour of their time. Parents will spend about 10 minutes at the beginning of the project, about 60 minutes during the research, and 20 minutes at the end. This will take an estimated 90 minutes of your time.

If you would like to help me with this project can you please talk to your four-year-old child and see if they would like to help me too? If you would both like to take part, please sign the parent consent form and send it back to your kindergarten with the child. I will also ask your child if they would like to help me on the day, and if they have changed their mind I will not force them to take part.

Data management

I will use the information that I collect to try to complete my aims for this project. All of the information that I collect will be kept safe by me and stored in a lockable filing cabinet at my house. Any information that I have loaded onto the computer will be kept on a password-protected memory-stick and password-protected computer. Once I have completed the project, a summary of what I have found will be given to your kindergarten. You will be able to read this and see what I found. If you would like your own copy of the results you will be able to request this by sending a note to the researcher when you return your completed questionnaire and survey. After five years any unpublished data will be deleted and/or destroyed.

Participant's Rights

You are under no obligation to accept this invitation. If you decide to participate, you have the right to:
- decline to answer any particular question;
- withdraw you, your child and your results from the study any time until the data has all been collected;
- ask any questions about the study at any time during participation;
- provide information on the understanding that your name will not be used unless you give permission to the researcher;
- be given access to a summary of the project findings when it is concluded.

Project Contacts

Please feel free to contact me or my supervisors at any time if you have any questions about this project. Our contact details are:

Student Researcher	Primary Supervisor	Secondary Supervisor
Laura Wells	Dr Alison Arrow	Dr Valerie Margrain
26 Cross Street, Raglan	Lecturer	Lecturer – Early Years
Waikato District, 3225	School of Educational Studies	School of Arts, Development
Phone: (07) 825 6712	Massey University College of	and Health Education
Cell: (027) 2097983	Education	Massey University College of
Email: justislaura@gmail.com	Private Bag 11 222	Education
	Palmerston North	Private Bag 11-222
	Phone: (06) 356 9099, Ext 8609	Palmerston North
	Email:	Phone: (06) 356 9099, Ext 8766
	a.w.arrow@massey.ac.nz	Email:
		v.margrain@massey.ac.nz

Ethics Approval

This project has been reviewed and approved by the Massey University Human Ethics Committee: Southern B, Application 10/30. If you have any concerns about the conduct of this research, please contact Dr Karl Pajo, Chair, Massey University Human Ethics Committee: Southern B, telephone 04 801 5799 x 6929, email humanethicsouthb@massey.ac.nz

Thank you for taking the time to read this information sheet,

Warm Regards,

Laura Wells
MEd student
PGDipEd, GDipTchg(Primary), BSc
Massey University College of Education

Appendix D: Information Sheet for Control Kindergarten and Parents

Parental story-book reading: can it enhance emergent reading skills?

INFORMATION SHEET FOR CHILDREN AND PARENTS

Researcher Introduction

Kia Ora and Hello,

My name is Laura Wells and I am a student at Massey University doing research for my Masters of Education. The project I am working on is about parents reading storybooks to their four-year-old children, and whether this can help children to learn to read when they start school. This project is supervised by two lecturers at Massey University: Dr Alison Arrow and Dr Valerie Margrain. As well as studying, I am also a primary school teacher.

A summary of the project

The aim of this project is to find out what children know about language that assists them to read words, and what you do when reading with your children. I will be supplying you with a DVD on good ways to read to your children.

Project Procedures

I will invite you to fill in a questionnaire about your family and your home reading environment at the start of the project. During next four weeks I will invite you to keep track of the reading you do with your child using a reading diary. At the end of the four weeks I will invite you to take the questionnaire again. Finally, you will be given a copy of an educational DVD and two preloved children's books for your personal use and benefit.

I am interested in your child's knowledge of written language and sounds and how much they like reading. I will spend some time with them, at kindergarten, at the beginning of the research and again at the end. During this time I will do short activities with your child to find out how much they know about written language and sounds, and their interest in reading.

Participant Involvement

I estimate that you will spend the following times helping me with our research:

	Caregiver		**Child**	
Initial Questionnaire	10 mins		Pretesting	30 mins
Reading Diary	40 mins over 4 weeks			
Final Questionnaire	10 mins		Posttesting	30 mins
Total time	60 mins		60 mins	

I estimate that each child will spend 30 minutes with the researcher at the beginning of the project and 30 minutes at the end of the project, totalling about one hour of their time. Parents will spend about 10 minutes at the beginning of the project, about 40 minutes during the research, and 10 minutes at the end. This will take an estimated 60 minutes of your time.

If you would like to help me with this project can you please talk to your four-year-old child and see if they would like to help me too? If you would both like to take part, please sign the parent consent form and send it back to kindergarten with your child. I will also ask your child

if they would like to help me on the day, and if they have changed their mind I will not force them to take part.

Data management

I will use the information that I collect to try to complete my aims for this project. All of the information that I collect will be kept safe by me and stored in a lockable filing cabinet at my house. Any information that I have loaded onto the computer will be kept on a password-protected memory-stick and password-protected computer. Once I have completed the project, a summary of what I have found will be given to your kindergarten. You will be able to read this and see what I found. If you would like your own copy of the results you will be able to request this by sending a note to the researcher when you return your final questionnaire. After five years any unpublished data will be deleted and/or destroyed.

Participant's Rights

You are under no obligation to accept this invitation. If you decide to participate, you have the right to:
- decline to answer any particular question;
- withdraw you, your child and your results from the study any time until the data has all been collected;
- ask any questions about the study at any time during participation;
- provide information on the understanding that your name will not be used unless you give permission to the researcher;
- be given access to a summary of the project findings when it is concluded.

Project Contacts

Please feel free to contact me or my supervisors at any time if you have any questions about this project. Our contact details are:

Student Researcher	Primary Supervisor	Secondary Supervisor
Laura Wells	Dr Alison Arrow	Dr Valerie Margrain
26 Cross Street, Raglan	Lecturer	Lecturer – Early Years
Waikato District, 3225	School of Educational Studies	School of Arts, Development
Phone: (07) 825 6712	Massey University College of	and Health Education
Cell: (027) 2097983	Education	Massey University College of
Email: justislaura@gmail.com	Private Bag 11 222	Education
	Palmerston North	Private Bag 11-222
	Phone: (06) 356 9099, Ext 8609	Palmerston North
	Email:	Phone: (06) 356 9099, Ext 8766
	a.w.arrow@massey.ac.nz	Email:
		v.margrain@massey.ac.nz

Ethics Approval

This project has been reviewed and approved by the Massey University Human Ethics Committee: Southern B, Application 10/30. If you have any concerns about the conduct of this research, please contact Dr Karl Pajo, Chair, Massey University Human Ethics Committee: Southern B, telephone 04 801 5799 x 6929, email humanethicsouthb@massey.ac.nz

Thank you for taking the time to read this information sheet.
Warm regards,
Laura Wells
PGDipEd, GDipTchg(Primary), BSc
MEd student, Massey University College of Education

Parental story-book reading: can it enhance emergent reading skills?

