Research Report DFE-RR114

Evaluation of Every Child a Reader (ECaR)

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Acknowledgements

First and foremost our thanks go to all of the respondents who gave up their time to take part in the implementation surveys, qualitative case studies, interviews and completing child assessments.

We would also like to thank colleagues at NatCen and IFS who have made a significant contribution to the project. At NatCen this includes: Chris Massett, Sonia Shirvington and the Telephone Unit in the Operations Department, Neil Barton, Elise Yarrow and the Pink Team in the Operations Department and Erroll Harper in Project Computing.

At IFS we would like to thank Alissa Goodman for her contributions to the early stages of the project and Barbara Sianesi for expert technical guidance on the impact analysis.

We are grateful for the guidance, data and documents provided by Charlotte Madine (National Strategies) and Julia Douetil (Institute of Education).

Finally we would like to thank Alasdair Barrett, Angus Hebenton and Jenny Buckland at the Department for Education (and formerly, the Department for Children, Schools and Families) and all the members of the steering group for their active participation in the project.

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Glossary

APS	Average point score
BAS	British Ability Scales
BPSR	Bryson Purdon Social Research
CLL	Communication, Language and Literacy
DCSF	Department for Children, Schools and Families
DfE	Department for Education
EAL	English as an Additional Language
ECaR	Every Child a Reader
ECCT	Every Child a Chance Trust
FSM	Free School Meals
FSP	Foundation Stage Profile
FTE	Full Time Equivalent
IFS	Institute for Fiscal Studies
IOE	Institute of Education
KS	Key Stage
LA	Local authority
LM	Link Manager
NatCen	National Centre for Social Research
NPD	National Pupil Database
NQT	Newly Qualified Teacher
NS	National Strategies
QTS	Qualified Teacher Status
RR	Reading Recovery
RRC	Reading Recovery Centre
RRT	Reading Recovery teacher
SDQ	Strengths and Difficulties Questionnaire
SEN	Special Educational Need
SMT	Senior Management Team
TA	Teaching Assistant
TL	Teacher Leader

Executive Summary

This is the full report of the independent evaluation of the Every Child a Reader (ECaR) programme - a mixed-method multi-faceted programme of research to investigate the implementation, impact and value-for-money of the intervention. It has been prepared on behalf of the Department for Education by a consortium of the National Centre for Social Research (NatCen), the Institute for Fiscal Studies (IFS), Colin Harrison and Gill Johnson of the University of Nottingham and Susan Purdon of Bryson Purdon Social Research (BPSR).

Every Child a Reader and Reading Recovery

The ECaR programme was developed by a collaboration of the KPMG Charitable Trust with the Institute of Education and Government. It was supported financially by Government, a group of charitable trusts and business, and the Local Authorities and schools who part funded their own implementation. The KPMG Charitable trust (later Every Child a Chance Trust) oversaw its development between 2005 and 2008. In 2008, the then-Government committed to a national roll-out of ECaR. This began under the management of National Strategies, working in partnership with the Reading Recovery national network at the Institute of Education, with the intention that by the academic year 2010-11, 30,000 pupils a year would access reading support through ECaR.

ECaR offers a layered, three-wave approach to supporting children with reading in Key Stage 1. Wave 1 is the 'quality first teaching' aimed at all children through class based teaching. This encompasses the simple view of reading (focusing on word recognition and language comprehension) and systematic phonics where children are taught to sound out words. Wave 2 small group (or less intensive one-to-one) intervention is aimed at children who can be expected to catch up with their peers with some additional support. Wave 3 offers intensive reading support in the form of a one-to-one programme for children who have been identified as having specific support needs. The main intervention under Wave 3 is 'Reading Recovery', an intensive programme lasting approximately 20 weeks, for the lowest attaining five per cent of children aged five or six.

Impact of Reading Recovery and ECaR

The evaluation provided strong evidence of the impact of the ECaR programme and Reading Recovery in relation to its central aim of improving children's reading at Key Stage 1. This finding was consistent across the different strands of the impact design. The most important of the statistically significant findings are outlined below.

ECaR had an overall positive impact on school level reading and writing attainment. In the second year of its operation, ECaR improved school level reading attainment at Key Stage 1 by between 2 and 6 percentage points. School level writing attainment at Key Stage

1 was improved by between 4 and 6 percentage points in ECaR's second and third years of operation.

Reading Recovery had a positive impact on reading. At the end of Year 1, Reading Recovery had an impact of 26 percentage points on pupils reaching level 1 or above in their reading as assessed by class teachers. Reading Recovery had a similar level of impact (23 percentage points) on pupils being assessed as good or very good at decoding text.

Reading Recovery had smaller positive impacts on reading related attitudes and behaviours. Significant positive impacts were found on always or sometimes: enjoying silent reading (17 percentage points), confidence in tackling a new book (12 percentage points) and voluntarily choosing extra books to take home (12 percentage points), as assessed by class teachers.

Reading Recovery also had wider impacts on pupils. Reading Recovery had an impact of 17 percentage points on parents encouraging the child to think that reading is important, as assessed by class teachers, and an impact of 18 percentage points on the ability of pupils to initiate ideas and activities.

Implementation of ECaR at local authority level

Local authority staff involved in implementing ECaR were generally very supportive of the programme and valued the training and support it incorporated. Overall, the support and guidance provided by the Institute of Education and National Strategies was positively received by Local Authorities. Teacher Leaders valued the critical reflection instilled by the training programme and felt well equipped to fulfil the core aspects of their role. Consortia working proved beneficial for all parties in terms of sharing practice and building on existing relationships.

The implementation of ECAR at local authority level was most effective when:

- **The programme aligned well with other interventions and the local authority strategy as a whole**.

- **Teacher Leaders were supported by managers to fulfil training requirements and maintain professional development**.

- **Consortia shared practice, co-ordination and administrative tasks**.

The key challenges in implementing ECaR at local authority level were:

- **Local authorities reported challenges in securing adequate funding**. This may reflect a misunderstanding of the funding that was provided, but it also illustrates the

challenges faced by local authorities in topping-up core funding for the programme during a time of fiscal tightening.

- **Teacher Leaders struggled to manage their workload**. A particular manifestation of this was Teacher Leaders maintaining the standard of their Reading Recovery practice. This and other elements of the role consistently suffered as Teacher Leaders prioritised what they saw as core functions, such as advocating and providing Reading Recovery training.

- **Working in consortia posed particular challenges.** Two issues were identified: firstly, the need for more explicit recognition of the greater resourcing, time and effort spent by the lead local authority in consortia; secondly, the impacts of consortium working on Teacher Leaders, which could dilute support for their own local authority, require them to operate in other authorities where they were unfamiliar or had less influence and increase their overall workload.

Implementing ECaR in schools

The key issues affecting the implementation of ECaR in schools were the recruitment and training of Reading Recovery teachers, the level of commitment to ECaR within the schools and the setting up of other ECaR interventions alongside Reading Recovery.

The role of Reading Recovery Teachers was key to the implementation of ECaR in schools. Recruiting Reading Recovery Teachers was based on the criteria set out by the Institute for Education: knowledge, skills and experience. Consideration of applicants' perceived commitment to the role, time and convenience, encouraged schools to recruit internally, while policies in other schools dictated an external recruitment procedure. The training and support from Local Authorities was praised by Reading Recovery Teachers for its relevance and suitability. An effective Reading Recovery teacher was crucial to the successful implementation of ECaR's layered approach.

The commitment of senior management to ECaR facilitated the set-up. Awareness and commitment at a senior level facilitated the provision of space and resources and the relationships of Reading Recovery Teachers with other school staff.

Other ECaR interventions such as Early Literacy Support, Talking Partners and Better Reading Partners were delivered in a more fragmented way than Reading Recovery. Reading Recovery Teachers found it challenging to train other staff to deliver the interventions given their other priorities, although this was more pronounced during the setting-up of the programme in the first year of ECaR.

Effective implementation was related to a number of factors. Implementation was most effective where ECaR fitted with existing school priorities and an identified need, where Senior Managers understood the aims of the programme and championed Reading

Recovery amongst pupils and staff, and where additional funding sources were identified early on. Internally recruited Reading Recovery Teachers could speed up implementation by building on existing relationships to embed the programme within wider school procedures and strategies.

Delivery of ECaR in schools

In delivering Reading Recovery, schools were committed to the Reading Recovery model and guidance from the Institute of Education, but in certain aspects, did not follow the guidance strictly.

The selection and recruitment of pupils was based on age and attainment according to the guidance*.* However, other factors were also considered, with SEN or EAL being used both to specifically include and exclude pupils from Reading Recovery. Pupils outside the specified age range were also included, which reflected a view that the formal criteria for inclusion were too restrictive.

Fidelity to Reading Recovery model was considered important to delivering sessions effectively, but the concept of fidelity incorporated some flexibility*.* Reading Recovery Teachers spoke positively about the room for personal judgement within the Reading Recovery model.

Other factors also influenced the effective delivery of Reading Recovery:

- **Having a dedicated and discrete space, with adequate resources and in a supportive school infrastructure***.* This enabled Reading Recovery Teachers to fulfil their teaching responsibilities in the time allotted for Reading Recovery sessions.

