Evaluation of Bookstart England: A Randomised Controlled Trial Evaluation of 'Bookstart Treasure Pack'

March 2013



Table of Contents

Acknowledgements	2
Executive Summary	3
1.1 Introduction	7
1.2 The overall research (RQ1-3)	7
2.1 Methodology	8
2.2 Sample	8
2.3 Measurement	10
3.1 Findings: Descriptive Analyses	14
3.2 Findings: Multi-level Model Analyses	18
4.1 Parents views on the Bookstart Treasure Pack	19
4.2 Further comments about the Bookstart Treasure Pack (parent perspectives)	23
5.1 Practitioner views about the process and Bookstart Treasure Pack	25
5.2 Further comments from practitioners	27
6.1 Concluding discussion	29
Appendix 1: Detailed tables and figures	32
Appendix 2: Research Tools	47
Appendix 3: List of tables and Figures	63

Acknowledgements

This project was funded by Booktrust. The authors would like to thank all of the individuals who participated in the research.

Research Team

Report authors: Sean Demack

Anna Stevens

Project directors: Mike Coldwell

Guy Merchant

Project manager: Lucy Clague

Fieldworkers: John and Denise McBride

Simona Pantiru

Project advisor: Gwyn Fields

The authors would also like to thank all of the early years settings involved for their hard work in distributing the questionnaires, and also the parents who completed the questionnaires.

For more information please contact:

Ian Chesters
Centre for Education and Inclusion Research
Sheffield Hallam University
Unit 7 Science Park
Howard Street
Sheffield
S1 1WB
Tel: 0114 225 6060

Fax: 0114 225 6068 e-mail: ceir@shu.ac.uk www.shu.ac.uk/ceir

Executive Summary

The Centre for Education and Inclusion Research (CEIR) at Sheffield Hallam University was commissioned by Booktrust to evaluate its early years book gifting programmes in England. The evaluation focused on two programmes: the Bookstart Baby Pack and the Bookstart Treasure Pack. These programmes are designed to assist Bookstart in progressing towards their aims of encouraging parents and carers to share books, stories, rhymes and songs with their children and to help families adopt enduring reading habits. The Baby Pack is gifted to all babies aged 0 to 12 months whilst the Treasure pack is gifted to all 3-4 year old children. This report presents the findings from a Randomised Control Trial (RCT) conducted by CEIR to evaluate the impact of the Bookstart Treasure pack and programme on a range of key outcomes.

Approach & Outcomes

A total of 60 early years settings in 15 Local Authority areas were recruited to be part of the RCT in summer 2012. Within each of the 15 LAs, the early years settings were randomly assigned to be an intervention setting (where parents received the pack during the test period) or control setting (where parents didn't receive the pack until after the test was completed). The process was as follows:

- Baseline data from families attending intervention and control settings was collected in September 2012 using a questionnaire survey.
- The Bookstart Treasure Pack was then gifted to children and families attending the intervention settings.
- A questionnaire survey was used to collect further data in January 2013.
 Responses to the September 2012 and January 2013 surveys were matched in the final data set.
- Following the January 2013 data collection, families attending the control settings were gifted the Bookstart Treasure Pack.

The analyses focused on comparing the change over time¹ seen amongst parents attending the intervention settings with the change seen amongst parents attending control settings. In doing this, the aim was to give a statistically robust measure of the impact of the Bookstart Treasure Pack on five key outcomes:

- 1. Parental perceptions about books, rhymes and songs
- 2. Parental perceptions on how their child engages with books, rhymes and songs.
- 3. Parental practices & frequency in reading with their child
- 4. Child book ownership
- 5. Membership & use of a public library

A total of 425 families and carers responded to the September (baseline) survey and 307 responded to the January survey. Following the matching of responses, a final sample of 138 parents and carers with data at both points in time was created (a 32% response rate for the January 2013 survey).

A set of statistical analyses were undertaken, the details of which are included in the full report, with the key findings summarised below.

Findings

It is clear from the responses and comments from parents in intervention settings that the Bookstart Treasure Pack is warmly received, thought of as useful and highly valued. Analysis of the responses to the survey indicate that nearly all parents (98%) agreed that they read the books together with their child and a similarly high number (94%) stated that

¹ This is a 3 month period - October to December 2012

their child really enjoyed reading the books in the Pack. In general parents were also positive about the impact of the packs; almost all (93%) agreed that it gave them a fun way to spend time with their child. Furthermore, 70% agreed that the Pack had increased their child's interest in and enjoyment of books.

Parents made some very positive comments about the packs, including the following:

- It was full of good ideas and two books received are very enjoyable indeed
- My child liked receiving his own bag and books; it made him feel grown up
- > I have found the book of ideas useful as a guide to choosing age appropriate books

It is also evident that practitioners highly rate the quality of the pack that they gift. Notable positive responses were received about the Packs helping practitioners engage with families; nearly all (96%) agreed that the Pack was useful in strengthening links between their early years settings and the homes of families and the majority (91%) agreed that families were encouraged to develop a routine for sharing books, stories and rhymes at the point of being given the Pack. In addition, most practitioners (91%) agreed that the Treasure Pack is an important resource for the families that they work with.

Some notable comments received from practitioners were as follows:

- > We think the packs are excellent and hope that they can continue forever... we always get excellent feedback from parents
- > Bookstart programmes are very good and complement the work we already do

Despite this positive feedback, in terms of Bookstart Treasure having a statistically significant impact, the evidence was much more limited. We found no statistically significant difference in change over time between parents in intervention and control settings across nearly all of the outcome measures.

We found no statistical evidence of impact relating to changes in the perceptions of parents on reading with their child, in perceptions of parents on their child's engagement with books, stories and rhymes, use and membership of a public library or child book ownership. Also, no significant difference was found regarding change in the frequency of mothers (or female carers) reading.

There was a statistically significant difference identified related to fathers reading. An increase in the frequency of fathers reading with their 3-4 year old child was found to be more likely² amongst intervention families than amongst control families.

The lack of strong evidence of impact was to some extent anticipated following analyses of the baseline data. Notable 'ceiling' effects were evident at this stage where responses were already as positive or frequent as they could feasibly be. This meant that across many measures, room to 'improve' was limited or completely impossible for a large proportion of the sample. For example, at baseline, 73% of intervention families and 70% of control families reported that someone read with their 3-4 year old child every day. This means that, in terms of change over time, the only outcome for this majority of respondents would be to continue reading daily (i.e. remain static) or for the frequency of reading to reduce.

Whilst the significant change in the frequency of fathers reading is a positive finding, it does need to be treated with caution. At baseline the frequency of fathers reading was notably (and statistically significantly) higher for control families than that seen for intervention

² The models found that families in the intervention settings were around five times as likely as families in control settings to report an increased frequency in fathers reading with their child.

families³. Over the time period, this frequency remained largely static amongst control families (in 73% of cases) compared with intervention families (where 51% were seen to remain static). This suggests that the control group were more affected by a ceiling effect compared with the intervention group⁴. It is also worth bearing in mind that whilst a greater proportion of intervention families reported an increase in fathers reading (27%) compared with control families (9%), a greater proportion of intervention families also reported a decrease in fathers reading (23%) compared with control families (19%). A further consideration is that the frequency of fathers reading was primarily measured indirectly. This is because it was mothers who predominantly responded to the surveys at both pre-test (94% of respondents were mothers) and post-test (where 96% of respondents were mothers).

Discussion and conclusions

It is clear from the responses and comments from a number of key stakeholders that the Bookstart Treasure Pack is a highly regarded and significant intervention. It is also evident that practitioners are enthusiastic about the quality of the materials. However, taken on its own, this study does not provide statistical evidence for the impact of the Treasure Pack, with the possible exception of impact on fathers' engagement in reading

It is important at this point to underline that this does not mean that Bookstart Treasure Pack has no impact. There are two reasons for this. Firstly, there is a range of evidence presented - not least within this report and in the two previous reports - of positive outcomes, summarised in the next part of this discussion. Secondly, there are limitations in the RCT design (in both broad terms and related specifically to this programme), as well as features of the Bookstart programme, that could explain why there is no effect indicated in the RCT.

Evidence of impact

Parents involved in the study were very positive about the programme, feeling that Treasure Pack events encouraged them to read with their child and feel confident about it. These views were supported by practitioners involved in the current study and practitioners and strategic leads consulted earlier in the study. A wide range of other impacts were perceived by parents, including helping parents/carers to bond with their child, demonstrating child's enjoyment of reading, encouraging the reading of books as part of daily routine, and increasing children's enjoyment of and interest in books. Again, these and other impacts on parents and children were also reinforced by data gathering earlier in the study.

Reasons why the RCT did not demonstrate impact

- This evaluation focused on a relatively light touch intervention and over a relatively short period of time. Impact may result over a longer period or by increasing the intensity of the intervention.
- It is worth noting that Randomised Controlled Trial designs give very robust evidence
 of impact, but require a high degree of standardisation, and can only measure a
 limited number of quantifiable impacts from a well specified group. However, data
 gathered for this project indicates that the range of impacts and modes of delivery
 are very wide-ranging.
- Whilst we focused in this study on a wide range of outcome measures, many of them
 were found to have notable issues of ceiling effects at baseline. This limited the
 potential for 'improvement' over time for many families. The evidence presented in

³ Control - 44% every day, 75% at least a few times a week; Intervention - 20% every day, 55% at least a few times a week - see Table 3.2

⁴ The control group had less room to 'improve' - i.e. increase in frequency - compared with the intervention group

the body of this report suggests that many families are already highly engaged and confident in reading with their child, making it difficult to demonstrate improvements on these measures in particular.

By engaging in Bookstart, practitioners and organisations are likely to work more
effectively in relation to their reading practices in all of their dealings with parents. In
other words, by engaging in Bookstart, organisations and practitioners improve
outcomes for all the parents they work with even when they are not taking part in
Bookstart gifting, so even the control group of parents will have benefited from this
improved practice. This indicates a potential problem for a universal programme that
system-level impacts may be underplayed in any controlled trial design.

1.1 Introduction

Booktrust is an independent charity, established in the 1920s, with the aim of building a literate, connected and creative society through encouraging engagement with books. The charity runs a number of national book-gifting programmes, one of which is the *Bookstart* programme. *Bookstart*, piloted in 1992, has developed over the last twenty years to become a universal programme in England. The initiative currently provides two sets of materials or book packs aimed at:

- Babies aged between 0 and 12 months known as the Bookstart Baby Pack
- Young children aged between 3 and 4 years known as the Bookstart Treasure Pack

The *Baby Pack*, received in the baby's first year, is usually given by a health visitor or other health professional, whereas the *Treasure Pack* is usually distributed via a nursery, preschool or other early years setting.

The Bookstart packs aim to encourage parents and carers to share books, stories and rhymes with their children and to help families to adopt enduring reading habits. In general terms, the Bookstart initiative aims to:

- encourage all parents and carers to enjoy books with children from as early an age as possible
- inspire a love of reading through providing free books and supporting materials

Each pack comes in a colourful bag and contains a range of age-appropriate resources. In the current Baby Pack there are two board books for shared reading, a shape booklet with black and white images and a rhyme poster. In addition there is a guidance booklet with advice on sharing books, further book recommendations and a £1 book token. The Treasure Pack consists of a red and blue messenger bag with two picture books, a pad and coloured pencils for mark-making, and a booklet giving advice and guidance on supporting the literacy development of 3-4 year olds.

The Bookstart programme also has a number of additional elements:

- Dual language books and guidance;
- Booktouch Packs for children who are blind or partially sighted;
- Bookshine Packs for children who are deaf or hearing impaired;
- The Rhyme Challenge;
- The Bookstart Bear Club; and
- National Bookstart Week.

1.2 The overall research (RQ1-3)

In March 2012 the Centre for Education and Inclusion Research at Sheffield Hallam University was commissioned by Booktrust to undertake an evaluation of the Bookstart programme. Booktrust had identified the need to ensure that this programme and its resources fit the needs of children, families, practitioners and stakeholders. In collaboration with Booktrust the research team identified three key research questions.

- 1. To what extent are *Bookstart* resources fully aligned with current Early Years and family engagement practice and policy?
- 2. What are the views of practitioners and stakeholders on the role of *Bookstart* at both a strategic and operational level?
- 3. What is the impact of *Bookstart* on a range of key outcomes?

This report presents findings from the third research question of the project which used a Randomised Control Trial (RCT) methodology to investigate the impact of the Bookstart Treasure Pack on the reading habits of parents and children. The aim of the RCT was to

assess whether genuine change in attitudes and behaviour of parents and children occurred as a direct result of receiving the Bookstart Treasure Pack initiative. Specifically, five outcome areas were examined:

- 1. Parental perceptions about books, rhymes and songs
- 2. Parental practices & frequency in reading with their child
- 3. Child book ownership
- 4. Membership & use of a public library
- 5. Parental perceptions on how their child engages with books, rhymes and songs.

The report contains a presentation of the RCT analysis; firstly a descriptive analysis is given followed by the multi-level modelling approach. Parents in the intervention settings were also asked to give their views on the Bookstart Treasure Packs themselves at the post-test stage. This is presented as a separate analysis following on from the RCT analysis. For the settings who were in the intervention groups a short practitioner survey was conducted to gain practitioner perspectives on the process of distributing the Bookstart Treasure Packs and views about the Bookstart Treasure Packs. Initially this information was intended to be brought into the RCT analysis to assess whether variation in the process of distributing the packs has any impact on parental perceptions. However, analysis of the practitioner survey revealed that variation in responses was not sufficient to impact on parental views, hence this analysis is presented separately in chapter 5.

2.1 Methodology

The RCT was conducted in 60⁵ early years settings across 15 Local Authorities (LAs) in England. The early years settings were matched according to geography and deprivation⁶ and then randomly allocated to be an intervention or control setting (30 in each). The questionnaire was developed in consultation with Booktrust and piloted in three early years settings in August 2012. Following the pilot, baseline (pre-test) data was collected from parents attending all 60 of the selected settings in September 2012. Following this data collection, parents who attended the intervention early years settings received the Bookstart Treasure pack whilst parents within the control early years settings did not. Outcome (post-test) data was collected from parents attending all 60 of the selected settings in January 2013. Following this data collection, parents who attended the control early years settings received the Bookstart Treasure Pack.

2.2 Sample

The aim of the sampling strategy was to select a sample of 60 early years settings in 15 local authority areas across England. To do this a multi-stage stratified random sampling strategy was adopted which incorporated controls for geography and deprivation (as measured by the IDACI score).

Following the selection of early years settings and the random allocation of these to 'intervention' or 'control' groups, Bookstart practitioners administered the questionnaires in all 60 settings. This indirect final stage was taken because a list of parents in settings who had a 3-4 year old child was not available due to data protection issues. To ensure respondent anonymity and enable us to match responses at pre and post-test stages, detail on respondent's forename, the initial of their surname and their home postcode were collected at both stages.

⁵ One setting dropped out prior to distributing questionnaires

⁶ Here deprivation was measured using the IDACI scores for early years settings.

Table 2.1 summarises the sample sizes for the pre and post-test stages by geographical region. In all there were 425 families in the pre-test sample, 307 in the post-test sample and 138 families matched at both pre and post-test. The impact of attrition was explored and discussed below.

Close contact was kept with the early years settings throughout the fieldwork period in order to maximise response rates. Email and telephone communication was kept up with the person responsible for Bookstart in each setting in case of any issues arising with questionnaire distribution. Early Years Practitioners distributed surveys to parents within their settings and encouraged them as far as possible to complete the questionnaires. The preference was for parents to return the questionnaires to settings so that the settings could keep an overview of how many responses had been returned and then post them back to the research team. However the majority of parents preferred to take the questionnaire away and post it back independently.

Table 2.1: Summary of Sample Sizes of families at pre and post-test

	Families at pre	e-test	Families at post-test n=307		Families with both pre-test and post-test data n=138		
	Intervention	Control	Intervention	Control	Intervention	Control	
North	47	39	27	27	9 (19%)	13 (33%)	
Midlands	63	57	43	49	24 (38%)	21 (37%)	
South	66	38	54	33	23 (35%)	15 (39%)	
London	91	24	42	32	23 (25%)	10 (37%)	
Total	267	158	166	141	79 (30%)	59 (37%)	

The composition of the pre-test and matched post-test samples for the intervention and control groups were compared in terms of geography, deprivation (IDACI), socio-economic and background characteristics. Table A1 (see appendix) presents a summary of these analyses.

At pre-test, the control and intervention families were seen to differ significantly in terms of geographical location (Pearson's chi square=21.05, p<0.05, Cramer's V=0.22). For example, a larger concentration of parents in the intervention group were from London (34%) compared with parents in the control group (15%). A geographical imbalance is also evident at post-test but this does not reach statistical significance. The only other statistically significant difference identified between the control and intervention groups related to the IDACI score that was based on respondent's postcode. On average, at the pre-test stage, the control and intervention groups had a similar IDACI score but at the post-test stage, the average IDACI score for the control group (mean IDACI = 0.26) was found to be significantly higher⁷ than the intervention group (mean IDACI=0.20). Across all other measures⁸, the control and intervention groups were found to be statistically comparable.

