Results of an evaluation of outcomes and impact for FRED

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Executive Summary

Headlines

This evaluation indicates the following:

- The FRED intervention has a positive impact on children's reading, writing and numeracy;
- This impact is greater among children in Year 4 than 1;
- The intervention is particularly successful at engaging and supporting fathers who characteristically are already heavily involved in their children's lives and education. For most men, impact on the level of this involvement, including in reading activity at home, does not change significantly through the intervention. However, it seems to provide a formal structure which contextualises, affirms and celebrates the value of that involvement.
- The targets for achieving improvements in reading, writing and numeracy for 75% of participating children may be inappropriate for this group where activity levels are high. A different recruitment and engagement strategy may be required to reach fathers whose involvement in their children's lives and education is much lower.

Introduction

This report contains an analysis of data produced via an evaluation of an implementation of the Fathers Reading Every Day (FRED) project in 9 primary schools. The intervention aimed to improve educational outcomes for children from deprived communities by helping primary schools engage fathers in their children's learning.

Data were collected pre- and post-intervention, supplemented with process data on reading activity during the intervention period and reflective information from classroom teachers, persons acting as the school link a FRED trainer. Key data sets relate to children's attainment in literacy and numeracy, paternal involvement in children's lives and education and reading behaviours and teachers' assessment of child well-being and behaviour. The purpose of these data sets was to assess impact and outcomes against the following benchmarks:

- Improvement pre to post in children's accuracy, comprehension and rate of reading for 75% of children whose fathers participate in FRED project;
- Improvements pre to post in writing for 75% of children whose fathers participate in FRED project;
- Improvement pre to post in maths for a significant number of children whose fathers participate in FRED project;
- 70% increase pre to post in fathers' time spent reading to children, involvement in children's education;

• And, improvements from pre to post in child behaviour and wellbeing for 75% of participating children.

The evaluation is based on a total sample of 309 children. For 301 of these we have detailed information about their year group showing that 56.8% and 34.6% were drawn from Year 1 and Year 4, respectively. A small number of other participants were drawn from years 2,3,5 and 6. For the 5 schools where we have complete register data, the overall participation rate in FRED was 49.5%. Participation ranged from a high of 80% (Year 4s at Christchurch) to a low of 33.3% (Year 1s at Sudbourne).

Summary of outcomes

We used 'levelling' data derived from teachers' assessment of children's reading, writing and numeracy as our measure of impact. Where a child progressed more than the expected 2 sub-levels during the course of the intervention we recorded this as positive impact. We also compared 'levelling' data for children participating in FRED with their peers who did not.

Using this measure of impact we found the following:

- For children participating in FRED there was marked improvement at above expected levels in reading, writing and numeracy when compared to their peers who did not participate in FRED.
 - Among those children participating in the intervention, 42% made progress to a greater than expected extent in their reading compared to only 10.7% among those children who did not participate in FRED.
 - With respect to writing 20% of children participating in the intervention made progress to a greater than expected extent compared to 15% among non-participants.
 - With respect to numeracy, 22% of children participating in the intervention made progress to a greater than expected extent compared 9% among those children who did not.

With respect to impact on the time fathers spent reading to their children overall we found that frequency of reading was high prior to intervention and stayed fairly static across the intervention period with fathers reading on average for around 5 days in each week. There are indications that for the small numbers of fathers who read very little to their children prior to participation in FRED the time spent reading together increased such that 10% more fathers were reading for an hour a week.

However, 31% of participating fathers perceived that the intervention had led them to read regularly to their child and 28% and 27% pointed to increases in time spent together and quality of that time, respectively. Nearly a quarter signalled

perceptions of benefits to their child's vocabulary and a similar proportion felt that their relationship with school had improved. Teachers and those responsible for linking the intervention to schools also perceived that involvement in the intervention produced positive changes in reading behaviour and attitudes towards reading among participating children.

Issues for consideration

Targeting the intervention: fathers

Data on the demography of the adults and children participating in this iteration of the FRED intervention suggest that it is highly effective at reaching fathers and their sons: the majority of adult participants were men (80%) and around 60% of the children participating in the study were boys. Demographic information for the samples of children and parents show high representation of people from Black and Ethnic Minorities with around 30% of adults and children describing themselves as Black African, Caribbean or British. Around 18% of children and 40% of adults in the sample described themselves as White British, Irish or other European.

