The impact of Reading Recovery five years after intervention

A report for the Every Child a Reader Trust

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Contents

Summary ......................................................................................................................................................... 3
Acknowledgements ......................................................................................................................................... 3
Background ..................................................................................................................................................... 4
The current evaluation ..................................................................................................................................... 4
Method ............................................................................................................................................................ 5
  The Sample ................................................................................................................................................ 5
  Measures of literacy ..................................................................................................................................... 7
  The case studies........................................................................................................................................... 8
Findings............................................................................................................................................................ 8
  Baseline - Autumn 2005 ................................................................................................................................. 8
  Follow-up Summer 2012 ................................................................................................................................. 10
  Special Educational Needs status .................................................................................................................. 12
  The Case Studies ......................................................................................................................................... 14
Discussion ...................................................................................................................................................... 21
Conclusions .................................................................................................................................................... 22
  Appendix 1 .................................................................................................................................................. 24
  National Strategy Sublevels: point score equivalents ................................................................................. 24
Summary

Reading Recovery is part of the Every Child a Reader strategy to enable children to make a good start in reading. Reading Recovery is well known to have impressive effects in the shorter term but less is known about its long term effectiveness. The present study followed up at the end of Year 6: 127 comparison children, 77 children who had received Reading Recovery five years earlier and 50 children in Reading Recovery schools who had not receive Reading Recovery. The children who had received Reading Recovery had made significantly greater progress in English than the comparison children by the end of Year 6, achieving on average a National Curriculum Level of 4b compared with a borderline between Level 3 and 4 in the comparison group. Comparison children in the Reading Recovery schools were also significantly out-performing the comparison in non Reading Recovery schools on the reading test. 78% of Reading Recovery children achieved Level 4 in English compared with 62% in the comparison group in non Reading Recovery schools and 64% for the comparison children in Reading Recovery schools. There was a tendency for Reading Recovery children to be receiving less SEN provision than children in the other two groups, but this only reached statistical significance for those on School Action Plus or a Statement. This suggests that the substantial gains which result from receiving Reading Recovery in Year 1 continue to deliver a significant advantage for those children at the end of the primary phase, providing a surer footing for transition to secondary school.

Acknowledgements

Children’s National Curriculum Assessments were kindly provided by the schools involved and we want to thank them for all their help. The original schools have been supporting this research since 2005 and not only provided National Curriculum Assessments information for this report but also helped us to trace children who had moved. New schools coped with all the issues of establishing our bona fides and informing parents of the study. Not one school refused to help us. Special thanks are due to the four case study schools who gave generously of their time and welcomed our researchers. Helen Mirelman and Lesley Zuke designed and conducted the case studies with skill and tenacity and we wished to thank them too. Finally, parents, especially case study parents, also gave their permission and their time, without which the study would not have been possible.
Background

One of the key tasks of schooling is to ensure that children become confident readers and writers, able to access the curriculum and to be prepared for the myriad of demands on their literacy skills in adult life. It is now widely accepted that children with reading difficulties should be offered early intervention and this is supported by the evidence of its short-term effectiveness (eg. Wasik & Slavin, 1993; Torgesen, 2000; National Reading Panel, 2000). Early intervention offers an opportunity to prevent a widening gap between poor readers and their peers as they move through school (Stanovich, 1986; Chall, 1983). Without action, poor readers read less than their peers (Allington, 1984; Biemiller, 1977-78; Clay, 1967; Juel, 1988), which in turn holds back their language development, their general knowledge and even their IQ.

The aim of Every Child a Reader (ECAR) is to target those with reading difficulties (mostly living in poverty) and make sure that they are as literate as their normally progressing peers. To promote this aim, Reading Recovery was made more widely available during the period of this study (2005-2011). Reading Recovery is an intensive one-to-one reading programme aimed at children in their second year of schooling who are not making satisfactory progress in literacy even after high quality classroom instruction. Evidence from the literature (Hurry & Sylva, 2007) and from a study conducted by Burroughs-Lange & Douetil (2006) demonstrates the impressive effectiveness of Reading Recovery to raise reading levels for children with difficulties, both immediately post-intervention and at the end of Key Stage 1. ‘Every Child a Reader’ schools also use the Reading Recovery teacher’s expertise to support the effectiveness and monitoring of a range of interventions aimed at meeting all children’s literacy learning needs.

However, there is a shortage of information on the durability of the gains made during early interventions. This information is important in order to plan a strategy which ensures that children at risk of reading difficulties maximise their potential at the end of Key Stages 2, 3 and 4. The early developmental stages of literacy acquisition are critical in determining later success. However, other factors will also exert their influence on developing children, such as their cognitive and linguistic abilities, their behaviour and environmental factors relating to home and school. The purpose of the study reported here is to provide much needed information on the longer term effects of the early intervention, Reading Recovery, and to explore the experience of the child with early reading difficulties as they move through primary school.

The current evaluation

The current evaluation started in 2005, with a sample of London six year olds who had made a slow start in literacy. Children who had received Reading Recovery (N=87) were compared with similar children who attended London schools where Reading Recovery was not offered (N=147). The results of this evaluation have been reported as the children reached the end of Year 1 (Burroughs Lange & Douetil, 2006); Year 2
(Burroughs, 2008) and Year 4, where comparison children in Reading Recovery schools were also included (Hurry and Holliman, 2009). The children receiving Reading Recovery had made significantly greater progress than the comparison group at all three of these follow-ups.