- **The ability of Reading Recovery Teachers to manage the sessions and their time in general** which improved over time as they become more familiar not only with the role but with the needs of individual pupils.

- **The ability to engage parents**, which relied on timely information effectively communicated by the school, but the extent to which parents became involved was also dependent upon parents' own attitudes. No parents reported being unwilling to be involved, but there were different views on what their involvement should entail.

Reading Recovery dominated the ECaR programme in schools*.* The effective delivery of the ECaR model as a whole was facilitated by a supportive Senior Management Team and a clear and shared understanding of the various roles involved in delivering ECaR. This provided Reading Recovery Teachers with the authority to drive wider literacy strategy and develop key relationships. Delivering other ECaR interventions was affected by a similar range of factors to Reading Recovery, but faced additional challenges due to receiving fewer

resources and having a lower profile than Reading Recovery. The interventions were perceived as having less kudos and the staff delivering them less authority within the school.

Value for Money

The evaluation attempted to quantify the costs associated with providing ECaR and compare these to the benefits that ECaR may bring in the future. Estimating the benefits of ECaR involved numerous uncertainties and consequently the estimates have wide margins of error around them, something which should be borne in mind when considering the key points of the value for money chapter which are outlined below.

ECaR costs roughly £3,100 per participant in the first year of its implementation, and £2,600 in subsequent years. The first-year cost (or 'short-term' average cost) includes initial set-up costs, while the cost for subsequent years (the 'long term' average cost) does not. As currently implemented, this implies a cost per additional child reaching the expected level at KS1 in the region of £15,000–£20,000 in the short term, and £10,000–£15,000 in the long term.

The lifetime benefits of ECaR are not yet observable, so these are predicted via three routes: greater earnings, better health and lower crime. Many potential benefits have not been measured: these include psychological benefits of ECaR and direct effects of ECaR on earnings, health and crime.

The predicted lifetime benefits of ECaR depend upon how long the impact of ECaR lasts. This is also not yet observable so the benefits are predicted under two depreciation scenarios. The 'no depreciation' scenario assumes the impact of ECaR persists until 18 while under 'full depreciation' the impact of ECaR disappears by age 11.

The predicted future benefits of ECaR are potentially substantial but extremely uncertain. The central estimate of the predicted increase in lifetime earnings per ECaR participant is £6,000 under the no depreciation scenario or £300 if there is full depreciation. The central estimates rise to £7,500 or £600 (depending on depreciation) once the benefits of improved health and decreased crime are also included in the calculation.

For the ECaR policy to break even, its impact must be sustained beyond age 11. Specifically, if participation in ECaR raises the chances of achieving each formal qualification by at least 4 percentage points, we would expect the long-term costs of the policy to be fully offset by the predicted gain in earnings. Tracking the future outcomes of ECaR participants is therefore crucial to a comprehensive VfM analysis.

Conclusions

The evaluation has demonstrated the impact of ECaR and Reading Recovery on the literacy attainment of children in Key Stage 1, and has identified the factors that underpin the successful delivery of the interventions. The research has shown how ECaR and Reading

Recovery have the capacity to help children at risk of falling behind catch up with their peers early on in their school career. These findings match the positive views of the interventions held by the staff involved in delivery. If the progress these children make is sustained throughout school, the long-term benefits of ECaR would be expected to exceed the costs. However, with the changing political and economic climate, it is not clear whether the funding and resources necessary to maintain what is an expensive and intensive programme will be available in the future. Monitoring the extent to which the immediate gains from the programme are maintained by pupils would help to inform decisions about the future role of ECaR and Reading Recovery relative to other forms of reading support.

1 Introduction

This is the full report of the evaluation of the Every Child a Reader (ECaR) programme - a mixed-method multi-faceted programme of research to investigate the implementation, impact and value-for-money of the programme. It was commissioned by the former Department for Children, Schools and Families (now the Department for Education) and carried out by a consortium of the National Centre for Social Research (NatCen), the Institute for Fiscal Studies (IFS), Colin Harrison and Gill Johnson of the University of Nottingham and Susan Purdon of Bryson Purdon Social Research (BPSR).

This section sets out the rationale for early intervention in reading, describes the ECaR intervention model, summarises the research evidence and presents the structure of the report.

1.1 Reading standards and policy background

The importance of reading as a foundation for learning and for social and economic advancement through life is well-documented (Snow et al, 1998). Literacy difficulties have been associated with costs both for the individual and the public purse including special needs provision, truancy, exclusion, reduced employment opportunities, increased health risks and greatly increased risk of involvement with criminal justice system. The risks are in addition to those associated with disadvantage and lack of qualifications (Every Child a Chance Trust, 2009a).

To promote literacy, the government has set age-related standards at key points in a child's schooling. At the end of Key Stage 1 (Year 2, aged 7), children are expected to achieve at least level 2 in teacher assessments in reading, writing, mathematics and science. While the majority of children do so, a persistent minority of about 15 per cent lag behind at this stage. Table 1.1 shows that the proportion achieving level 2 in reading has been fairly consistent over the past five years, with the reading attainment level for all pupils rising less than one per cent. The data also demonstrate that some groups of pupils perform less well than others[1], notably boys (eight percentage points behind girls), children whose first language is other than English (five percentage points behind), children registered for Free School Meals, an indicator of income deprivation (16 percentage points behind), and children with identified special educational needs (40 percentage points behind those with no special needs identified). Children of Black ethnicity performed a little lower than pupils of other ethnicities, with 82 per cent achieving level 2 compared to 85 per cent of those who were of White, Mixed or Asian ethnic backgrounds.

[1] The figures provided in this paragraph are for 2010, but the pattern is fairly consistent over the previous five years).

Table 1.1 Percentage of pupils achieving the expected level* in Key Stage 1 teacher assessments by pupil characteristics in England[2]					
	Reading				
	2006	2007	2008	2009	2010
	%	%	%	%	%
All pupils	84.3	83.7	83.8	84.4	84.7
Gender					
Boys	80.3	79.7	79.9	80.5	80.9
Girls	88.5	87.9	87.9	88.5	88.7
Ethnicity					
White	85.3	84.5	84.5	84.9	85.1
Mixed	84.8	84.2	84.5	85.0	85.3
Asian	81.1	81.4	82.1	83.4	84.6
Black	78.9	79.2	80.5	81.8	82.3
Chinese	90.2	88.5	89.1	89.0	88.5
First Language					
English	85.5	85.0	85.0	85.5	85.7
Other than English	77.6	77.2	77.9	79.4	80.6
Unclassified	51.3	54.8	52.1	59.1	56.9
Free School Meals (FSM)					
FSM	69.3	68.6	69.3	70.8	71.7
Non-FSM	87.6	87.1	87.0	87.4	87.9
Unclassified	48.1	46.2	44.5	47.7	46.6
SEN Provision					
No identified SEN	94.0	93.7	93.8	94.1	94.4
All SEN pupils	48.7	48.3	49.6	51.0	51.6
SEN without a statement	51.1	50.5	52.0	53.5	54.1
School Action	55.7	55.1	56.7	58.2	58.6
School Action Plus	40.5	40.4	42.0	44.0	45.3
SEN with a statement	26.0	24.2	23.2	23.3	23.1
Unclassified	48.1	46.2	44.5	47.7	46.6

*Includes pupils who achieved Level 2 (including Levels 2A, 2B or 2C), Level 3 or Level 4. Level 2 is the expected level of achievement for pupils at the end of Key Stage 1.

The data covers pupils in maintained schools.

By the end of Key Stage 2 (Year 6) there continues to be a persistent minority of pupils (16 per cent) who do not reach the expected standard in reading based on the Key Stage 2 tests[3]. Of particular concern are the pupils who lag considerably behind. Of the 15 per cent of pupils not achieving the expected level 2 at Key Stage 1, three per cent were below level 1 and each year between six and seven per cent of 11 year olds leave primary school with very poor literacy (below level 3 in English, equivalent to an average seven or eight year old). Nine per cent of boys leave primary school at this level in reading.

A wide range of risk factors for poor literacy have been identified, relating to medical conditions, the early learning environment, and family and community characteristics

[2] http://www.education.gov.uk/rsgateway/DB/SFR/s000968/index.shtml (Accessed 25-11-2010).

[3] http://www.education.gov.uk/rsgateway/DB/SFR/s000949/index.shtml (Accessed 25-11-2010).

(summarised in Table 1.2). The argument for early intervention is now widely accepted with evidence to support its short-term effectiveness (Torgesen, 2000; Wasik & Slavin, 1993; Brooks 2007). Furthermore, since reading is the gateway to language development and learning more generally, it is recognised that early intervention has the potential to stem a widening gap between children on the basis of their reading ability (Hurry & Sylva, 2007; Hurry & Holliman, 2009).