However, all the evidence suggests that these fathers are already highly actively involved in their children's lives. The vast majority are resident with their children and among those not living in the family home over half have regular weekly contact with their children. Measures of paternal involvement in their children's education and specifically reading with them prior to intervention suggest an engaged and involved group. The vast majority of participating fathers reported regular engagement in care, nurture and education of their children. Prior to intervention, 90% of fathers reported reading to their children at least once a week. Data on reading at home suggest that reading is common, regular and frequent activity in most households.

This affirms what was found in the evaluation of the previous iteration of the intervention.

It raises a question about the aims of FRED and its plausibility as an intervention intending to reach less engaged fathers with lower involvement in their children's lives and education. Serious consideration needs to be given to targeting, recruitment and intervention strategy and operation if this is to be the intention. Currently, we suggest that FRED works with a particular constituency and this is because it engages with their interests and investment in their children's lives, provides a supportive and validating structure within which that can take place.

Targeting the intervention: children

The evaluation was not geared to allow us to state with absolute certainty why the intervention has differential effects for children in Year 1 and Year 4. This may carry implications for targeting. It may be that by the time children have reached Year 4 fathers have more engagement with them in reading and that practical issues such as time available after work are creating scope for that. It may also be that there are challenges in assessing reading, writing and numeracy levels which are especially keenly felt with respect to Year 1 that make the data less robust.

Methodological issues

While the outcomes of this evaluation suggest that FRED is a feasible, positive intervention particularly for pupils in Year 4 which may be associated with better than expected progress in children's attainment in reading and writing and numeracy there are important methodological and other issues to consider in interpreting these results.

The use of pupil peers in the same schools and classes as comparators for those receiving the intervention produces a high risk of both selection bias and contamination. That is, recruitment is elective and hence it may be that this is why the intervention reaches fathers who are already positively inclined and engaged in their children's lives and education. It is also the case that by using a comparators children within the same classes changes in reading behaviour within School influence everyone albeit more greatly those children involved in FRED

Background and context

Fathers Reading Every Day (FRED) is an evidence-based literacy programme designed to encourage fathers/father figures to read to their children daily. The intervention, developed in the USA, is delivered through schools and implemented by engaging fathers in regular structured reading with their children over a sustained period of time. Evaluation of the US intervention suggests that FRED has a significant impact on the amount of time that fathers spend reading to their children, the number of books read in a fixed period of time and the level of their involvement in their children(s) education. Evidence also suggests that fathers involved in FRED spent more time with their children and enjoyed an improved relationship. Paternal involvement of this kind is understood to be an important contributor to enhancing children's educational attainment and also protective against behavioural problems.

The Fatherhood Institute proposed a pilot of FRED in the UK involving Primary Schools located in areas of marked social deprivation and in which significant numbers of children are failing to meet minimum attainment levels. The intervention targeted fathers of pupils in Year 1 and 2.

This implementation of FRED aimed:

To improve educational outcomes for children from some of the most deprived communities in Salford and London by helping primary schools engage fathers in their children's learning.

This would be achieved by fulfilling the following objective:

Developing and implementing an award winning US family literacy programme, Fathers Reading Every Day (FRED), into primary schools in London and Manchester where children are significantly under achieving.

Scope of intervention

The intervention took place in 9 schools and engaged 309 children.

Expected impact and outcomes

The intervention aimed to achieve the following three stated outcomes:

- Improvements in literacy skills for children whose fathers participate in FRED programme.
- Fathers spend more time reading with and to their children and participating in formal and informal activities.
- Improvements in child behaviour and wellbeing

Benchmarks for impact and outcomes

Specific measurable benchmarks were set for each outcome as follows:

- Improvement pre to post in children's accuracy, comprehension and rate of reading for 75% of children whose fathers participate in FRED project
- Improvements pre to post in writing for 75% of children whose fathers participate in FRED project.
- Improvement pre to post in maths for a significant number of children whose fathers participate in FRED project.
- 70% increase pre to post in fathers' time spent reading to children, involvement in children's education.
- Improvements from pre to post in child behaviour and wellbeing for 75% of participating children.