The geographical imbalance found between the control and intervention samples will be acknowledged in the analyses through the use of multi-level modelling. This acknowledges the clustering of selected early years settings within LA areas and provides greater accuracy

⁸ These included household structure, parental education & employment, household income, gender of child, use of English.

⁷ A higher IDACI score indicates a higher level of deprivation.

in estimating standard errors in the resulting analyses. In addition to this, geographical area and IDACI score will be controlled for in the resulting models.

The Bookstart Treasure (treatment and control) samples were compared with data from the Longitudinal Study of Young People in England (LSYPE). The purpose for this was to see how representative the RCT sample was of the population of parents in England. This is not a necessary requirement for an RCT but it is useful to see if the sample does reflect the wider population.

The samples largely reflected the LSYPE with respect to household composition, use of English and area deprivation (as measured by IDACI). Differences were found with respect to geography (the Bookstart samples showed a London bias and a lower representation of respondents from the north), parental education (parents in the Bookstart sample reported higher levels of educational qualifications than seen with the LSYPE) and SEN (the Bookstart sample had lower rates of SEN than seen with the LSYPE). These analyses can be seen in table A7.

2.3 Measurement

Parental perceptions about books, rhymes and songs were measured using a collection of 22 Likert style items (see appendix 2). Principal components factor analysis along with reliability analysis were used to create composite scale variables from this bank of 22 items. This was an iterative process that began with the identification of items with similar response patterns using principal component factor analysis. Following this, the reliability of each composite scale variable was assessed using Cronbach Alpha statistics.

Cronbach Alpha is a multivariate correlation coefficient that measures the degree of internal consistency amongst a group of variables. The measure takes a value between '0' (no correlation amongst the group of variables) and '1' (all measures have exactly the same response pattern). Higher values indicate higher levels of consistency and a threshold Alpha value of 0.7 is cited as indicating sufficient internal consistency to feel confident that the items can be reasonably combined to measure an underlying, latent, variable. From the original 38 Likert style perception items were reduced to six perception variables. Most of these derived perception variables had Alpha values around 0.7 or greater although two did have values closer to 0.6. We felt it preferable to include the variables with slightly lower levels of internal consistency because they captures perceptions that appeared particularly pertinent to the impact of a book gifting initiative such as Bookstart Treasure (these variables captured perceptions around parental assumption around reading with their child and parental levels of confidence in reading with their child).

Table A2 provides a summary of responses to all 22 parental perception items. This is done at the pre-test (complete sample and the sample with matched post-test responses) and post-test stages.

Four composite scale measures were derived from the bank of 22 items. These composite variables are summarised in table 2.2 below and include the questionnaire items and detail on coding direction for calculating the resulting scale variable.

For example, in the 'parent enjoyment' composite (Cronbach Alpha =0.71), the first item (A1e - I find reading stories with my child boring) is given a negative coding (as indicate by '-' in the table) so that responses agreeing are given a low score whilst responses disagreeing would be given a high score. The second item (A1h - I look forward to spending time reading books with my child) is given a positive coding (+) so that responses agreeing are given a high score whilst responses disagreeing would be given a low score.

Table 2.2 Composite variables
Parental enjoyment of reading with their child (Cronbach Alpha =0.71)
A1e - I find reading stories with my child boring -
A1h - I look forward to spending time reading books with my child +
A1i - I often feel too tired to read with my child -
A1I - Reading books with my child is fun +
A1s - Sometimes, I do not enjoy sharing rhymes with my child -
Parent 'control' of their child's engagement ⁹ (Cronbach Alpha =0.69)
A1g - My child is too young for books -
A1n -My child and I don't talk about stories, rhymes or books very often -
A1o - When I read books with my child I usually choose the book -
A1u - Giving my child a pen, pencil or crayon makes too much mess at this age -
Parent assumptions regarding reading with their child (Cronbach Alpha =0.64)
A1a - Sharing books, stories or rhymes with my child is important to me +
A1m - Being able to read confidently is important in life +
A1p - Pictures add to fun of sharing books, stories and rhymes with my child +
A1r - When I read books with my child, we talk about the pictures +
A1v - Spending time reading with my child now will be helpful to him/her when they begin school +
Parent confidence regarding reading with their child (Cronbach Alpha =0.60)
A1b - I am not sure which books are best for my child -
A1f - I feel confident reading stories out loud with my child +
A1k - When I read a story out loud, I worry that I sound boring to my child -

Parental perceptions on their child's enjoyment and engagement with books, rhymes and songs were measured using a collection of 16 Likert style items (see appendix 2). A similar principal components factor analysis along with reliability analysis was used to create composite scale variables from this bank of 16 items.

Tables A2 provides a summary of responses to all 16 items measuring parental perception on their child's enjoyment and engagement. This is done at the pre-test (complete sample and the sample with matched post-test responses) and post-test stages.

Two composite scale measures were derived from the bank of 16 items - which are summarised below (table 2.3).

Table 2.3 Composite variables

A1q - I am not a confident reader -

Table 2.5 Composite variables
Parent perceptions on their child's interest/enjoyment (Cronbach Alpha =0.81)
B1b - Books do not interest my child -
B1d - My child doesn't often ask for stories to be read to them -
B1f - My child finds it difficult to listen to stories -
B1k - Sometimes, I don't think my child enjoys reading books together -
B1p - My child thinks stories are boring -
Parent perceptions on their child's engagement (Cronbach Alpha =0.67)
B1a - My child likes to talk about stories and rhymes +
B1I - My child enjoys songs and rhymes +
B1m - My child is happy to get books as a present +
B1n - My child knows where a book starts and ends +
B1o - I am sure that sharing books, stories and rhymes is fun for my child +

The remaining three outcome areas were measured more directly and are summarised in table 2.4 below.

⁹ This variable captures aspects where parents make decisions about books / reading on behalf of their child. It is coded with the assumption that this form of parental control is negative, although it is recognised that parents having a role in helping children chose which books to read can be positive.

Table 2.4 Outcome areas

Reading practices	Frequency of reading with child for mothers and/or fathers (Items A3a and A3b from pre and post-test questionnaires)
Engagement with library	Membership and visits to the library (Items A10a and A10b from pre and post-test questionnaires)
Child book ownership	Number of children's books in household Number of books bought for child in last month. (Items A7 and A8b from pre and post-test questionnaires)

Prior to commencing the analyses, the impact of sampling attrition between pre and post-test was examined. This was done by comparing the pre-test distributions for the complete pre-test sample and the pre-test subsample who have matched post-test data. The findings of these analyses are summarised in table A3 (appendix).

The analyses revealed a high degree of consistency between responses from the complete pre-test sample (n=425) and pre-test respondents with matched post-test data. So, whilst the attrition will lead to decreased precision due to the smaller sample size there is no evidence to suggest that the attrition introduced bias into the measurements.

A few others issues became apparent at this preliminary stage of the analyses. First, the control group reported a greater frequency of fathers reading compared to the intervention group. For example, in the control group 32% reported that fathers read 'everyday' compared with 20% for the intervention group. This initial difference is present in both the complete and matched pre-test responses but is seen to be stronger amongst the matched responses (Cramer's V=0.27 for matched pre-test responses; Cramer's V=0.16 for whole pre-test sample). Second, within the complete pre-test sample, the average number of children's books present in the homes of families in the control group (mean = 77) was significantly higher than the average in the homes of families in the intervention group (mean = 63). Third, the analyses revealed notable 'ceiling effects'. This is indicated by the negative skews evident in the distributions of the composite variables but is also apparent in the reading frequency variables (for example, in most cases reading already occurred everyday at pre-test and so therefore, in most cases, increasing this frequency of reading is not possible).

The conclusion from these analyses was that the distribution of pre-test responses was largely comparable for the whole sample and the sample where both pre and post-test data was available. This allows us to proceed with the analyses with just the matched pre and post-test sample.

For the main analyses, a descriptive statistical approach was taken prior to constructing multi-level models for each outcome. The two analytical approaches are compared and discussed. The reason for this relates to communicability of the resulting findings. The descriptive approach uses more basic statistical techniques such as percentages, averages and tests of statistical significance and so is likely to have a wider communicability compared with the multi-level models. The reason for also adopting a multi-level models approach is discussed earlier but in essence it relates to the analyses taking account of the clustering of respondents at the sampling stage. Statistical models also enable other factors to be taken into account (or controlled for); two factors were included; geographical region and IDACI score based on the postcode of respondents.

In all the analyses examined 13 outcome variables which are listed in Table 2.5.

Table 2.5 - Summary of 13 outcome variables within the 5 outcome areas

Outcome Area	Outcome variable
Parental attitudes / perceptions on	 Enjoyment of reading with child (Alpha = 0.71) 'Control' of child's reading experience (0.69)
sharing books, rhymes and songs with	 Confidence in reading with child (0.64)
their child	 Assumptions around reading and the importance of reading with child (0.60)
Parental perceptions on how their child engages and enjoys books, rhymes and songs	Child interest / enjoyment (0.81)Child engagement (0.67)
	Any family member
Frequency of reading	Mothers
	Fathers
The Library	Membership
····,	Visits
Child Book Ownership	Number in the household
	Number bought in last month

The analyses focused on isolating change over time and examining whether a statistically significant difference between the intervention and control groups was present. Appendix table A3b summarises the pre-test and post-test variables for all (matched) respondents. Also shown in this table are the final variables that capture change over time. This variable was created through simple subtraction¹⁰ for the six perception and two child book ownership variables.

For library engagement and frequency of reading, a change over time measure was derived that placed respondents into one of three groups: increase, decrease and static. For example, the frequency of reading may have remained constant over time (static), the frequency might have decreased or the frequency might have increased.

_

¹⁰ (Post-test score - Pre-test score)

3.1 Findings: Descriptive Analyses

Table 3.1 summarises the descriptive analyses for the four variables measuring parental perceptions on books and reading, two variables measuring parental perceptions on their child's engagement with books and reading and the two child book ownership variables. Pre-test, post-test and change over time are summarised for the intervention and control groups across the eight variables (the six perception items are also summarised in figure 3.1). A closer look at the change over time variables for the intervention and control groups is also provided in Appendix table A4.

The impact of ceiling effects is apparent in many of these measures. There is little change over time in these variables amongst either the treatment or control groups. Indeed, there is some suggestion of a downward trend¹¹ although these changes are very small and not statistically significant. On one composite (parental confidence), a negative change is observed for the control group whilst positive change is present for the intervention group, but again, the difference is not statistically significant. Positive change is observed for the remaining four measures¹². In three of these measures, a greater positive change is observed for the control group compared to the intervention group.

Table 3.1 Descriptive analyses for perception and child book ownership items

	Control		Treatment			
	Pre-test	Post-test	Diff (Post-test - Pre-test)	Pre-test	Post-test	Diff (Post-test - Pre-test)
Parental Perceptions on their						
enjoyment of Reading	22.5 (2.96)	22.2 (3.36)	-0.31 (2.29)	23.1 (2.50)	22.9 (2.91)	-0.20 (2.59)
control of their child's engagement	17.7 (2.72)	17.7 (2.81)	0.00 (2.39)	18.4 (2.04)	18.3 (2.91)	-0.23 (2.49)
assumptions & importance	24.4 (0.87)	24.1 (1.78)	-0.25 (1.81)	24.1 (1.11)	23.9 (2.47)	-0.30 (2.31)
confidence	17.2 (2.63)	17.0 (3.47)	-0.29 (2.66)	17.4 (2.70)	17.7 (3.29)	0.30 (2.86)
Parental perceptions on their Childs						
interest / Enjoyment	23.0 (3.51)	23.6 (2.88)	0.55 (2.29)	23.6 (2.85)	23.8 (2.36)	0.18 (2.08)
engagement	23.7 (1.82)	24.2 (1.35)	0.39 (1.32)	23.9 (1.67)	24.2 (1.61)	0.22 (1.66)
Child Book Ownership						
Number of children's books in Household	79.9 (62.55)	109.7 (101.89)	31.2 (69.96)	70.1 (62.54)	94.1 (76.84)	23.9 (55.43)
Number of books bought for child in last month	3.9 (6.73)	4.5 (4.27)	0.61 (7.87)	2.4 (2.58)	4.3 (3.76)	1.85 (3.36)

¹¹ Downward change (control and intervention) for parental enjoyment, control and assumptions. As noted on p.11 a reduction in 'control' could be a positive thing, however the results here are not significant.

¹² Positive change (control and intervention) for parental perceptions on their child's interest/enjoyment, on their child's engagement, number of children books in the household and number of books bought for child in month prior to data collection.

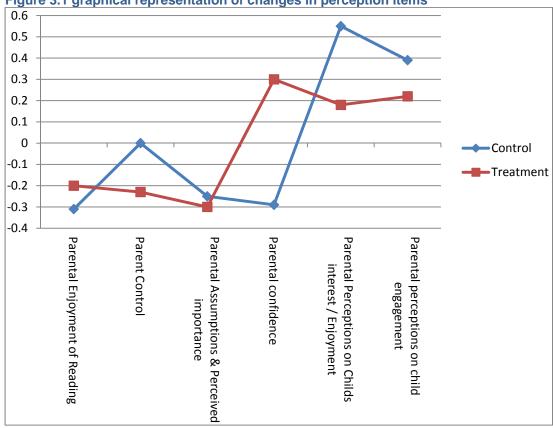


Figure 3.1 graphical representation of changes in perception items

These analyses provide an early suggestion of the findings. It seems that there is little to no evidence to show that the intervention had an impact on perceptions and child book ownership. Amongst these eight outcomes, there are two that suggest the intervention had a positive impact - parental confidence and number of children's books bought. However, even here, at this bivariate descriptive stage, the difference between the intervention and control groups are not statistically significant.

Table 3.2 summarises the descriptive analyses for the frequency of reading and library variables. Pre-test, post-test and change over time are summarised for the intervention and control groups across the five variables.

Similar issues regarding ceiling effects are also evident in these analyses. For example, at pre-test, 70% of the control group and 73% of the intervention group reported that ANY family member reads to their child every day. This means that, for the majority of respondents, increasing the frequency of reading over time on this variable is not actually possible - they can only remain consistent or decrease their frequency of reading. The ceiling effects are less marked when looking specifically at reading frequency of mothers but still evident for the majority of respondents (56% of control, 66% of intervention reporting mothers reading every day at pre-test).

Ceiling effects are less evident still when looking at frequency of fathers reading (44% of control, 20% of intervention reporting fathers reading every day at pre-test). Further, it seems that this variable is the only one so far to indicate significant difference between the control and intervention groups (Pearson's Chi-square=8.933, p<0.05, Cramer's V=0.25). It seems that amongst the control group, the frequency of fathers reading remained fairly static between pre and post-test (73% of the control group compared with 51% of the intervention group reporting the same frequency at pre and post-test). 27% in the intervention group reported increased frequency of fathers reading (compared with 9% in the control group). 23%

in the intervention group reported a decrease in frequency (compared with 19% in the control group). So it seems clear that change over time in the frequency of fathers reading was more dynamic for the intervention compared with control groups and this seems to be predominantly in a positive direction.

In both the intervention and control groups, library membership remained static at the time points (95% of the intervention and 93% of control groups). More change is evident when considering visits to the library but change over time is nearly identical for the intervention and control groups.