We now report on a further follow-up as the children reach the end of Year 6. We have used children’s end of Year 6 National Curriculum Assessments to assess the longer term impact of Reading Recovery on reading, writing and maths. In addition, we have conducted some mini-case studies to give some insight into the broader range of issues implicated in the longer term effectiveness of early literacy intervention.

**Method**

The design is a long-term evaluation comparing the literacy attainments of children who received Reading Recovery with children of similar literacy levels who did not. Children were assessed at the beginning of Year 1 (September 2005), selected children received Reading Recovery, all children were re-assessed at the end of Year 1 (July 2006), at the end of Year 2 (July 2007), at the end of year 4 (June-July 2009) and at the end of Year 6 (July 2011). The present study reports on the children in the original study as they complete Year 6 (age 10 to 11 years), five years after the end of the intervention.

**The Sample**

*The London boroughs*

The 10 London boroughs selected for the Reading Recovery and comparison samples are among the lowest achieving in England, with very high proportions of children entitled to free school meals. These school contexts have been shown to be among the hardest for raising the achievements of the very lowest groups. In 2005, five London boroughs had Reading Recovery provision in some of their schools. In most cases this was re-activated or extended to enable a half time Reading Recovery teacher to work in selected schools through funding from the Every Child A Reader pilot. The five other London boroughs were selected to form the comparison group because they were similar in population characteristics and KS1 achievement levels. Their involvement was sought because they were to be among Local Authorities (LAs) beginning to implement Reading Recovery in 2006-7 when they would have access to Reading Recovery teacher training.

In September 2005 in the five LAs with Reading Recovery, on average 8.2% of children were achieving below the competency of a 7-8 year old, (Level 3) at the end of KS2 when they were 11, with a range from 6.6% to 9.5%. The five LAs with no schools with Reading Recovery averaged 8% of children below Level 3, with a range of 7.2% to 9.8%. This shows that the authorities were well matched in terms of overall levels of underachievement at the end of primary schooling. Both groups included some schools with much larger numbers achieving below that level. These were the schools that were recruited for the study.
The Schools
In five London boroughs, 21 infant and primary schools were identified, who in 2005-6 had a Reading Recovery teacher providing literacy intervention in Year 1. In five London boroughs where no schools had any Reading Recovery teaching, 21 schools were nominated by the LA as of most concern for high numbers of children with poor performance in literacy. An earlier report (Burroughs-Lange & Douetil, 2006) documents that schools were similar in terms of: uptake of free school meals; number of children with English as an additional language; school size and; attainment of year 1 children in September 2005. In these 42 schools the eight children considered lowest in literacy, and their Year 1 classes, formed the sample for this evaluation.

The Children
The previous Reception teachers, current Year 1 class teachers and school records were consulted to identify the eight children in each class whose progress in literacy learning was of most concern.

Assessment tools were selected to measure a range of early literacy skills in reading, writing and phonic skills. The standard Reading Recovery diagnostic profile (An Observation Survey of Early Literacy Achievement, Clay 2002, Denton, Ciancio & Fletcher, 2006) and the British Abilities Scales (BAS) Word Reading Test II (BAS, Elliott, Smith & McCulloch,1996) were used to assess the 8 lowest achieving children in Year 1 (292 children; 145 in 21 RR schools, 147 in 21 comparison schools). This literacy profile assesses concepts about print; letter knowledge; known words in writing and phonic analysis for writing; continuous text reading in books; and word reading in isolation.

The Observation Survey (OS) and BAS word reading test were administered individually to each of the lowest achieving eight children in a quiet space away from classroom distractions. It usually takes about half to three quarters of an hour to complete each child’s assessment. All research assistants were Reading Recovery teachers previously trained in OS assessment procedures including administering the BAS word reading test.

It was not possible to offer Reading Recovery to all the children in Reading Recovery schools. Of the 145 children in Reading Recovery schools, 87 received Reading Recovery, 58 did not. The selection of children to receive Reading Recovery is made by the class and Reading Recovery teachers, informed by children’s performance on the assessments and on age (older of lowest achieving children are often taken first).

Children were followed up in July 2006, July 2007, July 2009 and July 2011. Table 1 shows the number of children assessed at each wave. By the end of Year 6, in addition to the original 42 schools, children were traced to a further 63 schools. However, 38 children were untraced, representing an attrition of 13% from the original sample. There were similar attrition rates in each of the three groups: 13.6% in the comparison group, 11.5% in the Reading Recovery group and 13.8% in children in Reading Recovery schools who did not receive the intervention. Since the 2011 follow-up was conducted using the National Pupil Database it is likely that many of these untraced children had
moved out of England. Comparison between traced and untraced children is presented in the Findings section below.