Mechanisms for evaluation

Assessment of achievement of outcomes was undertaken through a multicomponential evaluation comprising the following:

Outcome 1: Children become more confident and capable readers, to be assessed via existing school assessments – Average points score (APS) collected pre and post. The same data set also provides separate scores for reading, writing and maths

Outcome 2: Fathers spend more time reading with and to their children and participating in formal and informal activities, to be assessed by a four week reading log completed by fathers

Outcome 3: Improvements from pre to post in child behaviour and wellbeing to be assessed via questions in the teacher questionnaire

Data generated via these mechanisms are supplemented by information about perceptions of impact and outcome gleaned from both trainers and teachers via post-intervention survey by self-completion questionnaires.

Scope and content of this report

This evaluation is focused on addressing the impact and outcome of the FRED intervention using data derived from the measures and means outlined above. This is contextualised by presentation of data relating to the sample. Reporting of data in the text is supported by summary tables. Within each section of reporting of results, we have provided a brief commentary. The analysis reported here was undertaken and compiled by Simon Forrest and Trefor Lloyd of Boys Development Project.

The sample

Data are available for 309 children. As table 1 reports, the sample is distributed unevenly between these schools with higher proportion coming from Jubilee, Holy Trinity and Christchurch than St George's and Richard Atkins.

Table 1: Participation of children by school (n=309)

Schoo		
	Number	%
Christchurch	50	16.2
St Georges	9	2.9
Jubilee	60	19.4
Richard Atkins	17	5.5
St Judes	21	6.8
Sudbourne	26	8.4
Wyvil	28	9.1
Holy Trinity	55	17.8
Orchard	43	13.9
Total	309	100

We have information about year group for 301 of these children showing a preponderance of participants were either in Year 1 (n. = 171) or Year 4 (n. = 104) (56.8% and 34.6%, respectively). However, 26 (8.6%) of participating children were reported as being in either Year 2, 3, 5 or 6. Scrutiny of other data sources particularly the names of parents/carers of these children recorded on reading logs suggests that these are siblings of children in the target year group electively involved the FRED programme by their families.

Complete register information including total roll and information about participation in FRED was only available for 5 Schools (Christchurch, Holy Trinity, Jubilee, Orchard and Sudbourne) This showed an overall participation rate in FRED of 49.5%. When broken down by year there is a significant difference with participation rates among Year 1 standing at 61.5% and among Year 4 pupils at 45.6%.

Participation rates ranged from a high in Year 1 of 68% at Orchard School, to a low of 33.3% in Sudbourne. For Year 4 the greatest proportion of participating children were to found at Christchurch (80%) and the lowest at Jubilee (35.1%).

<u>Demography</u>

Children

Data on ethnicity of children participating in FRED was available for 218 children (see, Table 2). These show that the highest proportion of children were recorded as Black African (30.7%) and then roughly equal proportions as Black Caribbean, White British and Other.

Table 2:	Children's	ethnicity
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	Number	%
White British	35	16.1
White Other European	3	1.4
Black Caribbean	24	11
Black African	67	30.7
Mixed	18	8.3
Indian	7	3.2
Arab	9	4.1
Black Other	19	8.7
Other	36	16.5
Totals	218	100

Data on Free School Meals are available for 270 of these children and show that 92 (29.8%) were reported as exercising this entitlement.

Of the 309 children participating in FRED, 41 are reported as having a statement of Special Educational Need with 21 (6.8%) statemented at SA and 20 (6.5%) at SA+.

Fathers/Parents

Data on parental demography of participants in FRED is available for 180 cases (table 3). The categorisation in data collection was more granular than that available for children but collapsing categories (reported in the left hand column of table 3) shows some differences notably in terms of proportions of parents who report themselves as 'white'. Whether this a reporting bias or an artefact of mismatch between available datasets for children and parents in no clear.

		Number	%
White	White British	55	30.6
(43.3%)	White Irish	3	1.7
	White Other	19	10.6
Mixed	Mixed White and Black Caribbean	10	5.6
(7.9%)	Mixed White and Black African	3	1.7
	Mixed White and Asian	1	0.6
South Asian	Asian and British Asian Indian	5	2.8
(5.6%)	Asian and British Asian Bangladeshi	5	2.8
Black	Black or Black British Caribbean	21	11.7
(38.9%)	Black or Black British African	2	1.1
	Black or Black British Other	47	26.1
	Other	9	5
	Totals	180	100

Table 3:Paternal/parental ethnicity

Information on relationship to child was available for 218 parents and carers. The vast majority of respondent providing information identified themselves as male adult figures in the participating children's lives (79.45). Nearly all of these respondents were fathers (73.9%) and a further 4.1% described themselves as stepfathers and 1.4% as grandfathers. 11.5% of respondents were mothers.

