



Shared reading practices between parents and young children with Down syndrome in Ireland

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Author(s)	Lusby, Sinead;Heinz, Manuela
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Sinead Lusby

National University of Ireland Galway & Scoil Chaitríona Junior, Renmore, Galway

Manuela Heinz

National University of Ireland Galway

manuela.heinz@nuigalway.ie

Abstract

Shared reading, a key component of the home literacy environment, has well documented potential for the development of emergent literacy skills. This study explored shared reading interactions between parents and their young children (aged one to six years) with Down syndrome in Ireland. 191 parents completed an online questionnaire, providing quantitative and qualitative data on their practices, experiences and views in relation to shared reading with their children. Findings indicate that the majority of parents engage their children in shared reading regularly and commence shared reading at an early age. Social/emotional factors and enjoyment, followed by speech and language development, were the primary factors motivating parents to engage their children in shared reading. There was evidence of parental use of oral language and print referencing strategies during shared reading. There was, however, potential for greater use of a wider range of strategies. Many parents also described challenges which affect engagement in shared reading. The majority of participating parents indicated that they would welcome additional guidance in relation to shared reading with their children. It is recommended that a parental education programme, providing parents of young children with Down syndrome with advice and guidance on shared reading be implemented.

Keywords: Down syndrome, shared reading, emergent literacy skills, home literacy environment, additional educational needs.

Introduction

The sociocultural perspective of literacy development has led to a change in emphasis from a reading readiness model to an emergent literacy model (van Bysterveldt, Gillon, and Foster-Cohen 2010). The latter implies a developmental perspective of literacy, encompassing an emergent literacy stage beginning at birth and lasting until approximately six years of age in typically developing children (Justice and Kaderavek 2002) and possibly considerably longer in children with intellectual disabilities such as Down syndrome (Colozzo et al. 2016). The emergent literacy model has led to a greater focus on the role of the parent and the home literacy environment in promoting emergent literacy skills, which are often classified into ‘code-related skills’ **consisting of ‘alphabet knowledge, phonological awareness and print concepts’** and ‘oral language skills’ **comprising ‘receptive and expressive vocabulary, grammatical understanding and narrative discourse’** (Han and Neuharth-Pritchett 2015). **Due to their cognitive disabilities and inherent language difficulties, children with Down syndrome, in general, may acquire emergent literacy skills at a slower rate than their typically developing peers (Justice and Kaderavek 2002). However, Ricci (2011a) suggests that in children with Down syndrome, long term exposure is of greater importance than cognitive ability in determining the development of such skills.**

Shared reading, arguably the most researched aspect of the home literacy environment (Carlson, Bitterman, and Jenkins 2012; Ricci 2011a), is described as reading interactions between an adult and a child, in which the adult primarily reads the text and engages the child in talk or activities relating to the book (Pillinger and Wood 2014). Shared reading has well documented potential for the development of emergent literacy skills, both in typically

developing children (Sukhram and Hsu 2012) and in children with cognitive disabilities (Justice and Kaderavek 2002). Shared reading also has the potential to influence later reading success (Trelease 2009).

The dialogic approach to shared reading, and the evidence-based strategy of print referencing, both **underpinned by Vygotsky's sociocultural theory of child development and his related theory of the 'zone of proximal development' (Vygotsky 1978)**, have been widely acknowledged to enhance the quality of parent-child shared reading and to further facilitate emergent literacy development (Zevenbergen et al. 2016; Justice and Ezell 2004; Justice and Ezell 2000). **Vygotsky's sociocultural theory of child development proposes that children develop their understanding about the world through the medium of their interactions with adults, who help them to make sense of new information and experiences. When parents engage in shared reading with their children, they have a critical influence on what children learn from the experience (Hindman, Skibbe, and Foster 2014). The zone of proximal development focuses on the area between what children can do independently and what they can achieve with assistance (Vygotsky 1978). Accordingly, the child may look at books independently, but, as suggested by the theory of the zone of proximal development, the child will, at a certain stage, reach a peak of independent learning. A parent engaging in the social process of reading with the child, through the medium of shared reading, and the use of the above key methods, has the potential to extend what the child can achieve on his/her own, thereby enhancing the child's emergent literacy skills (Sukhram and Hsu 2012).**

Unfortunately, the home literacy environment of children with cognitive impairments such as Down syndrome has not been subject to the same research focus as that of typically developing children (Ricci 2011b; Al Otaiba et al. 2009; Snowling, Nash, and Henderson 2008) despite evidence that reading can, in fact, be an area of relative strength for many children with Down

syndrome (Hulme et al. 2012; Groen et al. 2006) and an increase in school based research in this regard (Burgoyne et al. 2013; Burgoyne et al. 2012; Lemons and Fuchs 2010). There is, currently, a distinct lack of exploratory studies focusing specifically on parent-child shared reading practices in relation to children with Down syndrome.

The purpose of the present study was to obtain baseline data on the frequency and quality of shared reading interactions between parents and young children (aged one to six years) with Down syndrome in Ireland, in order to determine if emergent literacy skills are being targeted, and to identify parental issues and concerns relating to the shared reading process. This study significantly extends the limited number of international studies focusing on the home literacy environment of children with Down syndrome, with its specific focus on shared reading, and its detailed exploration of parental use of evidence based key shared reading strategies. It also represents a vital first step in the process of ensuring that young children with Down syndrome in Ireland experience a strong early foundation in literacy skills.