KINDERGARTEN CONSENT FORM

I have read the Information Sheet and have had the details of the study explained to me. My questions have been answered to my satisfaction, and I understand that I may ask further questions at any time.

- I AGREE / DO NOT AGREE to assist with the recruitment of families containing four-year-old children who attend this kindergarten, through the distribution of information letters and consent forms.

- I AGREE / DO NOT AGREE to assist with the distribution of research materials to participating parents.

- I AGREE / DO NOT AGREE to the student researcher collecting information from participating four-year-old children, at our kindergarten.

I understand that the student researcher will have obtained written permission from all participating parents to take part in this study. They will also ask all children for verbal permission to collect information from them about their knowledge of written language and sounds and their interest in reading.

I agree to participate in this study under the conditions set out in the Information Sheet.

Signature:... **Date:**.......................................

Full Name - Printed:...

Parental story-book reading: can it enhance emergent reading skills?

PARTICIPANT CONSENT FORM - PARENTS

Please return this form to your kindergarten AS SOON AS POSSIBLE.

I have read the Information Sheet and have had the details of the study explained to me. My questions have been answered to my satisfaction, and I understand that I may ask further questions at any time.

- I AGREE / DO NOT AGREE to answer general questions about my family and my home reading practices, for example what language we speak at home; how much I enjoy reading to my child.

- I AGREE / DO NOT AGREE to the student researcher collecting information from my child about their knowledge of written language and sounds and their interest in reading.

- I AGREE / DO NOT AGREE to view two 10 minute educational DVDs in my own home.

- I AGREE / DO NOT AGREE to keep a diary of storybook reading sessions with my four-year-old child for 4 weeks.

- I AGREE / DO NOT AGREE to answer questions about the programme e.g. how helpful was the DVD and handout.

I understand that the student researcher will have asked my child for verbal permission to collect information from them about their knowledge of written language and sounds and their interest in reading, and I understand that my child has agreed to this.

- I AGREE / DO NOT AGREE to participate in this study under the conditions set out in the Information Sheet.

Signature:... **Date:**.....................................

Full Name - Printed:...

Child's Name: ....

Phone Number: ....

Parental story-book reading: can it enhance emergent reading skills?

PARTICIPANT CONSENT FORM – PARENTS

Please return this form to your kindergarten AS SOON AS POSSIBLE.

I have read the Information Sheet and have had the details of the study explained to me. My questions have been answered to my satisfaction, and I understand that I may ask further questions at any time.

- I AGREE / DO NOT AGREE to answer general questions about my family and my home reading practices, for example what language we speak at home; how much I enjoy reading to my child.

- I AGREE / DO NOT AGREE to the student researcher collecting information from my child about their knowledge of written language and sounds and their interest in reading.

- I AGREE / DO NOT AGREE to keep a diary of storybook reading sessions with my four-year-old child for 4 weeks.

I understand that the student researcher will have asked my child for verbal permission to collect information from them about their knowledge of written language and sounds and their interest in reading, and I understand that my child has agreed to this.

- I AGREE / DO NO AGREE to participate in this study under the conditions set out in the Information Sheet.

Signature:.. **Date:**....................................

Full Name - Printed:..

Child's Name:..

Daytime Phone Number: ....

Parental story-book reading: can it enhance emergent reading skills?

HOME-LITERACY QUESTIONNAIRE FOR PRIMARY CAREGIVER

~ Please answer as honestly as possible. ~

Your four-year-old child

1. What gender is your child?   BOY / GIRL

2. How old is your child?   .... years.................... months

3. Does your child have any special needs and / or abilities?   YES / NO

   If yes, please describe them: ....

Demographics

What language is spoken the most at home?...

....

Who are you in relation to your child? ....

....

What is the occupation of the child's **mother**? ....

....

What is the occupation of the child's **father**?..

....

4. What is the highest level of education of the **mother** of this child?

   ☐ Did not pass School Certificate (5th form)

   ☐ School Certificate (5th form)

   ☐ 6th form

   ☐ 7th form - *please circle one:*   3 C passes   B Bursary   A Bursary

   ☐ Tertiary Qualification e.g. Certificate or Diploma

☐ Bachelors Degree e.g. BA, BSc, BEd

☐ Higher qualification e.g. Masters Degree; PhD

☐ Not sure

5. What is the highest level of education of the **father** of this child?

☐ Did not pass School Certificate (5th form)

☐ School Certificate (5th form)

☐ 6th form

☐ 7th form - *please circle one:*   3 C passes   B Bursary   A Bursary

☐ Tertiary Qualification e.g. Certificate or Diploma

☐ Bachelors Degree e.g. BA, BSc, BEd

☐ Higher qualification e.g. Masters Degree; PhD

☐ Not sure

Literacy Practices

6. How often does the **mother** of this child read to herself? *Please circle one:*

✐ Several times a week   ✐ Once a month

✐ Once a week   ✐ Never

✐ Not sure

7. Why does she read to herself? *Please circle all that are true:*

✐ For fun   ✐ For work

✐ To find out information   ✐ Other..

✐ For study

8. How often does the **father** of this child read to himself? *Please circle one:*

- ✎ Several times a week
- ✎ Once a month
- ✎ Once a week
- ✎ Never

9. Why does he read to himself? *Please circle all that are true:*

- ✎ For fun
- ✎ For work
- ✎ To find out information
- ✎ Other..............................
- ✎ For study

10. How many children's books does your household have?

- ✎ 1 – 5
- ✎ 6 - 10
- ✎ 11 – 15
- ✎ 16 - 20
- ✎ 21 – 25
- ✎ 26 - 30
- ✎ 31 – 40
- ✎ 41 - 50
- ✎ More than 50

11. How often do you visit the library? *Please circle one:*

- ✎ More than once a week
- ✎ Once a month
- ✎ Once a week
- ✎ Less than once a month
- ✎ Once a fortnight
- ✎ Never

12. How old was your child when you first read to him/her? *Please circle one:*

- ✎ Less than 1 yr old
- ✎ 3 yrs old
- ✎ 1 yr old
- ✎ 4 yrs old
- ✎ 2 yrs old
- ✎ I don't read to my child

13. How old was your child when you first read to him/her regularly e.g. at least once a week?

- ✎ Less than 1 yr old
- ✎ 1 yr old
- ✎ 2 yrs old
- ✎ 3 yrs old
- ✎ 4 yrs old
- ✎ I don't read regularly to my child

Who else reads to your child? ....

14. How often **per week** do you or other family members read to your child?

At bedtime - *Please circle one:*

- ✎ Never
- ✎ Once
- ✎ 2 times
- ✎ 3 times
- ✎ 4 times
- ✎ 5 times
- ✎ 6 times
- ✎ 7 times

At other times - *Please circle one:*

- ✎ Never
- ✎ Once
- ✎ 2 times
- ✎ 3 times
- ✎ 4 times
- ✎ 5 times
- ✎ 6 times
- ✎ 7 times

15. Does your child do any other reading related activities at home? YES / NO

If yes, what are they? ....
....
....