Information about residency was provide by 222 parents/carers of whom 89.2% said that they lived with their child(ren). Of the 24 (10.8%) not resident in the family home, 22 provided more detail about contact showing that 2 (9.1%) see their child every day and 12 (54.5%) at least weekly. Three say that they see their child occasionally and 5 an 'other' frequency.

Information about employment status are available for 155 fathers/parents of which the largest proportion at in full-time work (n=101, 65.2%) and further 29 (18.7%) are working part-time. 13 are unemployed (8.4%) and only one described themselves as unable to work. 11 reported 'other' employment status. In these cases additional information provided by respondents indicated engagement in study or self-employment.

Father/parent-child relationships

Data on relationships between fathers/parents and children show a pattern of high levels of engagement and involvement (see Table 4). Data from questions about a range of specific forms of involvement present a consistent picture with around three quarters reporting being involved in the care of the children during the week rising to 85% at weekends. Two thirds are regularly involved in picking up or dropping their child from school and play games with them; and over half regularly take their child to the park.

In contrast, fewer than 1 in 20 report no involvement in any of these activities.

	Regularly		Occasi	onally	Not at all	
	n	%	n	%	n	%
Do you take your child to the park? (n=211)	125	40.5	83	26.8	3	1.4
Do you drop or pick up your child from school? (n=215)	135	62.8	65	21	15	7
Do you play games with your child? (n=201)	137	68.2	58	28.8	6	3
How involved with their care are you in the week? (n=201)	154	76.6	36	17.9	11	5.5
How involved in their care are you at the weekend? (n=200)	2169	84.5	20	10	10	5

Table 4: Paternal/parental involvement in child(ren)'s lives

There is a strong relationship between involvement and happiness. Of the 179 fathers/parents who reported how involved they considered themselves to be with their children 174 (97.2 described themselves as either 'very involved' or 'involved'.

Of the 181 fathers/parents who provided data on happiness in their relationship with their child 147 (81.2%) described themselves as 'very happy'. A further 14.3% (26) were either quite or a bit happy. Only 3.4% of fathers/parents (6) reported that they are either 'not very', 'quite' or 'not at all happy' in their relationship with their child.

There is a similar pattern of reported paternal/parental involvement in children's education. Of the 197 fathers/parents who provided information about attendance at the last parents evening, 98 (49.7%) said that they attended regularly, and a further 24.9% (49) said that they attended 'occasionally' and only 16.2% (50) said that they were 'not at all' involved in this activity.

217 fathers/parents responded to a question relating to use of their local library. Just over half (51.2%, n=111) said that they did use their local library. More detailed data on reading habits was available for 217 parents of whom only 1.8% said that their children were not read to at least once each week by someone and 41.7% (n=91) said that they read to their child 3 or 4 times a week. Calculations of mean averages for weekly reading to children show that on average children were read to by someone 4 times a week and that on average the responding father/parent read to their child 2.7 times a week.

	On averag many time does SOM read to yo	es a week EONE	On averag many time do YOU re child?	
	n	%	n	%
0	4	1.8	19	8.7
1-2	57	26.3	88	40.4
3-4	113	52	91	41.8
5-6	43	19.8	18	8.1
7 or more			1	0.5
Totals	217		217	

Table 5: frequency	of reading to child(ren)
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Commentary

Data collected pre-intervention show a clear picture of high levels of paternal/parental engagement and involvement with children in their everyday lives, education and specifically reading activity. 3 out of 4 fathers/parents are involved in daily caring activity with children rising to 4 out 5 at weekend, nearly 2 our of 3 are involved in the 'school run' and over 90% read to their child at least once a week.

This involvement and engagement extended to education with 74.6% attending parent's evenings on at least some occasions.