Table 1.2 Risk Factors that Influence Literacy Skills

Child-based risk factors	*Multiple risk factors*
Physical and clinical conditions	Family based risk factors
Cognitive deficiencies	Family history of reading problems
Hearing impairment	Home literacy environment
Chronic otitis media	English as an Additional Language
Specific early language impairment	Non standard dialect
Attention deficit / hyperactivity disorder	Family based SES
Predictors at school entry	Neighbourhood, community and school based risk factors
Acquired proficiency in language	Student level
Verbal memory	Classroom level
Lexical and syntactical skills	Teacher level
Expressive language	School level
Phonological awareness	Class size
Acquired knowledge of literacy	
Reading readiness	
Letter identification	
Concepts of print	
Other factors measured at school entry	

Adapted and expanded by Tsitiridou-Evangelou (2001) from Snow *et al*. (1998).

1.2 Every Child a Reader and Reading Recovery

> "*The overall aim of Every Child a Reader (ECaR) is that by the end of Key Stage 1 all children (with the exception of a small minority who may have multiple and complex learning needs) are competent readers and writers who achieve in line with age-related expectations or better*" (National Strategies, 2009).

The ECaR programme was developed by a collaboration of the KPMG Trust, the Institute of Education and government, and supported financially by charitable trusts, government and the local authroties and schools who part funded their own implementation. The Every Child a Chance Trust oversaw its development between 2005 and 2008 (Every Child a Chance Trust, 2009b). In 2008, the national roll-out of ECaR began under the management of National Strategies working in partnership with the Reading Recovery national network at

the Institute of Education, with the intention that by the academic year 2010-11, 30,000 pupils would access reading support through ECaR[4].

ECaR offers a layered, three-wave approach to supporting children with reading in Key Stage 1 (Years 1 and 2). Wave 1 is the 'quality first teaching' which all children should receive through class based teaching. This encompasses the simple view of reading (focusing on word recognition and language comprehension) and systematic phonics where children are taught to sound out words. Phonics-based teaching was the key principle underpinning the recommendations from the Rose Review[5]. Wave 2 small group (or less intensive one-to-one) intervention is aimed at children who can be expected to catch up with their peers with some additional support. Wave 2 interventions include the following[6]:

- **Early Literacy Support** is aimed at children in Year 1. Taught by a specially trained teaching assistant (supported by the class teacher) in small groups using scripted, structured materials.
- **Talking Partners** is an oral language programme. Trained partners work with groups of three children for 20 minutes, three times a week for ten weeks. The aim is for children to learn to listen more actively and talk for a range of purposes.
- **Better Reading Partners** is focused on effective and independent reading. Children receive one-to-one support from a trained teaching assistant or volunteer for 15 minutes three times a week over a 10 week period.

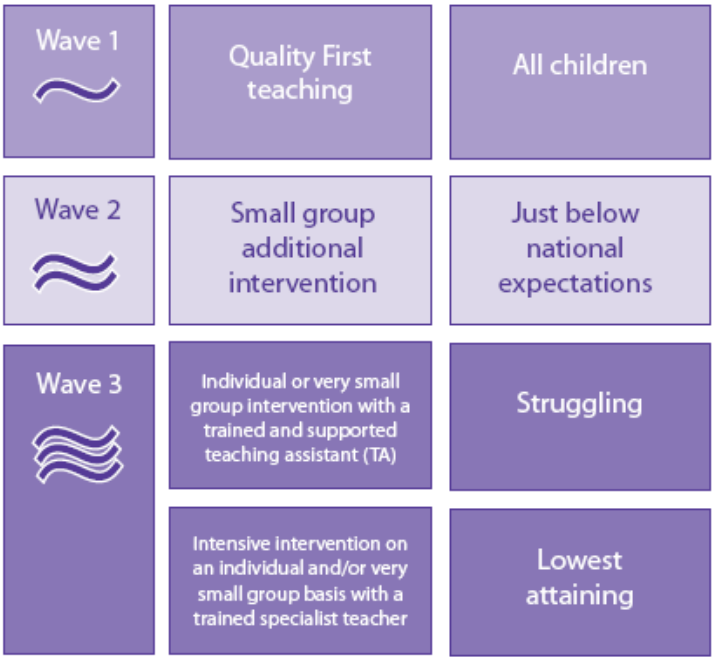
Wave 3 offers intensive reading support in the form of a one-to-one programme for children who have been identified as having specific support needs. The main intervention under Wave 3 is 'Reading Recovery' which is aimed at the lowest attaining five per cent of children aged five or six who are struggling to learn to read.

[4] The national roll-out of Every Child a Reader was announced in December 2006 as part of the Chancellor's Pre-Budget Report announcements.

[5] http://www.standards.dcsf.gov.uk/phonics/rosereview (Accessed 29-11-2010).

[6] Source: National Strategies Primary 2009. http://nationalstrategies.standards.dcsf.gov.uk/node/224811 (Accessed 29-11-2009).

Figure 1.1 What is the layered three-waves approach? (Source: the National Strategies 2009)



Reading Recovery is a specialist one-to-one intervention that was created by Dame Marie Clay in New Zealand and used in the UK since 1990. Clay (1991) described her programme as a preventative method and explained that there:

> *is an emphasis on the early detection of children who are beginning to drop behind compared with their peers; there is comment on behaviour which is readily observed rather than on aspects of important learning which are hidden from sight such as hidden cognitive processes, comprehension and understanding (p.13).*

The theoretical underpinning to Reading Recovery is that the first years of school are a crucial time for children to develop proficiency in reading and writing and that poor attainment at this stage can engender a negative cycle of low self-esteem and confidence that undermines progress. The goal of Reading Recovery is for children to develop effective reading and writing strategies to catch up early with the average range of ability in the classroom and the specialist training of the Reading Recovery teacher is considered the key to success (Annual Report 2009-10).

The framework of training and support involved three levels of professional staffing:

- trainers within universities (in England, the Institute of Education) who train and support teacher leaders to Masters degree level;
- teacher leaders within local authorities (or consortia) who train and support Reading Recovery teachers; and
- Reading Recovery teachers who work directly with children in schools.

The training of Reading Recovery teachers lasts for a year, following which continuing professional development encourages new teachers to reflect on their practice, consult with colleagues on their approach and stay abreast of new knowledge in the field. They teach children on a one-to-one basis for 30 minutes each day for an average of 12-20 weeks and provide support to classroom based teachers on appropriate reading interventions more generally.

The following table shows the growth and coverage of Reading Recovery between 2005 and 2010. Approximately half of the Reading Recovery teachers working with children were in their first year of training.

Table 1.3 Reading Recovery implementation information for England 2005 - 2010[7]

	2005-6	2006-7	2007-8	2008-9	2009-10
	Every Child a Chance Phase			National Strategies phase	
Number of LAs	31	26	53	107	128
Number of schools	205	236	614	1,149	1,656
Number of teacher leaders	20	24	37	63	86
% of teacher leaders in training	50	25	35	33	28
Number of RR teachers	*	249	529	607	996
% of teachers in training	*	48	48	49	43
Number of pupils served by RR	1,796	2,893	5,276	9,506	14,918
Number of pupils served by ECaR	*	*	*	13,052	23,126

* Data not available.

The table below presents the profile of all children who participated in Reading Recovery between the academic years 2005-6 and 2008-9. Over time, an increasing proportion of Reading Recovery children have begun their programme in Year 1 when aged five to six years. By 2008-9, the first year of national roll-out, 86 per cent of Reading Recovery children began in Year 1. Boys consistently outnumbered girls across the years, comprising approximately three-fifths of the Reading Recovery intake. Thirty-eight per cent of children were non-White, with 16 per cent Asian and 11 per cent Black. The proportion of pupils whose first language was other than English also remained fairly constant across the period at around 29 per cent. Reading Recovery children were disproportionately disadvantaged with 46 per cent registered for Free School Meals, compared to a national average of 19 per cent. Fifty-five per cent of participants were registered as having special educational needs at the start of the programme. Apart from the shift towards children entering the programme in Year 1, the profile remained fairly constant across the four years.

[7] Sources: Reading Recovery Annual Report for the United Kingdom and Ireland: 2009-10 and 2008-9 European Centre for Reading Recovery, Institute of Education, University of London and data supplied by National Strategies and the Institute of Education.

Table 1.4 Profile of children participating in Reading Recovery by year of entry*					
	2005-6	2006-7	2007-8	2008-9	All
	%	%	%	%	%
Year group					
Year 1 (age 5-6)	55	84	77	86	80
Year 2 (age 6-7)	45	16	23	14	20
Gender					
Boys	62	60	60	61	61
Girls	38	40	40	39	39
Ethnicity					
White	67	58	60	62	62
Black	12	12	12	10	11
Asian	9	18	17	17	16
Mixed	5	6	6	6	6
Other	3	4	4	2	3
Unknown	4	2	2	3	3
First language					
English	75	69	70	72	71
Other	25	31	30	28	29
Free School Meals (FSM)					
FSM	52	50	46	45	46
Non-FSM	47	49	53	54	52
Missing	1	1	1	1	2
SEN status					
Not on SEN register	38	36	37	43	40
Formal assessment	2	2	1	1	1
Lowest level on SEN register	32	40	38	38	37
Mid level on SEN register	15	20	19	17	18
Missing	13	3	6	1	4
Base (all children)	1717	1578	4553	7712	15560

*Note that each child is only counted under the column that applies to the year in which they began Reading Recovery. E.g., if a child started RR in Year 1 in 2007-8 and continued into Year 2 in 2008-9, they are listed in the 2007-8 column.