### Table 1: Number of children assessed at each follow-up point, by intervention condition.

<table>
<thead>
<tr>
<th></th>
<th>Baseline (Sept. 2005)</th>
<th>1&lt;sup&gt;st&lt;/sup&gt; follow-up (July 2006)</th>
<th>2&lt;sup&gt;nd&lt;/sup&gt; follow-up (July 2007)</th>
<th>3&lt;sup&gt;rd&lt;/sup&gt; follow-up (July 2009)</th>
<th>4&lt;sup&gt;th&lt;/sup&gt; follow-up (July 2011)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Comparison children</td>
<td>147</td>
<td>141</td>
<td>140</td>
<td>120</td>
<td>127</td>
</tr>
<tr>
<td>Reading Recovery children</td>
<td>87</td>
<td>87</td>
<td>86</td>
<td>73</td>
<td>77</td>
</tr>
<tr>
<td>Comparison children in RR schools</td>
<td>58</td>
<td>54</td>
<td>51</td>
<td>48</td>
<td>50</td>
</tr>
<tr>
<td>Total</td>
<td>292</td>
<td>282</td>
<td>177</td>
<td>241</td>
<td>254</td>
</tr>
</tbody>
</table>

**Measures of literacy**

At baseline (September 2005), as reported above, children were assessed on the OS and the BAS word reading test. To enable analysis, a summary score has been calculated for the sub-tests of the OS, in the form of a z score, that is with an average score of 0 and a standard deviation of 1. Book Level (part of the OS) is reported separately. Children were also assessed on a word recognition and phonic skills measure (WRAPS, Moseley 2003).

At first follow-up (July 2006) children were re-assessed on the same assessments.

At second follow-up (July 2007) children were assessed on the BAS word reading test, the WRAPS and Progress in English 7 (Kispal, Hagues & Ruddock, 1994). In addition, Yr 2, end-of-key-stage National Curriculum Assessments were collected for all the children through the National Pupil Database.

At third follow-up (June-July 2009) end of Year 4 teacher-assessed National Curriculum sublevels were collected from individual schools for all children. These were informed by pupils’ performance on the Year 4 Optional SATs tests which were used in 80 of the 82 schools contacted.

At fourth follow-up the results of Key Stage 2 assessments were harvested from the National Pupil Database, a database which combines the examination results of English pupils with information on pupil and school characteristics. In this report we used the following data to measure children’s attainment: children’s scores on the end of Key Stage 2 National Curriculum tests for English reading and writing (which includes spelling) and for Maths; Teacher Assessments, expressed in National Curriculum
Levels, for English and Maths. Data on the children’s Special Needs Status was also harvested.

Background data was collected on each child at baseline, on: uptake of free school meals; English as an additional language; gender; age.

The case studies
In order to explore the views of children, parents and teachers, and to gain further insight into the longer-term consequences of early literacy intervention, mini-case studies were conducted in four of the original schools, two Reading Recovery, two non Reading Recovery. In 2009, schools were considered for selection where the majority of the sample children were still attending the school. The schools were reasonably well matched on intake (Table 2, school names are aliases). The same schools were followed up in 2011.

Table 2: Case study schools

<table>
<thead>
<tr>
<th></th>
<th>% Free School Meals</th>
<th>% English Additional Language</th>
<th>On roll</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Reading Recovery</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Agincourt</td>
<td>26</td>
<td>47</td>
<td>350</td>
</tr>
<tr>
<td>St Patrick’s</td>
<td>40</td>
<td>50</td>
<td>300</td>
</tr>
<tr>
<td><strong>Non Reading Recovery</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bosworth</td>
<td>33</td>
<td>57</td>
<td>250</td>
</tr>
<tr>
<td>Nuthatch</td>
<td>42</td>
<td>39</td>
<td>300</td>
</tr>
</tbody>
</table>

In each school researchers spoke to children from the original sample, their class teachers, the SENCO, the Reading Recovery teacher (where relevant) and parents (where possible). Fifteen children were interviewed in school (4 in St Patrick’s, Bosworth and Nuthatch and 3 in Agincourt). Twelve parents were interviewed on the telephone (4 in Nuthatch, 3 in St Patrick’s and Bosworth and 2 in Agincourt). Other parents either did not agree to be interviewed or were not contactable.

Questions were asked about children’s reading in the following areas: their enjoyment, confidence, reading in and out of school, their ability, any extra help with reading or other areas of the curriculum. Researchers also asked children to read from their reading book.

Findings

Baseline - Autumn 2005
As previously reported (Burroughs-Lange & Douetil, 2006), the children in this study tended to be economically disadvantaged, with just over half taking free school meals,
and to have English as an additional language (48%) (Table 3). The majority were effectively non-readers at baseline, 50% not scoring at all on the BAS word reading and 81% either not reading or only able to read the most basic level books, such as the one illustrated below. They did have some skills in place, such as some letter knowledge, early concepts about print and so forth.