The data on 'happiness' about their relationship with their child show more than 95% are happy (with the vast majority' very happy). There was a strong association among the small minority who reported themselves to be unhappy with not being resident with their child. It is plausible that unhappiness amongst this sub-sample is associated with the constraints on contact, which are reflected in lower levels of involvement and engagement with their children suggesting that they are motivated to be engaged but unable to fulfil this aspiration.

It is also worthy of note that these levels of involvement and engagement take place against a background of commitment to work which is typically one of the greatest constraints on paternal involvement in children's lives.

Pre-intervention data relating to reading show that the vast majority of fathers/parents are engaged in reading with their children and a significantly higher proportion are library users than to be found in the adult population as a whole. Library use among the men in this sample exceeds the national average for use of libraries by men by more than a third (51% versus 35.5% in the population of men aged 16-74 as a whole)¹.

Data on reading at home suggest that reading is a common, regular and frequent activity in most households in which children are participating in FRED. The tendency is towards reading taking place on at least half the days in a week and fathers' involvement peaking at around 3-4 times.

FRED reading activity

Information from reading logs week one to four show a trend towards fewer fathers/parents reading (a drop of 15.5%) but the proportions reading for very short periods (up to a total of an hour) increase while those reading for longer periods up to 3 hours in total, decrease. The very small proportions reading for four or more hours a week remain very stable.

Minutes	Week 1		Week	2	Week	3	Week	4
	n	%	n	%	n	%	n	%
1-60	33	22.7	19	13.3	23	17	38	30.6
61-120	66	45.8	66	46.2	46	34.1	43	34.7
121-180	26	17.8	31	21.7	34	25.2	20	16.1
180-240	16	11.0	21	14.7	27	20	19	15.3
240+	4	2.7	6	4.4	5	3.7	4	3.6

Table 6: Minutes read per week (FRED reading log)

¹ DCMS (2012) Taking Part: The Nationa16I Survey of Cult16ure, Leisure and10 Sport7.1. CIPFA, Public Library Statistics, December 2012

Totals 145 143 135 124

The pattern is enriched by scrutiny of records of number of days on which reading took place (table 7). Although these too show fewer fathers/parents reading in each week and a decrease in the proportions reading on four or more days this is coupled with an increase in the proportions reading on 2 or 3 days in a week. The proportion reporting reading every day remains very similar at weeks 1 and 4 at around 45%. The average number of days on which they read for each week are: in week 1, 5.2 days; in week 2, on 5.8 days; in week 3 on 5.6 days; and, in week 4 on 4.9 days.

Days	Week 1		ays Week 1 Week 2 V		Week 3		Week 4	
	n	%	n	%	n	%	n	%
1	14	9.2	3	2	8	5.7	11	8.7
2	5	3.3	8	5.4	9	6.4	18	14.2
3	14	9.2	7	4.8	10	7.1	15	11.8
4	19	12.5	15	10.2	10	7.1	9	7.1
5	17	11.2	17	11.6	13	9.3	6	4.7
6	16	10.5	16	10.9	10	7.1	10	7.9
7	67	44	81	55.1	80	57.1	58	45.7
Totals	152		147		140		127	

Table 7: Days on which father/parent read per week (FRED reading log)

Sub-group analysis in which we disaggregate the data from reading logs for children in Year 1 and Year 4 showed no statistically significant differences in the broad trends to be found in the aggregate data. That is that numbers of fathers reporting reading declines over the four week intervention period, that the amount of time reading declines overall as does the number of books averagely being read but that these changes operate against a background in which the levels of frequency of reading were quite high and remained so throughout the intervention.

Commentary

Taking data in table 6 and 7 together suggests two distinct trends. First that among fathers/parents who read very little, of whom they are very few indeed, there is an upturn in both occasions and quantity of reading with children. There is, for example, a steep rise the proportion of fathers/parents reading on up to 2 days.

Second, that paternal/parental reading at the other end of scale (most days) during the FRED intervention period tails off over the four weeks with respect to the numbers of parents reading, the number of days on which they read and, after a upwards turn between weeks one and three, the number of minutes being read. Data on the number of books being read in each week shows a tendency towards those who sustaining reading activity to read fewer titles but what seem to be longer texts. Inspection of the listing of titles in reading logs does show both novels and other longer texts creeping into the logs in weeks 3 and 4 and which were not present in earlier weeks. This is particularly the case among fathers/parents who are reading longer and on higher proportion of days in the week.