Table 3.2 Descriptive analysis summary frequency of reading and library use

Table 3.2 Descriptive analysis sum	Control		Intervention	
	Pre-test	Post-test	Pre-test	Post-test
Frequency of reading to child	TTC tCSt	1 OSt test	TTC tCSt	1 OSt test
ANYONE in HH				
Less than once a week or never	2 (3%)	1 (2%)	1 (1%)	1 (1%)
Once or twice a week	2 (3%)	1 (2%)	1 (1%)	1 (1%)
A few times a week	14 (24%)	10 (17%)	19 (24%)	17 (22%)
Everyday	41 (70%)	47 (80%)	58 (73%)	60 (76%)
Everyday	41 (7078)	47 (0076)	30 (7376)	00 (7078)
Decreased Frequency		4 (7%)		7 (9%)
Static		45 (76%)		62 (79%)
Increased Frequency		10 (17%)		10 (13%)
		15 (11 75)		10 (10,70)
Mother Reading				
Less than once a week or never	2 (3%)	3 (5%)	1 (1%)	3 (4%)
Once or twice a week	4 (7%)	4 (7%)	2 (3%)	1 (1%)
A few times a week	20 (34%)	15 (25%)	24 (30%)	20 (25%)
Everyday	33 (56%)	37 (63%)	52 (66%)	55 (70%)
Decreased Frequency		8 (14%)		7 (9%)
Static		41 (70%)		63 (80%)
Increased Frequency		10 (17%)		9 (11%)
Father Reading				
Less than once a week or never	11 (19%)	10 (17%)	25 (32%)	21 (27%)
Once or twice a week	4 (7%)	6 (10%)	10 (13%)	16 (20%)
A few times a week	18 (31%)	24 (41%)	28 (35%)	25 (32%)
Everyday	26 (44%)	19 (32%)	16 (20%)	17 (22%)
Decreased Frequency		11 (19%)		18 (23%)
Static		43 (73%)		40 (51%)
Increased Frequency		5 (9%)		21 (27%)
Maria de la constanta de la co				
Membership & use of Library				
Membership Neither Respondent or Child is				
member	12 (20%)	12 (20%)	13 (17%)	13 (17%)
Just Child is Member	0 (0%)	1 (2%)	5 (6%)	2 (3%)
Just Respondent is Member	11 (19%)	8 (14%)	10 (13%)	10 (13%)
Both Child and Respondent are	11 (1970)	0 (1170)	10 (1070)	10 (1070)
Members	36 (61%)	38 (64%)	51 (65%)	54 (68%)
Decreased Membership		2 (3%)		2 (3%)
Static		55 (93%)		75 (95%)
Increased Membership		2 (3%)		2 (3%)
Visits in last Month				
None / Unsure	29 (49%)	29 (49%)	33 (42%)	38 (48%)
Once	5 (9%)	9 (15%)	15 (19%)	16 (20%)
Twice	12 (20%)	10 (17%)	15 (19%)	10 (13%)
Three or more	13 (22%)	11 (19%)	16 (20%)	15 (19%)
		44 (0.40)		46 (2 :2:)
Fewer Visits		14 (24%)		19 (24%)
Static		38 (64%)		51 (65%)
More Visits		7 (12%)		9 (11%)

3.2 Findings: Multi-level Model Analyses

The next stage of analyses is to construct multi-level models to examine impact more closely and to take account of the clustering of respondents. The models were built in two stages. The first stage was to construct bivariate models which set the 'change over time' variables as outcomes and included single explanatory variable that identified the intervention and control respondents. The second stage was to include controls for deprivation and geographical region into the model¹³. For the eight perception and child book ownership analyses, multi-level linear regression models were constructed. For the frequency of reading and library models, multi-level logistic regression models were constructed.

Table A5 summarises the models.

In terms of parental perceptions about reading, in all cases the coefficient for the intervention group in the model was not significantly different from zero. Positive coefficients indicate where the intervention group was found to have a sharper increase in scores compared with the control group - these are seen for change over time relating to the parental enjoyment and confidence. Negative coefficients indicate where the intervention group was found to have a shallower increase in scores compared with the control group - these are seen for change over time relating to parental 'control', parental assumptions, child's interest/enjoyment and child engagement.

However, given the lack of statistical significance we must conclude that we found no statistical impact of Bookstart Treasure on changing parental perceptions on their own and their child's engagement with books and reading over the three month RCT period.

In terms of child book ownership, the coefficients for the intervention variable were found to be not significant. In terms of number of children's books in the household, the negative coefficient indicates a smaller increase in children's books present in the household for the intervention compare with the control group. In terms of number of books bought for their child in the month prior to fieldwork, the positive coefficient indicates a greater increase in children's books purchases for the intervention compared with the control group.

However, again, given the lack of statistical significance we must conclude that we found no statistical impact of Bookstart Treasure on increasing child book ownership over the three month RCT period. Most of the multi-level logistic regression models also found no statistical impact during the three month RCT period with one exception - the frequency of fathers reading to their child.

Table 3.3 below (and table A6) provide a summary of analyses relating to this outcome.

Table 3.3 Father's frequency of reading

	Control		Intervention		
	Pre-test	Post-test	Pre-test	Post-test	
Less than once a week or never	11 (19%)	10 (17%)	25 (32%)	21 (27%)	
Once or twice a week	4 (7%)	6 (10%)	10 (13%)	16 (20%)	
A few times a week	18 (31%)	24 (41%)	28 (35%)	25 (32%)	
Everyday	26 (44%)	19 (32%)	16 (20%)	17 (22%)	
Decreased Frequency		11 (19%)		18 (23%)	
Static		43 (73%)		40 (51%)	
Increased Frequency		5 (9%)		21 (27%)	

¹³ This was a result of the preliminary analyses which revealed an imbalance in the pre-test intervention and control samples for deprivation (IDACI) and geographical region. By incorporating the variables into the model, the impact of the intervention can be revealed whilst taking into account this initial imbalance.

4.1 Parents views on the Bookstart Treasure Pack

All those in the intervention group at the post-test stage were asked questions concerning their views on the Treasure Pack and for any additional open comments they had about the Treasure Pack. Analysis of this is presented below.

Just under two thirds (62%) of respondents stated that their pack was given to them directly at their early years setting, whilst 24% were given the pack at a centre event and 14% were given it when they/another adult collected the child from the early year's setting (table 4.1).

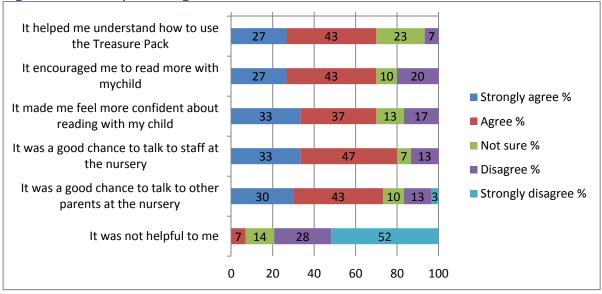
Table 4.1 How did your child receive the Bookstart Treasure Pack?

	%
Given directly to my child at the nursery/playgroup/children's centre	62
Given to me and my child at a nursery/playgroup/children's centre event	24
Given to me (or another adult) when my child was collected from nursery/playgroup/children's centre	14
Other (please specify)*	1
Total n	161

^{*}One respondent was unsure and another stated that they had been given the pack at school

For those that attended an event most (70%) agreed that the event had helped them to understand how to use the Treasure Pack. Most parents also agreed that the event encouraged them to read more with their child and that it made them feel more confident about reading with their child (both 70%). The majority (80%) indicated that it gave them a good chance to talk to staff at the nursery whilst a similar proportion stated that it was a good chance to talk to other parents at the nursery (73%). Most respondents (80%) disagreed that the event was not helpful to them (Figure 4.1).

Figure 4.1 How far parents agree with statements about events attended



Total n = 30

The vast majority of parents (94%) deemed the quality of the Treasure Pack to be good (table 4.2).

Table 4.2 Parents views on quality of Treasure Pack itself

	%
Good	94
Unsure	4
Poor	2
Total n	163

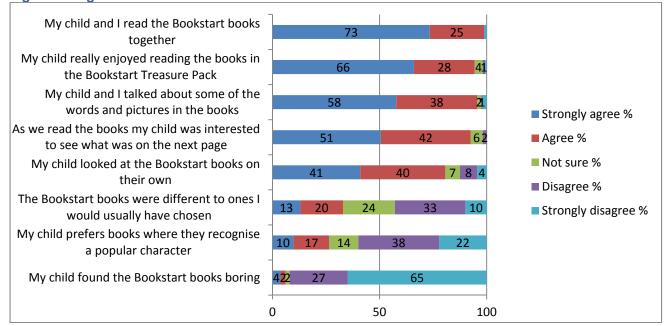
Nearly all parents had used the two picture books and pad and coloured pencils with their child (92% and 95% respectively). Most (76%) had used the "my treasure bag of stories" bag whilst fewer (59%) had used the "book of ideas booklet" (table 4.3).

Table 4.3 Parts of Bookstart Treasure Pack used

	Used %
Pad and coloured pencils	95
Two picture books	92
Red "My treasure bag of stories" bag	76
Treasure: A book of ideas booklet	59
Total n	163

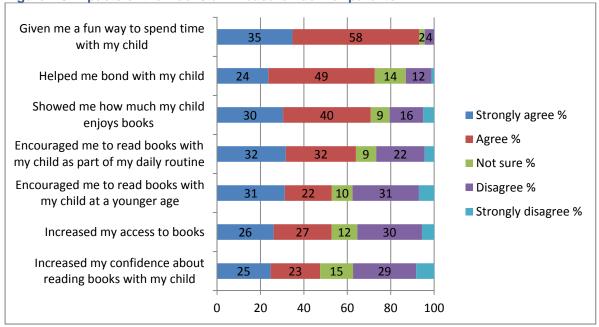
Parents were asked how far they agreed with a set of statements about the Treasure Pack. Parents were generally very positive about the packs with nearly all parents (94%) stating that their child really enjoyed reading the books in the Pack, whilst 93% indicated that their child was interested to see what was on the next page and 92% disagreed that their child found the books boring. Furthermore the vast majority of parents indicated that they engaged in the books with their child, with most agreeing that they read the books together with their child (98%) and 96% agreeing that they talked about some of the words and pictures in the books with their child. Most parents (81%) stated that the child also looked at the books independently. Parents had mixed views as to whether the Bookstart books were different to the ones they would have usually chosen and about whether their child preferred books where they recognise a popular character (Figure 4.2).

Figure 4.2 Agreement with statements about Treasure Pack

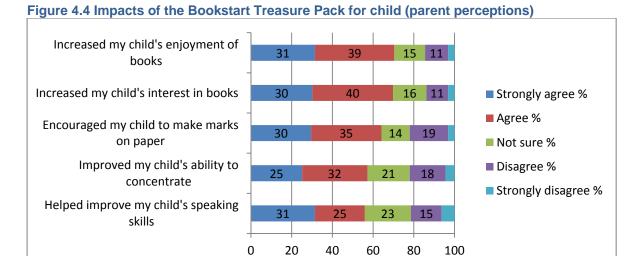


Parents were also asked about their perceptions of the impact of the Bookstart Treasure Pack on factors such as spending time with their child and increasing their child's enjoyment of and access to books. In general parents were positive about the impact of the packs with almost all (93%) agreeing that it gave them a fun way to spend time with their child. Furthermore most parents agreed that it had helped them bond with their child and showed them how much their child enjoyed books (73% and 70% respectively). Almost two thirds (64%) agreed that the Pack had encouraged them to read books with their child as part of a daily routine. Views were somewhat more mixed as to whether the Pack had encouraged them to read books with their child at a younger age, whether it had increased access to books and whether it had increased confidence in reading with their child with around half agreeing with these statements (Figure 4.3).

Figure 4.3 Impacts of the Bookstart Treasure Pack for parents



In terms of impacts on child's engagement with and enjoyment of books, parents were again positive about the impacts with 70% agreeing that the Pack had increased their child's interest in and enjoyment of books. Around two thirds (65%) stated that it had encouraged their child to make marks on paper whilst over half agreed that it had improved their child's ability to concentrate and had helped improved child's speaking skills (Figure 4.4).



4.2 Further comments about the Bookstart Treasure Pack (parent perspectives)

The open comments about the Treasure Pack from the parents in the intervention group allow further insight into parents views of the Treasure pack. In total 62 parents provided comments on this. In general the majority of parents/carers were very positive about the Treasure Pack. These comments were brought together and a thematic analysis was undertaken which is presented below:

Enjoyment of the Treasure Pack books

Several parent comments focused on the enjoyment factor of the books indicating that most children found them enjoyable and helped them get 'enthusiastic', 'excited' and encouraged their interest about reading and telling stories. Positive comments included:

- > Bookstart has encouraged his interest as it's a bit like a club that other children are in
- It was full of good ideas and two books received are very enjoyable indeed
- Any scheme that encourages children to read with their parents is great and the mix of books with the pad and colouring pencils was a winner with my daughter
- > The Bookstart treasure pack is excellent and we really enjoyed the book
- The choice of titles are nice the pictures and shows are always a winner

Sharing with other children

Another positive outcome of the Pack was the encouragement to share stories and books with other children and peers, some comments relating to this include:

- > She really enjoyed [the pack] and was keen to share them with her sister
- > He enjoyed showing his 3 siblings and other family
- ➤ He tries to tell the story from the book to his friends

Book bag

Comments also described the excitement and pride of children receiving their individual book bag that they can personally own:

- My child liked receiving his own bag and books; it made him feel grown up
- ➤ He enjoyed having his red shoulder bag and had great fun delivering Christmas cards to our neighbours with it!
- She feels very grown up to name books from kindergarten and have a book bag like her big brother

Family reading time and impact of the Pack

Family reading time was also commented on, as it is something that was encouraged in some cases as part of the family reading routine. Some parents felt that they developed confidence as parents when acting stories and their child had developed confidence to make up stories:

- It was good to see how members of bookstart tell stories to the kids it gave me the idea to do something different too. Now I can act the story and also use sound.
- > She looks at the pictures and makes her own stories up
- ➤ He absolutely loves one of the books, Elephant, and can essentially recite it to me from memory (using the illustrations as cues)
- My child looked at the books independently
- My child did not show any interest in making marks on paper until he got his own pad and pencils in his red bag

Encourages age appropriate book choices

Some parents indicated that it had increased their confidence in choosing age appropriate books:

- > [It] encourages parents to share age appropriate books with their children
- I have found the book of ideas useful as a guide to choosing age appropriate books

Packs important for some other families

Although appreciated, book packs were thought to be more beneficial and important for those families from a less privileged background or with limited confidence or literacy skills. As some parents reported, the pack would have a bigger impact on families with:

- Less privileged children from poorer backgrounds who perhaps have less access to books
- In families who have few books and read less often I think the packs are important
- Receiving the book pack has not made a big impact on my child but I imagine it would for some children/families
- It is a 'good idea to encourage parents who don't always read with their children

Interest in books already exists

Some parents/carers indicated that although the Treasure Packs are appreciated and enjoyed, it had no effect on the reading habits and routines that are already in place in these families. Comments on this included:

- It did not really impact that much as already read lots of books at least a couple of times a day
- We were already fully committed to reading regularly with our daughter
- It hasn't changed our usual reading routine

5.1 Practitioner views about the process and Bookstart Treasure Pack

Practitioners from the intervention settings were asked to give their thoughts about the process of distributing the Treasure Packs. They answered a short questionnaire which asked about how they had distributed the Treasure Pack and their general views around the Treasure Pack as a resource. They were also asked to give any further comments. Twenty-two practitioners answered this questionnaire in total.

Nearly all practitioners (95%) indicated that they had received the Treasure Handbook for Early years practitioners from Booktrust. Furthermore nearly all practitioners (91%) stated that they had invited parents/carers into the setting to gift the Bookstart Treasure Pack. This finding differs from responses given by parents/carers where 24% stated that they were given the pack along with their child at an event held by the setting. This could be explained by the event perhaps not being organised specifically for the Treasure Pack, or perhaps parents/carers being invited to go into the setting but not attending.

Regarding the Handbook, half of practitioners had used two ideas from this, whilst 32% had used one idea. Just under a fifth (18%) had used no ideas from the Handbook (table 5.1). Just under three quarters of practitioners (74%) had sent at least one activity from the Handbook home, while almost one third (32%) had sent two activities home (table 5.2).

Table 5.1 Number of session ideas from the Bookstart Treasure Handbook used

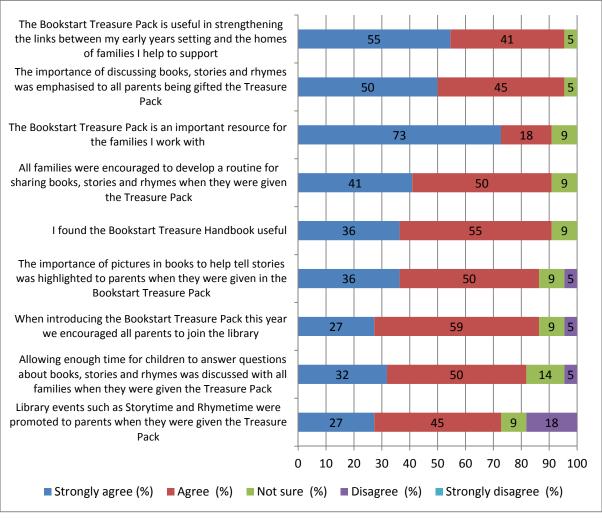
	%
None	18
1	32
2	50
Total n	22

Table 5.2 Number of activities from the Bookstart Treasure Handbook sent home?

	%
None	27
1	9
2	32
3	14
4	18
Total n	22

Practitioners were in agreement with most of the statements about the Treasure Pack, with most (91%) agreeing that the Treasure Pack is an important resource for the families that they work with. In terms of engaging families nearly all practitioners (96%) agreed that the Pack was useful in strengthening links between their early years settings and the homes of families and the majority (91%) agreed that families were encouraged to develop a routine for sharing books, stories and rhymes at the point of being given the Pack. Slightly lower, but still substantial, numbers promoted events such as Storytime and Rhymetime when distributing the Treasure Packs (72%, with 18% stating that they did not promote these events) (Figure 5.1).