16. How often do you decide to read to your child?

- ✎ Every day
- ✎ Twice a week
- ✎ Once a week
- ✎ Less than once a week
- ✎ I don't like to read to my child

17. How often does your child ask you to read to them?

    ✍ Every day   ✍ Once a week

    ✍ Twice a week   ✍ Less than once a week

    ✍ Never

18. How much of a difference do you think you make to your child's development by reading to them?

  ✍ A lot   ✍ A little bit   ✍ Neutral   ✍ Not very much   ✍ None

19. What are some of the things you talk about when storybook reading with your child?

....

....

....

20. Describe what your child does when you read a storybook to them:

....

....

....

21. Is there anything else you would like to add?

....

....

....

Thank you for taking the time to complete this questionnaire.

Please return it to kindergarten in the envelope provided.

Appendix I: Home Literacy Questionnaire Analysis

The first home literacy question asked parents to select an interval that best represented the number of books their household had. Their answers were coded on a scale of one to six, where one represented between one and ten books in their home and six represented an answer of more than 50 books. The second question required them to indicate how often they visited the library, by selecting either 'never', 'less than once a month', 'once a month', 'once a fortnight ', 'once a week', or 'more than once a week'. This was coded using a scale of one to six, where one stood for never and six stood for more than once a week. Two questions requested counts of bedtime reading and daytime reading per week, and were coded so one indicated that reading never occurred and eight meant it happened seven times during the week. Finally, counts of parent and child initiated reading were coded on a scale of one to five, indicating storybook reading was initiated by the parent or child: never (one), less than once a week, once a week, twice a week or every day (five).

Reading Diary

Please write in this diary every time you read a storybook to your four-year-old child.

E.g.,

Date: 13 October	Storybook name: Where's Spot?	Time spend reading: 10 mins
What you talked about: Playing hide and seek in our house		What you and your child enjoyed: Pretending we were Spot and his mum playing hide and seek.

Date:	Storybook name:	Time spend reading:
What you talked about:		What you and your child enjoyed:

Date:	Storybook name:	Time spend reading:
What you talked about:		What you and your child enjoyed:

Parental story-book reading: can it enhance emergent reading skills?

POST-INTERVENTION SURVEY FOR PRIMARY CAREGIVER

STORYBOOK READING
Please circle one answer for each question:

1. How different were your storybook reading sessions after watching the DVD?

   ✎ Very different   ✎ A little different   ✎ The same as before

2. What was different about them?

   ....

   ....

   ....

3. How much did your **child** enjoy storybook reading **before** you watched the DVD?

   ✎ A lot   ✎ A little bit   ✎ Neutral   ✎ Not very much   ✎ Not at all

4. How much did your **child** enjoy storybook reading **after** you watched the DVD?

   ✎ A lot   ✎ A little bit   ✎ Neutral   ✎ Not very much   ✎ Not at all

5. How much did **you** enjoy storybook reading **before** watching the DVD?

   ✎ A lot   ✎ A little bit   ✎ Neutral   ✎ Not very much   ✎ Not at all

6. How much **did** you enjoy storybook reading **after** watching the DVD?

| ✎ A lot | ✎ A little bit | ✎ Neutral | ✎ Not very much | ✎ Not at all |

THE DVDS

Please circle one answer for each question:

7. How much did the DVD increase your knowledge?

| ✎ Very helpful | ✎ A little helpful | ✎ Neutral | ✎ Not very helpful | ✎ Not helpful at all |

8. How helpful were the **instructional** parts of the DVD that told you what to do?

| ✎ Very helpful | ✎ A little helpful | ✎ Neutral | ✎ Not very helpful | ✎ Not helpful at all |

9. How helpful were the **examples** of different ways to read to your child?

| ✎ Very helpful | ✎ A little helpful | ✎ Neutral | ✎ Not very helpful | ✎ Not helpful at all |

10. How much do you think your child benefited from storybook reading because you watched the DVD?

| ✎ A lot | ✎ A little bit | ✎ Neutral | ✎ Not very much | ✎ Not at all |

11. Could the DVD have been better in any way?

....

....

....

12. Is there anything else you would like to add about the DVD?

....

....

....

THE HANDOUTS

Please circle one answer for each question:

13. How helpful were the handouts?

| ✎ Very helpful | ✎ A little helpful | ✎ Neutral | ✎ Not very helpful | ✎ Not helpful at all |

14. Could they have been better in any way?

....

....

....

15. Is there anything else you would like to add?

....

....

....

Thank you for taking the time to complete this survey.

Please return it to kindergarten in the envelope provided.

Appendix L: Child Assessment Recording Sheet

Date... Date

Kindergarten..Kindergarten

Child Code .... Child Code

LETTER KNOWLEDGE ASSESSMENT SHEET

Letter	Name	Sound	Letter	Name	Sound
a			a		
b			b		
c			c		
d			d		
e			e		
f			f		
g			g		
h			h		
i			i		
j			j		
k			k		
l			l		
m			m		
n			n		
o			o		
p			p		
q			q		
r			r		
s			s		
t			t		
u			u		
v			v		
w			w		
x			x		
y			y		
z			z		

/ = known   . = unknown

Date.. Date

Kindergarten...Kindergarten

Child Code .... Child Code

CONCEPTS ABOUT PRINT ASSESSMENT SHEET

Score	Comment	Item	Page	Score	Comment
		1. Front of Book	Cover		
		2. Print contains message	2/3		
		3. Where to start	4/5		
		4. Which way to go	4/5		
		5. Return sweep to left	4/5		
		6. Word by word meaning	4/5		
		7. First and last concept	6		
		8. Bottom of picture	7		
		9. Begin 'l' bottom line OR turn book	8/9		
		10. Line order altered	10/11		
		11. Left page before right	12/13		
		12. One change in word order	12/13		
		13. One change in letter order	12/13		
		14. One change in letter order	14/15		
		15. Meaning of ?	14/15		
		16. Meaning of .	16/17		
		17. Meaning of ,	16/17		
		18. Meaning of ""	16/17		
		19. Locate TtBb	16/17		
		20. Reversible words *was, no*	18/19		
		21. One letter; two letters	20		
		22. One word; two words	20		
		23. First & last letter of word	20		
		24. Capital letter	20		
		Total Score			