Impact and outcomes

Improvements in literacy skills for children whose fathers participate in FRED programme

- Improvement pre to post in children's accuracy, comprehension and rate of reading for 75% of children whose fathers participate in FRED project
- Improvements pre to post in writing for 75% of children whose fathers participate in FRED project.
- Improvement pre to post in maths for a significant number of children whose fathers participate in FRED project.

Data relating to changes in children's pre and post-intervention reading are drawn from routine assessment and recording of 'levelling' data by classroom teachers. Our benchmark for evidence of impact is a change of more than 2 sub-levels in attainment between the start and end of the academic year within which the intervention took place.

Data related to reading are available for 224 children who participated in FRED. Using this measure of impact 130 (58%) of these children achieved attainment at levels to be expected without additional intervention. 94 (42%) achieved at a higher than expected level.

Data related to writing are available for 227 children who participated in FRED. Using this measure of impact 182 (80.2%) of these children achieved attainment at levels to be expected without additional intervention. 45 (19.8%) achieved at a higher than expected level.

Data related to numeracy are available for 184 children who participated in FRED. Using this measure of impact 143 (77.7%) of these children achieved attainment at levels to be expected without additional intervention. 41 (22.3%) achieved at a higher than expected level.

A comparative measure is provided by data relating to children in the same classes who did not participate in FRED. We have data for 252 cases from 5 schools (Christchurch, Holy Trinity, Jubilee, Orchard and Sudbourne). Among these case the numbers and proportions achieving more than expected attainment were lower with only 27 (10.7%), 37 (14.7%) and 22 (8.7%) progressing more than 2 sub-levels in reading, writing and numeracy, respectively.

Sub-group analysis: schools

A sub-group analysis by school suggests considerable variance with more than expected progress according to changes in attainment sub-level. With respect to writing this ranges as high as 51% of the children involved in FRED in Jubilee School to only 2% in Holy Trinity. This means that 10% of all the positive change in the sample on this outcome measure is are accounted for in one school.

The degree of variance between schools is even greater for attainment in reading and numeracy with 72% of participating at Richard Atkins School achieving at more than expected levels compared to only 21% and Christchurch for reading and 67% of children at Sudbourne and no children at Holy Trinity achieving at higher than expected levels in numeracy.

Sub-group analysis: year group

Sub-group analysis by year group reveals that data related to reading among Year 1 pupils is available for 129 children who participated in FRED. Using progress by more than 2 sub-levels as the measure of impact, 80 (63%) of these children achieved attainment at levels to be expected without additional intervention and 47 (37%) achieved at a higher than expected level in reading

Data related to writing among Year 1 pupils is available for 129 children who participated in FRED. Using progress by more than 2 sub-levels as the measure of impact, 96 (74.4%) of these children achieved attainment at levels to be expected without additional intervention and 33 (25.6%) achieved at a higher than expected level.

Data related to numeracy among Year 1 pupils is available for 105 children who participated in FRED. Using progress by more than 2 sub-levels as the measure of impact, 87 (82.9%) of these children achieved attainment at levels to be expected without additional intervention and 18 (17.1%) achieved at a higher than expected level.

With respect to children in Year 4, and again using progress by more than 2 sublevels as the measure of impact, 36 (45%) of these children achieved attainment at levels to be expected without additional intervention and 44 (55%) achieved at a higher than expected level in reading.

Data related to writing is available for 81 children in Year 4 who participated in FRED. 71 (87.7%) of these children achieved attainment at levels to be expected without additional intervention and 10(12.3%) achieved at a higher than expected level.

Data related to numeracy among Year 4 pupils is available for 76 children who participated in FRED. Using progress by more than 2 sub-levels as the measure of impact, 55 (72.4%) of these children achieved attainment at levels to be expected

without additional intervention and 21(27.6%) achieved at a higher than expected level.

Commentary

It is plausible that the differential effects by school are at least in part an artefact of the differences in numbers of children involved in FRED by school site. However, further research would be required to establish if there are also other local contextual factors which are influencing this outcome. It might be, for example, that differentials reflects the extent to which classroom practice around reading, writing and numeracy differs.

The reasons for differences in impact by year group are also not clear. It may be that by the time that time that children reach Year 4 there is more scope for practical reasons for paternal involvement in reading or that there is an artefactual element to the difference reflecting the challenges in accurately assessing children's attainment levels especially at the beginning of Year 1.

