Boosting reading@primary and the impact on word reading; Bristol 2015-16

Background 1.1

Boosting Reading is a targeted, time limited, one to one intervention that is used from year 1 to year 9. As a reading intervention, it focuses on the use and application of key skills whilst reading continuous text. Data suggests that it is a highly effective programme, pupils typically make reading age gains of over 12 months during the 10 week intervention a ratio gain (RG) of more than 1:5. For evidence of impact to be statistically significant and ‘useful’*, RG needs to be more than 1:2. The programme is robust, data from the *Boosting reading 2014 data report* indicates; reading age gains of 14.2 months (RG 1:6), accuracy gains of 13.8 months (RG 1:6), word reading gains of 6.7 months (RG 1:2.9) and rate of reading gains of 8.3 months (RG 1:3.7). The largest impact appeared to be on comprehension with remarkable gains of 18.3 months (RG 1:8). Boosting reading appears to have a significant impact in all areas of reading.

This report seeks to further explore the effectiveness of Boosting reading in accelerating the acquisition of word level skills across the primary phase by analysing data from 2015-16 from Bristol Education Authority.

Bristol has been implementing boosting reading@primary (BR@P) for many years. To our knowledge it is the largest implementation in the country. Data for this report was collected from 1026 pupils in 28 primary schools across the authority. Historically Bristol implemented BR@P as part of Every Child a Reader (ECaR), providing wider intervention training to schools accessing Reading Recovery. Reading Recovery Teachers are licensed to administer and score the British Ability Scales, word reading (BAS) and the authority has collated a complete dataset from participating schools each academic year.

This dataset includes number of weeks in programme. Some pupils had either significantly shorter or longer programmes than the 10 week BR@P model. The inclusion of such data might impact on ratio gains and affect reliability; pupils with programme of less than 7 and more than 14 weeks were discounted for calculating overall word reading gains, year group comparisons etc. The impact of programme length, using the complete dataset, is however discussed later in the report.

The report examines overall impact on word reading and considers:

- Gender
- Different age groups
- Language and ethnicity
- Special Educational Needs (SEN)
- Pupil premium
- Programme length

* Greg Brookes in What Really Works for Pupils with Literacy Difficulties- Fifth Edition 2016 defines ratio gains of 1:2 as useful, 1:3 substantial and 1:4 or above remarkable. This terminology has been used in deference to gains throughout the report.
Outcomes 1.2

Overall

657 pupils completed BR@P with a programme length of between 7 and 14 weeks. The average programme length was 10 weeks and the average number of lessons 22.2. These pupils made ‘substantial’ word reading gains of 7.1 months. A RG gain of 1:3.1

Gender

Information was available for 366 boys and 288 girls, 654 pupils in total. Both groups made very similar progress with girls made gains of 7.2 months and boys made gains of 7 months. Both group made RG 1:3

Year group

Information for word reading age gains across age groups, was available for all 657 pupils. All age groups made significant progress. Results are shown below, by age group(fig 1) and by RG (fig2). Bristol has a history of early intervention and numbers were larger in Key stage(KS) 1 and Lower KS2. The dataset for year 6 is very small, 12 pupils. The pupils appear to have made phenomenal progress but due to the size of the dataset any conclusions would need to be very tentative. These pupils were drawn from five different schools. It is interesting to note, however, that pupils across years 4, 5 and 6 made ‘remarkable’ gains with RG of 1:4, 1:5.1 and 1:10.8 repectively.

<table>
<thead>
<tr>
<th>Year</th>
<th>Pupils</th>
</tr>
</thead>
<tbody>
<tr>
<td>Y1</td>
<td>225</td>
</tr>
<tr>
<td>Y2</td>
<td>207</td>
</tr>
<tr>
<td>Y3</td>
<td>104</td>
</tr>
<tr>
<td>Y4</td>
<td>58</td>
</tr>
<tr>
<td>Y5</td>
<td>51</td>
</tr>
<tr>
<td>Y6</td>
<td>12</td>
</tr>
</tbody>
</table>

BR@P word level gains in months
Bristol 2015-6

(fig1)
Language and ethnicity

Information about ethnicity was made available for 523 pupils, representing 11 different ethnic groups, of these White British was the largest at 346. All ethnic groups made significant progress. There was some variation between groups but analysis by each group’s ethnicity is problematic due to some datasets being very small. When results of White British pupils and all other ethnic groups are compared, White British pupils made gains of 6.6 months, RG 1:2.9 and other ethnic groups made nearly a month’s greater average progress with gains of 7.5 months, RG 1:3.3.

Information about language was provided for 636 pupils. Of these 437 spoke only English and 198 had English as an Additional language (EAL). Results for both groups were similar. English Language speakers made 6.8 months progress, RG 1:3, with pupils speaking EAL making 7.4 months, RG 1:3.2

Special educational needs

Information was available for 453 about SEN status. Only 2 pupils were undergoing formal assessment, 100 pupils were receiving school support and 351 were listed as without SEN. The pupils without SEN made gains of 6.7 months, RG 1:2.9 those receiving SEN support made gains of 5.9 months, RG 1:2.6.