Table 3: Baseline characteristics of sample children traced in 2011

<table>
<thead>
<tr>
<th></th>
<th>% Free School Meals</th>
<th>% English Additional Language</th>
<th>BAS wr Mean (sd)</th>
<th>% at or below Bk level 1</th>
<th>OS Z score Mean (sd)</th>
<th>WRAPS score Mean (sd)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Comparison children (N=127)</td>
<td>59%</td>
<td>55%</td>
<td>1.65 (3.0)</td>
<td>91%</td>
<td>-.052 (.97)</td>
<td>10.7 (5.9)</td>
</tr>
<tr>
<td>Reading Recovery children (N=77)</td>
<td>39%</td>
<td>47%</td>
<td>2.60 (3.1)</td>
<td>72%</td>
<td>.035 (.81)</td>
<td>11.3 (6.1)</td>
</tr>
<tr>
<td>Comparison children in RR schools (N=50)</td>
<td>54%</td>
<td>35%</td>
<td>1.79 (3.8)**</td>
<td>69%</td>
<td>-.028 (1.26)</td>
<td>12.1 (10.2)</td>
</tr>
<tr>
<td>Total (N=254)</td>
<td>52% *</td>
<td>47%</td>
<td>1.96 (3.2)</td>
<td>82.5% *</td>
<td>.0 20 (.99)</td>
<td>11.2 (7.0)</td>
</tr>
</tbody>
</table>

* p<.05
** 3 children were removed from this analysis as outliers.
Of the children able to be traced at end Key stage 2, there were significant baseline demographic differences between the three groups on uptake of free school meals (chi-square=7.86, 2, p<.05), a lower proportion of the Reading Recovery group taking free school meals. The groups were generally well matched on baseline literacy measures. The Comparison children were more likely to be at Book Level 1 or 0 than the other two groups (chi-square=7.44, 2, p<.05). However, this is a crude measure at baseline as most children are reading at Book Level 1 or below. On the more sensitive measures for children at this level, the Observation Survey and the WRAPS, there were no significant differences. For the Observation Survey scores were standardised to a mean of 0, so positive scores show higher than average scores, negative scores lower than average scores.

Any group differences were controlled for in all the analysis of the children's progress. Reassuringly, the children who were untraced did not differ significantly from those traced, either on demographic factors or literacy levels.

**Follow-up Summer 2012**

At the end of Year 6, comparison children (N=127), comparison children in Reading Recovery schools (N=50) and ex-Reading Recovery children (N=77) were compared. Figure 1 shows the percentage of children at each National Curriculum (NC) Level, for each of the groups. The ex-Reading Recovery children were more likely to have achieved the desired Level 4 (78%) then either the comparison children from non Reading Recovery Schools (62% reaching Level 4) or the comparison children from Reading Recovery schools (64%). Only 3 (4%) from the Reading Recovery group failed to reach Level 3 compared to 13% and 12% for comparison children from non-RR schools and RR schools respectively.
As evident from Figure 1, the National Curriculum Levels provide only a fairly crude differentiation as they are not inflected. Children’s scores on the End of KS2 tests show a more detailed picture (Table 5).

Group differences were tested for statistical significance using multiple regression, controlling for any group differences at baseline (OS score, BAS score, Book level, free school meals and English as an additional language).

Table 5: Mean scores on the end of Key Stage 2 National Curriculum tests for English reading and writing and for Maths

<table>
<thead>
<tr>
<th></th>
<th>Reading (max 50)</th>
<th>Writing (max 50)</th>
<th>NC Level</th>
<th>Maths (max 100)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Comparison children (N=126)</td>
<td>Mean 21.5 (sd 11.43)</td>
<td>Mean 21.38 (sd 10.03)</td>
<td>Mean 3.99 (sd .79)</td>
<td>Mean 53.78 (sd 20.94)</td>
</tr>
<tr>
<td>Reading Recovery children (N=76)</td>
<td>Mean 26.27 (sd 9.29)</td>
<td>Mean 25.0 (sd 8.1)</td>
<td>Mean 4.31 (sd .64)</td>
<td>Mean 60.77 (sd 19.01)</td>
</tr>
<tr>
<td>Comparison children in Reading Recovery schools (N=50)</td>
<td>Mean 26.6 (sd 14.47)</td>
<td>Mean 23.41 (sd 11.57)</td>
<td>Mean 4.26 (sd .93)</td>
<td>Mean 58.11 (sd 25.15)</td>
</tr>
</tbody>
</table>
The Reading Recovery children were still doing significantly better in reading ($\beta=.191$, $p<.005$), effect size (Cohen’s d) = .39) and writing ($\beta=.162$, $p<.013$, effect size (Cohen’s d) = .33) than the comparison children in non Reading Recovery schools. They were also scoring significantly higher on their maths test ($\beta=.154$, $p<.036$, effect size (Cohen’s d) = .31). However, they were not significantly better than the comparison children from the Reading Recovery schools on any of the measures (reading, writing or maths). Indeed the comparison children from Reading Recovery schools, ie. those that were poor readers at six but did not receive the programme, were also doing significantly better in reading than the comparison children from non RR schools ($\beta=.222$, $p<.002$, effect size (Cohen’s d) = .24).

In terms of National Curriculum Levels, on average Comparison children were attaining Level 3.99, Reading Recovery children Level 4.31, and comparison children in Reading Recovery schools Level 4.26.