Figure 5.1 Practitioner views on the Treasure Pack



5.2 Further comments from practitioners

The pack in general

The general comments from practitioners were very positive towards the Treasure Pack and it was considered to be a great resource, comments included:

- We love the Treasure pack think they are a wonderful thing
- It is a really valuable resource to pass on to our families
- We are very happy with the Treasure pack a wonderful system
- The quality is excellent and the people who receive them can't always believe it's free
- We love Bookstart and for us it works very well
- We think the packs are excellent and hope that they can continue forever... we always get excellent feedback from parents

• Practitioner Handbook

Comments relate to the efficiency and usefulness of the Handbook in relation to the help it offered the practitioners in organising their activities and generating new ideas. These development ideas provided a useful resource in encouraging the practices to engage children in family reading time. Comments included:

- > The handbook was so useful with ideas we have had 8 themed sessions .. one about the elephant and all the children made masks
- The handbook is very useful the ideas were used in our sessions and enjoyed by the children complimented our ideas very well with new ones added!
- The handbook was really useful and alongside we have done lots of activities to encourage sharing of books, stories and rhymes

• The Treasure Bag

Some comments referred to the quality of the bag and emphasised the usefulness of these bags for future use. Practitioners commented that:

- > It is also easier for children to handle
- > They can use them time and time again

Activities

Comments focused on the broad range of activities that encourage children and parents to engage with learning. The ideas generated from the pack led to events and themed sessions such as rhymes and actions about elephants and events where they made masks. The use of activities increased attendance and engaged children with events. The use of activities also encouraged more library use:

- We particularly like the new guidance notes and booklet that was very usefulencouraging more use of the library
- > The whole process is great. We get people from the library to come in and they help with the promotion. This gets an early link with the library.

Existing practice

Another positive aspect of the packs mentioned by practitioners was that it complements the work they already carry out. Comments included:

- Bookstart programmes are very good and complement the work we already do
- It has fitted in very well with our theme of 'story books', we just switched the books around and the children and parents love the books and all sharing together and it fits in with what we do nicely.

Time issues

One of the difficulties that some practitioners had was a lack of time and conflicting deadlines that made it difficult for them to fit it in properly:

- It would have been better if we had received it earlier, deadline too tight for us to fit it in properly. By the time we received the information we were involved in many other activities and priorities. Would have been better in springtime when all the children are settled
- It would have helped if the info had arrived earlier to have enabled me to prepare sessions in advance. Didn't have enough time and therefore was very disappointed because there was a lack of response from the parents. I was surprised at the parents who didn't come.

• Parent engagement

A couple of practitioners mentioned the difficulty of engaging better off parents with the resources:

- > Our rural situation means that we only have a very small library with very limited opening times so promoting this facility is difficult. Bigger library several miles away, but our catchment is of wealthy parents who are not very interested in listening to us. The books are usually given out at the end of term- they take them and that is it!
- Our area is not short of money they are 'cash rich' and 'time poor', we can give them the books out but can't make them read their children at home

More resources for SEN children and those with English as an additional language

A couple of practitioners mentioned the need for more resources for those with SEN and for ethnic minorities:

- We operate in the No 1 most deprived area of Bristol when literacy among adults is very low. Things that would help: 1. More for additional needs children in Braille, board construction or touchy-feely fabric for Autistic children. 2. More choice of languages- we have 14 different ones here 3. Books (a separate range) that also help parents with literacy problems Introduction of a separate range of books that also help parents with literacy problems
- Need books more orientated towards different ethnic groups or for parents with limited literacy

6.1 Concluding discussion

It is clear from the responses and comments from a number of key stakeholders that the Bookstart Treasure Pack is a highly regarded and significant intervention. It is also evident that practitioners are enthusiastic about the quality of the materials. However, taken on its own, this study does not provide statistical evidence for the impact of the Treasure Pack, with the possible exception of impact on fathers' engagement in reading, which may be at least in part explained by differences between the two samples in relation to ceiling effects (see below for further points on ceiling effects).

It is important at this point to underline that this does not mean that Bookstart Treasure Pack has no impact. There are two reasons for this. Firstly, there is a range of evidence presented - not least within this report and in the two previous reports - of positive outcomes, summarised in the next part of this discussion. Secondly, there are limitations in the RCT design (in both broad terms and related specifically to this programme), as well as features of the Bookstart programme, that could explain why there is no effect indicated in the RCT.

6.1.1 Evidence of impact

Section 4.1 of this report indicates that the parents involved in the study were very positive about the programme, feeling that Treasure Pack events encouraged them to read with their child and feel confident about it. These views were supported by practitioners involved in the current study and both practitioners and strategic leads consulted for RQ2 of this study (Clague et al, 2012). In addition almost all felt that the Pack itself was of good quality. This is supported by the expert group examining the Bookstart resources for RQ1 of this study (Merchant et al, 2012) and practitioners and strategic leads consulted for RQ2 of this study (Clague et al, 2012). In addition, a wide range of other impacts were perceived by parents, including helping parents/carers to bond with their child, demonstrating child's enjoyment of reading, encouraging the reading of books as part of daily routine, and increasing children's enjoyment of and interest in books. Again, these and other impacts on parents and children were also perceived by those surveyed by Clague et al (2012) as well as practitioners involved in the RQ3 trial.

Furthermore, Clague et al (2012 p51) found that practitioners themselves perceived positive impacts on their wider practices with parents such as signposting resources, discussing children's reading development and so on.

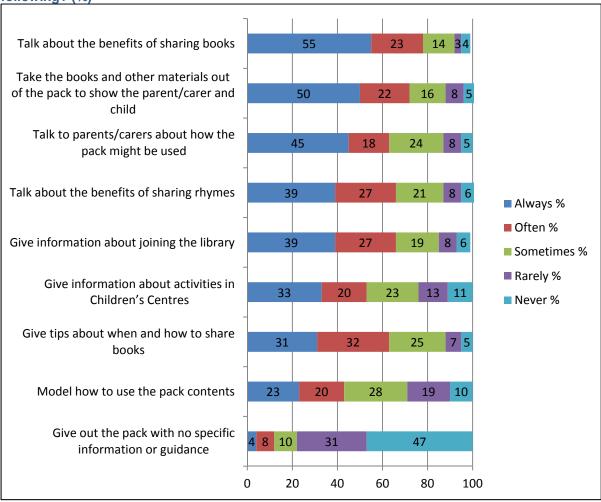
6.1.2 Reasons why the RCT did not demonstrate impact

This wealth of positive impact data raises the question: why did the current RCT study not demonstrate impact? The remainder of the discussion focuses on a set of possible reasons, leading to suggestions for action in relation to both further data gathering, and programme design.

- This evaluation focused on a relatively light touch intervention and over a relatively short period of time. Impact may result over a longer period or by increasing the intensity of the intervention, or taking into account prior impacts of the Baby Pack in a longitudinal design.
- 2. It is worth noting that Randomised Controlled Trial designs give very robust evidence of impact, but require a high degree of standardisation, and can only measure a limited number of quantifiable impacts from a well specified group. However, data gathered for this project indicates that the range of impacts and modes of delivery are very wide ranging. In the Report on RQ2 (Clague et al, 2012) of the current study, we presented a range of data indicating that in fact the universal Bookstart programme was commonly delivered in a number of different ways, by differing stakeholders with differing skills and confidence. The majority of these felt that the

Treasure Packs were important, but at the same time frequently reported that distributing the packs was an add-on to their core role (over 70% of respondents gifting the Treasure Pack - Clague et al, 2012 p31). There was also evidence that less structured processes were used for gifting the Treasure Pack compared with the Baby Pack (Clague et al, 2012 p19). There was further evidence of a wide range of practices in relation to the information and support given to parents about making use of the pack - we reproduce Figure 4.12 from Clague et al, 2012, p20 to give a flavour of the range of practices.





In addition, in the report on RQ1 of the current study, Merchant et al (2012) found that support was needed for both parents and gifters in using the Bookstart Resources. Taken together, these findings indicate that there is a need to focus on improving the clarity and accessibility of resources and focusing more clearly on supporting parents in the programme.

3. Whilst we focused in this study on a wide range of outcome measures, many of them were found to have notable issues of ceiling effects at baseline. This limited the potential for 'improvement' over time for many families. Therefore, it would be valuable if a collection of outcome measures were developed that were sensitive enough to capture what the Booktrust hope to change with the Treasure Pack programme whilst being resistant to these ceiling effects. It is suggested that research could be commissioned to develop perception items that can be used in a universal programme that have limited ceiling effects, and are valid and reliable.

However, it is important to bear in mind some of the problems with attempting to do this indicated in point 5 below.

- 4. The evidence presented in the body of this report suggests that many families are already highly engaged and confident in reading with their child. This broad issue of the universal nature of the programme was also raised in the report on RQ1 of the current study, within which Merchant et al (2012) suggested that it is difficult for a universal programme to fit well with the range of individual experiences of the families taking part. In the report on RQ3 of the current study practitioners reported that in relation to outcomes for both children and parents impacts tended to be seen for some or most families but not all (Clague et al, 2012 p35-43), and that there were fewer impacts for more affluent families (p36-39). Taken together, these findings suggest that Booktrust should conduct further research in this area, exploring the debate about universal and targeted provision. Bearing in mind, of course, the complexities of identifying families that should be 'targeted' and the very clear potential downsides around stigmatisation, potentially reducing the impact on families that might be chosen to receive the pack.
- 5. Finally, the range of impacts outlined in 6.1.1 above and detailed in this report and the previous two reports of this study are inter-related and some of these may actually operate to obscure the real impacts in an RCT design. We would highlight in particular the findings that:
 - practitioners engaging with the Bookstart programme work in their wider practice differently with parents to support their reading practices (Clague et al, 2012 p51)
 - o organisations change their practices to ensure practitioners work effectively on reading with parents in all of their practices(p54)

These findings indicate that, by engaging in Bookstart, practitioners and organisations are likely to work more effectively in relation to their reading practices in all of their dealings with parents. In other words, by engaging in Bookstart, organisations and practitioners improve outcomes for all the parents they work with even when they are not taking part in Bookstart gifting, so even the control group of parents will have benefited from this improved practice. This presents a potential problem that underplays impact for a universal programme, suggesting that an alternative evaluation methodology may be more appropriate - a strong candidate being a theory-based evaluation model such as the Kellogg Foundation Logic Model approach or Pawson and Tilly's or Realist Evaluation.

Appendix 1: Detailed tables and figures

Table A1 Respondent profile

Table A1 Respond	ALL Respondents (Pre-test) MATCHED Respondents (Pre & F										
		L Respond	·	t)		ט Kespond	1	ost-test)			
	Control		Treatment		Control		Treatment				
n=	158		267		59		79				
	Control		Treatment		Control		Treatment				
	n	%	n	%	n	%	n	%			
GEOGRAPHY - Regional	P<0.05; Ch										
Level	squ=21.05	-									
	Cramers V						_				
North	39	25%	47	18%	13	22%	9	11%			
Mid	57	36%	63	24%	21	36%	24	30%			
South	38	24%	66	25%	15	25%	23	29%			
London	24	15%	91	34%	10	17%	23	29%			
Who was respondent											
Mother	146	92%	244	91%	57	97%	76	96%			
Father	11	7%	21	8%	2	3%	2	3%			
Other	1	1%	2	1%	0	0%	1	1%			
	D 40 0F . Cl					l					
Donanta in IIII	P<0.05; Ch				Ch! anu n	له المناهم					
Parents in HH	squ=6.46, V=0.12	Cramers			Chi-squ no	ot valld					
None / Other	_	00/	2	10/	0	00/	1	10/			
None / Other	0	0%	2	1%	0	0%	1	1%			
One	28	18%	73	27%	9	15%	12	15%			
Two	130	82%	192	72%	50	85%	66	84%			
Parental Education											
Unsure / missing	9	6%	11	4%	2	3%	2	3%			
No Formal Quals	5	3%	8	3%	3	5%	2	3%			
GCSEs all below A*-C	13	8%	18	7%	6	10%	3	4%			
At least one GCSE at	9	6%	18	7%	2	3%	6	8%			
grade C or above	9	0/0	10	7 /0	2	3/0	U	0/0			
NVQ/Apprentiship	14	9%	39	15%	6	10%	8	10%			
A level / equiv	20	13%	40	15%	8	14%	16	20%			
HE Diploma	23	15%	31	12%	9	15%	12	15%			
Undergraduate Degree	28	18%	50	19%	9	15%	18	23%			
Postgraduate Degree	37	23%	52	19%	14	24%	12	15%			
Parental Employment											
No employment	23	15%	40	15%	10	17%	11	14%			
PT employment only	13	8%	28	10%	4	7%	3	4%			
One parent in FT	100	63%	159	60%	41	69%	56	71%			
employment	100	03/0	139	00/6	41	03/0	30	/ 1/0			
Two parents in FT	22	14%	40	15%	4	7%	9	11%			
employment	22	14/0	40	13/0	4	7 /0	9	11/0			
Gender of child											
Male	79	50%	122	46%	26	44%	39	49%			
Female	79	50%	145	54%	33	56%	40	51%			
	/3	30/0	143	J4/0	33	30/0	40	31/0			
SEN											
Yes	6	4%	5	2%	2	3%	2	3%			
No	152	96%	260	97%	57	97%	77	97%			

Table A1 cont..

Table AT cont								
Household Income								
Unsure/prefer not to say	28	18%	58	22%	9	15%	18	23%
£1,100 or less per month	20	13%	44	16%	8	14%	8	10%
£1,101 to £1,300 per month	10	6%	24	9%	3	5%	4	5%
£1,301 to £1,800 per month	18	11%	26	10%	8	14%	8	10%
£1,801 to £2,500 per month	31	20%	33	12%	13	22%	12	15%
£2,501 to £3,500 per month	26	16%	44	16%	7	12%	15	19%
£3,501 to £4,500 per month	16	10%	22	8%	8	14%	10	13%
£Over £4,500 per month	9	6%	16	6%	3	5%	4	5%
	P<0.05; Ch	P<0.05; Chi-						
Use of English	squ=7.72, Cramers							
	V=0.14							
Only English spoken	127	80%	181	68%	46	78%	63	80%
English 1st language but others spoken as well	17	11%	49	18%	6	10%	7	9%
Household is bi/multilingual	11	7%	30	11%	5	8%	8	10%
IDACI (Beenendent Level)					(p<0.05; F	=4.97;		
IDACI (Respondent Level)					eta=0.19)			
Mean	0.27		0.26		0.26		0.20	
					0.21		0.14	

Table A2 Perception Outcomes

BS Treasure Perception Outcomes (A1 items)	All F	Respo	ndents	(pre-	Matc	hed R	espond	dents	Matched Respondents				
A1 items in question order		•	est)				test)		(post test)				
	Contr	ol	Interv	ention	Contro	ol	Interv	ention	Control		Interv	ention	
	Mean	s.d.	Mean	s.d.	Mean	s.d.	Mean	s.d.	Mean	s.d.	Mean	s.d.	
A1a - Sharing books, stories or rhymes with my child is important to me	1.2	0.43	1.2	0.52	1.2	0.36	1.1	0.30	1.1	0.31	1.1	0.42	
A1b - I am not sure which books are best for my child	3.8	1.30	3.7	1.33	3.5	1.43	3.9	1.24	3.7	1.37	4.2	1.10	
A1c - I encourage my child to make marks on paper with a pen, pencil or crayon	1.2	0.53	1.3	0.74	1.2	0.53	1.3	0.83	1.2	0.60	1.3	0.67	
A1d - I talk about books and stories that are linked to TV programmes, films or computer games with my child	2.0	1.08	1.9	1.16	2.0	1.08	2.1	1.32	1.6	0.70	1.7	1.01	
A1e - I find reading stories with my child boring	4.6	0.95	4.6	0.94	4.6	0.99	4.7	0.71	4.6	0.93	4.7	0.74	
A1f - I feel confident reading stories out loud with my child	1.3	0.78	1.3	0.82	1.2	0.68	1.2	0.56	1.2	0.68	1.3	0.86	
A1g - My child is too young for books	4.8	0.64	4.7	0.82	4.9	0.59	4.9	0.57	4.8	0.84	4.8	0.71	
A1h - I look forward to spending time reading books with my child	1.4	0.71	1.4	0.71	1.4	0.65	1.2	0.40	1.3	0.55	1.4	0.81	
A1i - I often feel too tired to read with my child	4.1	1.19	4.1	1.10	4.2	1.13	4.2	0.96	4.0	1.25	4.2	1.07	
A1j - When we read books together, I encourage my child to choose the book	1.2	0.51	1.3	0.66	1.2	0.43	1.2	0.57	1.2	0.36	1.2	0.71	
A1k - When I read a story out loud, I worry that I sound boring to my child	4.2	1.15	4.0	1.25	4.3	1.01	4.3	1.08	4.2	1.14	4.4	1.17	
A1I - Reading books with my child is fun	1.3	0.54	1.3	0.62	1.2	0.43	1.2	0.48	1.3	0.55	1.2	0.66	
A1m - Being able to read confidently is important in life	1.1	0.37	1.2	0.56	1.1	0.34	1.2	0.52	1.1	0.22	1.2	0.76	
A1n -My child and I don't talk about stories, rhymes or books very often	4.4	1.11	4.5	0.97	4.4	1.19	4.6	1.02	4.5	1.04	4.6	1.00	
A1o - When I read books with my child I usually choose the book	4.1	1.14	4.2	1.06	4.0	1.16	4.4	0.88	4.2	1.04	4.3	1.03	
A1p - Pictures add to fun of sharing books, stories and rhymes with my child	1.2	0.47	1.2	0.48	1.1	0.35	1.2	0.44	1.3	0.72	1.3	0.83	
A1q - I am not a confident reader	4.4	1.17	4.3	1.26	4.6	0.98	4.4	1.25	4.2	1.36	4.5	1.03	
A1r - When I read books with my child, we talk about the pictures	1.3	0.55	1.3	0.51	1.2	0.43	1.4	0.49	1.4	0.80	1.4	0.74	
A1s - Sometimes, I do not enjoy sharing rhymes with my child	4.4	1.13	4.4	1.07	4.4	1.24	4.5	0.97	4.3	1.14	4.5	1.11	
A1t - I talk about signs and numbers in the street with my child	1.6	0.92	1.7	1.06	1.7	1.02	1.6	0.99	1.7	1.06		0.91	
A1u - Giving my child a pen, pencil or crayon makes too much mess at this age	4.5	1.02	4.4	1.14	4.4	1.02	4.6	0.86	4.3	1.28	4.5	1.05	
A1v - Spending time reading with my child now will be helpful to him/her when they begin school	1.1	0.38	1.1	0.26	1.0	0.13	1.0	0.19	1.1	0.54	1.2	0.80	

Table A2 cont..