Date... Date

Kindergarten.. Kindergarten

Child Code .... Child Code

ONSET-MATCHING ASSESSMENT SHEET

Target			Target		
DOG	HOUSE	*DUCK*	DOG	HOUSE	*DUCK*
HOUSE	HEART	*BIKE*	HOUSE	HEART	*BIKE*
BOOK	HAT	*BIRD*	BOOK	HAT	*BIRD*
FISH	FORK	*BUG*	FISH	FORK	*BUG*
BUS	FOOT	*BALL*	BUS	FOOT	*BALL*
NOSE	SUN	*NET*	NOSE	SUN	*NET*
BIKE	DOLL	*BED*	BIKE	DOLL	*BED*
CAT	CAKE	*FOX*	CAT	CAKE	*FOX*
NEST	NOSE	*BOOK*	NEST	NOSE	*BOOK*
HAT	PIG	*HORSE*	HAT	PIG	*HORSE*

RIME-MATCHING ASSESSMENT SHEET

Target			Target		
DOG	HOUSE	FROG	DOG	HOUSE	FROG
HOUSE	MOUSE	BIKE	HOUSE	MOUSE	BIKE
BOOK	HAT	HOOK	BOOK	HAT	HOOK
BUG	MUG	FISH	BUG	MUG	FISH
BAT	FOOT	RAT	BAT	FOOT	RAT
NOSE	SUN	HOSE	NOSE	SUN	HOSE
BED	DOLL	HEAD	BED	DOLL	HEAD
FOX	BOX	CAKE	FOX	BOX	CAKE
TREE	BEE	HORSE	TREE	BEE	HORSE
HEN	NEST	PEN	HEN	NEST	PEN

Circle child's response.

Date.. Date

Kindergarten...Kindergarten

Child Code .... Child Code

MOTIVATION ASSESSMENT SHEET

1. This girl / boy likes / doesn't like to look at books by herself.
2. This girl / boy likes / doesn't like to get books for presents.
3. This girl / boy likes / doesn't like to go to the library.
4. This girl / boy likes / doesn't like to read books with her Mum and Dad.

CHILD HOME-READING ASSESSMENT SHEET

16. Do you do any reading at home?   YES / NO
17. What reading do you do?
....
....
18. Do you read stories at home?
                    YES / NO
19. Do you enjoy reading stories?
                    YES / NO
20. How often do you read stories?
....
21. Who helps you to read at home?
....
22. How do they help you to read?
....

1. Do you do any reading at home?   YES / NO
2. What reading do you do?
....
....
3. Do you read stories at home?
                    YES / NO
4. Do you enjoy reading stories?
                    YES / NO
5. How often do you read stories?
....
6. Who helps you to read at home?
....
7. How do they help you to read?
....

Appendix M: Example PA and Motivation Tasks

Rhyme Matching

Researcher *(pointing to each picture as they are named)*: "Here are three pictures of a tree, a frog and a girl. Which one sounds like dog?"
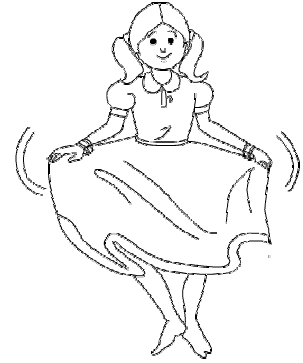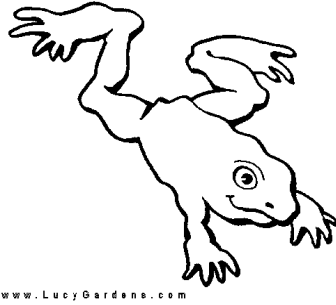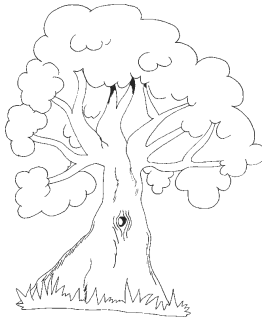
To answer, the child can either point to a picture or verbally name it.

Onset Matching

Researcher *(pointing to each picture as they are named)*: "Here are three pictures of a train, a boy and a cat. Which one starts with the same sound as truck?"
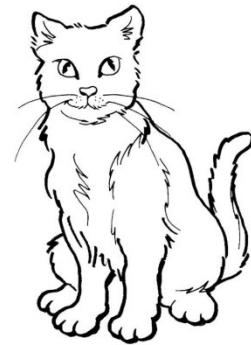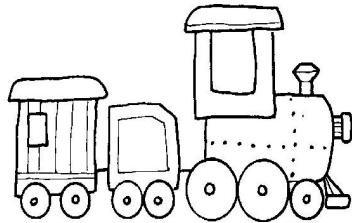
To answer, the child can either point to a picture or verbally name it.

Motivation
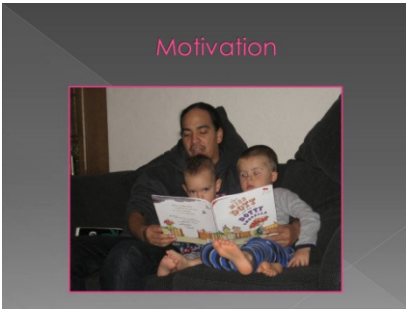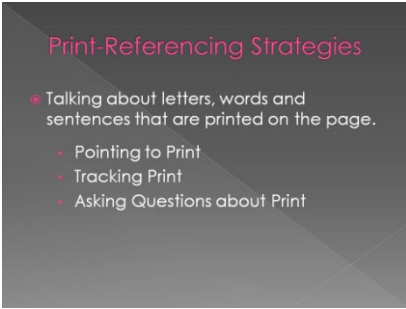
Researcher: *(Pointing to the happy face)* "This girl likes to look at books by herself." *(Pointing to the sad face)* "This girl doesn't like to look at books by herself. Which girl are you like?"
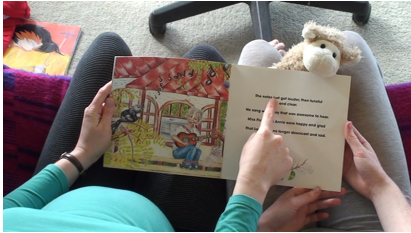
To answer, the child can either point to a picture or verbally name it.