Fathers spend more time reading with and to their children and participating in formal and informal activities.

 70% increase pre to post in fathers' time spent reading to children, involvement in children's education.

Data on pre- and post- intervention reading habits are available for 73 fathers/parents. These show that for 30.7%, (n=23) the number of times that they read to their child each week remained unchanged. For 28% (n=21) it increased by one occasion a week and for 21% (n=16) by two or more.

In relation to the target of 70% increase in father's time reading to children we have therefore demonstrated that for 49% of the sample for whom data are available, an increase was achieved.

The average increase pre-post intervention in number of parental/paternal occasions reading takes place in a week was 0.6.

The data relating to pre-post measure of frequency that 'someone' reads to their child is highly congruent and confirmatory of this shift. For 72 people for whom we have data there was an increase the proportion saying that someone reads to their child of 37.7%. Of these people, 21% reported the increase was by one occasion of reading per week and the remaining 17% by two or more occasions.

Data on paternal/parental involvement in education pre and post intervention were only available for 64 people. For half of these (50%. N=32) there was no reported change in perceptions of involvement but just over a quarter (26.6% n=17) reported an increase their involvement. Interestingly, 23% reported perceiving that they had less involvement in their child(ren)s education. The reasons for this are not known but may be associated with increased awareness of the scope for educational involvement arising from exposure to and engagement with the School via FRED.

Table 8 reports parental perceptions of other areas of positive impact with respect to their relationship and engagement with their child(ren). There is general tendency here for around between 1 in 5 and 1 in 4 responding parents to indicate a range of positive outcomes associated with FRED. Notably, 31% perceived that the intervention had led them to read regularly to their child and 28% and 27% pointed to increases in time spent together and quality of that time, respectively. Nearly a quarter signalled perceptions of benefits to their child's vocabulary and a similar proportion felt that their relationship pwith school had improved.

'could you let us know what you thought of the FRED programme?'	% (yes)
Got me reading to my child regularly	31.4
Increased the time I spent with my child	28.5
Helped me to get to know my child better	20.4
Improved the quality of the time I spent with my child	27.8
Helped me become more involved in my child's education	24.6
Led to improvement in my child's vocabulary	24.3
Led to improvements in child's ability to count	14.2
Helped my child to learn to read	20.4
Increased my satisfaction level as a parent	24.9
Improved my relationship with my child	20.4
Improved my relationship with my child's school	23.6

Table 8: Parental perceptions of positive impact of FRED participation on theirrelationships and engagement with school

• Improvements from pre to post in child behaviour and wellbeing for 75% of participating children.

The evaluation included no specific measures to allow assessment of this target. However, data relating to parental/paternal perceptions of degree of happiness in their relationship with their child show that for 74.6% (n=44) of the people who provided response to this question pre and post intervention, this was unchanged. For a small proportion (13.6%, n=8) it increased by one or more points and for a similar proportion (11.9%, n=7) it decreased by one or more points.

Responses from 12 classroom teachers representing 5 schools (Christchurch, St Jude's, Jubilee, Holy Trinity and Orchard) to questions about impact on children's

welling-being and behaviour also provide some relevant qualitative impressions with regard to this outcome. Nine of these teachers reported that they had seen changes in the behaviour of children involved in FRED. Only two of them reported any impact on behaviour and then at a low level, 5 reported 'a lot' of impact on attitudes to reading and a 6 some impact on attitudes towards school.

Eight of these staff reported via 'free text' elaborative comment that the impact on behaviour was directly to discerned with regard to reading noting, for example, that children were more engaged and eager to read, more confident and in some cases selecting more challenging reading matter.

The feedback from school link persons is relevant here. On the specific issue of improving children's behaviour these respondents were equivocal providing responses that suggested some but limited impact.

However, they also noted that the FRED intervention achieved the following:

- A context for more interaction between children and fathers;
- A focus for the interaction (reading);
- A means for bringing some of that interaction into school and thereby involving fathers more actively in school and contact with teachers;
- Raised the profile of reading (at home and school);
- And, attracted/provided resources in the form of books.

But also that:

Mounting the intervention requires investment of time and energy and careful organisation;

And, structural factors such as work commitments, poverty and disadvantage impact on the scope for paternal involvement with school.