**Special Educational Needs status**

At baseline, in terms of special educational needs (SEN) there was only data available on children with statements. Twenty-three children had statements at that time (7.8%): 5.4% of the comparison group, 11.5% of the Reading Recovery group and 8.6% of the comparison children in Reading Recovery schools. Between group differences were not statistically significant. However, there was a tendency for Reading Recovery children to be under-represented in the lowest scoring quartile on the baseline Observation Survey, as illustrated in Figure 2. The means on the Observation Survey at baseline are similar in each of the three groups but the middle 50% (the shaded area of the box) are more tightly bunched in the Reading Recovery group. Levene’s test for homogeneity of variance was statistically significant at the .01 level (Levene’s statistic = 5.932), confirming the different variance in the three groups.
In 2011, when the children were at the end of Year 6, only 5.5% (n=14) of the children had a statement of special educational need but many more were on stages one (school action) or two (school action plus) of the Special Needs Code of Practice, just over half overall (51%) (Table 6). There was a tendency for Reading Recovery children to be less likely to be on any of the SEN stages than children in the other two groups, but this only reached statistical significance for the those on School Action Plus or a Statement (chi-square=6.51, df=2, p<.05). The most marked difference was between Reading Recovery children and the comparison children from RR schools, who were twice as likely to be on School Action Plus or have a statement than the Reading Recovery group.
Table 6: Special Educational Need Status at the end of Year 6

<table>
<thead>
<tr>
<th>Status</th>
<th>Comparison children (N=127)</th>
<th>Reading Recovery children (N=77)</th>
<th>Comparison children in RR schools (N=50)</th>
</tr>
</thead>
<tbody>
<tr>
<td>No special needs status</td>
<td>47% (n=60)</td>
<td>56% (n=43)</td>
<td>42% (n=21)</td>
</tr>
<tr>
<td>School action</td>
<td>26% (n=33)</td>
<td>26% (n=20)</td>
<td>20% (n=10)</td>
</tr>
<tr>
<td>School action plus</td>
<td>22% (N=28)</td>
<td>16% (n=12)</td>
<td>26% (n=13)</td>
</tr>
<tr>
<td>Statement of SEN</td>
<td>5% (n=6)</td>
<td>3% (n=2)</td>
<td>12% (n=6)</td>
</tr>
</tbody>
</table>

The Case Studies

The purpose of the case studies is to give some insight into the range of issues associated with children’s literacy progress, particularly at this challenging transition point from Primary to Secondary school. The results of our interviews are reported thematically.

**Literacy progress**

Consistent with the data presented for the sample overall, most of the children were at Level 4 or above in English, 11 out of 15. All the children who had received Reading Recovery were at Level 4 or above, even one child who had been referred rather than discontinued. All four of the children who did not achieve Level 4 attended non Reading Recovery schools. Three of these four were from Nuthatch and they all had quite severe problems. None of them had been entered for the SATs in Year 6 as they were judged by their teacher to be below Level 3. At baseline in Year 1 they were all in the bottom 20% of this sample of children, all of whom had reading difficulties, two of them were in the bottom 10%. In practice this meant that they were not ‘functionally literate’, being unable to read correctly words such as ‘wheel’, ‘stood’ and ‘turned’ and being severely limited in what they could write. An example of a book that one of these children, Luke¹, was reading is Tents (Figure 2). A sample of Andy’s writing is as follows:

“Dire bruvre (Dear brother), can I cume and live with you I haven’t got a haws (house) eny more…..I got sum mony (I got some money)

¹ All the children’s names are aliases.
Reading
Looking first at reading, the case studies provided an opportunity to look at children’s attitudes to reading and their reading habits. Most reported that they liked reading, although they did not always read much outside school. Their taste in books varied, with some being avid readers of ‘chapter books’ whilst other liked graphic novels. Even Willy, who reported in Year 4 that although he liked his Reading Recovery sessions ‘found out there were lots of boring books in the world’ assured us in Year 6 that he would ‘always find time for a graphic novel’. Only the three children who were below Level 3 were, understandably, rather negative. For example, when asked if he enjoyed reading Luke explained ‘I don’t enjoy books you can’t read and you can’t understand’, although his mother reported that he liked people reading to him.
Writing
Feelings about writing were slightly less positive, though over half the children told us they liked writing. Worries about spelling were frequently voiced and there were also concerns about handwriting. Children, their teachers and their parents mainly talked about the skills associated with writing, rather than the creative and communicative dimensions, in contrast with their talk about reading where they talked about enjoyment and engagement. In a typical example, Marcus at St Patrick’s said he found writing difficult, but expanded on this that, ‘I am not good at spelling’. However, the examples of children’s writing did involve a creative dimension, for example, Bernardo (Level 4), also from St Patrick’s write the following ‘newspaper expose’:

“The Ricky News can tell you that we’ve discovered that children 11-18 are destroying the railways, causing problems to the conductors, who are running after them like lunatics”

At the school level, Agincourt, where there was concern about children’s writing, set up the Rocket Writing Club which ran for 13 weeks for an hour after school on Fridays. Children judged to need support with their writing were encouraged to attend. All the children in our case study went to this after school club. They were given a range of creative experiences and worked on not only handwriting and punctuation but also vocabulary and communication.

In terms of comparing Reading Recovery with non-Reading Recovery schools, the Rocket Writing Club offered by Agincourt (Reading Recovery school) was reported as helpful by children, teachers and parents and an example of innovative good practice by the member of our research team who visited the school. This may be a testament to the thoughtful focus on literacy throughout the school. However, this was not so clearly evident in the other Reading Recovery school. The three children from the non-Reading Recovery School, Nuthatch, who were below Level 3, had very serious problems with their writing. Their handwriting was fine but grammar and spelling made much of their work very difficult to read, even for them.

Language
Language emerged as an important factor in children’s progress in English, in part because of the substantial proportion for whom English was an additional language (47%). Five of the 15 children were on School Action or School Action Plus because of language issues.