Appendix N: DVD 1 Storyboard
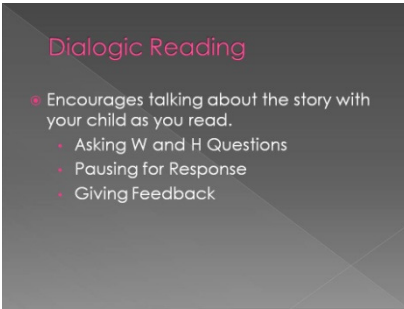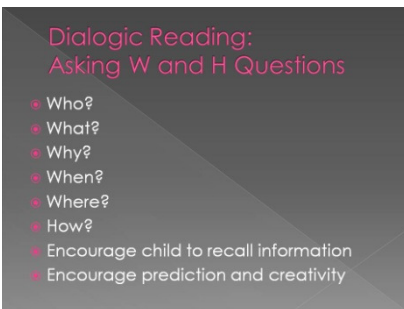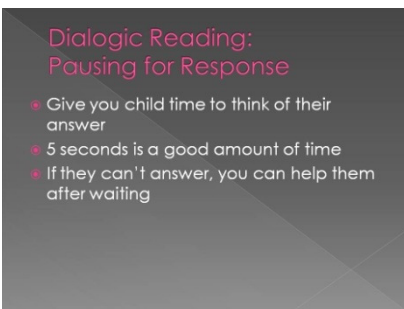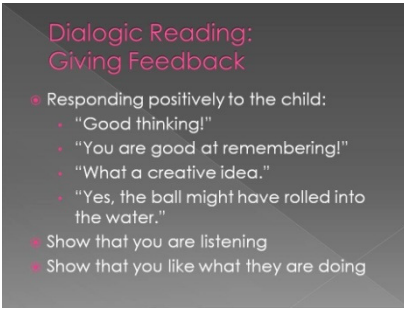
Start Time	Section Summary	Shot Example	Audio
0:00	Slideshow of adults and children reading books		*Music*
0:40	Welcome and Thank you for taking part		Welcome to the Storybook Research 2010 DVD#1. Thank you so much for agreeing to help with this research. I hope you and your child find it beneficial.
0:51	Introduction of author and the research		My name is Laura Wells and I am doing research for my Master of Education. I am interested in parental storybook reading, and how this can improve young children's emergent reading skills. DVD #1 will explain and show you some different reading strategies that you can use when sharing storybooks with your children. I hope that you will use them over the next four weeks, and beyond.
1:11	Summary of DVD1		This DVD is made up of three sections – Motivation, Print-referencing Strategies and Dialogic reading Strategies. The Print-referencing strategies that we will be looking at this week are (a) *pointing to print* when talking about it, (b) *tracking print* while reading and (c) asking *questions about print*. The Dialogic reading strategies that we will cover are (a) asking *W and H questions*, (b) *pausing for response* and (c) giving *feedback*. You are welcome to view this DVD as many times as you wish over the next four weeks.
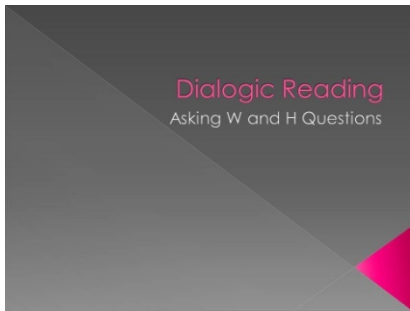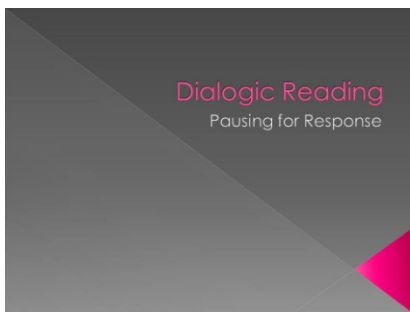
1:47	Motivation introduction		Motivation
1:51			Before we get into the more technical strategies, I would like to make the most important point of all: storybook reading must be enjoyable! Children learn much more effectively when they are having fun. Parental excitement and enjoyment is infectious, and cuddling while reading, giggling at the funny bits, following the child's interests and using silly voices are all recommended. Modelling is SO powerful – children learn by watching you.
2:18	Slideshow of adults and children reading storybooks		Encourage them to have fun and interact with storybooks – pointing, touching, turning pages, holding.
2:32	Print-referencing introduction		Our first group of strategies are the Print-referencing strategies. The word print refers to the writing on the page, the letters, words and sentences that tell the story. Print-referencing strategies help your child to pay attention to the print and learn about it, which will help them learn to read later on. Print-referencing strategies encourage talking about the letters, words and sentences that are printed on the page. Three print-referencing strategies that you can use with your child are pointing to print, tracking print and asking questions about print.
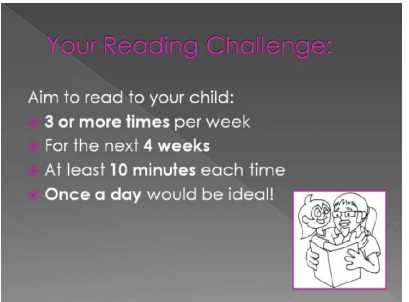
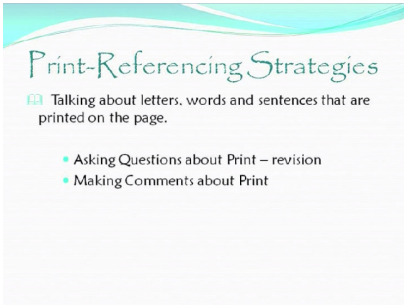| Time	Title	Slide	Narration
3:04	Pointing to Print	**Print-Referencing: Pointing to Print** • Using your finger to point to the print • Children usually look at the pictures • Draws children's attention to the letters, words and sentences	Pointing to print is when you use your finger to point to the print. This helps to draw children's attention to the print, as they usually look at the pictures. You can use this strategy when you are talking about the print with your child or asking them questions about the print.
3:24	Tracking Print	**Print-Referencing: Tracking Print** • Pointing to the print as you read, either: · each word at a time, or: · sweeping your finger underneath the line • Helps children recognise that the we read the words, not the pictures	Tracking print is when you point to it as you read. You can point to each word individually, or slide your finger under the lines as you read. This helps children to recognise that we read the words, not the pictures. It can also help children to understand that we begin reading at the top left corner, read along the line from left to right until we get to the end, and then move to the start of the next line.
3:50	Asking Questions about Print	**Print-Referencing: Asking Questions about Print** • Self-explanatory! • Questions can be about: · Letter names · Rhyming words – words that sound the same · Print concepts - information about the print	Asking questions about the print is fairly self-explanatory – you are asking you children about the written letters, words and sentences. You can ask them questions about the names of letters, or ask them questions about rhyming words – words that sound the same like hand and sand. You could also ask them questions about print concepts, which are pieces of information about reading, and about the print. The next slide will give you some examples of print concepts that you can teach your child.
4:22	Print Concepts List	**Print Concepts List** • Front of the book • Where to start reading (top left corner of print) • Reading direction (left to right) • Return sweep (at the end of a line, going to the start of the next line) • Left before right (if there is print on both pages) • Letters (show me one letter, two letters) • Words (show me one word, two words) • Capital letters (show me a capital letter)	Some examples of Print Concepts are: Where the front of the book is Where we start reading Which direction we read in Where we go at the end of a line Which page we read first What a letter is What a word is What a capital letter is

4:43	Modelling of Strategies Introduction		Here are some examples of the print-referencing strategies that you have just learnt about.
4:50		Print-Referencing Pointing to Print	POINTING TO PRINT
4:55	Modelling Pointing to Print		*Shot of reading dyad* *Close up of book, and print being pointed to while questions being asked*
5:07		Print-Referencing Tracking Print	TRACKING PRINT
5:12	Modelling Tracking Print		*Shot of reading dyad tracking while reading* *Close up of book tracking while reading*
5:24		Print-Referencing Asking Questions about Print – Letter Names	ASKING QUESTIONS – LETTER NAMES