Studies focusing on the Home Literacy Environment of Children with Down Syndrome

A small number of studies undertaken since 2000 have focused on aspects of the home literacy environment of children with Down syndrome. Shared reading is generally addressed as one component of such studies and the level of attention paid to shared reading varies from study to study. The studies are primarily based on data collection through parental questionnaires and are of descriptive nature. Two studies have also directly measured emergent literacy skills of children with Down syndrome (Ricci 2011a; Ricci 2011b). Age ranges of children in these studies vary greatly, with only two studies located focusing on an age group similar to the present study (Al Otaiba et al. 2009; van Heerden and Kritzinger 2008). Limitations of such studies include their small scale and their reliance on parental report. **(See Table 1 for details of these studies).**

Review of main findings of previous studies in relation to shared reading

Table 1: Studies addressing shared reading between parents and children with Down syndrome as a component of broader studies

Study authors	Location of study	Participants	Methodology	Research focus
Al Otaiba et al. (2009)	United States	107 parents of children aged 0-6 years	Parental web-based questionnaire	Home literacy environment
van Bysterveldt, Gillon, and Foster-Cohen (2010)	New Zealand	85 parents of children aged 5 years 4 months to 14 years and 11 months 2 groups for comparative purposes – 5-8 years (N = 48) and 9-14 years (N = 38)	Parental questionnaire	Home literacy environment
van Heerden and Kritzinger (2008)	South Africa	15 parents of children aged 2-5 years	Parental questionnaire	Parental perceptions and practices in relation to emergent literacy
Ricci and Osipova (2012)	United States	50 parents of children aged 3-13 years	Interview and questionnaire	Parental perspectives on reading Children's interest in reading
Ricci (2011a)	United States	20 preschool children with DS (3-6 years), 17 school aged children with DS (8-13 years) 18 typically developing children(3-5 years) and their parents	Parental questionnaires, emergent literacy assessments	Comparison of HLE, children's interest in reading and ELS of children with DS v TD children
Ricci (2011b)	United States	31 children aged 7-13 years and their parents	Parental questionnaires, emergent literacy assessments	Reading interest and ELS of children with DS Parental literacy beliefs

(HLE = home literacy environment, ELS = emergent literacy skills, DS = Down syndrome, TD = typically developing)

Frequency and duration of shared reading

In the study undertaken by Al Otaiba et al. (2009) almost all of the children were reportedly *read to* on a daily basis for between 10-30 minutes. However, the phrasing of the question may have influenced this figure somewhat. In particular, parents were asked to indicate the duration of time spent engaging in shared reading ‘per day’ (Al Otaiba et al. 2009, 104). Van Heerden and Kritzinger (2008) report that ‘most’ of the 15 children in their study were *read to* four to six times per week for 10-15 minutes, with some participants stating that the attention span of the child limited shared reading interactions to less than 10 minutes. The older and broader age range in van Bysterveldt, Gillon, and Foster-Cohen’s (2010) study limits comparison with the studies undertaken by Al Otaiba et al. (2009) and van Heerden and Kritzinger (2008). However, it was reported that 48% of parents read with their child daily, with approximately 30% reading with their child several times a week. In terms of comparison with typically developing children, Hindman, Skibbe, and Foster (2014) in an American study of 800 preschool children, with a mean age of 51.89 months, found that 38% of parents read with their child daily, 35% three to six times a week and 25% once or twice a week.

Age of child at commencement of shared reading

Two studies reviewed provided specific information relating to the age of the child when parent-child shared reading commenced. Al Otaiba et al. (2009) reported that over 80% (81.3%) of parents began *reading to* their child by the age of two years, with 53.3% commencing this practice when their child was less than one year of age. In van Bysterveldt, Gillon, and Foster-Cohen’s (2010) study, 66% of parents reported that they began reading with their child when their child was less than one year old, with 77% commencing by the age of two years. In terms of comparison with typically developing children, Sénéchal et al. (1998) in

a Canadian study involving 168 children, reported a mean age of commencement of shared reading of nine months.

Parental practices during shared reading

While parental use of strategies during shared reading was not specifically addressed in the majority of the key studies reviewed, there are some limited reports of parental practices. In van Bysterveldt, Gillon, and Foster-Cohen's (2010) study, 67% of parents of 5-8 year old children reported attempting to teach letter names and sounds during shared reading (weekly/several times a week/daily), 12.1% reported pointing out words and 7.3% used literacy materials such as sight words and flashcards to support reading. Van Heerden and Kritzing (2008) suggest a lack of parental awareness of the range of suitable shared reading strategies.

Participation of the child during shared reading

The participation of the child during shared reading was not addressed to any great extent in the majority of studies reviewed. Reference was made to *reading to* the child in the studies undertaken by Al Otaiba et al. (2009) and van Heerden and Kritzing (2008) suggesting a passive role on the part of the child. Findings in van Bysterveldt, Gillon, and Foster-Cohen's (2010) study similarly indicate that children in the five to eight year age group in general took a passive role during shared reading.

Child's interest in reading

Ricci and Osipova (2012) indicate a solid interest in reading, with 82% of parents reporting that their children 'like reading books a lot' or 'really love it' (p. 125). 64% of parents indicated that children looked at books independently at least 5 times a week, Al Otaiba et al. (2009) also reported that a large percentage of children looked at books independently daily (43.74%). 52% of parents in Ricci and Osipova's study reported that their children asked them to read with them at least five times a week. Significantly, a Canadian study by Sénéchal et al. (1996) undertaken with typically developing children, indicates that children who initiate reading tend

to have better emergent literacy skills, a finding which highlights the significance of child initiation of reading.

Parental perspectives

A number of researchers used open-ended questions to address aspects of parental perspectives on shared reading. Van Bysterveldt, Gillon, and Foster-Cohen (2010) for example, explored what parents enjoyed most about reading with their child. Two key themes, social and emotional reasons and observing their child's progress and achievement in the areas of speech and language and reading, were identified by 58% and 42% of respondents respectively. Van Heerden and Kritzinger (2008) similarly found that parents greatly valued the social and emotional aspect of reading with their child.