The reading and writing of a number of the EAL children was still being affected in Year 6 by limited vocabulary and grammar. In Reading Recovery schools Freddy’s parents spoke Dutch and Yuroba at home. He still required support in speech and language to enhance his vocabulary. Mia’s parents could speak little English and Mia’s reading comprehension was undermined by her limited vocabulary and her writing was
adversely affected by her grammar. Max’s speech and language difficulties were also seen as problematic, though these were not so clearly related to his EAL status.

In non-Reading Recovery schools, Gulshan’s mother spoke very little English and it was apparent from both Gulshan’s speech and writing that English was additional language, even after seven years in school. For other children, EAL status was not associated with any language difficulties. For example, in Bosworth, Mustafa, whose Kurdish mother spoke little English, was in the top 2 of the class achieving Level 5s across the board. These differential effects of children’s EAL status are no doubt a consequence of the children’s ability with language, socialising and their family’s practices. It was nonetheless striking how many of the EAL children in our case studies continued to have underdeveloped English language, inevitably influencing their reading comprehension and writing.

In Nuthatch, Dixon was in the bottom 2\textsuperscript{nd} percentile for language. He had serious problems with ‘glue ear’ as a small child and a lisp and has had intermittent help with language. Dixon was judged to be below level 3 at Year 6 and will be attending a secondary school with a special unit for children with learning difficulties.

The importance of the fact that language issues so frequently seemed to underpin children’s progress in reading and writing reminds us of the need to take a broad approach to literacy tuition in primary school. One advantage of the one to one tuition offered by Reading Recovery is its flexibility which allows the tutor to work on aspects of literacy which are most concern, including language, rather than providing a more constrained and prescribed intervention. This was commented on by the RR tutor at Agincourt, with reference to Mia, for whom English was an additional language.

*Primary school provision*
There were a range of issues relating to school provision.

*Comparing Reading Recovery and non-Reading Recovery schools at Year 6*
In one of the Reading Recovery schools, Agincourt, the focus on literacy and the identification of children who needed additional support was still evident in Year 6. The writing support provided by the Rocket Club, described above, is an example of this and the school had been found ‘good with some outstanding features’ by OFSTED.

In the other Reading Recovery school, St Patrick’s, from the perspective of the parents, this continuing literacy support was less apparent. Whilst in both schools parents still had very positive views of the value of Reading Recovery for their children, in St Patrick’s, two of the four mothers interviewed felt that since then there had been too
little support for their children. Michael’s mother remarked that ‘Reading Recovery was brilliant and he liked the lessons, but since then the school has slacked’. In common with the other Reading Recovery children sampled, Michael achieved a Level 4 in English at the end of Key Stage 2, but his mother felt that this was due to a private tutor. Michael had been on School Action for much of his time in the junior school because of general learning difficulties. Max’s mother considered that Max’s reading had greatly improved but that he still had problems with writing and spelling. She complained that she had spoken to the school about this ‘many times’ but that ‘they are never going to give enough support, they say there are too many children who need extra help’.

St Patrick’s were reluctantly about to stop Reading Recovery because of the expense. However, the Reading Recovery teacher would continue to be deployed to support good literacy practice throughout the school. She worked with groups of children across the school to promote literacy. She worked closely with the literacy co-ordinator on Guided Reading, on levelled reading books. She also disseminated aspects of Reading Recovery to class teacher. As in Agincourt, the school levelled books to help ensure that children were reading texts that were accessible to them but challenging. This illustrates the potential school effect of having a trained Reading Recovery teacher on the staff.

A lack of levelled books was observed in Bosworth, one of the non-Reading Recovery schools, resulting in some of the case study children reading books that either did not challenge or were too difficult. Even in Year 6 this is an issue for less able readers. Given the absence of early intervention in these schools, perhaps surprisingly, the parents were appreciative of the extra help their children had received, particularly in Nuthatch. All the Nuthatch parents interviewed commented that the school had been supportive. For example, Luke’s mother was very appreciative of the extra support Luke had received in Year 6 for his reading and writing. ‘He still needs a lot of help but he is definitely improving’. Andy’s mother too thought that he had received a lot of support from the school in last two years, that this had helped his reading, his enjoyment of school and had given him more confidence. However, three of these four children were leaving primary school at Level 2 in English.

**Additional Support in Year 6**

Of the 15 children who participated in the case studies, 10 (two thirds) had a recognised SEN (Table 7). Six were on School Action, four on School Action Plus. As to be expected this had some impact on the extra help received. In Nuthatch, all the case study children were either on School Action or School Action Plus and all were receiving extra help in Year 6, mainly of an individual nature, but the classroom teacher had also been advised on management strategies. These children all had problems with literacy, none achieving Level 4. In Agincourt, where all the case study children had achieved Level 4, those on School Action or School Action Plus had received some individual
support in Years 5 and 6 but were also benefitting from group sessions and classroom teachers were supported, for example by the Speech and Language Team (SALT). In Bosworth too, those on School Action had received some individual support, though this had only really been forthcoming in Year 6 through a government initiative to help children who were borderline Level 3, Level 4. Zitar, who only achieved Level 3, had not received any other additional help in Years 5 and 6 despite being on School Action. The children in St Patrick’s on School Action were receiving little additional help. They were taught in a group of 17, all with lower literacy skills. The only extra support they received was sometimes being heard to read by their teacher or TA. This tends to support the comments made by parents at this school that support was not offered to children with identified difficulties.