Parental Perceptions - Factor 1 (Cronbach Alpha = 0.71)	Control		Intervention		Control		Intervention		Control		Intervention	
	Mean	s.d.	Mean	s.d.	Mean	s.d.	Mean	s.d.	Mean	s.d.	Mean	s.d.
A1e - I find reading stories with my child boring	4.6	0.95	4.6	0.94	4.6	0.99	4.7	0.71	4.6	0.93	4.7	0.74
A1h - I look forward to spending time reading books with my child	1.4	0.71	1.4	0.71	1.4	0.65	1.2	0.40	1.3	0.55	1.4	0.81
A1i - I often feel too tired to read with my child	4.1	1.19	4.1	1.10	4.2	1.13	4.2	0.96	4.0	1.25	4.2	1.07
A1I - Reading books with my child is fun	1.3	0.54	1.3	0.62	1.2	0.43	1.2	0.48	1.3	0.55	1.2	0.66
A1s - Sometimes, I do not enjoy sharing rhymes with my child	4.4	1.13	4.4	1.07	4.4	1.24	4.5	0.97	4.3	1.14	4.5	1.11

Parental Perceptions - Factor 2 (Cronbach Alpha = 0.69)	Control		Intervention		Control		Intervention		Control		Interventio	
	Mean	s.d.	Mean	s.d.	Mean	s.d.	Mean	s.d.	Mean	s.d.	Mean	s.d.
A1g - My child is too young for books	4.8	0.64	4.7	0.82	4.9	0.59	4.9	0.57	4.8	0.84	4.8	0.71
A1n -My child and I don't talk about stories, rhymes or books very often	4.4	1.11	4.5	0.97	4.4	1.19	4.6	1.02	4.5	1.04	4.6	1.00
A1o - When I read books with my child I usually choose the book	4.1	1.14	4.2	1.06	4.0	1.16	4.4	0.88	4.2	1.04	4.3	1.03
A1u - Giving my child a pen, pencil or crayon makes too much mess at this age	4.5	1.02	4.4	1.14	4.4	1.02	4.6	0.86	4.3	1.28	4.5	1.05

Parental Perceptions - Factor 3 (Cronbach Alpha = 0.64)	Control		Intervention		Control		Intervention		Control		Interv	ention
	Mean	s.d.	Mean	s.d.	Mean	s.d.	Mean	s.d.	Mean	s.d.	Mean	s.d.
A1a - Sharing books, stories or rhymes with my child is important to me	1.2	0.43	1.2	0.52	1.2	0.36	1.1	0.30	1.1	0.31	1.1	0.42
A1m - Being able to read confidently is important in life	1.1	0.37	1.2	0.56	1.1	0.34	1.2	0.52	1.1	0.22	1.2	0.76
A1p - Pictures add to fun of sharing books, stories and rhymes with my child	1.2	0.47	1.2	0.48	1.1	0.35	1.2	0.44	1.3	0.72	1.3	0.83
A1r - When I read books with my child, we talk about the pictures	1.3	0.55	1.3	0.51	1.2	0.43	1.4	0.49	1.4	0.80	1.4	0.74
A1v - Spending time reading with my child now will be helpful to him/her when they begin school	1.1	0.38	1.1	0.26	1.0	0.13	1.0	0.19	1.1	0.54	1.2	0.80

Parental Perceptions - Factor 4 (Cronbach Alpha = 0.60)	Control		Intervention		Control		Intervention		Control		Interventio	
	Mean	s.d.	Mean	s.d.	Mean	s.d.	Mean	s.d.	Mean	s.d.	Mean	s.d.
A1b - I am not sure which books are best for my child	3.8	1.30	3.7	1.33	3.5	1.43	3.9	1.24	3.7	1.37	4.2	1.10
A1f - I feel confident reading stories out loud with my child	1.3	0.78	1.3	0.82	1.2	0.68	1.2	0.56	1.2	0.68	1.3	0.86
A1k - When I read a story out loud, I worry that I sound boring to my child	4.2	1.15	4.0	1.25	4.3	1.01	4.3	1.08	4.2	1.14	4.4	1.17
A1q - I am not a confident reader	4.4	1.17	4.3	1.26	4.6	0.98	4.4	1.25	4.2	1.36	4.5	1.03

Table A2 cont..

B1 items in question order	All R	•	ndents est)	(pre-	Matc	hed R	espond	dents	Matched Respondents (post test)			
	Contr	ol	Interve	ention	Contro	ol	Interv	ention	Control		Interv	ention
	Mean	s.d.	Mean	s.d.	Mean	s.d.	Mean	s.d.	Mean	s.d.	Mean	s.d.
B1a - My child likes to talk about stories and rhymes	1.3	0.71	1.2	0.54	1.3	0.65	1.2	0.53	1.2	0.53	1.3	0.58
B1b - Books do not interest my child	4.6	1.04	4.6	0.97	4.6	0.98	4.8	0.76	4.8	0.64	4.9	0.30
B1c - My child uses a pen, pencil or crayon to make												
marks on paper	1.2	0.68	1.2	0.67	1.3	0.73	1.3	0.83	1.2	0.71	1.2	0.60
B1d - My child doesn't often ask for stories to be read to	4.4	4 40	4.4	4 40	4.4	1.15	4 7	0.70	4.7	0.85	4.7	0.88
them B1e - Signs and numbers in the street are interesting to	4.4	1.13	4.4	1.13	4.4	1.15	4.7	0.79	4.7	0.85	4.7	0.88
my child	1.6	0.99	1.7	1.01	1.8	1.04	1.7	0.94	1.4	0.82	1.6	0.86
B1f - My child finds it difficult to listen to stories	4.5	0.99	4.5	0.93	4.5	1.01	4.6	0.84	4.7	0.77	4.5	0.93
B1g - My child has a favourite book	1.8	1.10	1.5	0.90	1.6	1.01	1.6	0.94	1.8	1.09	1.7	1.07
B1h - My child chooses books to share with me	1.2	0.65	1.2	0.49	1.2	0.68	1.1	0.35	1.2	0.47	1.2	0.36
B1i - Reading books together is important to my child	1.2	0.51	1.2	0.47	1.1	0.28	1.2	0.42	1.1	0.31	1.2	0.46
B1j - My child likes to look at/follow the words in a story or rhyme	1.7	0.98	1.6	0.96	1.6	0.79	1.8	1.11	1.6	0.82	1.6	0.99
B1k - Sometimes, I dont think my child enjoys reading books together	4.6	0.92	4.5	0.89	4.6	0.99	4.7	0.70	4.6	0.88	4.8	0.54
B1I - My child enjoys songs and rhymes	1.2	0.54	1.2	0.49	1.2	0.69	1.1	0.30	1.2	0.63	1.1	0.32
B1m - My child is happy to get books as a present	1.2	0.41	1.3	0.62	1.2	0.45	1.3	0.61	1.1	0.35	1.2	0.49
B1n - My child knows where a book starts and ends	1.2	0.57	1.4	0.73	1.4	0.74	1.3	0.64	1.1	0.41	1.2	0.53
B1o - I am sure that sharing books, stories and rhymes is fun for my child	1.2	0.81	1.2	0.62	1.2	0.78	1.1	0.36	1.1	0.31	1.1	0.29
B1p - My child thinks stories are boring	4.8	0.52	4.8	0.61	4.9	0.51	4.9	0.38	4.9	0.48	4.9	0.46

Parental Perception on their child -		Control		Intervention		Control		Intervention		Control		ention
Factor 1 (Cronbach Alpha = 0.81)	Mean	s.d.	Mean	s.d.	Mean	s.d.	Mean	s.d.	Mean	s.d.	Mean	s.d.
B1b - Books do not interest my child	4.6	1.04	4.6	0.97	4.6	0.98	4.8	0.76	4.8	0.64	4.9	0.30
B1d - My child doesn't often ask for stories to be read to												
them	4.4	1.13	4.4	1.13	4.4	1.15	4.7	0.79	4.7	0.85	4.7	0.88
B1f - My child finds it difficult to listen to stories	4.5	0.99	4.5	0.93	4.5	1.01	4.6	0.84	4.7	0.77	4.5	0.93
B1k - Sometimes, I dont think my child enjoys reading												
books together	4.6	0.92	4.5	0.89	4.6	0.99	4.7	0.70	4.6	0.88	4.8	0.54
B1p - My child thinks stories are boring	4.8	0.52	4.8	0.61	4.9	0.51	4.9	0.38	4.9	0.48	4.9	0.46

Parental Perception on their child - Factor	Control I		Intervention		Control		Intervention		Control		Intervention	
2 (Cronbach Alpha = 0.67)	Mean	s.d.	Mean	s.d.	Mean	s.d.	Mean	s.d.	Mean	s.d.	Mean	s.d.
B1a - My child likes to talk about stories and rhymes	1.3	0.71	1.2	0.54	1.3	0.65	1.2	0.53	1.2	0.53	1.3	0.58
B1I - My child enjoys songs and rhymes	1.2	0.54	1.2	0.49	1.2	0.69	1.1	0.30	1.2	0.63	1.1	0.32
B1m - My child is happy to get books as a present	1.2	0.41	1.3	0.62	1.2	0.45	1.3	0.61	1.1	0.35	1.2	0.49
B1n - My child knows where a book starts and ends	1.2	0.57	1.4	0.73	1.4	0.74	1.3	0.64	1.1	0.41	1.2	0.53
B1o - I am sure that sharing books, stories and rhymes is												
fun for my child	1.2	0.81	1.2	0.62	1.2	0.78	1.1	0.36	1.1	0.31	1.1	0.29

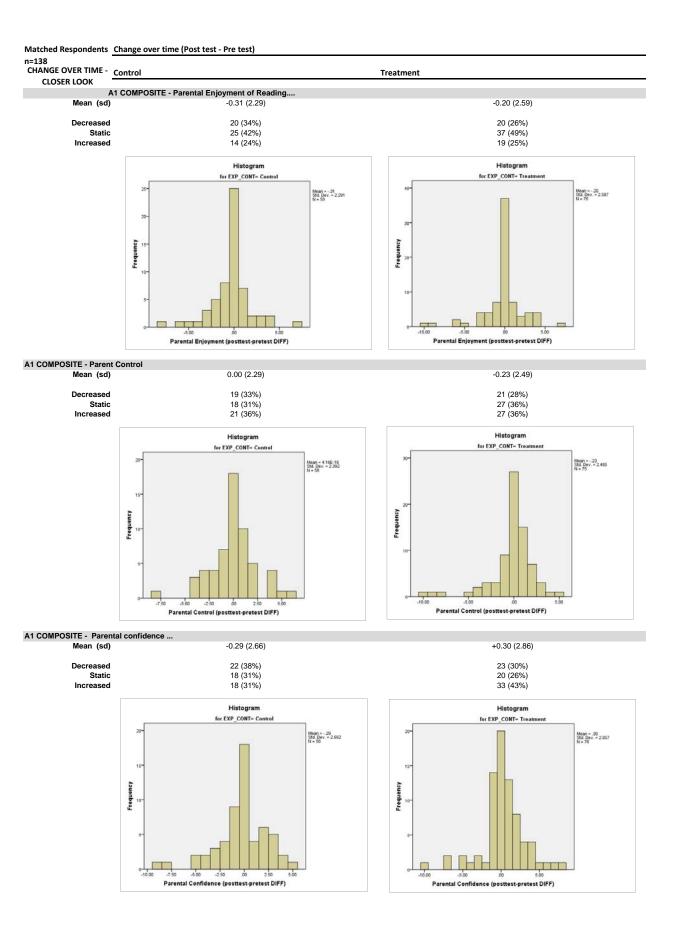
Table A3 Comparison of pre-test distributions

Table A3 Comparison of pre-test distributions		_	I	
	All Responder		Matched Respo	
	Pre-test (n=42	Ι΄	Pre-test (n=138	1
20.7	Control	Treatment	Control	Treatment
BS Treasure Perception Outcomes (Combined A1 / B1 items)	n=158	n=267	n=59	n=79
A1 COMPOSITE - Parental Enjoyment of Reading (Mean (sd))	22.4 (2.94)	22.5 (3.18)	22.5 (2.96)	23.1 (2.50)
A1 COMPOSITE - Parent Control (Mean (sd))	17.8 (2.79)	17.9 (2.92)	17.7 (2.72)	18.4 (2.04)
A1 COMPOSITE - Parental confidence (Mean (sd))	17.2 (2.98)	16.6 (3.19)	17.2 (2.63)	17.4 (2.70)
A1 COMPOSITE - Parental Assumptions & Perceived importance (Mean (sd))	24.3 (1.25)	24.1 (1.55)	24.4 (0.87)	24.1 (1.11)
B1 COMPOSITE - Parental Perceptions on Childs interest / Enjoyment (Mean (sd))	22.9 (3.46)	22.8 (3.50)	23.0 (3.51)	23.6 (2.85)
B1 COMPOSITE - Parental perceptions on child engagement (Mean (sd))	24.0 (1.80)	23.7 (2.12)	23.7 (1.82)	23.9 (1.67)
Frequency of reading to child				
ANYONE in HH				
Less than once a week or never	3%	1%	3%	1%
Once or twice a week	3%	4%	3%	1%
A few times a week	25%	29%	24%	24%
Everyday	70%	65%	69%	73%
Mother Reading				
Less than once a week or never	3%	3%	3%	1%
Once or twice a week	4%	7%	7%	3%
A few times a week	31%	30%	34%	30%
Everyday	61%	60%	56%	66%
Father Reading	Pearsons Chi	-Square =11.03,	Pearsons Chi-	Square =11.03,
Less than once a week or never		amers V=0.16		mers V=0.27
Once or twice a week	23%	34%	19%	32%
	13%	16%	7%	13%
A few times a week	32%	30%	31%	35%
Everyday	32%	20%	44%	20%
Membership & use of Library				
Membership				
Neither Respondent or Child is member	20%	25%	20%	16%
Just Child is Member	1%	4%	0%	6%
Just Respondent is Member	17%	12%	19%	13%
Both Child and Respondent are Members	62%	58%	61%	65%
Visits in last Month				
None / Unsure	43%	48%	49%	42%
Once	19%	17%	8%	19%
Twice	21%	19%	20%	19%
Three or more	17%	16%	22%	20%
Childbooks in the home				
Number in Home	F=3.899, p<	0.05, eta=0.10		
Mean (sd)	77.2 (61.4)	62.7 (78.2)	79.9 (62.5)	70.1 (62.5)
Number bought in last month	F=3.899, p<	0.05, eta=0.10		
Mean (sd)	77.2 (61.4)	62.7 (78.2)	79.9 (62.5)	70.1 (62.5)