Ricci and Osipova's study (2012) revealed that many parents had ambitious long term reading goals for their children and expressed a desire that their children would read independently for enjoyment in the future. Respondents in the study undertaken by Al Otaiba et al. (2009) similarly reported ambitious lifelong goals for the literacy development of their children.

Challenges impacting on literacy development

Challenges identified by parents in van Bysterveldt, Gillon, and Foster-Cohen's study focused mainly on the child and included difficulties with hearing and vision (8.8%), behavioural issues (36.6%), issues relating to memory and learning (32.3%) and speech and language difficulties (23.5%). Difficulty sourcing suitable books (8.8%) was also reported. Challenges reported by van Heerden and Kritzinger (2008) included lack of guidance (in terms of suitable strategies and selecting appropriate books), lack of time on the part of parents, and the need to prioritise other areas of the child's development. In relation to coping with inevitable challenges, Ricci (2011a) reported that 70% of parents of children in the three to six year age group had received advice about reading with their child. The source of advice was not specified. In van Heerden

and Kritzinger's (2008) study, 60% of respondents received advice from a speech and language therapist.

Common findings and recommendations from key studies

A common finding emerging from the above studies relates to parents' attempts to provide a literacy rich home environment and support for the literacy development of their children with Down syndrome. However, there is a concern that a focus on literacy may not begin early enough with such children (van Bysterveldt Gillon, and Foster-Cohen 2010; Ricci 2011a; Ricci 2011b). Ricci (2011a) suggests that, in children with Down syndrome, cognitive ability plays less of a role than long term exposure in the development of emergent literacy skills. Consequently earlier exposure to literacy may result in greater literacy achievements for such children. Further, all of the studies reviewed call for greater support for parents in facilitating the development of their children's emergent literacy skills, however there was little evidence of parents having the opportunity to detail the type of support they wished for/required.

The above studies provide some insight into shared reading practices between parents and young children with Down syndrome as a component of broader studies, however they fail to address crucial issues such as the quality of shared reading and child participation in any detail. It is **greatly remiss** that no study to date has focused specifically on shared reading, and in particular, on the extent to which parents facilitate and encourage the development of emergent literacy skills through shared reading. The present study **attempts to** redress this balance, providing key data on shared reading practices between parents and their young children with Down syndrome in Ireland. It extends previous studies in that it goes far beyond focusing on basic concerns such as the frequency and duration of shared reading, with its detailed analysis and discussion of parental use of key oral language and print-referencing strategies, and its emphasis on child participation. It also differs from previous studies in that it details shared reading supports requested by parents.

Five research sub-questions were addressed: (1) To what extent do parents engage their children with Down syndrome in shared reading? (2) What motivates parents to engage in shared reading with their child with Down syndrome? (3) To what extent do parents use methods that may contribute to the development of emergent literacy skills during shared reading? (4) To what extent are children with Down syndrome active participants during shared reading with their parents? (5) What do parents perceive to be the benefits and challenges associated with shared reading with their child with Down syndrome?

Method

Research design

A cross-sectional survey, in the form of an online self-administered parental questionnaire, containing both closed and open-ended items (nested design), and targeted at parents of young children (one to six years) with Down syndrome was employed in this study. **The use of nested design enabled the gathering of both quantitative and qualitative data using one instrument (De Vaus 2002).** The questionnaire was developed following extensive consultation of research and methodological literature, as well as an expert review, draft and redraft process. Many questions and five-point Likert scales relating to frequency of shared reading behaviours were modelled on the work of Boudreau (2005), with questions relating to reading interest modelled on the work of DeBaryshe (1995).

A pilot study was undertaken with six parents of young children with Down syndrome in the Galway area, following which a number of minor changes were made to the questionnaire. The most significant change involved the expansion of the 'Never' option in scaled items relating to parental practices and child participation to 'Never/Not yet'. This was in response to parental feedback and served to make the final instrument more inclusive of younger children. The final questionnaire consisted of 34 questions, twenty eight of which were primarily closed (choice and scaled) and six of which called for open-ended responses. The questionnaire was divided

into five key sections: general information, shared reading practices in the home, parental practices during shared reading, children's participation during shared reading and parental perceptions in relation to shared reading.

Recruitment of participants and sample size

Following ethical approval from the School of Education, National University of Ireland Galway Research Committee, the national organisation 'Down Syndrome Ireland' agreed to facilitate access to the required parental population – parents of children with Down syndrome born between 16 January 2010 and 16 January 2016, nationwide. The survey was administered with the full population. Invitations to participate were issued by DSI and parents were provided with an anonymous link directing them to the questionnaire on the online survey development site 'Survey Monkey'. As the survey was internet based, an associated limitation was that only parents with internet access and an email contact registered with DSI could participate. 454 parents were invited to participate by DSI. A total of 191 parental responses to the survey were received.

Data analysis

The Statistical Package for the Social Sciences (SPSS) Version 23 was used to analyse the quantitative data. A combination of descriptive (frequencies) and parametric (independent-samples t-tests and ANOVAS) statistical tests were used. Wellington's six stages of analysis (immersion in the data, reflecting, data analysis, synthesizing the data, relating and locating the data, and presenting the data) were adhered to in the analysis of qualitative data (Wellington 2000). Following the preliminary stages of immersion and reflecting, parental responses to the six open-ended questions were coded. Thematic analysis (Bryman 2008) and the constant comparative approach (Wellington 2000) were used following the initial coding of data. At the outset, several sub-categories were used to represent units of data. However, with each refinement, sub-categories were merged. Emerging sub-categories formed the basis for overall

categories. For example, in relation to the analysis of qualitative responses arising from the question—‘Please specify any factors on your part which may limit reading with your child’—the initial sub-categories *lack of time*, *feeling wrecked* and *other demands* were subsumed into one category: *parental stress/pressure*.

As all questions were optional, response rates varied for individual items. In presenting findings, the total number of valid responses relevant to each item is detailed in the text, or as a component of related tables/figures.