5:31	Modelling Asking Questions about Print – Letter Names		*Close up of book as one question about letter names is asked with pointing* *Shot of reading dyad as child responds*
5:45			ASKING QUESTIONS – RHYMING WORDS
5:52	Modelling Asking Questions about Print – Rhyming Words		*Close up of book as one question is asked about rhyming words with pointing* *Shot of reading dyad when child responds*
6:05			ASKING QUESTIONS – PRINT CONCEPTS
6:13	Modelling Asking Questions about Print – Print Concepts		*Shot of reading dyad as questions about print concepts are asked (where to start, which way do I read, then where)* *Close up of book while child responds*
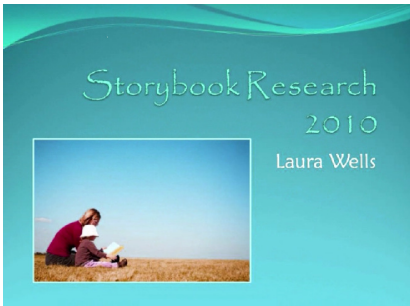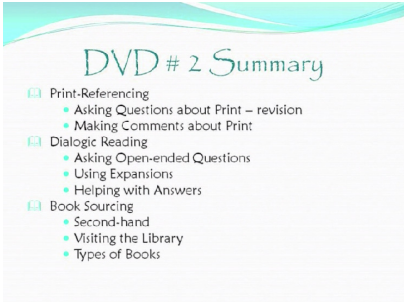
6:31	Dialogic Reading Introduction	**Dialogic Reading**
		• Encourages talking about the story with your child as you read.
		   · Asking W and H Questions
		   · Pausing for Response
		   · Giving Feedback
			Our next group of strategies are the Dialogic reading strategies. They encourage children to become active participants rather than passive listeners, encouraging them to talk about the stories as you read. They help to expand children's vocabulary, increase their language ability, engage and motivate them and make story-reading interactive and fun. The strategies included in this DVD are (a) asking W and H questions, (b) pausing for a response from the child, and (c) giving feedback.

7:06	Asking W and H Questions	**Dialogic Reading: Asking W and H Questions** • Who? • What? • Why? • When? • Where? • How? • Encourage child to recall information • Encourage prediction and creativity	W and H questions include questions starting with words like who, what, when, where, why and how. These kinds of questions ask your child to think about what has happened in the story so far or to make up answers if information hasn't been given already.
7:29	Pausing for Response	**Dialogic Reading: Pausing for Response** • Give you child time to think of their answer • 5 seconds is a good amount of time • If they can't answer, you can help them after waiting	Adults sometimes forget that children need time to think after they have been asked a question. Pausing for a response means giving your child some time to think about their answer before you jump in and answer for them. 5 seconds is usually long enough, although every child is different. Just be aware that they may need time to think about their answer before they say it out loud. If they aren't able to answer, you can help them after waiting for 5 or so seconds.

8:01	Giving Feedback	**Dialogic Reading: Giving Feedback**
		• Responding positively to the child:
		   · "Good thinking!"
		   · "You are good at remembering!"
		   · "What a creative idea."
		   · "Yes, the ball might have rolled into the water."
		• Show that you are listening
		• Show that you like what they are doing
			Giving feedback means responding positively to your child's answer. You might tell them "good thinking", "you are good at remembering", "what a creative idea", or you might say "yes" and then repeat what they said so they know that you were listening and that you liked their answer.
			
			The strategies can all be used together, as you will see in the following examples.

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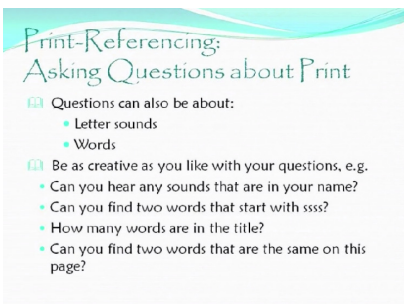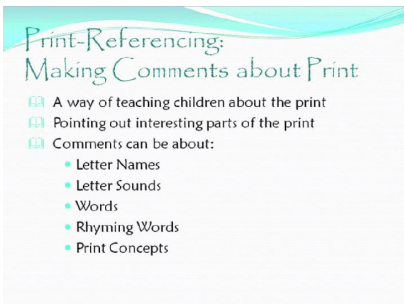
8:27	Modelling of Strategies Introduction		Here are some examples of the dialogic reading strategies that you have just learnt about.
8:35			ASKING W AND H QUESTIONS
8:42	Modelling Asking W and H Questions		*Shot of reading dyad as adult asks a W or H question, then pauses, child responses, then adult gives feedback*
9:04			PAUSING FOR RESPONSE
9:10	Modelling Pausing for Response		*Shot of reading dyad as adult asks question, waits for 5 seconds, then child responds, and adult gives feedback* *Shot of reading dyad, adult asks question, waits for 5 seconds, child doesn't respond, looks confused, adult helps*

9:51			GIVING FEEDBACK
9:58	Modelling Giving Feedback		*Shot of reading dyad as adult asks questions, pauses, then child responds, and adult gives feedback*
10:16	Thank you and Good Luck		Thank-you for taking the time to watch this DVD. I very much hope that you will be able to spend 10 minutes reading to your child using these strategies for 3 or more times each week. Once a day would be ideal. If you only manage 2 times for one of the weeks please don't feel guilty or berate yourself, this will help no-one! Just make a commitment to read 3 times (or more) for the next week. My intention is to show you some strategies that you can use to help your child get ready for school. I do not want to make you feel guilty in any way. Remember to fill in your reading diaries each time you do read to your child. Please do not make up any reading sessions as it will be more useful for me to find out that you have not managed to read, than to receive incorrect diaries. Good Luck and Have Fun!
11:10			*Music*