Based on data supplied by the Institute of Education.

Table 1.4 profiles the children who received Reading Recovery only. In addition to the RR recipients, additional children were supported by the other aspects of the ECaR programme. In the first year of national roll-out, 9,584 children received Reading Recovery and a further 3,476 children were taught under other ECaR interventions (Every Child a Chance Trust 2009).

1.3 Evidence for Reading Recovery and ECaR

There is a large body of international research evaluating Reading Recovery which it is not possible to cover in detail here[8], but for considering the future development of ECaR, there are two areas of evidence that are particularly pertinent:

1. The effectiveness of RR (and the layered interventions of ECaR) *in the short-term and longer-term*.
2. The effectiveness of RR *relative to other reading interventions*.

1.3.1 The effectiveness of RR and ECaR in the short-term and longer-term

One of the key questions in rolling out ECaR is whether Reading Recovery and the model of ECaR is effective for RR pupils in the short and longer term, and for other pupils within the school who are exposed to different elements of the ECaR layered interventions. Related to this is the question of whether the impacts are of a sufficient magnitude to constitute value for money.

In considering the gains in literacy associated with RR, detailed data are provided by the European Centre for Reading Recovery at the Institute of Education which produces annual reports detailing the scope of the programme and outcomes for pupils in the UK[9]. The reports have shown substantial gains in reading for the pupils involved across the years of the programme and in the most recent annual report for 2009-10, these outcomes continued in the context of a 50 per cent growth in the programme under the national roll-out (indicating that growth has not been associated with dilution). The key findings were as follows:

- 80 per cent of the children who completed Reading Recovery in 2009-10[10] (and 54 per cent of all RR participants) achieved accelerated learning, meaning that they caught up with the average range of ability in their class and were considered 'likely to continue learning at the same rate as their peers, without the need for further special support' (p.11).
- The average gain in reading age for the RR completers was 24 months over a four or five month period, which is five times the average rate of progress for all children.
- Of these successful completers, 84 per cent achieved level 2 or above in their Key Stage 1 assessments for reading.
- Although some groups of children were disproportionately selected for Reading Recovery because of their lower reading ability (e.g., due to disadvantage, gender, first

[8] The reader is referred to the studies discussed in Brooks (2002) and listed on the Reading Recovery website: http://readingrecovery.ioe.ac.uk/.

[9] http://readingrecovery.ioe.ac.uk/reportsResearch.html (accessed 29-11-2010).

[10] The report detailed that of the 17,507 children who participated in the RR programme in 2009-10, 11,884 completed it (68%).

language, ethnicity) the gaps had almost closed among the children who completed the programme.

- The assessments completed six months after completing the RR programme demonstrated that children who had completed Reading Recovery continued to progress in line with their peers, even without the one-to-one teaching, suggesting that they had acquired independent strategies for reading and writing.

Impact studies with matched comparison designs have also suggested positive impacts of RR. A study of children in London schools (Burroughs-Lange, 2008) involved 42 schools with a similar profile across 10 London boroughs, with half of these schools offering Reading Recovery and the comparison schools offering extra tuition as well as classroom teaching. The Reading Recovery children made gains of on average 20 months reading age at the end of Year 1 and had caught up with their peers while the comparison children were still well below age related expectations.

While the short-term impacts of Reading Recovery are well established, the evidence for the longer-term effects is mixed. Focusing on the UK evidence, in one recent paper (Hurry & Holliman, 2009), children were followed up three years after they had received Reading Recovery (at the end of Year 4) and compared to children that had not received Reading Recovery, some of whom were in schools that offered Reading Recovery to other pupils. The children who had received Reading Recovery were on average achieving level 3b (indicating that they were on track to achieve level 4 at the end of Key Stage 2) while the comparison children were achieving level 2a, well below the Reading Recovery children. However, other research investigating the longer-term impact of Reading Recovery suggests that early intervention alone cannot 'inoculate' children from later literacy difficulties and highlights the need for ongoing support to address the wider influences in a child's life that may undermine their progress (Hurry & Sylva, 2007)[11].

The design of the ECaR model is premised on the idea that the intensive Reading Recovery intervention and the layered interventions will have 'spill-over' effects to benefit pupils across the school beyond those individuals who are recipients of specific interventions. It is intended that the specialist Reading Recovery teacher will support class teachers as well as literacy at the school level. The national roll-out report for 2008-9 provided some early evidence of this, finding that reading standards at Key Stage 1 rose by one percentage point more in ECaR schools than in other schools, despite the fact that in approximately half of the ECaR schools the specialist teacher was still in training (Every Child a Chance Trust, 2009).

Economists have used the impact findings to estimate the return on the investment in Every Child a Reader. The report prepared by the Every Child a Chance Trust for the KPMG Foundation found literacy difficulties to be linked to an array of costly negative outcomes (even after controlling for social disadvantage and lack of qualifications) including special

[11] For international evidence on outcomes see http://readingrecovery.ioe.ac.uk/reports/36.html. For studies that show low levels of impact, see Burkard & Burkard (2009).

educational needs provision, truancy, exclusion, reduced employment opportunities, increased health risks and involvement with the criminal justice system (Every Child a Chance Trust 2009a). By attaching costs to these risks, it was estimated that the overall return on every pound spent on Every Child a Reader was £11 to £17. These findings have been the source of some contention, firstly because the authors had a vested interest in the success of ECaR, but also because of the assumptions on which the large returns were based, including the programme delivery costs (Burkard & Burkard, 2009). The report estimates the cost of RR per pupil to be £2,389 which is the cost to the schools and does not include the administration and training costs. The international evidence on Reading Recovery has generally found smaller, albeit still positive, returns on investment.

1.3.2 The effectiveness of ECaR relative to other interventions

While recognising that the evidence is mixed, it is certainly possible to make a strong case for the effectiveness of the Reading Recovery element of ECaR and there are many practitioners who have advocated strongly for the value of the intervention for the children they have worked with. The point of contention for some, however, relates to the former government's role in rolling out ECaR and specifically, the way in which it has championed and funded Reading Recovery before the pilots were complete and with little regard to the effectiveness of Reading Recovery *relative* to the many other reading intervention models available (Burkard & Burkard, 2009; Science and Technology Committee HC44). Related to this is the viewpoint held by some that Reading Recovery is not strictly in line with the recommendations of the Rose Review which advocated 'synthetic phonics' (breaking down words into constituent parts which are blended together) as oppose to a 'whole language' theory of reading based on exposure to reading materials. The Science and Technology Committee (December 2009) debating these issues called for a randomised controlled trial to improve the evidence on the relative strengths of different literacy models.

1.4 The scope and structure of this report

The evaluation reported here was wide-ranging in scope and aimed to address research questions relating to implementation, impact and value for money to directly inform the future development of ECaR. The specific research questions on which the study was based are outlined below:

Implementation

- What are the strengths and weaknesses of the delivery model?
- Has fidelity to the ECaR standards been consistently achieved?
- What are the challenges to quality and sustainability?

Impact

- What is the impact of ECaR on standards of literacy for eligible pupils compared to similar pupils who did not receive ECaR?
- Are any subgroup differences observable?

- What is the impact on whole school attainment?
- What is the impact on wider outcomes?

Value for money

- What is the value for money of the ECaR programme?
- How could the delivery model be made more cost effective?

The evaluation involved many strands of work and readers are referred to the Technical Report for the full detail. A summary of methods is provided in **Chapter 2**.

The findings are reported in the following four chapters. **Chapter 3** presents interview data and findings from the LA surveys relating to the implementation of ECaR within local authorities, covering the decision to implement the ECaR model, setting up and ongoing management, and the training provided to schools and teachers.

Chapter 4 focuses on the implementation of ECaR within schools, drawing on evidence from case studies and school surveys pertaining to joining the programme, recruiting staff, set-up and management, the roles of staff involved and their training and support. The chapter explores the layered approach of ECaR as well as Reading Recovery as a specific intervention.

Chapter 5 is about the delivery of ECaR within schools – how pupils were selected, models of delivery, and fidelity and quality. This chapter draws on a range of data sources - case studies in schools, surveys of Reading Recovery teachers and observational assessments of Reading Recovery sessions.

The impact of ECaR on pupils is presented in **Chapter 6.** Three data sources were used to assess the impact of ECaR and Reading Recovery: (1) administrative data for Key Stage 1 attainment outcomes, (2) a school-level study for impacts of RR on attitudes, motivations and behaviours; (3) management information to investigate the relative impacts of RR on subgroups of pupils.

Chapter 7 presents the value for money analysis. A measure of cost-effectiveness is calculated based on the costs of ECaR per pupil and the estimate of impact. The long-term benefits of ECaR are outlined focusing on earnings, health and crime.