Findings

General information about respondents and study children

Of the 191 parents who completed the questionnaire in relation to their young child with Down syndrome, the vast majority of respondents were mothers (95.3%). In general, respondents were well educated, with 90.6% having completed some form of third level education. 9.4% of children represented in this study were in the one year old age category, with the remaining five age categories relatively evenly represented (between 16.8%–19.4% of the total sample). 106 children were male (55.5%) and 85 were female (44.5%). Correlational analyses (*t*-tests) showed no relationship between the gender of the child and the other main variables explored in this study. Less than half (46.6%) of respondents indicated that they had received advice about shared reading. Primary sources of advice included Early Intervention teams¹ (24.1% of all parents) and speech and language therapists (24.1% of all parents). Table 2 provides an overview of key characteristics describing the participants of this study.

Detailed findings are presented in the following sections in five inter-related categories drawing on quantitative and qualitative data.

¹ In Ireland, services for children with disabilities are provided by Health Service Executive (HSE) ‘Early Intervention Services’ from birth to the age of six years. Early Intervention teams comprise of professionals including speech and language therapists, occupational therapists and psychologists. Services vary greatly countrywide and many teams work with limited resources and personnel.

Table 2: Participant Information

Variable	N	%
Respondent's relationship to child		
Mother/Guardian	182	95.3%
Father/Guardian	9	4.7%
Child's gender		
Male	106	55.5%
Female	85	45.5%
Child's age		
1 year	18	9.4%
2 years	35	18.3%
3 years	32	16.8%
4 years	36	18.8%
5 years	33	17.3%
6 years	37	19.4%
Advice about shared reading		
Yes	89	46.6%
No	102	53.4%
Source of advice		
Early Intervention teams	46	24.1%
Speech and Language therapists	46	24.1%
Child's teacher	16	8.3%
Other	23	12.0%

(N = 191)

Parental efforts to facilitate shared reading

Frequency of parent-child shared reading

Over half of respondents (54.3%, N = 188) reported that they read daily/several times a day with their child. A further 22.3% reported that they read several times a week with their child. 5.9% of parents reported that they had not started reading yet or never/rarely read with their child. A peak of 88.8% of parents of six year old children read several times a week/daily/several times a day with their child. An independent-samples *t*-test indicated that parents who received advice about shared reading read significantly more frequently with their children ($M = 4.57$, $SD = 1.00$) than parents who had not received advice ($M = 4.02$, $SD = 1.44$); $t(187) = 3.07$, $p = .00$.

Duration of parent-child shared reading

Almost half of respondents (48.4%, N = 188) indicated that they usually spend between 6-10 minutes reading with their child. 15.4% usually spend less than five minutes and 18.6% usually spend 11-15 minutes reading with their child. 2.7% of parents reported that they usually spend longer than 20 minutes reading with their child. A one-way ANOVA showed no significant relationship between the age of the child and the mean duration of parent-child shared reading—($F(5, 182) = 1.72, p = 0.13$). Analysis of qualitative responses illustrated that for many parents, two key factors—the concentration levels of the child and parental time pressures—were significant influences in relation to determining the duration of parent-child shared reading.

Age of child at commencement of shared reading

Almost two-thirds of respondents (65.8%, N = 187) reported that they commenced reading with their child before their child was one year old, with a further 15% starting before their child was two years old. 17.1% of children represented were aged two years or older when shared reading commenced, or were aged two years or older at the time of the study and had not yet commenced shared reading.

Parents' reasons for engaging their child in shared reading

158 parents responded to the open-ended question 'Why do you read with your child?' with many parents providing a number of reasons for engaging in shared reading. Parental responses were categorised into four main categories. One category was particularly dominant—social and emotional factors/enjoyment. Speech and language development also featured prominently, with long term benefits and developmental/educational factors referenced by parents to a lesser extent. In relation to long term benefits, many parents expressed the wish that their child would be able to read independently in the future and this motivated them to commence shared reading at an early age. The focus on future independent reading was two-fold. Firstly, in terms of a hobby/pastime and secondly, in terms of promoting independence.

Parental reasons for engaging their child in shared reading corresponded with parental perceived benefits of shared reading for children with Down syndrome, with the same principal factors of social and emotional development and speech and language development emerging.

Parental practices during shared reading

Many parents reported the use of a number of strategies during shared reading. Oral language strategies were used to a greater extent than print referencing strategies. A number of parents also shared personal strategies used. Parental use of Lámh² with non-verbal children and children with limited expressive language, was the most frequently occurring personal strategy described.