11:19			*Music cont...*
11:28			*Music cont...*
11:48 **End of DVD:** **12:16**	Slideshow of adults and children sharing storybooks Credits		*Music cont...*
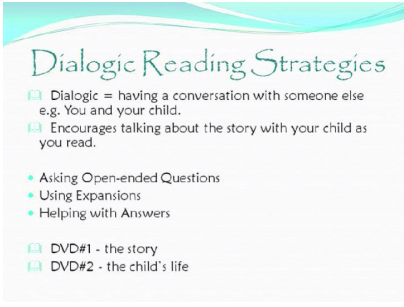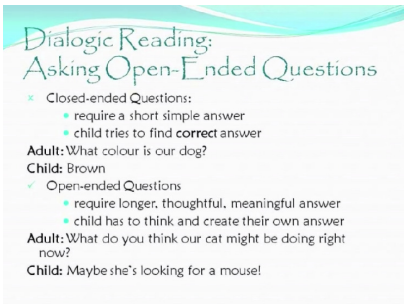
Appendix O: DVD 2 Storyboard
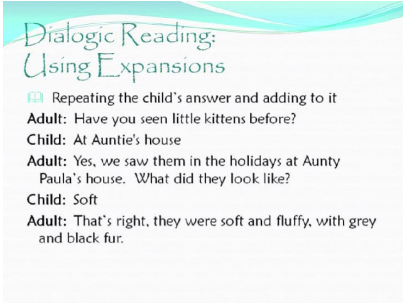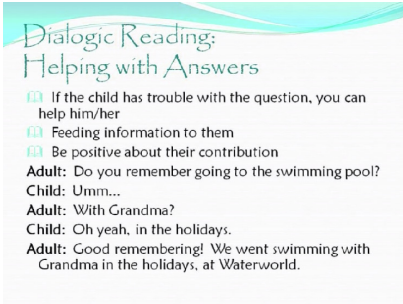
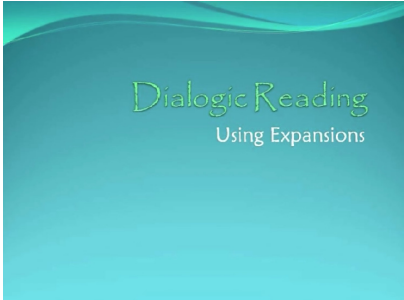| Start Time	Section Summary	Shot Example	Audio
0:00	Slideshow of adults and children reading storybooks		*Music*
0:35	Welcome and Thank you for taking part		Welcome to the Storybook Research 2010 DVD#2. I hope you found the strategies on DVD1 useful and that you will enjoy learning a few more on DVD2.
0:49			DVD2 will explain and show you some new strategies that you can use when reading to your child. I hope that you continue to use the strategies from DVD1 for the next two weeks, and add the strategies that you learn in this DVD to your reading sessions.
1:03	Summary of DVD2		This DVD is made up of 3 sections, print-referencing strategies, dialogic reading strategies, and book sourcing. The print-referencing sections will revisit asking questions about print and add a new strategy, making comments about print. The dialogic reading section will cover asking open-ended question, using expansions, and helping with answers. The book sourcing section will talk about buying second-hand books, visiting the library, and the types of books you can look for. You are welcome to view this DVD as many times as you wish over the next two weeks. Both DVDs are yours to keep after the research is complete.

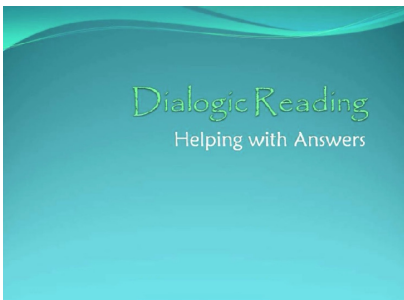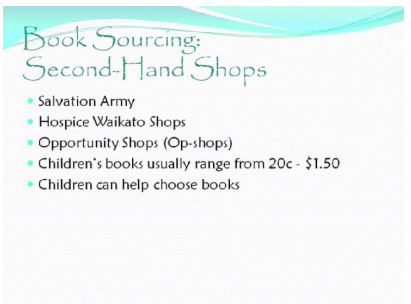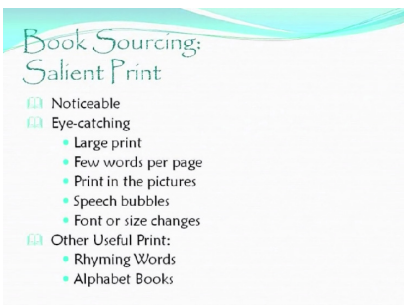|			
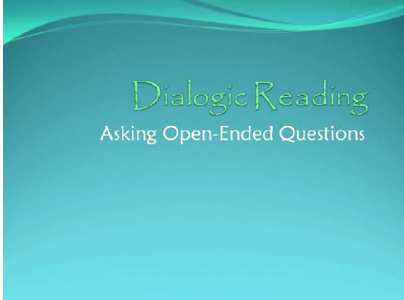
1:46	Print-Referencing Strategies	**Print-Referencing Strategies**
		📖 Talking about letters, words and sentences that are printed on the page.
		   • Asking Questions about Print – revision
		   • Making Comments about Print
			Today I will show you a new print-referencing strategy: making comments about print. Remember, print means the writing on the page: the letters, words and sentences that tell the story. Print-referencing helps your child to pay attention to the print and learn about it, which will help them learn to read later on. I will show you some more things you can ask questions about, and then explain making comments about print.

2:13	Asking Questions about Print	**Print-Referencing: Asking Questions about Print**
		📖 Questions can also be about:
		   • Letter sounds
		   • Words
		📖 Be as creative as you like with your questions, e.g.
		  • Can you hear any sounds that are in your name?
		  • Can you find two words that start with ssss?
		  • How many words are in the title?
		  • Can you find two words that are the same on this page?
			Last DVD we looked at asking questions about letter names, rhyming words and print concepts. You can also ask questions about other aspects of the print such as letter sounds and words. Be as creative as you like with your questions. You can ask about anything to do with the letters, words and sentences on the page. For example, you could ask:
			
			Can you hear any sounds that are in your name?
			
			Can you find two words that start with sss?
			
			How many words are in the title?
			
			Can you find two words that are the same on this page?

2:51	Making Comments about Print	**Print-Referencing: Making Comments about Print**
		📖 A way of teaching children about the print
		📖 Pointing out interesting parts of the print
		📖 Comments can be about:
		   • Letter Names
		   • Letter Sounds
		   • Words
		   • Rhyming Words
		   • Print Concepts
			Making comments about the print is a way of teaching your child about the print. You can comment on anything interesting that you notice. Comments can be to do with any aspect of the print that we have already covered, for example: letter names, letter sounds, words, rhyming words or print concepts. You can also comment on anything else interesting that you find.

3:16	Modelling Introduction		Now we will have a look at some examples of these two print-referencing strategies.

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3:22			ASKING QUESTIONS ABOUT PRINT – LETTER SOUNDS
3:27	Modelling Asking Questions about Print – Letter Sounds		*Shot of reading dyad while question asked and phrase read.* *Close-up of book while help is given and answers are discussed.*
3:51			ASKING QUESTIONS ABOUT PRINT - WORDS
3:57	Modelling Asking Questions about Print – Words		*Shot of reading dyad while question is asked.* *Close-up of book while answer is given by child.*
4:08			MAKING COMMENTS ABOUT PRINT – LETTER NAMES
4:15	Modelling Making Comments about Print – Letter Names		*Shot of reading dyad as text is read and commented on.*

4:24			MAKING COMMENTS ABOUT PRINT – LETTER SOUNDS
4:30	Modelling Making Comments about Print – Letter Sounds		*Shot of reading dyad as comment is made, and text is read.*
4:40			MAKING COMMENTS ABOUT PRINT – WORDS
4:48	Modelling Making Comments about Print - Words		*Close-up of book while comment is made and text is read.*
5:01			MAKING COMMENTS ABOUT PRINT – RHYMING WORDS
5:08	Modelling Making Comments about Print – Rhyming Words		*Shot of reading dyad while comment is made and text is read.*