The conclusions are discussed in **Chapter 8**. Following a summary of key findings, the factors critical to the success of ECaR and the challenges in delivery are outlined. The future sustainability of the programme is considered in light of issues around funding, consortia working and the balance between ECaR and Reading Recovery.

2 Methodology

Detailed accounts of the methodologies used in this evaluation are provided in the Technical Report. This chapter provides a brief summary of each strand of work as listed in Table 2.1.

Table 2.1 Methods used in evaluation

	Implementation	Impact	Value for money
Local Authority and school surveys	X		
School case studies	X	(X)*	
Stakeholder interviews	X		
RR observations	X		
Impact analysis using administrative data		X	
RR relative impact analysis		X	
RR impact assessments		X	
Value for money analysis			X

* The school case studies provided perceptions (rather than evidence) of impact.

2.1 Local Authority and school surveys

The implementation strand of the ECaR evaluation involved a survey of schools and Local Authorities (LAs) looking at all aspects of the roll out and management of ECaR at school and LA level.

School surveys were carried out with head teachers and Reading Recovery teachers in the form of paper questionnaires. The sample was a stratified random sample generated from the sample frame of all schools in the ECaR programme in the school year 2009/2010. Head teachers were asked about various aspects of the programme delivery and management in schools such as: administrative and financial management, selection of schools, recruitment of RR teachers and future sustainability. Reading Recovery teachers' questionnaires covered implementation issues such as: views and uptake of training, pupil selection criteria, and delivery of layered interventions as part of ECaR. Following the pilot, the main stage fieldwork took place in April – May 2010. Of 752 schools selected, 55 per cent of head teachers (414) and 76 per cent of RR teachers (571) responded to the survey.

Local Authority surveys were conducted with ECaR managers and Teacher Leaders by means of questionnaire attached to an email which was sent to all local authorities/consortia

running the programme. Within each participating LA, ECaR managers were asked about various aspects of implementation such as: financial management of the programme, school selection, monitoring procedures, and Teacher Leader recruitment, management and training. The main focus of the Teacher Leader questionnaire was on various aspects of their role within schools and the LA, support and training received, goals and sustainability of ECaR. The main stage fieldwork took place in March – April 2010. In total 126 ECaR managers and 49 Teacher Leaders were included in the issued sample (this excluded those who took part in the pilot). The response rate achieved was 80 per cent of Teacher Leaders (39) and 64 per cent of ECaR managers (81).

2.2 Qualitative case studies, stakeholder interviews and observations

The qualitative study was designed to examine the implementation and delivery of the ECaR programme at local authority and school level. The objectives of this element of the research were to identify the strengths and weaknesses of the delivery model, explore fidelity to ECaR standards and assess challenges to quality and sustainability.

A layered case study design was chosen to meet these objectives: ECaR Managers and Teacher Leaders from a range of local authorities were selected for interview in stage one; staff from schools located in a sub-set of these local authorities were interviewed for stage two. In order to make an informed selection of local authorities and schools, a brief scoping stage was conducted comprising of interviews with national stakeholders. In total, eight interviews were conducted with senior representatives from the then Department for Children, Schools and Families, National Strategies and the Institute of Education. These interviews provided the research team with a thorough overview of ECaR and informed the sampling and fieldwork strategies for the later stages of the design.

The first stage of the case studies had two aims: to explore implementation and delivery at the LA level and inform the sample design for stage two. For the first stage of case studies 16 single or consortia of local authorities were purposively selected to take part. Their selection was based on achieving a sample that exhibited the full range and diversity of characteristics key to their experience of ECaR, including urban/rural location, number of schools in the area, rates of eligibility for Free School Meals and the year that they had joined the ECaR programme. The final achieved sample is contained in the Technical Report. Depth interviews were conducted with 17 ECaR Managers and 17 Teacher Leaders.

Four of these local authorities were then chosen as areas in which to conduct the stage two case studies of schools. They were again selected to include the range of characteristics above but also the number of Teacher Leaders employed and whether they were implementing other interventions. From the sample frame of ECaR schools provided by National Strategies, schools were selected to achieve diversity with respect to a range of characteristics including when they joined the programme, the number of pupils receiving Reading Recovery, the proportion of EAL pupils, school size and attainment level. The aim was to include 16 schools, four from each LA. The final sample included 12 schools across

the four areas. Within each case study, the aim was to speak to a range of key staff including Reading Recovery Teachers, Strategic Leads, Link Teachers, Classroom Teachers and Teaching Assistants. Our final achieved sample comprised 31 data collection encounters with 46 participants, including 12 Strategic Leads and Link Teachers, 12 Reading Recovery Teachers, and seven class teacher focus groups. The final achieved sample is described in the Technical Report.

Interviews were also conducted with parents. It was anticipated that this would be a challenging group to engage in the evaluation and recruit for interview, given work commitments and the possibility that they may not be engaged in the programme itself. The aim was to interview 30 parents, by asking schools taking part in stage two of the case studies to send a letter on our behalf to parents with children participating in ECaR interventions. Parents were then able to opt-in to the study by contacting NatCen. Our final achieved sample was 14 parents. This provided a useful insight into parental involvement in the interventions, but the low number is also indicative of some of the challenges schools also face in engaging parents in the programme itself. These issues are discussed further in Chapter 5.

Interviews and group discussions were digitally recorded and later transcribed verbatim. Transcripts were analysed using 'Framework', a method developed by the Qualitative Research Unit at NatCen.

2.2.1 Observation Methodology for Reading Recovery Lessons

A total of 35 observations took place in 11 schools (covering four LA/consortia) with between two and four observations in each school.

The observation schedule was devised using the structure of the Reading Recovery lesson as a framework, with the key components identified together with the expected elements likely to be observed within each component (see Technical Report for more detail).

All Reading Recovery teachers, without exception, made time to briefly introduce the children who were to be observed, and the observations were contextualised by noting the week and lesson number, together with the child's current Reading Recovery book level. Children were observed across a broad cross-section of progress through the lessons, from *Roaming around the Known* (Week 1 and 2), to those who were close to being discontinued (Week 79).

The observers recorded the activities of the Reading Recovery teacher and that of the child within each component in great detail, noting timings for each section and variations or deviations from the component. Consideration was given to the pace of the lesson, the appropriateness of book levels and the appropriateness of questions by, and responses of, the teacher.

The nature of Reading Recovery lessons is such that alongside observations about the *structure* and *content* of the session, comments were also recorded in relation to the *affective* dimension of the lesson, for example: the engagement and motivation of the child, explicit praise given by the teacher and the nature of interaction between the Reading Recovery teacher and the child.

At the end of the lessons observed there was an opportunity to have an informal discussion with the Reading Recovery teacher, allowing for queries to be followed up and noted. Additional notes contributed to the final analysis of the observation data.

2.3 Impact analysis with administrative data

Administrative data were analysed to address the following questions:

- *What is the impact of school participation in the ECaR programme on school-level outcomes?*
- *What is the impact of school participation in the ECaR programme on the outcomes of pupils with low attainment in literacy?*

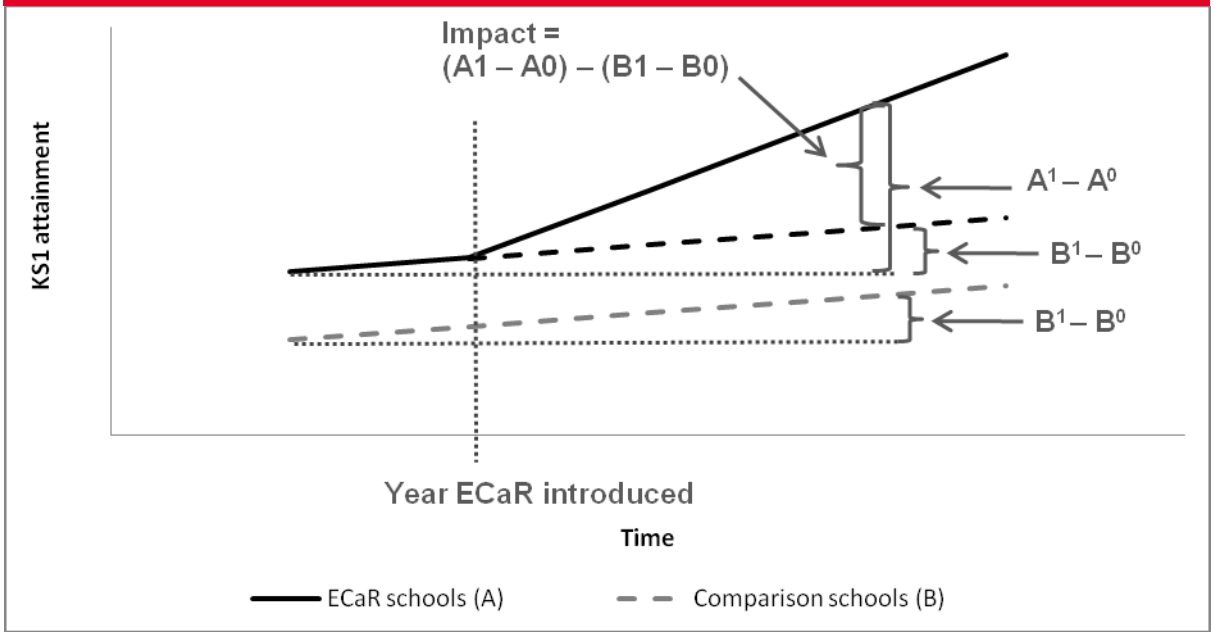
Ideally, we would like to find out the impact of ECaR on various outcomes, by comparing the outcomes that occurred under the ECaR programme with those that would have arisen in its absence (which is known as the "counterfactual" outcome). For example, schools that receive ECaR may exhibit an improvement their results by two per cent on average, but without ECaR the same schools may have improved their results by one per cent on average (which is the counterfactual outcome). The true impact of ECaR is the difference between the counterfactual outcome and the outcome after participating in the programme – in this example it would be one percentage point (1 ppt).