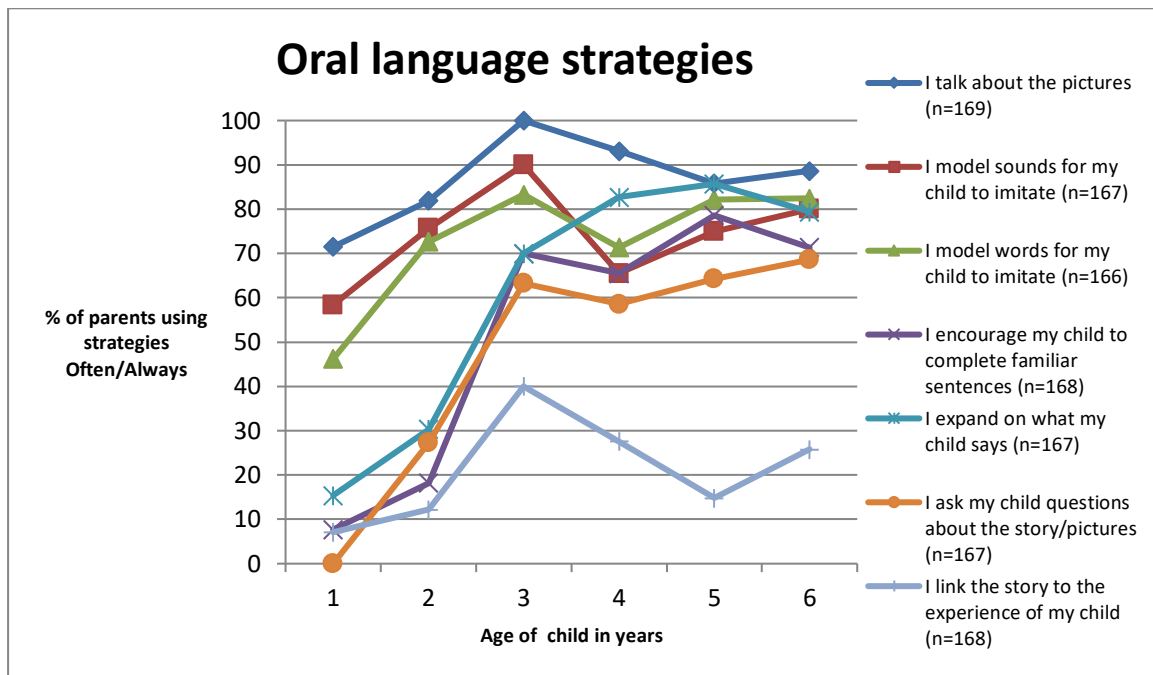
Oral language strategies

The most common oral language related strategy often/always used by respondents was talking about the pictures (88.2%). The child's speech was also the focus of attention, with 76% of respondents reporting that they often/always model sounds for their child to imitate, and 75.9% of respondents reporting that they often/always model words for their child to imitate.

Dialogic reading strategies were also used by respondents—56% of respondents reported that they often/always encourage their child to complete familiar sentences, 64.6% often/always expand on what their child says, 52.1% often/always ask their child questions about the story/pictures and 22.6% often/always link the story to the experiences of the child (inferential talk). Figure 1 shows the percentage of respondents using selected oral language/dialogic strategies often/always during shared reading in relation to the age of the child.

² Lámh is a sign language system for individuals with intellectual disabilities in Ireland (Lámh 2017).

Figure 1: Parental use of oral language strategies

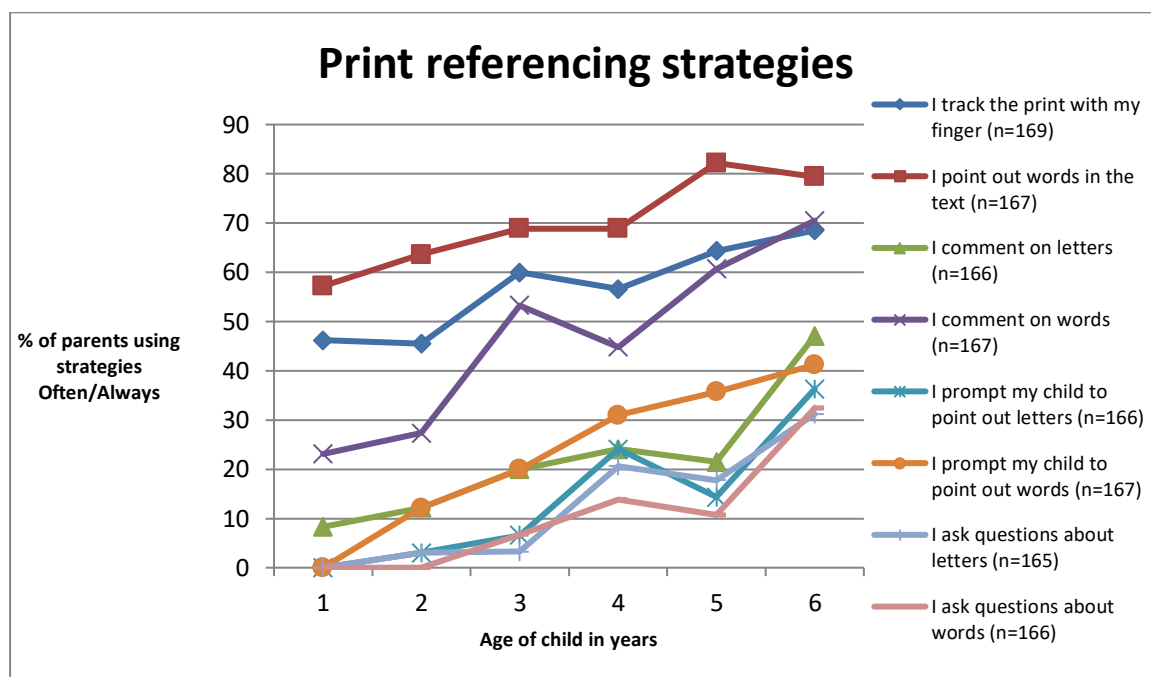


A ‘total oral language strategies score’ based on parental use of oral language strategies was calculated for respondents who rated all seven items listed above (N = 163). Independent-samples *t*-tests were then used to explore the relationship between parents’ overall use of oral language strategies (as determined by their total score) and parental advice on shared reading, with results indicating that parents who received advice used oral language strategies more frequently (M = 26.54, SD = 5.46) than those who had not received advice (M = 24.10, SD = 5.90); $t(161) = 2.75, p = .01$.

Print referencing strategies

The most commonly used print referencing strategies were pointing out words in the text (often/always by 71.2%), and tracking the print with a finger while reading (often/always by 58%). Both strategies are non-verbal print referencing strategies. There was less focus on verbal print referencing strategies such as commenting on and/or asking questions about letters or words. Figure 2 shows the percentage of parents using selected non-verbal and verbal print referencing strategies often/always during shared reading in relation to the age of the child.