Table A3b Summary of pre and post-test variables

		-	t)
3 (2%)	2 (1%)	Decreased Frequency	11 (8%)
3 (2%)	2 (1%)	Static	107 (78%)
33 (24%)	27 (20%)	Increased Frequency	20 (15%)
99 (72%)	107 (78%)		
3 (2%)	6 (4%)	Decreased Frequency	15 (11%)
6 (4%)	5 (4%)	Static	104 (75%)
44 (32%)	35 (25%)	Increased Frequency	19 (14%)
85 (62%)	92 (67%)		
36 (26%)	31 (23%)	Decreased Frequency	29 (21%)
14 (10%)	22 (16%)	Static	83 (60%)
46 (33%)	49 (36%)	Increased Frequency	26 (19%)
42 (30%)	36 (26%)		
25 (18%)	25 (18%)	Decreased Membership	4 (3%)
5 (4%)	3 (2%)	Static	130 (94%)
21 (15%)	18 (13%)	Increased Membership	4 (3%)
87 (63%)	92 (67%)		
62 (45%)	67 (49%)	Decreased number of visits	33 (24%)
		Static	89 (65%)
		Increased number of visits	16 (12%)
	26 (19%)		. ,
	3 (2%) 33 (24%) 99 (72%) 3 (2%) 6 (4%) 44 (32%) 85 (62%) 36 (26%) 14 (10%) 46 (33%) 42 (30%) 25 (18%) 5 (4%) 21 (15%) 87 (63%) 62 (45%) 20 (15%) 27 (20%)	3 (2%) 2 (1%) 33 (24%) 27 (20%) 99 (72%) 107 (78%) 3 (2%) 6 (4%) 6 (4%) 5 (4%) 44 (32%) 35 (25%) 85 (62%) 92 (67%) 36 (26%) 31 (23%) 14 (10%) 22 (16%) 46 (33%) 49 (36%) 42 (30%) 36 (26%) 25 (18%) 25 (18%) 5 (4%) 3 (2%) 21 (15%) 18 (13%) 87 (63%) 92 (67%) 62 (45%) 67 (49%) 20 (15%) 25 (18%) 27 (20%) 20 (15%)	3 (2%) 2 (1%) Static 33 (24%) 27 (20%) Increased Frequency 99 (72%) 107 (78%) 3 (2%) 6 (4%) Decreased Frequency 6 (4%) 5 (4%) Static 44 (32%) 35 (25%) Increased Frequency 85 (62%) 92 (67%) 36 (26%) 31 (23%) Decreased Frequency 14 (10%) 22 (16%) Static 46 (33%) 49 (36%) Increased Frequency 42 (30%) 36 (26%) 25 (18%) 25 (18%) Decreased Membership 5 (4%) 3 (2%) Static 21 (15%) 18 (13%) Increased Membership 87 (63%) 92 (67%) 62 (45%) 67 (49%) Decreased number of visits 20 (15%) 25 (18%) Static 27 (20%) 20 (15%) Increased number of visits

Table A4 Detail of change over time variables



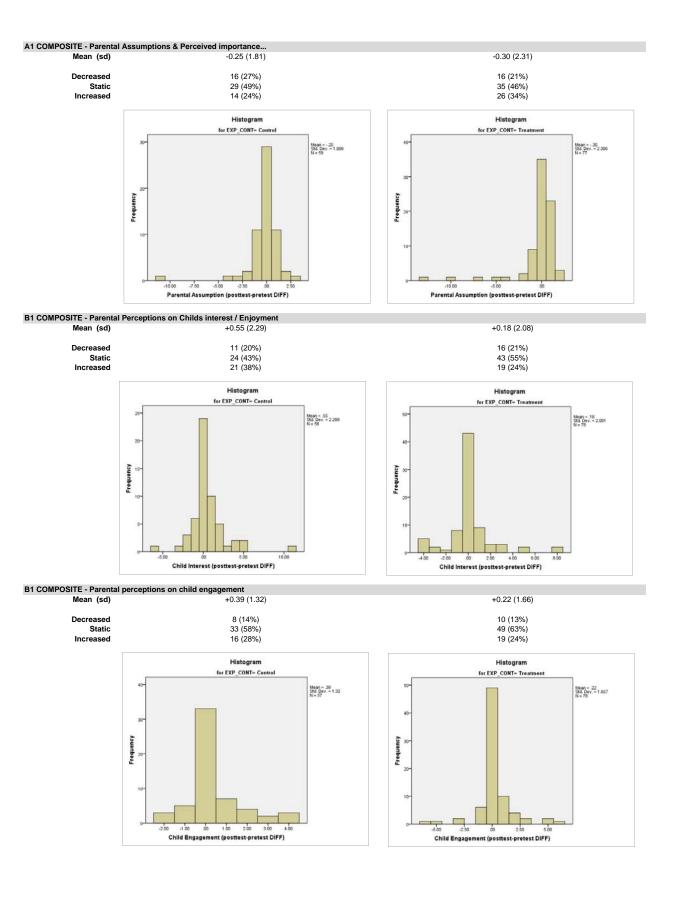


Table A4 cont...

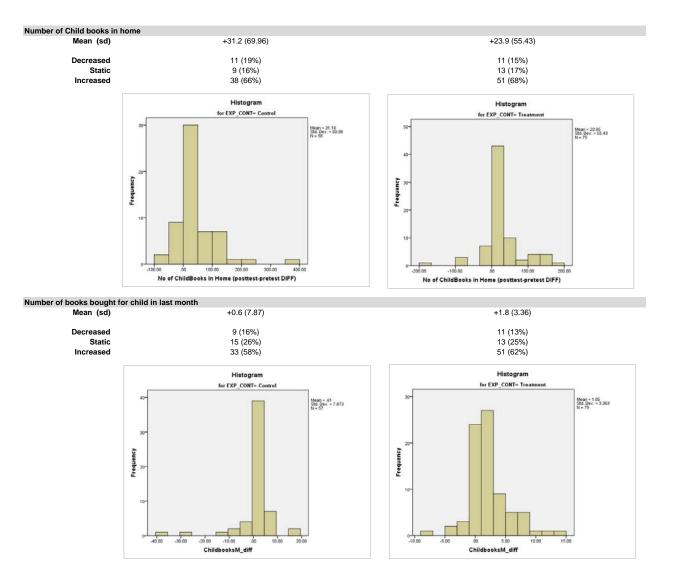


Table A5 Multilevel Models

MULTILEVEL MODELS	Parent Enjoyment	of Reading		Parental Contol		
(LA Level 2; Respondent						
Level 1)						
Level 1)	Empty Model	MI Model Stage 1	ML Model Stage 2	Empty Model	MI Model Stage 1	ML Model Stage 2
	Linpty model	INE Moder Stage 1	III III III Odel Olage I	Empty model	III IIIodei Otage 1	III III III Odel Olage I
Intervention	-	0.343 (0.468)	0.024 (0.430)	-	-0.281 (0.438)	-0.570 (0.443)
		(1 11)	(1 11)		(2 22)	1 1 (1 1)
IDACI (Respondents						
Postcode) - Centred	-	-	-1.606 (1.477)	1	-	-1.368 (1.517)
Geographical Region						
(North)	-	-	0.484 (0.686)	-	-	-1.504 (0.706)
Geographical Region			0 000 (0 505)			0.000 (0.000)
(Midlands) Geographical Region	-	-	0.208 (0.585)	-	-	-0.828 (0.609)
Geographical Region (South)			-0.978 (0.610)			-0.599 (0.627)
(South)	-	-	-0.870 (0.010)	-	-	-0.588 (0.627)
Constant	-0.155 (0.287)	-0.314 (0.388)	-0.084 (0.536)	-0.145 (0.227)	0.003 (0.336)	0.920 (0.553)
	01100 (01201)	(0.000)	0.00 (0.000)	01110 (01221)	0.000 (0.000)	(0.000)
Ou (Variation at level 2 -						
LA)	0.435 (0.398)	0.556 (0.449)	0.000 (0.000)	0.074 (0.236)	0.109 (0.253)	0.000 (0.000)
Oe (Variation at level 1 -						
Respondent)	5.598 (0.712)	5.517 (0.703)	5.400 (0.672)	5.827 (0.743)	5.780 (0.738)	5.705 (0.716)
-2 Log Likelihood	622.865	622.385	583.639	613.412	613.021	581.552
		0.1%	6.2%		0.1%	5.1%
	D (10 (1)		6.3%	D (14 (5.2%
	Parental Confiden	ce T		Parental Assumpti	ons	
Intervention	_	0.471 (0.507)	0.400 (0.513)	-	-0.044 (0.361)	-0.070 (0.388)
intervention	-	0.471 (0.507)	0.400 (0.513)	-	-0.044 (0.361)	-0.070 (0.366)
IDACI (Respondents						
Postcode) - Centred	-	_	-3.113 (1.732)	-	_	-0.547 (1.330)
			01110 (11102)			0.0 11 (1.000)
Geographical Region						
(North)	-	-	-0.504 (0.843)	-	-	-0.163 (0.613)
Geographical Region						
(Midlands)	-	-	-0.476 (0.739)	-	-	0.306 (0.531)
Geographical Region			4 447 (0 700)			0.075 (0.554)
(South)	-	-	-1.147 (0.769)	-	-	-0.375 (0.554)
Constant	-0.034 (0.311)	-0.273 (0.399)	0.384 (0.655)	-0.279 (0.179)	-0.254 (0.272)	-0.200 (0.485)
Constant	-0.054 (0.511)	-0.213 (0.333)	0.004 (0.000)	-0.213 (0.113)	-U.ZJ4 (U.ZIZ)	-0.200 (0.400)
Ou (Variation at level 2 -						
` LA)	0.443 (0.462)	0.300 (0.397)	0.107 (0.315	0.000 (0.000)	0.000 (0.000)	0.000 (0.000)
Oe (Variation at level 1 -	` ′	` ′	,	, ,	` ´	` ′
Respondent)	7.256 (0.926)	7.300 (0.926)	7.299 (0.951)	4.363 (0.529)	4.363 (0.529)	4.469 (0.554)
-2 Log Likelihood	651.83	651.066	619.397	586.304	586.289	563.543
		0.1%	4.9%		0.0%	3.9%
			5.0%			3.9%

Table A5 cont..

	Childs interest /	Enjoyment		Childs engagem	ent	
Intervention	-	-0.538 (0.405)	-0.459 (0.415)	-	-0.168 (0.264)	-0.240 (0.283)
IDACI (Respondents						
Postcode) - Centred		_	0.208 (1.381)	-	-	0.471 (0.965)
•			,			,
Geographical Region						
(North)	-	-	-0.100 (0.724)	-	-	-0.543 (0.444)
Geographical Region			0.004 (0.000)			0.005 (0.000)
(Midlands) Geographical Region		-	-0.631 (0.628)	-	-	-0.325 (0.380)
(South)			-0.707 (0.662)	-		-0.400 (0.399)
(South)	-	-	-0.707 (0.002)	-	-	-0.400 (0.399)
Constant	0.346 (0.233)	0.644 (0.330)	0.998 (0.549)	0.289 (0.130)	0.386 (0.200)	0.753 (0.352)
	5.5.5 (0.250)	5.5 (0.000)	5.555 (5.515)	0.200 (0.100)	0.000 (0.200)	5 55 (0.00 <u>L</u>)
Ou (Variation at level 2 -						
LA)		0.294 (0.292)	0.157 (0.238)	0.000 (0.000)	0.000 (0.000)	0.000 (0.000)
Oe (Variation at level 1 -						
Respondent)		4.367 (0.558)	4.509 (0.586)	2.294 (0.279)	2.287 (0.278)	2.332 (0.290)
-2 Log Likelihood	585.95	584.256	564.074	495.222	494.817	475.319
		0.3%	3.5%		0.1%	3.9%
		<u> </u>	3.7%			4.0%
	Number of children	is books in HH		Number of books b	ought for child	
Intervention	-	-14.450 (11.521)	-3.512 (11.245)	-	1.144 (1.131)	1.826 (0.965)
intervention		-14.430 (11.321)	-5.512 (11.245)	<u>-</u>	1.144 (1.131)	1.020 (0.903)
IDACI (Respondents						
Postcode) - Centred		-	4.474 (37.921)	-	-	-2.988 (3.289)
•			,			` '
Geographical Region						
(North)		-	5.882 (17.795)	-	-	2.153 (1.505)
Geographical Region						
(Midlands)		-	26.783 (15.281)	-	-	3.374 (1.294)
Geographical Region			0.609 (45.946)			2.047.(4.265)
(South)	-	-	0.608 (15.816)	-	-	3.017 (1.365)
Constant	26.616 (6.442)	34.193 (9.215)	17.015 (14.159)	0.334 (1.221)	-0.125 (1.242)	-2.323 (1.186)
Constant	20.010 (0.442)	04.100 (0.210)	17.010 (14.100)	0.00+(1.221)	0.120 (1.272)	2.020 (1.100)
Ou (Variation at level 2 -						
LA)	142.206 (196.950)	211.835 (227.026)	0.000 (0.000)	15.482 (7.454)	11.945 (6.048)	0.000 (0.000)
Oe (Variation at level 1 -	,/	,/	` ′	` /		, /
Respondent)	3656.214 (467.601)		3575.400 (448.681)	26.350 (3.356)	26.701 (3.398)	27.238 (3.378)
-2 Log Likelihood	1472.755	1471.365	1399.503	854.314	853.355	798.523
		0.1%	4.9%		0.1%	6.4%
			5.0%			6.5%

Table A5 cont..

Binary Logistic MULTILEVEL MODELS	Increase in Readin	g Frequency (All)		Increase in Readin	g Frequency (Mothe	er)
Intervention	-	-0.342 (0.485)	-0.237 (0.528)	-	-0.462 (0.495)	-0.325 (0.556)
IDACI (Respondents						
Postcode) - Centred	-	-	2.484 (1.820)	-	-	1.796 (1.818)
·			,			, i
Geographical Region						
(North)	_	_	-1.388 (1.145)	_	_	-1.573 (1.129)
Geographical Region			(((((((((((((((((((((=0)
(Midlands)	_	_	0.546 (0.718)	_	_	-0.152 (0.710)
Geographical Region			0.040 (0.710)			0.102 (0.710)
(South)	-		0.447 (0.759)			0 429 (0 742)
(South)	-	-	0.447 (0.759)	-	-	-0.128 (0.743)
Constant	1 775 (0 040)	1 500 (0 047)	1 013 (0 600)	1 025 (0 047)	1 500 (0 0 47)	1 420 (0 654)
Constant	-1.775 (0.242)	-1.589 (0.347)	-1.813 (0.680)	-1.835 (0.247)	-1.589 (0.347)	-1.439 (0.651)
Out (Variation at least 2						
Ou (Variation at level 2 -		2 222 (2 222)		0.000 (0.000)		
LA)	0.000 (0.000)	0.000 (0.000)	0.000 (0.000)	0.000 (0.000)	0.000 (0.000)	0.000 (0.000)
Oe (Variation at level 1 -						
Respondent)	/	/	/	/	/	/
-2 Log Likelihood	/	/	/	/	/	/
	Increase in Readin	g Frequency (Fathe	r)	Increased Visits to	Library	
Intervention	-	1.520 (0.568)	1.620 (0.582)	-	-0.046 (0.536)	-0.088 (0.560)
IDACI (Respondents						
Postcode) - Centred	-	-	2.270 (1.745)	-	-	-0.771 (1.867)
,			, -7			` /
Geographical Region						
(North)	_	_	0.437 (0.813)	_	_	0.561 (0.792)
Geographical Region			3 (0.010)			3.33. (0.732)
(Midlands)	_		0.476 (0.704)	<u> </u>	_	-0.431 (0.785)
Geographical Region	_	_	0.470 (0.704)		_	0.401 (0.700)
				1		
(South)			0.062 (0.750)			-0 270 (0 700)
(South)	-	-	0.062 (0.759)	-	-	-0.270 (0.790)
	1 460 (0 247)	- 2 491 (0 509)		2 031 (0 366)	2 005 (0 402)	
(South) Constant	-1.460 (0.217)	-2.481 (0.508)	0.062 (0.759)	-2.031 (0.266)	-2.005 (0.403)	-0.270 (0.790) -1.837 (0.680)
Constant	-1.460 (0.217)	-2.481 (0.508)		-2.031 (0.266)	-2.005 (0.403)	
Constant Ou (Variation at level 2 -		,	-2.772 (0.712)	,		-1.837 (0.680)
Constant Ou (Variation at level 2 -	-1.460 (0.217) 0.000 (0.000)	-2.481 (0.508) 0.173 (0.300)		-2.031 (0.266) 0.000 (0.000)	-2.005 (0.403) 0.000 (0.000)	
Constant Ou (Variation at level 2 - LA) Oe (Variation at level 1 -	0.000 (0.000)	,	-2.772 (0.712)	,		-1.837 (0.680)
Constant Ou (Variation at level 2 -	0.000 (0.000)	,	-2.772 (0.712)	,		-1.837 (0.680)