The general problem when evaluating the impact of an intervention is that the counterfactual outcome is not observed; at any given time it is impossible to see an individual school's outcomes both with and without a policy. It is therefore important to find an appropriate comparison group of schools that do not receive the policy to use as a benchmark in place of the counterfactual outcome. The outcomes of a suitably defined group of comparison schools are therefore used in place of the counterfactual outcomes of the schools that receive ECaR.

This is shown in Figure 2.1, which presents a visual schematic of the empirical methodology for the administrative data impact analysis. The solid black line represents the trend in outcomes (for example, Key Stage 1 attainment) for the ECaR group, while the dash-dot grey line displays the trend in the same outcome for a comparison group. The dashed black line represents the counterfactual outcome for the ECaR group: the trend that *would have* occurred in the absence of ECaR.

The impact of the policy can then be calculated by using the differences-in-differences estimator (see Box 1 below). This estimator calculates the growth in outcomes following the introduction of the policy for both ECaR and comparison schools. The difference between these two growth rates is then the estimate of the impact of ECaR.

Figure 2.1 Schematic of difference-in-difference methodology



Note: Graph represents a visual schematic outlining the concept of difference-in-differences, not the actual impact estimates.

The key assumption underlying the differences-in-differences approach is of 'common trends': the notion that the underlying trend in outcomes observed among the comparison group ($B^1 – B^0$) is a suitable proxy for the trend in outcomes that the ECaR group *would have* exhibited over the same period if ECaR had not been implemented. In Figure 2.1, this assumption is illustrated by the dashed black line and dashed grey line being parallel.

Of course, the counterfactual trend that would have occurred in the absence of ECaR is never observed, so this condition cannot be tested and remains an assumption. However, some reassurance for the validity of this assumption can be sought by examining whether the ECaR and comparison group exhibited similar trends in outcomes *before* the policy was introduced. If so, the validity of the difference-in-differences method, while never being guaranteed, will at least be less doubtful. If the trends in outcomes differ between the two groups even before the policy is implemented, then it is extremely unlikely that a difference-in-differences strategy will be able to measure the 'true' impact of the policy.

Section 6.1 presents some visual evidence on this point and finds a very similar trend in outcomes for the comparison group and ECaR group before the introduction of ECaR.

Box 1 – Difference-in-differences estimator

Before introduction of ECaR		After introduction of ECaR	
ECaR pupils/schools	Comparison pupils/schools	ECaR pupils/schools	Comparison pupils/schools
A^0	B^0	A^1	B^1

Letters A and B refer to the mean (average) outcome for the group in question. The difference-in-differences estimator is given by $(A^1 – A^0) – (B^1 – B^0)$. This is the trend (in outcomes) amongst pupils/schools that are ECaR participants less the trend in outcomes amongst pupils/schools that are not. A graphical demonstration of this method is approved above in Figure 2.1, where the black solid line represents the trend in outcomes for the ECaR group and the grey dashed line represents the trend in outcomes for the comparison group.

The difference-in-differences approach controls for all confounding factors whose effect is the same before and after the implementation of the policy, and any aggregate factors that affect the ECaR group and comparison group in the same way. We additionally control for other observable differences between schools and local areas that might impact on a school's outcome growth, including a range of school-level characteristics in the difference-in-difference models.

The above methodology is used to look at outcomes at the school level, then at the pupil level. The analysis therefore involves using information on outcomes for schools that receive ECaR and appropriate comparison schools over time. The sample of schools that receive ECaR get the policy for the first time between 2006/2007 and 2008/2009.[12] The administrative data used in this section go up to 2008/09 and contain school-level outcomes and characteristics up to 2008/09; we therefore define the set of comparison schools as those which received ECaR for the first time in 2009/2010. It is considered that this group of comparison schools would have had a similar trend in outcomes to ECaR schools had the ECaR schools not received the policy (see Section 6.1).

This common trends assumption is related to whether schools were effectively randomly allocated to the ECaR programme, given their observable characteristics. If participation in ECaR is related to a trend in outcomes, then our estimates will represent an over or under estimate of the true impact. For example, if the standards of reading ability in schools chosen for ECaR were declining over time faster than in comparison schools, then our estimates would be lower than the true impact. In contrast, if the head teachers of schools that choose to enter ECaR earlier are highly motivated and place emphasis on raising

[12] While ECaR was initially rolled out from 2005/06 onwards, the number of schools who received in the first year of is too small for them to be analysed reliably using this methodology. We therefore focus on the schools that received it between 2006/07 and 2008/09.

reading attainment in the school (and would have done so in the absence of ECaR), then it is likely that our estimates are higher than the true impact.

We also use the above methodology to look at outcomes at the pupil level. This involves a further complication in the evaluation. Although we observe the pupils that receive ECaR where the programme is in place, we do not know which pupils would have been eligible for ECaR in our set of comparison schools. We therefore use information on pupils' previous attainment to infer a likely group of pupils that would have been eligible for the ECaR intervention had it been available in their school. Specifically, we ask the question: "what is the impact of the existence of ECaR among all pupils below some threshold (such as the 10^{th} or 25^{th} percentile) of the distribution of prior literacy attainment?" Prior attainment is defined as the score on the Communication, Language and Literacy (CLL) component of the Foundation Stage Profile (FSP), taken at age 5. Unfortunately, while this is the best available indicator of low prior literacy, it is an imperfect indicator of eligibility for ECaR. Section 6.3.2 elaborates further on this issue, showing that pupils with low FSP scores do not all participate in ECaR, and some ECaR participants do not have low FSP scores. As a measure of low literacy (and hence eligibility for ECaR), the CLL component of FSP is therefore imperfect, but is the best indicator available in administrative data sources.

To clarify, the sample used for our difference-in-differences methodology is below:

Before introduction of ECaR		After introduction of ECaR	
All pupils below the 10^{th} /25^{th} percentile in ECaR schools	All pupils below the 10^{th} /25^{th} percentile in comparison schools	All pupils below the 10^{th} /25^{th} percentile in ECaR schools	All pupils below the 10^{th} /25^{th} percentile in comparison schools
A^0	B^0	A^1	B^1

Finally, we conduct a descriptive analysis of the outcomes experienced by pupils that actually received RR[13] during the development phase. This analysis is descriptive as it compares children's outcomes within one cohort rather than estimating the effect of the receiving RR through a difference-in-differences analysis. This approach is used because a suitable comparison group of pupils in non-ECaR schools cannot be identified: unlike the Reading Recovery Impact Study (described in section 2.3) we have no indictor for pupils in comparison schools that would have been selected for RR if their school had operated the policy. Likewise, we have no indictor for those pupils that would have received RR before ECaR is introduced to the school. This makes a difference-in-differences analysis impossible

[13] Data on the development phase comes from the administrative data from IOE which record information for each pupil that received RR during the period. We have no information on pupils that received other ECaR interventions during this period (even though they were taking place), which is why our analysis is restricted to those that received RR.

as we have no appropriate comparison group and no appropriate pre-policy baseline for students that actually receive RR.

As noted above, children with low levels of literacy could plausibly be identified through the CLL component of the FSP score. This measure is an imperfect predictor of receipt of RR, however, which is described in more detail in the chapter. This means that defining a comparison group for those that actually received Reading Recovery based on this measure is inappropriate. It is clear that other factors affect the teacher's decision to assign a pupil to RR: if these factors also affect the pupils' performance (for example, if only pupils within the low-FSP group that were expected to make poor progress are chosen) then the comparison group is invalid.

Instead, the analysis is a simple in-year comparison between the pupils that received RR and pupils in schools where RR was not available, while restricting both groups to be below some level of prior literacy (as defined by the FSP score). As such, the estimates from this analysis are not intended to provide genuine impact estimates.

2.4 Reading Recovery impact study

The Reading Recovery impact study was designed to investigate the wider pupil impacts that could not be measured through administrative data. The study was based on a matched comparison design involving 57 ECaR schools and 54 comparison schools[14]. Within these schools, pupils were selected according to criteria provided to maximise the chances that the RR pupils and comparison pupils were similar in background. Assessments at the end of Year 1 were completed for 239 pupils who had taken part in RR and 216 pupils in the comparison schools who had received standard reading support. The RR pupils and pupils in non-ECaR schools were matched on a range of background characteristics drawn from the National Pupil Database (NPD) using propensity score matching. Having controlled for any measurable differences[15] in background the measurement of impact was the outcome for the RR pupils minus the outcome for the comparison pupils.