Figure 2: Parental use of print-referencing strategies



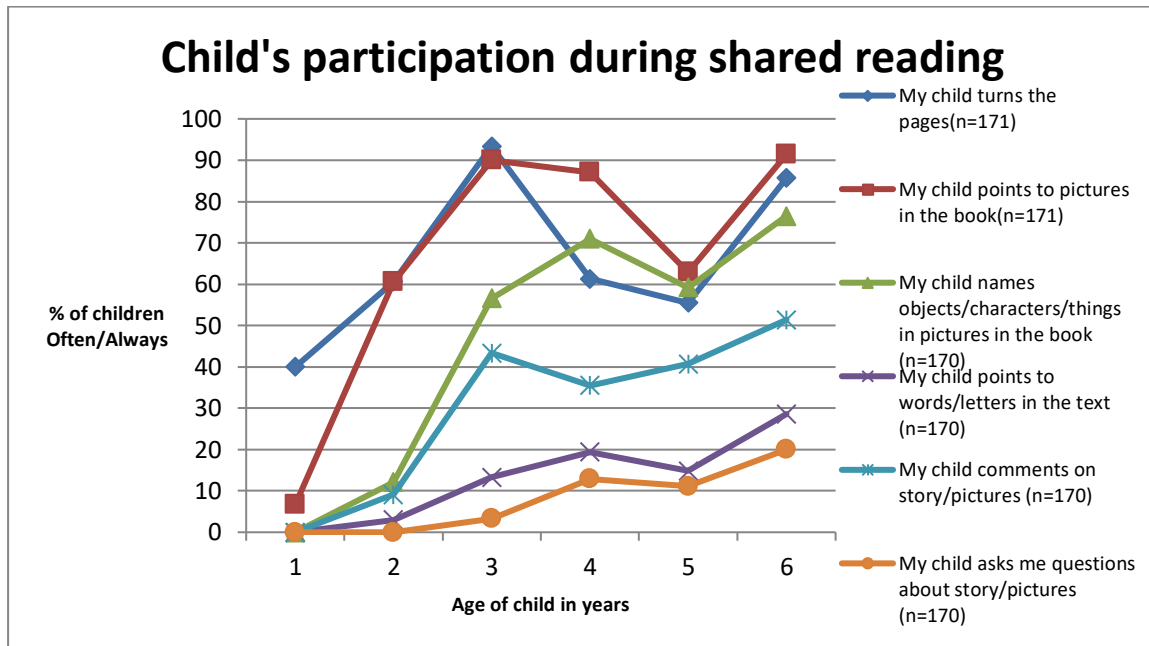
A ‘total print referencing strategies score’ was calculated for respondents who scored all of the eight relevant items listed above (N = 162). Independent-samples *t*-tests found no significant relationship in frequency of parental use of print referencing strategies between parents who received advice on shared reading (M = 21.04, SD = 7.21) and those who had not received advice (M = 21.30, SD = 8.55); $t(160) = -.21, p = .83$.

Participation of the child during shared reading

171 parents responded to a series of questions relating to the participation of their child during shared reading. The most common forms of child participation reported often/always for the total sample were the child pointing to pictures in the book (72.5%) and the child turning the pages (69%). Other forms of child participation observed often/always by respondents included naming objects/characters/things in pictures (50.3%), the child commenting on the story/pictures (33%), the child pointing to words/letters in the text (14.7%) and the child asking questions about the story/pictures (8.8%). Figure 3 shows the percentage of children in each

age group often/always participating in shared reading activities, with a peak at age six in relation to five of the six variables evident.

Figure 3: Child’s participation during shared reading



Subsequent independent-samples *t*-tests based on ‘total child participation scores’ showed a significant relationship between parental advice on shared reading and the participation of the child ($t(168) = 2.13, p = .03$) with more frequent child participation in instances where parents received advice about shared reading ($M = 18.18, SD = 5.00$) than in instances where parents had not received advice ($M = 16.44, SD = 5.62$).

Significant child interest in reading was also reported with only 3.5% of children reportedly having no interest in reading ($N = 173$). With the exception of the one year old age group, between 50% and 70.9% of respondents ($N = 173$) in each of the other age categories indicated that their child asks them or others (using words/gestures/signs) to read with them several times a week/daily. 72.1% of respondents ($N = 172$) also reported that their child looks at books independently several times a week/daily.

Challenges affecting shared reading

Although it was evident that shared reading is greatly valued by the majority of parents participating in this study, it was also clear that there are many factors and difficulties (on the part of both child and parent) which affect engagement in shared reading.

Factors relating to the child

137 parents responded to an open-ended question requesting information on factors on the part of their child which limit engagement in shared reading. **14 parents (10.2%)** reported that there were no relevant factors. Many parents identified several factors. Thematic analysis of parental contributions, in association with the use of the constant comparative approach, led to the categorisation of responses into three categories. The most dominant category was motivation, with two inter-related factors underpinning this category—lack of concentration/attention, and lack of interest/enjoyment. Speech and language related issues and difficulties relating to health and development (for example, frequent illness, vision and/or hearing impairments) were also detailed by several parents.

Parental factors

140 parents responded to an open-ended question exploring personal factors on their part limiting shared reading with their child. **7 parents (5%)** reported that there were no limiting factors on their part. On qualitative analysis of the remaining responses, one overwhelming factor—parental stress/pressure—emerged as the key dominant category with three inter-related contributory elements: ‘lack of time’, ‘feeling wrecked’ and ‘other demands’ (for example, physiotherapy, occupational therapy and speech and language therapy). Lack of knowledge/guidance was also a factor identified by a significant number of parents.

Almost 90% of parents who responded to a question relating to the provision of advice and support on shared reading indicated that they would welcome additional help and support in implementing shared reading with their child. Several parents suggested that workshop type

sessions modelling best practice would be beneficial in this regard. Many parents also indicated that they would like more specific guidance, such as, for example, when to introduce words/letters, how to use shared reading to benefit language and speech development, how to use specific strategies and how to progress from one level to the next. Several parents also indicated that they would welcome guidance on selecting suitable books/resources.