Once children’s level of literacy skill was taken into account there was no clear difference between the Reading Recovery and the non Reading Recovery schools in terms of additional support provided in Year 5 and 6, but the Reading Recovery children in these case studies were doing better on the whole and had less need.

Table 7: Extra support offered in Case Study schools

<table>
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| Agincourt | A Tracker System was introduced in 2009, which follows every child & highlights SATs progress twice yearly. For those not making progress there is a highly structured process in place to provide support. Considered by school to be working well “all our RR children have achieved Level 4 in classes of 30.” Targeted children in Year 6 were invited to join the Rocket Writing club 1hr x 13 weeks.  
Feddy Level 4a, SA+² (speech and language). Has had continuing support from the SALT team, including advice for class teacher, Rocket Writing,  
Willy Level 4, no extra help, doing very well  
Mia Level 4c, SA (language). Rocket Writing, TA support in Maths, 1:1 tuition after school.³ |
| St Patrick’s | Bernardo Level 4a, doing well, top literacy group, no extra help needed.  
Michael Level 4c, SA (general learning difficulties). He is in the Smaller and lower of the two literacy groups (N=17). Sometimes reads alone to TA.  
Max Level 4, SA (mainly behavioural difficulties but also speech and language). He is in the lower literacy group (N=17). Reads alone to teacher or TA. |

² SA = School Action, SA+ = School Action Plus  
³ 1:1 was offered in a number of schools. This was a government sponsored initiative to provide additional support to children in Year 6, deemed to be on the borderline of Level 3 and Level 4.
<table>
<thead>
<tr>
<th><strong>Non RR</strong></th>
<th><strong>Danny</strong> Level 4a, has made ‘exceptional progress’. No extra support needed.</th>
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<tr>
<td><strong>Bosworth</strong></td>
<td>Many children in the class with behavioural and learning difficulties <strong>Bergita</strong> Level 3, SA (general learning difficulties). 1:1 with SEN teacher and Gulshan 2 x 45 mins. weekly from January to SATs. No other additional help – needs a full assessment. <strong>Zitar</strong> Level 4, SA (BESD(^4) and learning). In Yr 5 she attended a group for language development, using Talking Pictures, 1 or 2 x weekly for 30 mins. with TA which helped her spoken English and comprehension. In Yr 6 she had 1:1 with SEN teacher and Zitar <strong>Gulshan</strong> Level 4, SA (BESD(^4) and learning). In Yr 5 she attended a group for language development, using Talking Pictures, 1 or 2 x weekly for 30 mins. with TA which helped her spoken English and comprehension. In Yr 6 she had 1:1 with SEN teacher and Zitar <strong>Mustafa</strong> Level 5. Doing very well, top of the class.</td>
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<tr>
<td><strong>Nuthatch</strong></td>
<td>Many children with additional needs. Classes small = 18. All the case study children but Barat were judged below Level 3 and did not sit SATs. <strong>Matthew</strong> Below Level 3, SA+ (MLD). High level of support throughout years at school – withdrawn from lessons 20-30 mins. x 3 weekly + reads aloud daily to teacher or TA. Sessions focussed on phonics using structured reading scheme Sounds Write with phonic oriented books in Dandelion, Totem and Talisman series. The class teacher was critical of this as she considered that after Year 4 will not benefit from “more of the same”. <strong>Alex</strong> Below Level 3, SA+ (ASD, ? dyslexic). 1:1 with reading teacher in Yrs 4 &amp; 5 2 x 30 mins. weekly – lots of phonic support <strong>Barat</strong> Level 3a, SA (EAL). He used to have 45 mins. weekly with a small EMAS group with TA but no longer needs this. His teacher uses a classroom strategy to improve concentration. He had the government sponsored 1:1 support of 1hr. 15mins. After school in Year 6. <strong>Mason</strong>, Below Level 3, SA+ (MLD). In addition to in-class support he went out 2 or 3 x weekly for 30 mins. with SEN teacher</td>
</tr>
</tbody>
</table>

The nature of additional support was frequently phonics based. One teachers was critical of this, remarking that if children had not been helped through a phonics approach by the end of Year 4 they would not benefit from ‘more of the same’. However, another teacher felt she would appreciate guidance on how to teach phonics in Year 5 and 6. Teachers did remark that some children who had not been identified as having early reading difficulties did start to manifest comprehension difficulties in Year 5 and 6 and that support for those struggling with comprehension in these year groups was important.

*Coping in secondary*

\(^4\) BESD = behavioural, social and emotional difficulties; ASD = Autistic Spectrum Disorder; MLD = mild learning difficulties
An issue for children at the end of Key Stage 2 is whether or not they are ready for secondary school. For most of the case study children there was little expressed concern. Even for those children at Level 3 or below, there was some positive anticipation. Max, already had friends at his secondary school and was looking forward to it. Dixon’s mother was looking forward to his transfer to a school with a unit for children with learning difficulties. However, Luke and his mother were anxious. Luke feared being bullied and his mother worried because of his learning difficulties. Following a meeting at her secondary school, Zitar’s father was very concerned that she would find most of the work too difficult. Teachers were also concerned about Gulshan’s transfer, but this was more because of her behaviour difficulties rather than her literacy, where she had achieved Level 4.