Table A6 Father's Frequency of Reading

Matched Respondents

n=138

	Fathers Fraguency of Posding									
	Fathers Frequency of Reading		Dos	t - Tost						
		Post - Test								
		Less than once a week or never	Once or twice a week	A few times a week	Every Day					
	Control	1 6 2	<u> </u>							
	Less than once a week or never	10	1	-	-					
	Once or twice a week	-	1	2	1					
	A few times a week	-	2	15	1					
1631 -	Every Day		2	7	17					
<u>-</u>	Intervention									
<u>ש</u>	Less than once a week or never	17	6	1	1					
	Once or twice a week	2	2	5	1					
	A few times a week	2	6	13	7					
	Every Day	-	2	6	8					
	, ,									
		Control		Intervention						
		Pre-test	Post-test	Pre-test	Post-test					
	Less than once a week or never	11 (19%)	10 (17%)	25 (32%)	21 (27%)					
	Once or twice a week	4 (7%)	6 (10%)	10 (13%)	16 (20%)					
	A few times a week	18 (31%)	24 (41%)	28 (35%)	25 (32%)					
	Everyday	26 (44%)	19 (32%)	16 (20%)	17 (22%)					
	Decreased Frequency		11 (19%)		18 (23%)					
	Static		43 (73%)		40 (51%)					
	Increased Frequency		5 (9%)		21 (27%)					
	Bivariate odds-ratio	Drob ability	044							
	Occupati	Probability	Odds	+	+					
	Control	0.093	0.102	+	+					
	Intervention	0.362	0.568							
	Intervention : Control		5.56							
	Multi-level odds-ratio		Odds-R	95% CI for odds	s-ratio					
	main ievei oddo-ratio		- Guus-IX	Lower	Upper					
	Stage 1 - Intervention : Control		4.57	1.50	13.92					
	Stage 2 - Intervention : Control		5.05	1.61	15.81					
	Stage 2 - Intervention : Control		3.03	1.01	13.01					

Control Treatment Control Treatment Unweighted Weighted ne 158 267 59 79 1570 15770		ALL Respondents (Pre				MATO	MATCHED Respondents				LSYPE Comparison			
					_						-			
Control Treatment Control Control	n-		01		GIIL)	incu	
BEGGRAPHY - Regional Lavel P-0.05; Chi-squu=2.105, Cramers V-0.02 P-0.05; Chi-squu=2.105, Cramers V-0.02 P-0.05; Chi-squu=2.105, Cramers V-0.02 P-0.05; Chi-squu=2.105, Cramers V-0.02 P-0.05; Chi-squu=0.105, Cramers V-0.04 P-0.05			trol		ment					10770		10770		
SEOGRAPHY - Regional Level P-0.05; Chi-sque-21.05; Criamers V-0.22										n	%	n	%	
North	GEOGRAPHY - Regional Level								70		70		70	
Mild 57 36% 63 24% 21 36% 23 30% 3827 314 3421 344 344 345 345 3427 344 345			-					9	11%	3750	30%	3943	31%	
Mother 146 92% 244 91% 57 97% 76 96% - - - - - - - - -		57		63		21		24				3842	31%	
Mother 146 92% 244 91% 57 97% 76 96% - - - -	South	38		66				23	29%	2742		3291	26%	
Mother	London	24	15%	91	34%	10	17%	23	29%	2122	17%	1506	12%	
Mother	Who was respondent			<u> </u>		I		l				l 1		
Father		146	02%	244	Ω19/	57	07%	76	06%					
Parents in HH										_		_		
Parents in HH										-	-	-		
None Other 0 0% 2 1% 0 0% 1 1% 211 1% 171 1% 1% One 28 18% 73 27% 9 15% 12 15% 4009 26% 3810 24% 175 75% 175		-	. , 0		. 70		0,70		. 70	!		ļ!		
One 28 18% 73 27% 9 15% 12 15% 4009 26% 3810 249			-	-	-				404					
Two 130 82% 192 72% 50 85% 66 84% 11501 73% 11745 75% 75														
Parental Education													24%	
Unsure / missing		130	82%	192	72%	50	85%	66	84%	11501	/3%	11745	75%	
No Formal Quals 5 3% 8 3% 3 5% 2 3% 3055 19% 2143 14% GCSEs all below A*-C 13 8% 18 7% 6 10% 3 4% 985 6% 1011 6% At least one GCSE at grade C or above 9 6% 18 7% 2 3% 6 8% 3860 24% 4128 26% NVQ/Apprentiship 14 9% 39 15% 6 10% 8 10% 2536 16% 2785 189 MVQ/Apprentiship 14 9% 39 15% 6 10% 8 10% 2536 16% 2785 189 HE Diploma 23 15% 31 12% 9 15% 12 15% 2263 16% 2785 189 HE Diploma 23 15% 31 12% 9 15% 12 15% 2263 16% 2785 189 120 15% 2263 16% 2785 189 120 15% 2263 16% 2785 189 120 15% 2263 16% 2785 189 120 15% 2263 16% 2785 189 120 15% 2263 16% 2785 189 120 15% 2263 16% 2785 189 120 15% 2263 16% 2785 189 120 125% 2263 16% 2785 189 120 125% 2263 16% 2785 189 120 125% 2263 16% 2785 189 120 125% 2263 16% 2785 189 120 125% 2263 16% 2785 189 128 1	Parental Education													
At least one GCSEs all below A*-C													3%	
At least one GCSE at grade C or above 9 6% 18 7% 2 3% 6 8% 3860 24% 4128 269 NVQ/Apprentiship 14 9% 39 15% 6 10% 8 10%													14%	
Bove 9 6% 18 7% 2 3% 6 8% 3860 24% 4128 26%		13	8%	18	7%	6	10%	3	4%	985	6%	1011	6%	
NVO/Apprentiship	9													
A level / equiv 20 13% 40 15% 8 14% 16 20% 2536 16% 2785 189 HE Diploma 23 15% 31 12% 9 15% 12 15% 2263 14% 2405 159 Undergraduate Degree 28 18% 50 19% 9 15% 18 23% 1677 11% 1854 129 Postgraduate Degree 37 23% 52 19% 14 24% 12 15% 809 5% 938 6% Parental Employment 23 15% 40 15% 10 17% 11 14% 2119 17% 1571 139 PT employment only 13 8% 28 10% 4 7% 3 4% 1258 10% 1521 10% One parent in FT employment 100 63% 159 60% 41 69% 56 71% 5948 48% 6352 519 Two parents in FT employment 22 14% 40 15% 4 7% 9 11% 3082 25% 3422 279 Gender of child Male 79 50% 122 46% 26 44% 39 49% 7943 51% 7936 519 Female 79 50% 145 54% 33 56% 40 51% 7655 49% 7651 499 SEN Yes 6 4% 5 2% 2 3% 2 3% 2934 19% 3395 229 No 152 96% 260 97% 57 97% 77 97% 12579 81% 12187 789 Household Income Unsure/prefer not to say 28 18% 58 22% 2 3% 2 3% 2 3% 2 3 2 3 2 2 2 2 2 2										3860	24%	4128	26%	
HE Diploma										-	-	-	-	
Undergraduate Degree 28 18% 50 19% 9 15% 18 23% 1677 11% 1854 12% Postgraduate Degree 37 23% 52 19% 14 24% 12 15% 809 5% 938 6%	·												18%	
Postgraduate Degree 37 23% 52 19% 14 24% 12 15% 809 5% 938 6%													15%	
No employment	<u> </u>												12%	
No employment 23 15% 40 15% 10 17% 11 14% 2119 17% 1571 139	Postgraduate Degree	37	23%	52	19%	14	24%	12	15%	809	5%	938	6%	
PT employment only	Parental Employment													
One parent in FT employment 100 63% 159 60% 41 69% 56 71% 5948 48% 6352 51% Two parents in FT employment 22 14% 40 15% 4 7% 9 11% 3082 25% 3422 27% Gender of child Male 79 50% 122 46% 26 44% 39 49% 7943 51% 7936 51% Female 79 50% 145 54% 33 56% 40 51% 7655 49% 7651 499 SEN Yes 6 4% 5 2% 2 3% 2 33 19% 182 28 18% 339 2 2 3% 284 19% 3395 22% SEN Yes 6 4% 5 2% 2 3% 2 3% 19% 1287 78% Household Income <	No employment	23	15%	40	15%	10	17%	11	14%	2119	17%	1571	13%	
Two parents in FT employment	PT employment only	13	8%	28	10%	4	7%	3	4%	1258	10%	1222	10%	
Male 79 50% 122 46% 26 44% 39 49% 7943 51% 7936 51% 7936 51% 7936 51% 7936 51% 7936 51% 7936 51% 7936 51% 7655 49% 7651 49% 765			63%	159	60%	41	69%	56	71%		48%	6352	51%	
Male 79 50% 122 46% 26 44% 39 49% 7943 51% 7936 51% Female 79 50% 145 54% 33 56% 40 51% 7655 49% 7651 49%	Two parents in FT employment	22	14%	40	15%	4	7%	9	11%	3082	25%	3422	27%	
Female 79 50% 145 54% 33 56% 40 51% 7655 49% 7651 49% 4	Gender of child													
Female 79 50% 145 54% 33 56% 40 51% 7655 49% 7651 49% 4		79	50%	122	46%	26	44%	39	49%	7943	51%	7936	51%	
SEN Yes 6 4% 5 2% 2 3% 2 3% 2934 19% 3395 22% No 152 96% 260 97% 57 97% 77 97% 12579 81% 12187 789 Household Income Unsure/prefer not to say 28 18% 58 22% 9 15% 18 23% -													49%	
Yes 6 4% 5 2% 2 3% 2 3% 2934 19% 3395 22% Household Income Unsure/prefer not to say 28 18% 58 22% 9 15% 18 23% -														
No		6	4%	5	2%	2	3%	2	3%	2934	19%	3395	22%	
Unsure/prefer not to say 28 18% 58 22% 9 15% 18 23%													78%	
£1,100 or less per month 20 13% 44 16% 8 14% 8 10%	Household Income													
£1,101 to £1,300 per month	Unsure/prefer not to say	28	18%	58	22%	9	15%	18	23%	-	-	-		
£1,301 to £1,800 per month	£1,100 or less per month	20	13%	44	16%	8	14%	8	10%	-	-	-		
£1,301 to £1,800 per month	£1,101 to £1,300 per month									-	-	-		
£2,501 to £3,500 per month 26 16% 44 16% 7 12% 15 19%	£1,301 to £1,800 per month	18		26				8	10%		-			
£2,501 to £3,500 per month 26 16% 44 16% 7 12% 15 19%		31	20%	33	12%			12	15%		-	_		
£Over £4,500 per month 9 6% 16 6% 3 5% 4 5% -<	£2,501 to £3,500 per month							15		-	-	-		
Use of English P<0.05; Chi-squ=7.72, Cramers V=0.14 Square New Y=0.14 Square New Y										-	-	-	-	
Only English spoken 127 80% 181 68% 46 78% 63 80% 12126 79% 13948 90% English 1st language but others spoken as well 17 11% 49 18% 6 10% 7 9% 2852 18% 1301 8% Household is bi/multilingual 11 7% 30 11% 5 8% 8 10% 452 3% 189 1% IDACI (Respondent Level) (p<0.05; F=4.97; eta=0.19)	•	9	6%	16	6%	3	5%	4	5%	<u> </u>				
English 1st language but others spoken as well 17 11% 49 18% 6 10% 7 9% 2852 18% 1301 8% Household is bi/multilingual 11 7% 30 11% 5 8% 8 10% 452 3% 189 1% IDACI (Respondent Level) (p<0.05; F=4.97; eta=0.19)														
spoken as well 17 11% 49 18% 6 10% 7 9% 2852 18% 1301 8% Household is bi/multilingual 11 7% 30 11% 5 8% 8 10% 452 3% 189 1% IDACI (Respondent Level) (p<0.05; F=4.97; eta=0.19)		127	80%	181	68%	46	78%	63	80%	12126	79%	13948	90%	
Household is bi/multilingual 11 7% 30 11% 5 8% 8 10% 452 3% 189 1%	5 5													
IDACI (Respondent Level) (p<0.05; F=4.97; eta=0.19)													8%	
Mean 0.27 0.26 0.26 0.20 0.23 0.20		11	7%	30	11%					452	3%	189	1%	
	IDACI (Respondent Level)				(p<0.05; F=4.97; eta=0.19)									
Median 0.23 0.21 0.14 0.18 0.13	Mean	0.27		0.26		0.26		0.20		0.23				
	Median	0.23		0.23		0.21		0.14		0.18		0.13		

Appendix A2 - Research Tools Pre-intervention questionnaire

1st BOOKSTART PARENT QUESTIONNAIRE

Introduction

This survey is for research that Sheffield Hallam University is doing for Booktrust, a reading and writing charity.

The questions are to find out how you and your child feel about books, stories and rhymes. The survey is about you and your 3-4 year old child. If you have more than one child aged 3-4 please answer questions about one child who goes to the nursery/pre-school that passed this survey on to you.

The survey will be answered by parents and carers in selected early years settings across England and the results will help inform Booktrust's work. As your child goes to one of these early years settings, we would be grateful if you answer the survey. Parents and carers will be asked to answer the survey twice between September 2012 and January 2013.

Responses are COMPLETELY CONFIDENTIAL. No one will be able to identify you from the research report or the results. This complies with the Data Protection Act.

We do hope that you will complete the survey, your answers are important to us. There are no right or wrong answers, we just want to find out about parents, carers and children reading books, stories and rhymes. Taking part is voluntary; you are free to choose if you want to do the survey or not at any point.

Once you have done the survey please put it in the envelope provided and hand this back to the person that handed this on to you. If you would prefer you can post the questionnaire back to us yourselves in the reply paid envelope, however ideally we would like you to give the survey back to the person that gave it to you so that they can check how many responses they have received. No one will look at your answers to the questionnaire except the research team at Sheffield Hallam University who will treat your responses as confidential.

Please return the questionnaire no later than 12th October 2012.



Section A: About you

PLEASE NOTE that the questions about you and your 3-4 year old child.

A1: We would like to find out whether the statements below are like you or not like you.

Please tick the circle that shows how much each statement is like you. The example shown below shows an 'a lot like me' response for the 'I enjoy completing surveys' statement.

	A lot like me	Quite like me	Not sure	Not much like me	Not like me at all
EXAMPLE: I enjoy completing surveys	\varnothing	0	0	0	0
Sharing books, stories or rhymes with my child is important to me	0	0	0	0	0
I am not sure which books are best for my child	0	0	0	0	0
I encourage my child to make marks on paper with a pen, pencil or crayon	0	0	0	0	0
I talk about books and stories that are linked to TV programmes, films or computer games with my child	0	0	0	0	0
I find reading stories with my child boring	0	0	0	0	0
I feel confident reading stories out loud with my child	0	0	0	0	0
My child is too young for books	0	0	0	0	0
I look forward to spending time reading books with my child		0	0	0	0
I often feel too tired to read with my child	0	0	0	0	0
When we read books together, I encourage my child to choose the book	0	0	0	0	0
When I read a story out loud, I worry that I sound boring to my child	0	0	0	0	0
Reading books with my child is fun	0	0	0	0	0
Being able to read confidently is important in life	0	0	0	0	0
My child and I don't talk about stories, rhymes or books very often	0	0	0	0	0
When I read books with my child I usually choose the book	0	0	0	0	0
Pictures add to fun of sharing books, stories and rhymes with my child	0	0	0	0	0
I am not a confident reader	0	0	0	0	0
When I read books with my child, we talk about the picture	s ()	0	0	0	0
Sometimes, I do not enjoy sharing rhymes with my child	0	0	0	0	0
I talk about signs and numbers in the street with my child	0	0	0	0	0
Giving my child a pen, pencil or crayon makes too much mess at this age	0	0	0	0	0
Spending time reading with my child now will be helpful to him/her when they begin school	0	0	0	0	0



A2: In the last month, please estimate how often the following members of the family have read with your child (please tick all that apply).

child (please tick all that app	ly).			
	Mother/ female carer	Father/ male carer	Another family member	
Every Day	\circ	0	0	
A few times every week	0	0	0	
Once or twice a week	0	0	0	
Less than once a week	0	0	0	
Never	0	0	0	
If your response was 'never' for	or all famil	y membe	rs, please nov	v go to A4
A3: We are interested in the time within the last month.	e of day wh	nen you or	another family	member has read with your child
Could you please provide us	with this de	etail using	the categories	below (please tick all that apply).
	Mother/ female carer	Father/ male carer	Another family member	
Bedtime / evening	0	0	0	
Morning	0	0	0	
Afternoon	0	0	0	
It varies	0	0	0	
A4: How old was your child whe	en you or a	nother fan	nily member fir	st started reading books with them?
Years	Mont	hs old (O Not yet start	ed OUnsure
A5: How old was your child whe	en you or a	nother fan	nily member fir	st started telling stories to them?
Years	Mont	hs old (O Not yet start	red OUnsure
A6: How old was your child whe	en you or a	nother fan	nily member firs	st started sharing rhymes with them?
Years	Mont	hs old (O Not yet start	ed OUnsure
A7: Approximately how many books in the boxes below)	ooks are th	nere in you	ur home? (plea	se write in the approximate number of



		imately how many books does your child own? (please write in the approximate in the boxes below)
A9: At wh	nat age did y	your child own their first book?
	Years	Months old Ounsure
A10: Are	you a mem	ber of a public library?
Yes	0	
No	0	
Unsı	ure O	
A11: Is y	our child a r	member of a public library?
Yes	0	
No	0	
Unsi	ure O	
A12: Hov	v often have	e you visited the library in the last month?
Not	at all	0
Onc	е	0
Twic	ce	0
Thre	ee or more t	imes O
Uns	ure	0
A13: In th	ne last mont	h, have you bought any books for your child?
Yes	0	
No	0	
Unsu	ure O	
		any books have you bought for your child in the last month? (please write in the number of books below)
Γ		books



Section B: About your child

B1: Please fill in the circle that shows how much each of these statements is like your own child.