Pupil Premium

282 of the cohort were in receipt of pupil premium and 374 were not, data was not available for one pupil. Gains were similar and ‘substantial for both groups but pupils in
receipt of pupil premium made greater RG of 0.3. The gains were 7.4 months, RG 1:3.3 and 6.8 months, RG 1:3 respectively.

Programme length

Pupils with very long or short programmes were excluded from the final dataset as comparative gains could not be reliably assessed. When the data from those pupils with programmes of less than 7 weeks was analysed however evidence of significantly accelerated progress was noticed. The subset had an average programme length of 4.2 weeks and made gains of 3.6 months, RG 1:3.6. The decision was then taken to examine the complete dataset and consider the possible impact of varying lengths of programme. Impact was examined from 0-5 weeks (average 4.8 weeks), 6-10 weeks (average 9.4 weeks), 11-15 weeks (average 13.2 weeks) and 15-20 weeks (average 18.8 weeks). Actual gains made in months can be seen below (fig3)

<table>
<thead>
<tr>
<th>Weeks in Programme</th>
<th>Number of Pupils</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-5</td>
<td>164</td>
</tr>
<tr>
<td>6-10</td>
<td>605</td>
</tr>
<tr>
<td>11-15</td>
<td>129</td>
</tr>
<tr>
<td>16-20</td>
<td>62</td>
</tr>
</tbody>
</table>

It is of more use however to compare the RG of the differing programme lengths. Whilst gains are significant for all programmes, gains are 'substantial' for 0-5 and 6-10 weeks and reduce to 'useful' for 11-15 and 16-20 weeks (fig4)
Conclusions 1.3

BR@P is a highly effective reading intervention with ‘remarkable’ gains evidenced in overall reading. The evidence from this dataset suggests BR@P also has a ‘substantial’ impact on the acquisition of word reading skills, with average gains of 7.1, RG1:3.1.

All groups of pupils who accessed BR@P made significant progress. Boys and girls appear to benefit equally as do those pupils who speak EAL and pupils who speak only English. Those pupils whose ethnicity is not White British appear to have made marginally greater progress with an increased RG score of 0.4. Those pupils who are not identified with SEN made slightly greater gains with an increased RG score of 0.3. Pupils in receipt of pupil premium made slightly greater gains with a differential of RG of 0.3.

The programme highlights significant accelerated gains across all year groups. Whilst conclusions need to be tentative, it appears that, in years 4, 5 and 6, in respect of word reading, BR@P may be a very effective programme for boosting skills with ‘remarkable gains noticed.

It is interesting to note the effect of programme length. Ratio gains for programmes up to 10 weeks are ‘substantial’. If a full 10 week programme is accessed pupils might be expected to make gains of 7.1 with RG of 1:3.3. In longer programmes the rate of progress, whilst still significant, appears to reduce by x1 or more. (A similar pattern of attainment re programme length was noted in Boosting Reading Report 2014/ Appendix 1)

On examination of the available evidence (453 pupils), extended programmes for pupils with SEN doesn’t appear to account for this discrepancy. Only 7% of 102 pupils with SEN accessed a longer programme, compared to 17.6% without SEN. This reduction in RG may be useful for schools to consider when implementing BR@P. Further questions need to be asked. What is the balance of benefit to the pupil against cost in extended programmes? Might pupils be making even greater gains in comprehension when word reading skills are
more secure? If this pattern of attainment in word reading, what might be the impact of extended programmes on overall reading gains? Further research and access to more complete datasets are need to address these questions.

Appendices

The appendices contain additional data that provides further insight into the efficacy and impact of Boosting Reading. The evidence was not included in the main body of the report because the evidence could not be easily matched to the complete data set.

Appendix 1

Pupils discounted from the word reading subset

Short programmes

83 pupils had programmes of 6 or 7 weeks in length and a significant group of 226 pupils had programmes of 5 weeks or less. These pupils were discounted from the wording reading subset. On average this group made 4.1 months progress. The largest subset in this group (5 weeks or less) made on average progress of 4 months. The programme is clearly having a significant impact, with 4 months in five weeks, indicating gains of approximately four times the expected rate of progress.

Long programmes

121 pupils were discounted for very long programmes of 20 weeks or over. The average progress for this group was 8.4 months but ratio gains over this longer period are less than double the rate of progress. A longer period in programme does not appear to be of greater benefit in word reading. It was not clear from the evidence whether this was because of additional or missed lessons. Without this information it is not possible to draw any firm conclusions.

Appendix 2

Two LAs shared information about sub-level and book band gains for pupils. Whilst it was not possible to incorporate their findings in the main body of the report; they provide clear evidence of impact across cohorts. They have been anonymised and attached as case studies. Case study 1 uses data from 2012/13. Case study 1 uses data from 2013/14

BR@P case study 1
BR@P case study 2

We would like to thank all participating Boosting Reading Trainers, Coordinators, Partners, Pupils, Schools and Local Authorities for making it possible for us to compile this report.