Discussion

At the end of Key Stage 2, children who had received Reading Recovery in Year 1 were still doing significantly better in reading and writing and also maths than those who attended schools where Reading Recovery was not available. On average Reading Recovery children were around a third of a National Curriculum level ahead in both English and Maths. This difference can also be expressed as an effect size (we have used Cohen’s d) which is useful because it enables comparison across different kinds of intervention. The Reading Recovery effects reported for the end of Year 6 are substantial for long term effects, equivalent or greater than those reported for other long-term follow-ups (Bus and van Ijzendoorn (1999); Byrne, Fielding-Barnsley and Ashley (2000). Effect sizes for reading, writing and maths were .39, .33 and .31 respectively. Hattie (2012) suggests that an effect size of .40 is the ‘hinge-point’ for identifying what is and what is not effective in educational interventions. The effect sizes observed in this follow up study fall below this hinge-point, but in the case of reading, only just, and these are effect sizes evident five years after intervention. Effect sizes immediately after Reading Recovery were much larger and three years later were .46 in reading and .41 in writing (Hurry and Holliman, 2009). Almost all of the effects referred to by Hattie are short-term. In eight studies reviewed by Bus and van Ijzendoorn (1999) which examined long-term effects of phonics instruction (average a year and a half after intervention), effect sizes for word reading averaged .16, for spelling .25 and for reading comprehension. For their phonological training, Byrne, Fielding-Barnsley and Ashley (2000) reported effect sizes of between .33 to .39 on word and non-word reading after six years.

The case studies support the findings from the quantitative study. The Reading Recovery children had all achieved Level 4, compared with only half of the children from comparison schools. The case studies also illustrated the range of other factors which exert a continuing influence on children’s reading and writing. In particular, children’s
language skills were impacting their reading and writing, both for those with English as an additional language and for native speakers. This supports the value of providing a broad literacy curriculum in primary school.

The comparison children from the Reading Recovery schools also made significantly better progress than the comparison children from non-Reading Recovery schools, but only in reading, and with a smaller effect size (.24). The fact that even the comparison children from Reading Recovery schools made significantly better long-term progress than similar children in non Reading Recovery schools is consistent with reports that having a Reading Recovery teacher in the school enhances the literacy offer across the school. It is also consistent with the 'layered approach' of Every Child a Reader (ECaR) being implemented in the Reading Recovery Schools, quality first teaching, group interventions and one-to-one teaching. Our case studies did reveal some difference between Reading Recovery and non Reading recovery schools in terms of approaches to literacy. For example, the practice of providing levelled books, to assist a good match between a child’s ability and their reading material, was evident in the Reading Recovery schools and not the comparison schools. Reading Recovery teachers were being deployed to support teachers’ literacy teaching across the schools. However, there was also variation between the two Reading Recovery schools.

At the end of Year 6, just over half of the case study children were on at least stage one of the Special Needs Code of Practice (School Action). Reading Recovery children were significantly less likely to be on School Action Plus or have a statement than children in the other two groups. As illustrated by the case studies, having a special educational need is associated with requiring individual and other specialist and additional support.

As these children prepared to move to secondary school, most of those we spoke to in the case studies liked reading but tended to lack confidence in their writing skills. Mostly they were looking forward to transfer but concern was expressed for two of the four children who did not achieve Level 4 and one other was going to a special unit.

**Conclusions**

These findings indicate that effects of Reading Recovery are still apparent at the end of Year 6 and that even the children who attended Reading Recovery schools but were not offered the programme benefited somewhat from the ECaR programme.
References


Appendix 1

National Strategy Sublevels: point score equivalents

<table>
<thead>
<tr>
<th>Level</th>
<th>Point score</th>
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<tbody>
<tr>
<td>1c</td>
<td>7</td>
</tr>
<tr>
<td>Level 1</td>
<td>9</td>
</tr>
<tr>
<td>1b</td>
<td>9</td>
</tr>
<tr>
<td>1a</td>
<td>11</td>
</tr>
<tr>
<td>2c</td>
<td>13</td>
</tr>
<tr>
<td>Level 2</td>
<td>15</td>
</tr>
<tr>
<td>2b</td>
<td>15</td>
</tr>
<tr>
<td>2a</td>
<td>17</td>
</tr>
<tr>
<td>3c</td>
<td>19</td>
</tr>
<tr>
<td>Level 3</td>
<td>21</td>
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</table>
Many schools are finding that by assessing pupils using National Curriculum sublevels on a regular basis, pupils who are making less than satisfactory progress are quickly identified and support for them can be given. A common way of dividing the National Curriculum levels is the use of an a, b, c indicator:

- a – represents strong level;
- b – represents sound level;
- c – represents a weak level.

So a pupil would progress from a 1a, into a 2c, then 2b to a 2a.

This table provides a handy reference to look up point score and level/sublevel equivalents.

Caution should be used with sublevels as the National Curriculum level was designed to indicate representative attainment at the end of a key stage, a sublevel only gives a indication of the certainty of this achievement but can be extremely useful in identifying progress and support requirements. For calculation purposes some schools have represented levels as decimalised values.