[14] This number of schools was somewhat lower than the target number of schools (75 ECaR schools and 75 comparison schools) due to the difficulties of recruiting schools for the study. However, the lower response rate did not result in observable bias in the sample. The RR pupils and comparison pupils were similar in their background characteristics and attainment, and there was sufficient statistical power in the sample to detect impacts of Reading Recovery on the pupils involved.

[15] Propensity score matching is based on the measurable differences between samples but cannot take into account unobserved differences which in this case may include the attitudes and motivations of teachers or levels of parental support.

2.4.1 Teacher assessments

The measurement of outcome was based on the assessments of class teachers. The rationale for this approach was as follows:

- Teacher assessments could be completed based on the teacher's knowledge of the child without the need for formal testing.
- Parents were considered more likely to consent to their child being included in the study since they would not be tested.
- The class teacher was considered to be the individual with the best all-round knowledge of the child, which was appropriate to an assessment of their attitudes and behaviour in the classroom.
- Consistency in the assessment of ECaR and comparison children was maximised by completion by class teachers (as opposes to RR teachers in ECaR schools and other staff in comparison schools).
- Assessments by external researchers would be more costly, would most likely be less reliable for children of this age and would not be appropriate to the assessment of classroom-based attitudes and behaviours.

The main disadvantage of relying on class teacher assessments was that teachers' views of a child may have been skewed by the knowledge that they took part in a reading intervention programme. We aimed to mitigate this likelihood by emphasising in our communications with teachers that the study titled 'Helping Children Read' was about children's progress in reading, although reference was of course made to the Every Child a Reader intervention for the sake of transparency.

Had the comparison pupils received little or no additional support with reading beyond the classroom, we may have concluded that the some of the impacts of RR could be attributed to the overly positive judgments of the teachers completing the assessments, knowing that the pupils concerned had participated in RR. However, Table 6.10 shows that nearly all of the comparison children also received additional support of which the class teacher would be aware. As a result, we consider it reasonable to have confidence in the impacts found on the following measures included in the assessments:

- Reading Assessment Focus
- Overall reading level
- Reading level in relation to age
- Ability to decode text
- Reading attitudes and behaviours
- Involvement of parents/carers in reading
- Attitudes to learning in general
- Behaviour (Strengths and Difficulties Questionnaire)
- Current special education need and type.

2.4.2 Characteristics of RR and comparison pupils

The tables below present some key characteristics of the RR and comparison children included in the analysis. The RR and comparison pupils were similar in terms of FSM eligibility and SEN. The RR pupils were more likely than comparison pupils to be female, less likely to be White, and less likely to have English as their first language. These differences were taken into account in the propensity score matching (described in the Technical Report).

Table 2.2 Background characteristics of RR and comparison pupils in school impact study

	RR Pupils from ECaR schools	Pupils from comparison schools
	%	%
Gender		
Male	59	66
Female	41	34
Ethnic group (major)		
White	51	59
Black	4	5
Asian	14	8
Mixed	6	6
Other	0	3
Unclassified	25	20
Language group (major)		
English	56	63
Other than English	16	15
Unclassified	26	21
FSM eligible		
No	64	66
Yes	35	34
Any SEN	6	8
Base	237	216

Table 2.3 presents the prior attainment levels of the RR and comparison pupils based on their Foundation Stage Profile (FSP) assessments completed at the end of the Reception year. There are two points to note:

- On all 13 aspects of the FSP, the RR and comparison pupils scored lower on average than the national average (shown in the final column), confirming that teachers selected pupils for RR and for the study who, on average, were below average attainment levels. However, as shown in the full detail provided within the Technical Report, the scores ranged widely and in both the RR and comparison samples, there were pupils with FSP scores above the national average.
- The average scores of the RR and comparison pupils were similar to each other, suggesting that the comparison pupils were similar in prior attainment to the RR pupils.

Table 2.3 Foundation Stage Profile scores for RR and comparison pupils compared to all pupils in 2009

Base: RR and comparison pupils in school impact study and national figures			
	Mean scores		
	RR pupils (N=237)	Comparison pupils (N=216)	National data for all children in 2009[16]
Personal, social and emotional (PSE) development			
Dispositions and attitudes	6.3	6.2	7.2
Social development	5.9	5.8	6.7
Emotional development	5.8	5.6	6.7
Communication, language and literacy (CLL)			
Language for communication and thinking	5.7	5.3	6.7
Linking sounds and letters	4.9	4.4	6.4
Reading	4.8	4.6	6.3
Writing	4.2	3.8	5.9
Problem solving, reasoning and numeracy (MAT)			
Numbers as labels and for counting	6.0	5.7	7.1
Calculating	4.8	4.8	6.3
Shape, space and measures	5.3	5.3	6.6
Knowledge and understanding of the world	5.8	5.5	6.6
Physical development	6.5	6.1	7.1
Creative development	5.6	5.4	6.5

[16] http://www.dcsf.gov.uk/rsgateway/DB/SFR/s000879/index.shtml (Accessed 23-9-10).

2.5 Relative impacts of Reading Recovery

The purpose of this analysis was to investigate whether the impacts of Reading Recovery differed between subgroups of children or put differently, whether some groups of children were more likely to benefit from taking part in Reading Recovery. The data on which this analysis was based was the management information data provided by the Institute of Education, covering the academic years 2005-6 to 2008-9. Regression models were constructed to explore the factors influencing the overall outcome of Reading Recovery, Book Level, British Ability Scales and Reading Age.

2.6 Value for Money analysis

2.6.1 Costs

The Value for Money (VfM) analysis attempts to quantify and compare the current costs and expected future lifetime benefits of ECaR. Both the costs and quantities are expressed in £ per ECaR participant, in 2010/11 prices.

The costs are estimated based on the costs questionnaires administered by NatCen, one of which is a survey of 81 ECaR LAs and the other a survey of 414 ECaR schools. The LA survey reports information such as consortium-wide implementation costs, and TL training and salary costs, while the school survey provides information on Reading Recovery teacher salaries. Since different LAs within an ECaR consortium might share costs (such as the costs of a TL), the LA and school information is aggregated up to the consortium level. Cost information is reported for either 2008/09 or 2009/10, but was uprated into 2010/2011 prices for comparability.

Non-response is a significant issue, leading to some missing values for many items of costs. We retain the 22 consortia for which at least half of the items are reported (non-missing). To replace missing values for each item, we impute the average value derived from all other non-missing values.

We calculate a short-term and long-term cost of ECaR. The short-term cost takes into account both the start-up and running costs. The long-term cost per pupil takes into account the running costs only. These cost measures are both at the consortium level.

To calculate a cost per ECaR pupil, we match in the total numbers of pupils receiving ECaR interventions in each consortium, for the year to which the costs relate. This information is taken from the IOE data on individual pupils receiving ECaR. The total cost across all remaining consortia is then divided by the total number of ECaR pupils in these consortia, to get an estimate of the cost per pupil. This is done for both the measure of short-term and long-term costs.

2.6.2 Quantifying the benefits of ECaR

The benefits are estimated based on (i) the direct impact of ECaR on KS1 attainment, taken from Section 6.1; (ii) the predicted effect of KS1 attainment on final educational attainment; (iii) the future benefits that are associated with final educational attainment; and (iv) the lifetime present value of those benefits. All benefits are expressed as a cash amount per ECaR participant in 2010/11 prices.

This analysis considers future benefits through three possible routes: (i) higher earnings, (ii) improved health, (iii) reduced crime rates. The final assessment of the benefits considers both the earnings benefits alone, and the total benefits across all three routes. However improvements in these outcomes caused directly by participation in ECaR itself have not been measured. Other factors, such as psychological benefits or externalities, have not been included as they are even more difficult to measure.

VfM analysis involves a huge amount of uncertainty, particularly when measuring the lifetime benefits of ECaR. There would be considerable uncertainty even if adult outcomes were observed; here, only child attainment is observed and potential adult outcomes must be predicted on the basis of these.

Statistical uncertainty is also important: many steps of the VfM calculation involve parameters that are themselves estimates, which therefore have statistical margins of error around them. To reflect this, upper and lower bounds are presented at all stages. Rather than focussing on a specific magnitude for the costs and benefits, this analysis derives a range within which these quantities are likely to lie with a high probability.

Since adult outcomes are not observed, we adopt the strategy of predicting the improvement in adult educational attainment on the basis of the observed improvement in child attainment (at KS1), and then combine this with external estimates of the improvements in earnings, health or crime brought about by improvements in adult educational attainment.[17]

In practice, this is implemented as follows: the relationship between the relevant measure of attainment at 18 and KS1 attainment is estimated using individual-level administrative data for one cohort of pupils. This allows direct impacts of ECaR on KS1 Reading and Writing attainment to be translated into predicted impacts on age-18 qualifications.