	Very like my child	Quite like my child	Not sure	Not much like my child	Not at all like my child
My child likes to talk about stories and rhymes	0	0	0	0	O
Books do not interest my child	0	0	0	0	0
My child uses a pen, pencil or crayon to make marks on paper	0	0	0	0	0
My child doesn't often ask for stories to be read to them	0	0	0	0	0
Signs and numbers in the street are interesting to my ch	ild 🔘	0	0	0	0
My child finds it difficult to listen to stories	0	0	0	0	0
My child has a favourite book	0	0	0	0	0
My child chooses books to share with me	0	0	0	0	0
Reading books together is important to my child	0	0	0	0	0
My child likes to look at/follow the words in a story or rhy	me 🔘	0	0	0	0
Sometimes, I don't think my child enjoys reading books together	0	0	0	0	0
My child enjoys songs and rhymes	0	0	0	0	0
My child is happy to get books as a present	0	0	0	0	0
My child knows where a book starts and ends	0	0	0	0	0
I am sure that sharing books, stories and rhymes is fun f	or 🔘	0	0	0	0
My child thinks stories are boring	0	0	0	0	0



Section C: About you, your child and your household

In this section we are interested in collecting details on your household, education and employment. This detail will be valuable for our research and will also help us to assess the quality of the data.

C1:	What is the	age of your child?		
	Year	Month:	s old	
C2:	Is your child	male or female?		
	Male	0		
	Female	0		
C3:	Does your c	hild have any special educ	ational needs?	
	Yes	0		
	No	0		
СЗа	: If yes, wha	t is/are the special educati	onal needs? - p	please provide details in the box below:
C4:	What is you	r relationship to the child?		
	Mother / Ste	epmother / Female carer	0	
	Father / Ste	epfather / Male carer	0	
	Grandmoth	er	0	
	Grandfathe	r	0	
	Other (plea	se state below)	0	1
			our house? (Pl	ease tick boxes that apply)
	No other ad	ults or children	O	
	Mother / Ste	pmother / Female carer	0	
	Father / Step	ofather / Male carer	O	
	Older brothe	er/sister	0	
	Younger bro		0	
	Other (pleas	se state below)	0	1



C6: Is English the only language spoken in your home	or are any	other langua	ages spoken?
Only English spoken	0		
English first / main language but others spoken as we	ell 🔘		
Household is bilingual (or multilingual)	0		
C6a: Apart from English, what other languages are spok	ken? - plea	ase provide d	details in the box below
C7: Within your household, what is the highest level of each parent, where app	olicable)		en completed to date?
	Mother / Step- Mother	Father / Step- Father	
No formal qualifications	O	O	
GCSE / O level equivalents (all below A*-C)	0	0	
At least one GCSE /O level equivalent at grade A*-C	0	0	
Recognised apprenticeship / NVQ	0	0	
GCE / VCE A-levels / GNVQ Advanced or equivalent	0	0	
Diploma in Higher Education	0	0	
University undergraduate degree	0	0	
Postgraduate degree or higher/above	0	0	
Unsure	0	0	
not applicable (no mother / father present)	0	0	
C8: Please tick the main employment status of each pa (Please tick only one box for each parent, where app		er that live in	n your household
(I lease lick only one box for each parent, where app	Mother / Step-	Father / Step-	
	Mother	Father	
In full time employment	O	O	
In part-time employment	0	0	
Unemployed	0	0	
Student	0	0	
Looking after family / home	0	0	
Retired	0	0	
Unable to work due to disability / illness	0	0	
Not applicable (No mother /father present)	0	0	
Other (please provide details)	_ 0	0	



C9: Please estimate the <u>total monthly income (after tax dedu</u> sources including employment and benefits for last month a below.	
£1,100 or less per month (or less than £13,200 per year)	0
£1,101 to £1,300 per month (£13,200 to £15,600 per year)	0
£1,301 to £1,800 per month (£15,601 to £21,600 per year)	0
£1,801 to £2,500 per month (£21,601 to £30,000 per year)	0
£2,501 to £3,500 per month (£30,001 to £42,000 per year)	0
£3,501 to £4,500 per month (£42,001 to £54,000 per year)	0
Over £4,500 per month (over £54,000 per year)	0
Unsure	0
Prefer not to say	0
C10: What is the postcode for your household?	
PLEASE NOTE - this detail is important for the analysis but will in	not be used to contact you.
C11: We need to be able to link your answers in this survey to y in January 2013. To do this we need some detail on who you are.	
Please can you provide a first name and the initial of your surnam for the two surveys?	ne to enable us to link your answers
First name	
Initial of surname	

PLEASE NOTE that your responses in this and in the follow up survey are completely confidential and no one will be able to identify you from the results, reports or data. Your details will only be used to link your answers but your name and initial will not be included on the data file.

Many thanks for your help with this study

FOLLOW UP BOOKSTART PARENT QUESTIONNAIRE

Introduction

Many thanks for completing the survey back in Autumn 2012. For us to be able to complete the study it is very important that you complete this follow up questionnaire, some of the questions are the same so that we can track responses over time. There are also some new questions so that you can tell us your views on the Bookstart Treasure Pack. Thank you for your help with this, your responses are of great value to Booktrust.

This survey should be answered by the **same** parent/carer that filled out the survey back in Autumn, and should be answered about the **same** 3-4 year old child.

The survey will be answered by parents and carers in selected nurseries, playgroups and children's centres across England and the results will help inform Booktrust's work.

Responses are COMPLETELY CONFIDENTIAL. No one will be able to identify you from the research report or the results. This complies with the Data Protection Act.

We do hope that you will complete the survey, your answers are important to us. There are no right or wrong answers, we just want to find out about parents, carers and children reading books, stories and rhymes. Taking part is voluntary; you are free to choose if you want to do the survey or not at any point.

Once you have done the survey please put it in the envelope provided and hand this back to the person that handed this on to you. If you prefer you can post the questionnaire to us in the reply paid envelope. Ideally we would like you to give the survey back to the person that gave it to you. No one will look at your answers except the research team at Sheffield Hallam University who will treat your responses as confidential.

Please return the questionnaire no later than 25th January 2013.

Section A: About you

PLEASE NOTE that the questions about you and your 3-4 year old child.

A1: We would like to find out whether the statements below are like you or not like you. Please tick the circle that shows how much each statement is like you. The example shown below shows an 'a lot like me' response for the 'I enjoy completing surveys' statement.

	A lot like me	Quite like me	Not sure	Not much like me	Not like me at all
EXAMPLE: I enjoy completing surveys	\varnothing'	0	0	0	0
Sharing books, stories or rhymes with my child is importar to me	nt O	0	0	0	0
I am not sure which books are best for my child	0	0	0	0	0
I encourage my child to make marks on paper with a pen, pencil or crayon	0	0	0	0	0
I talk about books and stories that are linked to TV programmes, films or computer games with my child	0	0	0	0	0
I find reading stories with my child boring	0	0	0	0	0
I feel confident reading stories out loud with my child	0	0	0	0	0
My child is too young for books	0	0	0	0	0
I look forward to spending time reading books with my chil	d O	0	0	0	0
I often feel too tired to read with my child	0	0	0	0	0
When we read books together, I encourage my child to choose the book	0	0	0	0	0
When I read a story out loud, I worry that I sound boring to my child	, 0	0	0	0	0
Reading books with my child is fun	0	0	0	0	0
Being able to read confidently is important in life	0	0	0	0	0
My child and I don't talk about stories, rhymes or books very often	0	0	0	0	0
When I read books with my child I usually choose the book	k O	0	0	0	0
Pictures add to fun of sharing books, stories and rhymes with my child	0	0	0	0	0
I am not a confident reader	0	0	0	0	0
When I read books with my child, we talk about the picture	es 🔘	0	0	0	0
Sometimes, I do not enjoy sharing rhymes with my child	0	0	0	0	0
I talk about signs and numbers in the street with my child	0	0	0	0	0
Giving my child a pen, pencil or crayon makes too much mess at this age	0	0	0	0	0
Spending time reading with my child now will be helpful to him/her when they begin school	0	0	0	0	0

	ast month, please es lease tick all that app		often the	following m	embers of the family have read with your
		Mother/ female carer	Father/ male carer	Another family member	
Ever	y Day	0	0	0	
A fev	w times every week	0	0	0	
Once	e or twice a week	0	0	0	
Less	than once a week	0	0	0	
Neve	er	0	0	0	
If your resp	ponse was 'never' f	or all famil	y membe	rs, please	now go to A4
	interested in the tim the last month.	e of day wh	nen you or	another fai	mily member has read with your child
Could yo	ou please provide us	with this de	etail using	the catego	ries below (please tick all that apply).
		Mother/ female carer	Father/ male carer	Another family member	
Bedt	ime / evening	0	0	0	
Morn	ning	0	0	0	
After	noon	0	0	0	
It var	ries	0	0	0	
number	w approximately how of books in the boxe	es below)	ks does yo	ur child ow	n? (please write in the approximate
Yes	a member of a publ	ic library :			
	0				
No	0				
Unsure					
A6: Is your	child a member of a	public libra	ry?		
Yes	0				
No	0				
Unsure	• 0				

A7: How often	nave you visi	ted the library in the last month?			
Not at all		0			
Once		0			
Twice		0			
Three or I	more times	0			
Unsure		0			
A8a: In the las	t month, have	you bought any books for your child?			
Yes	0				
No	0				
Unsure	0				
A8b: If yes, how many books have you bought for your child in the last month? (please write in the approximate number of books below)					
	book	ks			

Section B: About your child

B1: Please fill in the circle that shows how much each of these statements is like your own child.

	Very like my child	Quite like my child	Not sure	Not much like my child	Not at all like my child
My child likes to talk about stories and rhymes	0	0	0	0	0
Books do not interest my child	0	0	0	0	0
My child uses a pen, pencil or crayon to make marks on paper	0	0	0	0	0
My child doesn't often ask for stories to be read to them	0	0	0	0	0
Signs and numbers in the street are interesting to my chi	ld O	0	0	0	0
My child finds it difficult to listen to stories	0	0	0	0	0
My child has a favourite book	0	0	0	0	0
My child chooses books to share with me	0	0	0	0	0
Reading books together is important to my child	0	0	0	0	0
My child likes to look at/follow the words in a story or rhy	me 🔘	0	0	0	0
Sometimes, I don't think my child enjoys reading books together	0	0	0	0	0
My child enjoys songs and rhymes	0	0	0	0	0
My child is happy to get books as a present	0	0	0	0	0
My child knows where a book starts and ends	0	0	0	0	0
I am sure that sharing books, stories and rhymes is fun formy child	or O	0	0	0	0
My child thinks stories are boring	0	0	0	0	0

Section C: A	About the Bookstart Trea	sure Pack					
C1: How did y	our child receive their Books	start Treasure F	Pack?				
Given direc	ctly to my child at the nursery	y/ playgroup/ch	ildren's ce	ntre	0		
	ne and my child at a nursery/ ded with my child	playgroup/child	dren's cent	re event	0		
	ne (or another adult) when my aygroup/children's centre	y child was coll	ected from	1	0		
Other (plea	ase specify)				0		
If you attend please go to	ed an even at your nursery C3	/playgroup/ch	ildren's c	entre plea	ase go to C	2, otherwi	se
C2: Do you ag	gree with any of the following	g statements ab	out the ev	ent?			
			Strongly agree	Agree	Not sure	Disagree	Strongly disagre
It helped me	understand how to use the	Treasure pack	0	0	0	0	0
It encouraged me to read more with my child			0	0	0	0	0
It made me f	eel more confident about rea	ading with my c	hild 🔘	0	0	0	0
It was a good	It was a good chance to talk to staff at the nursery			0	0	0	0
It was a good	d chance to talk to other pare	ents at the nurs	sery O	0	0	0	0
It was not he	elpful to me		0	0	0	0	0
C3: What did	d you think about the quality	of the Booksta	rt Treasure	e Pack ba	g itself?		
Poor	0						
Unsure	0						
Good	0						
C4: Did you	use the following parts of the	e Bookstart Tre	asure Pac	k?			
Two pictur	e books	0					
Pad and c	oloured pencils	0					
"Treasure	: A book of ideas" booklet	0					
Red "My tı	reasure bag of stories" bag	0					

C5: Please say how much you agree of	or disagree with	each of the followin	g statements about	t the books in
the Bookstart Treasure pack:				

, , , , , , , , , , , , , , , , , , ,	Strongly agree	Agree	Not sure	Disagree	Strongly disagree
My child and I read the Bookstart books together	0	0	0	0	0
My child really enjoyed reading the books in the Bookstart Treasure pack	t O	0	0	0	0
My child found the Bookstart books boring	0	0	0	0	0
As we read the books my child was interested to see wha was on the next page	t O	0	0	0	0
The Bookstart books were different to ones I would usual have chosen	lly O	0	0	0	0
My child and I talked about some of the words and picture in the books	es O	0	0	0	0
My child looked at the Bookstart books on their own	0	0	0	0	0
I do not think the Bookstart books were good quality	0	0	0	0	0
My child prefers books where they recognise a popular character	0	0	0	0	0

C6: Please say how much you agree or disagree with each of the following statements about whether you think that the Bookstart Treasure pack has....

think that the Bookstart Treasure pack has					
For me:	Strongly agree	Agree	Not sure	Disagree	Strongly disagree
Helped me bond with my child	0	0	0	0	0
Given me a fun way to spend time with my child	0	0	0	0	0
Increased my access to books	0	0	0	0	0
Encouraged me to read books with my child at a younger age	0	0	0	0	0
Showed me how much my child enjoys books	0	0	0	0	0
Encouraged me to read books with my child as part of my daily routine	0	0	0	0	0
Increased my confidence about reading books with my chi	ld O	0	0	0	0
For my child: Increased my child's interest in books	0	0	0	0	0
Increased my child's enjoyment of books	0	0	0	0	0
Helped improve my child's speaking skills	0	0	0	0	0
Improved my child's ability to concentrate	0	0	0	0	0
Encouraged my child to make marks on paper	0	0	0	0	0

C6: Please use the space below to provide any more detail about the Bookstart Treasure pack that y think is important for us to know.
Section D: About you, your child and your household In this section we are interested in collecting details on your household, education and employment. This detail will be valuable for our research and will also help us to assess the quality of the data.
D1: What is the age of your child?
Years Months old
D2: Is your child male or female?
Male O
Female O
D3: Does your child have any special educational needs?
Yes
No O
D4: What is the postcode for your household?
PLEASE NOTE - this detail is important for the analysis but will not be used to contact you.
D5: We need to be able to link your answers in this survey to your answers to the initial survey in Autumn 2012. To do this we need some detail on who you are.
Please can you provide a first name and the initial of your surname to enable us to link your answers for the two surveys?
First name
Initial of surname

PLEASE NOTE that your responses in this and in the follow up survey are completely confidential and no one will be able to identify you from the results, reports or data. Your details will only be used to link your answers but your name and initial will not be included on the data file.

Many thanks for your help with this study

Appendix 3: List of tables and Figures Table 2.1: Summary of Sample Sizes of families at pre and post-test.

Table 2.1: Summary of Sample Sizes of families at pre and post-test	9
Table 2.2 Composite variables	11
Table 2.3 Composite variables	11
Table 2.4 Outcome areas	12
Table 2.5 - Summary of 13 outcome variables within the 5 outcome areas	13
Table 3.1 Descriptive analyses for perception and child book ownership items	14
Figure 3.1 graphical representation of changes in perception items	15
Table 3.2 Descriptive analysis summary frequency of reading and library use	17
Table 3.3 Father's frequency of reading	18
Table 4.1 How did your child receive the Bookstart Treasure Pack?	19
Figure 4.1 How far parents agree with statements about events attended	19
Table 4.2 Parents views on quality of Treasure Pack itself	20
Table 4.3 Parts of Bookstart Treasure Pack used	20
Figure 4.2 Agreement with statements about Treasure Pack	21
Figure 4.3 Impacts of the Bookstart Treasure Pack for parents	21
Figure 4.4 Impacts of the Bookstart Treasure Pack for child (parent perceptions)	22
Table 5.1 Number of session ideas from the Bookstart Treasure Handbook used	25
Table 5.2 Number of activities from the Bookstart Treasure Handbook sent home?	25
Figure 5.1 Practitioner views on the Treasure Pack	26
Figure 4.12 When gifting the Bookstart Treasure Pack, how often, if at all, do you do the	
following? (%)	30
Table A1 Respondent profile	32
Table A2 Perception outcomes	34
Table A3 Comparison of pre-test distributions	37
Table A3b Summary of pre post-test variables	38
Table A4 Detail of change over time variables	
Table A5 Multilevel models	42

Table A6 Father's frequency of reading	45
Table A7 Comparison to LSYPE data	46