5:24			MAKING COMMENTS ABOUT PRINT – PRINT CONCEPTS
5:31	Modelling Making Comments about Print – Print Concepts		*Close-up of book while title is read comments are made.*
5:44	Dialogic Reading Strategies		The word dialogic means having a conversation with someone else. Dialogic reading strategies encourage children and you to talk about the stores that you read. The three new strategies in DVD2 are: Asking open ended questions Using Expansions Helping with Answers In the first DVD the examples related to what was happening in the story. In this DVD the examples will relate the book to the child's life. Both topics are good things to talk about when you are reading.
6:18	Asking Open-Ended Questions		Open-ended questions are the opposite of closed ended questions. Closed ended questions require a short simple answer of one or two words. They usually require the child to find the correct answer that the adult already knows. For example, when reading a book about a dog: What colour is our dog? Brown. Or, do you like dogs? Yes. Open ended questions require longer answers. They require the child to think and use their knowledge and feelings to give their own meaningful answer. For example, when reading

			a book about a cat:
			What do you think our cat might be doing right now?
			Maybe she's looking for a mouse!
7:04	Using Expansions	Dialogic Reading: Using Expansions — Repeating the child's answer and adding to it. **Adult:** Have you seen little kittens before? **Child:** At Auntie's house **Adult:** Yes, we saw them in the holidays at Aunty Paula's house. What did they look like? **Child:** Soft **Adult:** That's right, they were soft and fluffy, with grey and black fur.	Using expansions is a way of feeding information to the child. You repeat their answer and add more information to it. This allows you to show them longer answers containing more information which they might copy next time. For example, if you are reading a book with kittens in it:
			Have you seen little kittens before?
			At Auntie's house.
			Yes, we saw them in the holidays at Aunty Paula's house. What did they look like?
			Soft
			That's right, they were soft and fluffy, with grey and black fur.
7:38	Helping with Answers	Dialogic Reading: Helping with Answers — If the child has trouble with the question, you can help him/her. Feeding information to them. Be positive about their contribution. **Adult:** Do you remember going to the swimming pool? **Child:** Umm... **Adult:** With Grandma? **Child:** Oh yeah, in the holidays. **Adult:** Good remembering! We went swimming with Grandma in the holidays, at Waterworld.	If your child is having trouble finding an answer to your question, you can help them. This can be another way of feeding information to your child, and showing them how to answer a question. Make sure you are positive about their efforts. For example, if there is a swimming pool in the book you are reading:
			Do you remember going to the swimming pool?
			Umm...
			With Grandma?
			Oh yeah, in the holidays.
			Good remembering! We went swimming with Grandma in the holidays, at Waterworld.
8:10	Modelling introduction		Now we will have a look at some examples of these three dialogic reading strategies.

8:17			Asking Open-Ended Questions
8:21	Modelling Asking Open-Ended Questions		*Shot of reading dyad while text is read, question is asked and child responds.*
8:33			Using Expansions
8:37	Modelling Using Expansions		*Shot of reading dyad while text is read, questions are asked, the child responds, and the adult expands.*
9:02			Helping with Answers
9:04	Modelling Helping with Answers		*Shot of reading dyad while text is read, question is asked, child pauses, adult gives help, child answers and adult praises.*

9:33	Book-Sourcing		When looking for books to read to your child there are a couple of low-cost options: second-hand shops and libraries. There are also some things to look out for when choosing books; things that make the print salient, or obvious.
9:49	Second-Hand Shops		Hamilton has many second-hand shops that contain children's books. This is where I bought most of the books for the study. Salvation Army stores often have low-cost books as do hospice shops or other opportunity shops. I found the books to range from about 20c - $1.50, and some of the shops gave me discounts for buying several books at once. For $10 you could get a whole new library for your child! Your children can be involved in choosing the books too. The sense of ownership and involvement that this will give them will help increase their interest in the books.
10:28	Library Visits		Another great place to find quality children's books is your local library. In ___ the nearest library is at ___, and you could also use the ___ for a larger selection. To join, you just go along to the library and take with you proof of your address and proof of identification, for example a driver's licence or passport. You will be allowed to borrow up to 20 books at once and keep them all for up to 4 weeks. Best of all, it will cost you nothing. *(Library locations blocked out)*
11:00	Salient Print		When you are choosing books there are a few things to keep an eye out for. Books with salient print will help your children to notice and look at the print. Look for features such as: large print, few words per page, print in the pictures, speech bubbles and font or size changes in the print. Other features such as rhyming words and books about the alphabet can be useful when reading to your children too. You will now see

			examples of each of these features.
11:31			Large Print
11:36			Few words per page
11:42			Print in the Pictures
11:48			Speech Bubbles
11:53			Font or Size Change

11:58			Rhyming Words
12:02			Alphabet Books
12:07	Thank you, reminder of the study requests, and good luck		Once again thank you for watching this DVD. I hope you have enjoyed reading to your child using the strategies on DVD#1 for the last 2 weeks. Please continue to spend 10 minutes reading to your child each day, 3 times a week, for the next 2 weeks. Aim for once a day. Ideally you will continue to use the strategies from DVD#1 and you will add the strategies that you learnt from this DVD to your reading sessions. Do your best, don't give yourself a hard time, and most of all, remember to have fun with your reading. Continue to fill in your reading diaries each time you read with your child, whether it be one book or several. Remember that made-up entries will only get in the way of my research. I'm not here to judge you, just to find out what actually happens. Good luck and have a great time.

12:59	Reading Challenge		*Music*
13:08	Reading Diary		*Music cont...*
13:18	Thank-you, contact details		*Music cont...* *(Contact details blocked out)*
13:26 **End of DVD2:** **13:54**	Slideshow of adults and children sharing storybooks Credits		*Music cont...*

Storybook Reading Research 2010

DVD 1 Handout

- Motivation
- Print-Referencing
  - Pointing to Print
  - Tracking Print
  - Asking Questions about Print

    (Letter Names, Rhyming Words, Print Concepts)
- Dialogic Reading
  - Asking W and H Questions
  - Pausing for Response
  - Giving Feedback
- Try to read 3 times a week, for 10 minutes a time
- Remember your Reading Diary
- Thank you for your help!

Storybook Reading Research 2010

DVD 2 Handout

- Print-Referencing
  - Asking Questions about Print
    (Letter Sounds, Words)
  - Making Comments about Print
    (Letter Names, Letter Sounds, Rhyming Words, Print Concepts, Words)
- Dialogic Reading
  - Asking Open-ended Questions
  - Using Expansions
  - Helping with Answers
- Book Sourcing
  - Second-hand
  - Visiting the Library
  - Types of Books
- Try to read 3 times a week, for 10 minutes a time
- Remember your Reading Diary
- Thank you for your help!