Discussion

Findings of this study indicate that the majority of parents engage their children with Down syndrome in shared reading on a very regular basis—over three quarters (76.7%) of parents read several times a week/daily/several times a day with their child. This corresponds closely with the findings of van Bysterveldt, Gillon, and Foster-Cohen (2010) despite the difference in age groups targeted, and with the findings of Hindman, Skibbe, and Foster (2014) in an American study of 800 preschool typically developing children. The finding that parents who received advice on shared reading engaged their children in shared reading more frequently, highlights the importance of parental advice and support in this regard. Interestingly, a peak in frequency of shared reading at age six was noted. This corresponds with the age of formal schooling, and it is possible, that parents believe this is the most appropriate age to target literacy development. This finding emerged in a Canadian study undertaken by Trenholm and Miranda (2006), with parents expressing a belief that the most appropriate period for targeting literacy skills in children with Down syndrome is between six and twelve years. Given this possibility, it is important to educate all parents of children with Down syndrome on the importance of the emergent literacy stage.

Findings in relation to the reported age of the child when shared reading commenced correspond closely with the findings of both Al Otaiba et al. (2009) and van Bysterveldt, Gillon, and Foster-Cohen (2010). However, the fact that 17.1% of children represented were aged two years or older when shared reading commenced, or were aged two years or older at the time of

the study and had not yet commenced shared reading is **worrying**. The basis for concern is underpinned by studies emphasising the importance of early exposure to literacy for all children (Pillinger and Wood 2014; Yeo, Ong, and Ng 2014; Xu et al. 2014; Suckham and Hsu 2012) and in particular for children with cognitive disabilities such as Down syndrome (Justice and Kaderavek 2002; Ricci 2011a). While qualitative responses showed that many parents were aware of the benefits of commencing shared reading at an early age, findings suggest that the education of all parents of young children with Down syndrome on the benefits of commencing shared reading at an early age (ideally before the child is one year old), is essential.

ANOVA statistical tests found no relationship between duration of shared reading and the age of the child in this study. Conversely, qualitative responses illustrated that motivational factors on the part of the child and parental time pressures influenced the duration of shared reading. Almost half of parents reported that they usually spend six to ten minutes reading with their child. Similar findings emerged in van Heerden and Kritzingers study (2008) with parental reports of the attention span of the child limiting shared reading interactions to less than 10 minutes. In this regard, Justice (2006) suggests that the duration of shared reading is of less importance than the regularity with which it occurs.

Findings in relation to parental motivation for engaging in shared reading, and the perceived benefits of shared reading, correspond closely with those of previous studies undertaken by van Bysterveldt, Gillon, and Foster-Cohen (2010) and van Heerden and Kritzingers (2008). It was also evident that many parents have ambitious future reading goals for their children. There was a clear emphasis on reading as a source of future enjoyment rather than on reading solely for functional reasons. A similar emphasis emerged in the studies undertaken by Ricci and Osipova (2012) and Al Otaiba et al. (2009). It is possible that high parental expectations may have been influenced by significant child interest levels in reading. Similar high levels of interest in reading were reported in all studies reviewed exploring the home literacy

environment of children with Down syndrome, regardless of age group targeted. The high level of child initiation of shared reading in this study is also very promising, given Sénéchal et al.'s (1996) suggestion that children who initiate shared reading tend to have better emergent literacy skills.

Given the evident commitment of the majority of parents to shared reading and the significant child interest levels in reading emerging from this study, it is **greatly remiss** that over half of parents reported that they had not received any advice about shared reading. Further, the fact that many parents who received advice still requested additional advice and support suggests that the present provision of advice is not meeting the needs of parents. The special needs of children with Down syndrome in Ireland are catered for by Early Intervention teams from birth until the age of six years. Yet, less than one-quarter of parents in this study received advice on shared reading from their Early Intervention team. Similarly, less than one-quarter of parents received advice from a speech and language therapist (within the Early Intervention services/provided by local Down syndrome branches/privately). Parental advice on shared reading was somewhat higher in other comparable studies—Ricci (2011a), van Heerden and Kritzinger (2008).

Despite the lack of parental advice and support, it was evident from findings that many parents are using strategies that contribute to the development of emergent literacy skills during shared reading. The finding that there was far less focus on print referencing strategies than oral language strategies in this study mirrors closely findings of Hindman, Skibbe, and Foster (2014) and Han and Neuharth-Pritchett (2015) in shared reading studies undertaken with young typically developing children. In an attempt to justify this discrepancy, Han and Neuharth-Pritchett (2015) suggest that the use of oral language strategies comes more naturally to parents. This justification is also a possibility in this study. However, it is also possible that as speech and language **development is a primary motivating factor** for many parents (as seen from

qualitative responses) this influences the focus of shared reading interactions, and in turn, the strategies used by parents. Further, given the fact that one of the primary sources of parental advice in relation to shared reading was from speech and language therapists, it is likely that the focus of advice given to parents is on oral language strategies. Indeed, findings showed that parents who received advice on shared reading used oral language strategies more frequently than parents who did not receive advice. Conversely, there was no difference in frequency of use of print referencing strategies between the two groups. Such findings highlight the need to ensure that advice provided to parents targets both domains of emergent literacy skills.