Commentary

Data suggest that participation in FRED had clear positive impact on reading attainment. Among those children participating in the intervention 42% made progress to a greater than expected extent compared to only 10.7% among those children who did not participate in FRED.

With respect to writing, these was again evidence of positive with 20% of children participating in the intervention made progress to a greater than expected extent compared to 15% among non-participants.

With respect to numeracy, 22% of children participating in the intervention made progress to a greater than expected extent compared 9% among those children who did not.

However, the intervention did not achieve outcomes at the level targeted of improvements at above expected levels for 75% of participants. One explanation for this may be that room for increases to this extent with respect to these measures is somewhat limited because pre-intervention data show that most parent/fathers for whom there are data are already engaged in this activity.

Discussion

This evaluation can be best summarised as indicative that FRED is a satisfactory and accessible intervention, understood, supported and valued by fathers and schools and for which we have emerging evidence of positive impact on children's attainment in reading, writing and numeracy which is distinctive from that among peers who do not participate FRED.

However, there are significant amounts of missing data from the evaluation, flowing from the challenges of implementing a multi-point data collection strategy in the complex environment of primary schools. One effect of this is that for almost of quarter of the sample we have no end-point data which could theoretically account for all the differentials in effect discerned in the measures of impact. Claims made for the results of this evaluation must be properly contextualised within this limitation.

These data are highly suggestive that this intervention reached fathers/parents who are demographically representative of the localities in which the project was implemented and, in the case of fathers/parents also already engaged and involved in their children's lives and education. This engagement seems to have characterised by an interest and some involvement in reading and to an extent that limited scope to move towards an average of 15 and then 30 minutes reading day over the four weeks of logged reading since it was often already taking place.

The intervention seems to have provided structure for this, context, by making an explicit link for fathers between reading at home and children's education and activity in school, and, in some cases, supporting them in sustained and slightly increased activity in terms of amount of reading.

Importantly, in qualitative terms, this was regarded as extremely valuable by fathers/parents. 217 of them provided some commentary/reflection on their involvement with FRED (via the exit survey), which is strongly suggestive of the nature of benefit. This benefit falls into three kinds each of which were mentioned by around one third of the fathers providing free text commentary:

 Benefits to their child(ren) in terms of reading resulting in enhanced communication skills, vocabulary and/or confidence and pleasure in reading:

'my daughter improved her reading and she learns more vocabulary'

'increased my child's ability to read much more fluently'

'increased vocabulary, inspired reading, improved pronunciation and improved memory'

• Benefits to fathers who felt more engaged and involved in active support of their child(ren)'s development:

'FRED helped me to spend more time with my kids'

'it gave me a special time something solely for the father was appreciated by both [father and child]'

'made me take a bigger share of the reading'

'showing me that reading with my children is more fun than I thought'

'we spent more time doing something different with him which was nice change and he is proud'

'my husband got more involved in my children's reading thanks to FRED'

• Benefits to both in terms of enhancing closeness and the mutual investment in a shared activity as context for further bonding:

'it help fulfil and improve the time that I spent with my child'

'It was really good and I spent some time with my daddy reading which I mostly do with my mum'.

'I liked the fact that it was our time. We had a laugh and a chat'.

FRED was seen as catalytic for these outcomes primarily because it provides a combination of three things:

• A coherent and accessible structure to reading activities with children:

'FRED encourages me to read with my child'

'you make dedicated time for reading'

'that I gave one-to-one reading top billing with regard to family priorities'

• Resources to support this activity:

'improving English because she got the books to read from FRED'

• And, FRED values and privileges fathers' involvement:

'it is a wise and robust idea for us fathers to be involved in our children's learning'

'it was something special. We loved the events and it puts father and child together'

The feedback from trainers, classroom and link teachers supports these findings.

Conclusions and recommendations

- There is emerging evidence that participation in FRED may produce greater than expected progress in children's reading, writing and numeracy attainment.
- Fred has potential to support enhanced paternal involvement in schools around children's reading.
- It may be most effective at reaching those already involved and engaged with their child(ren)'s education and adding value to this
- It is a feasible and proportionate intervention for schools to engage with
- The intervention warrants further evaluation through a fully randomised, controlled trial or other experimental design which reduces the risks of selection bias and contamination.