By far the most common oral language strategy used in this study was talking about the pictures (88.2% of all parents often/always using this strategy). The widespread use of this strategy is encouraging, as Ricci (2011b) indicates that even this basic strategy can lead to gains in receptive vocabulary. However, there was far less emphasis on inferential talk (22.6%). As research suggests that attempting to link the story to the experience of the child results in greater gains in vocabulary (Blewitt et al. 2009) it is important to educate all parents on the benefits of this type of engagement. Linking the story to the experience of the child is one of the focus elements of the dialogic approach to shared reading. The use of three other dialogic strategies (encouraging the child to complete familiar sentences, expanding on what the child says and asking questions about the story/pictures) were also reported by over half of parents often/always while engaging in shared reading with their child. As would be expected, use of such strategies was more common amongst parents with older children. While it is commendable that parents are using such strategies to an extent, low percentages of use in comparison to the more basic strategy—‘I talk about the pictures’— suggests that many parents are not aware of the range of suitable strategies. Van Heerden and Kritzinger (2008) similarly highlighted a lack of awareness of the range of possible shared reading strategies. Research has shown that using such dialogic strategies during shared reading leads to greater gains in

emergent literacy skills than conventional forms of shared reading (Niklas, Cohns, and Tayler 2016; Zevenbergen et al. 2016; Blewitt et al. 2009) and it has been shown to benefit children with Down syndrome, including those with complex needs (Jordan, Miller, and Riley 2011), making it suitable for even the non-verbal children in this study. Use of a dialogic approach with its inherent interactive nature also contributes greatly to encouraging the active participation of the child and enjoyment (Dennis and Horn 2011). Given the proven benefits of a dialogic approach, the education of parents in relation to the use of such strategies is deemed important, as is one-to-one advice on the adaptation of such strategies to suit the individual needs of the child.

The use of print referencing techniques has also been shown to contribute to the development of phonological awareness in children with Down syndrome (van Bysterveldt, Gillon, and Moran 2006) and again, there was evidence of use of such strategies by parents in this study. Of concern however, is the far greater focus on non-verbal than verbal print referencing strategies, with the most dominant strategy used being 'I point out words in the text' (71.4% of parents often/always using this strategy). Of interest in relation to verbal print referencing strategies used, is the greater parental focus on words than letter names. This perhaps reflects the long held opinion that children with Down syndrome learn best through a sight word approach. Recent evidence has shown that such children can also benefit from approaches focusing on letter names and letter sounds (Colozzo et al. 2016; van Bysterveldt, Gillon, and Moran 2006).

Child participation during shared reading in this study was primarily of a non-verbal nature. This corresponds with the findings of van Bysterveldt, Gillon, and Foster-Cohen (2010) who reported that many five to eight year old children in general took a passive role during shared reading, **in that they never or rarely participated verbally**. This is concerning given the proven importance of active participation of children with intellectual disabilities in shared

reading in order to enhance emergent literacy skills (van der Schuit et al. 2009). Significantly, findings showed greater participation on the part of the child in instances where parents received advice about shared reading. This again highlights the importance of parental advice. However, it is also important to ensure that such advice includes an emphasis on verbal forms of child participation.

This study differed from the majority of studies reviewed in that it specifically asked parents to indicate supports they felt would be of greatest benefit to them in overcoming challenges associated with shared reading. Both general workshop type support and more specific individualised support was requested, and it is suggested that to best meet the needs of parents, a combination of both approaches is necessary. Van Heerden and Kritzing (2008) propose that the provision of parental guidance on shared reading is the responsibility of the child's speech and language therapist. However, this perhaps reflects the view that shared reading is primarily a means to support language development and may lead to a lack of emphasis on the code-related elements of shared reading. It is suggested that an expert in early education may be the most appropriate person to provide support and guidance.

Limitations and Conclusion

The main limitation of this study is the fact that the data was based solely on parental report. Consequently, it is possible that issues relating to social desirability of responses may have led to parents over-estimating the frequency and content of shared reading interactions. It is also conceivable that respondents in this study were those for whom the literacy development of their children was a higher priority. Therefore, it is a possibility that there were differences between respondents and non-respondents in this regard. Additionally, this study did not address the socio-economic status of respondents. However, given the fact that the vast majority of respondents had completed some form of third level education, it is highly likely that the full range of social classes were not represented in this study. Furthermore, while the

number of parents of children with Down syndrome in this country, for whom English is not their first language, is unknown, it is highly likely that the ethnic and cultural diversity now evident in Ireland was not reflected in this study.

Despite these limitations, this study **is of importance in that it is the first exploratory study to focus specifically on shared reading practices between parents and young children with Down syndrome. It significantly builds on and extends previous limited research on shared reading, undertaken as a component of broader studies focusing on the home literacy environment of children with Down syndrome. It addresses in detail key aspects such as parents' efforts to engage their young children in shared reading, children's interest in reading and children's participation during shared reading. It differs from previous studies in that it focuses specifically on the extent to which parents facilitate and encourage the development of emergent literacy skills (through the use of strategies relating to print referencing and the dialogic approach). Further, in contrast with previous studies, in addition to addressing parental concerns in relation to shared reading, it details specific shared reading supports requested by parents.**

This study provides vital baseline data on shared reading practices between parents and young children with Down syndrome in Ireland, which may be used in the planning and implementation of parental education programmes. It is proposed that a comprehensive parental programme should incorporate two strands: 1) parental advice/education, and 2) parental support. It is recommended that the advice strand of such a programme educate parents on the significance of the emergent literacy stage, the importance of early and frequent exposure to shared reading, the importance of active child participation and the benefits of using key oral language and print referencing strategies. In terms of parental support, a dual approach, involving general workshop type sessions modelling best practice, and more individualised support, in order to meet the diverse individual needs of parents and children, is

proposed. It is also suggested that the provision of developmentally appropriate resource lists of suitable books be compiled and distributed to parents as a component of such support.

Given the evident commitment of the vast majority of parents to reading with their children, parents' call for further guidance and support, and children's high levels of interest in reading, it is reasonable to suggest that targeting the home literacy environment through the provision of appropriate parental advice and support on shared reading, can make a significant contribution towards enhancing the development of the emergent literacy skills of young children with Down syndrome.

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