[17] In the school-level impact analysis, upon which the VfM analysis is based, KS1 attainment is modelled in a 'binary' sense (whether the expected level is reached or not). This is because the only information available in the KS1 data was the number of children reaching the expected level; actual scores or marks were not included. Hypothetically, modelling the impact of ECaR on a continuous measure of KS1 attainment (such as test scores) may have given different results for the impact and VfM analysis. However, the only way to check this would be to use information on actual scores – which is not available at the school level – and repeat the impact and VfM analysis, then compare the results.

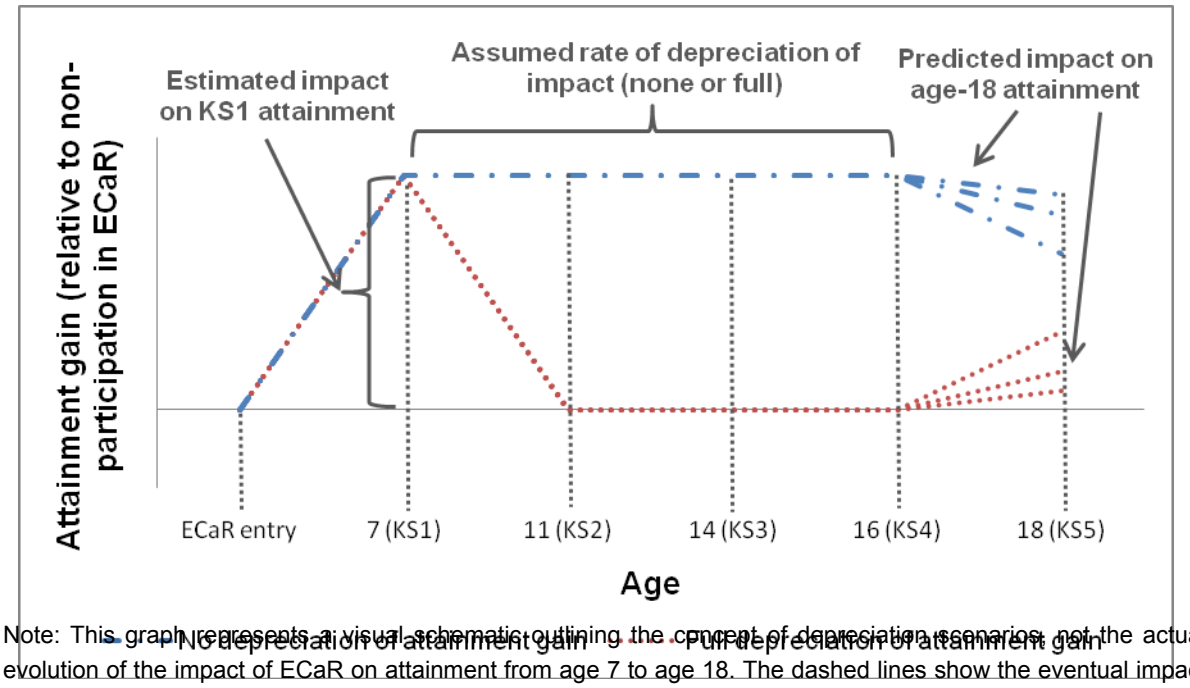
The model for this estimation procedure was created using a series of attainment records from KS1 all the way through to post-16 qualifications, based on linked National Pupil Database (NPD), Individual Learner Record (ILR) and National Information System for Vocational Qualifications (NISVQ) data. Indicators for whether children had reached the Level 2 or 3 threshold – and through which route – were derived from this information. This information was all linked together for one specific cohort – children who reached age 18 in 2008/09 – to provide a complete series of academic attainment and qualifications obtained for each individual. It was matched to School Census (formerly PLASC) data containing basic pupil-level contextual factors that might influence attainment, or the progress made between different attainment stages.

Since the lifetime benefits all depend on the impact of ECaR on final educational attainment – which is not yet known – assumptions must be made about this. These assumptions are known as 'depreciation scenarios'. One possible scenario is no depreciation, whereby the impact of ECaR persists fully throughout education until 18; the other extreme we model is full depreciation, whereby the impact of ECaR disappears by age 11.

The effect of KS1 Reading and Writing attainment on final (more precisely, age-18) attainment is estimated under both depreciation scenarios. These scenarios were implemented by including or excluding attainment at KS2, KS3 and KS4. The 'no depreciation' model relates final educational attainment to attainment at KS1 only (and contextual factors). This assumes that attainment at other Key Stages is redundant because it is fully encapsulated in KS1 attainment. The 'full depreciation' model relates the qualification outcome to KS1, KS2, KS3 and KS4 attainment jointly (plus the contextual factors). The resulting estimated effect of KS1 attainment is therefore the long-run impact of improved attainment at age 7, holding fixed the attainment at ages 11, 14 and 16. In other words, it assumes no corresponding improvement in attainment at these ages.

Figure 2.2 attempts to illustrate visually the two depreciation assumptions.

Figure 2.2 Schematic of different scenarios for depreciation of attainment gains



Note: This graph represents a visual schematic outlining the concept of depreciation scenarios, not the actual evolution of the impact of ECaR on attainment from age 7 to age 18. The dashed lines show the eventual impact on attainment at age 18 given the depreciation scenario; these impact are estimated from the statistical model outlined above and are therefore not restricted to a particular assumed value. This is reflected by the dashed lines fanning out to cover a range of possible levels of age-18 attainment. However, the eventual impact on age-18 attainment will be greater under the no-depreciation scenario than under the full-depreciation scenario.

2.6.3 Earnings benefits

The precise calculation for each of the three routes through which benefits are estimated (earnings, health and crime) differ slightly due to the data and literature that are available. For earnings, we make use of DfE estimates of the lifetime returns to a range of different qualification levels (see Figure 7.1). For health, we make use of estimates from the health economics literature of the improvement in health deriving from an additional year of education (combined with Department of Health valuations of that improvement). For crime, we make use of estimates of the reduction in the crime rate caused by reducing the proportion of people with no formal qualifications. This has implications for the statistical model we estimate (relating age-18 attainment to KS1 attainment) in each case.

For earnings, the following qualification levels were defined: none, Level 2 vocational, Level 2 academic, Level 2 academic followed by Level 3 vocational, and Level 2 academic followed by Level 3 academic. The lifetime returns information provided by DfE indicate the lifetime earnings premium associated with each of these qualification levels, relative to the qualification level just below it. There is therefore a whole range of earnings returns to take

into account; incorporating them entails taking into account a range of possible improvements in qualification levels, right across the distribution of qualifications.

With the dataset described above, models were estimated for the probability of reaching any of the qualification levels above a given qualification level, and the effect of KS1 attainment upon that. These models were estimated separately for each current qualification level and each potential higher qualification level; obviously this model could not be estimated for the highest qualification level observed in the data. As an example, one model estimated the effect of KS1 attainment on the probability moving from achieving Level 2 vocational qualifications to achieving Level 3 academic qualifications, for females. Another model estimated the effect of KS1 attainment on the probability of moving from having no formal qualifications to achieving Level 2 academic qualifications, for males.

Having estimated these models, the effects of KS1 were combined with the implied impact of ECaR per ECaR participant for each gender (derived from the analysis in Chapter 6). This yields, for a given current qualification level, the probability of an ECaR participant attaining each of the potential higher qualification levels (and receiving the associated lifetime return). These returns are then averaged across all potential higher qualification levels to give an expected lifetime earnings benefit for a male or female at a current education level. This is then averaged across all current education levels to give the expected return for each gender. Finally, this is averaged across genders, weighting by the gender split of ECaR participants (61% male, 39% female), to give an average expected lifetime earnings return for the group of ECaR participants as a whole.

2.6.4 Health benefits

To quantify the potential value of any health benefits of ECaR, we use estimates of the value of a Quality-Adjusted Life Year (QALY) provided by the Department of Health (2010) alongside estimates of the QALY benefit of an additional year of education taken from Groot and Maassen van den Brink (2006). These are combined with our own estimates of the additional years of education caused by ECaR.

We therefore define for each child in the administrative data cohort their additional years of education beyond 16 (up to age 18). This is measured on the basis of (i) ILR participation records for 2007/08 and 2008/09, and (ii) whether the Level 3 threshold had been achieved by age 18.

The additional years of education are then related back to KS1 attainment (or the entire history of attainment, under the full depreciation scenario) in a statistical model. Given that our attainment data continues up until age 18, the measure of additional years of schooling can only take the value 0, 1 or 2. We estimate the model of additional years of schooling, pooling both genders together, and retain the estimated effects of KS1 Reading and KS1 Writing.

These estimates are combined with the impact of ECaR on KS1 Reading and Writing, to estimate the predicted increase in years of education casued by ECaR, under both depreciation scenarios. The estimated increase in years of education is then combined with a QALY value of an additional year in school. Finally, this is combined with a monetary value per QALY, which according to the Department of Health (2010), is £60,000 (£63,000 in 2010/11 prices).

Multiplying this by the expected QALY benefit caused by ECaR gives an annual monetary value of the improved health resulting from ECaR. We then compute the discounted sum of this amount across the lifetime, using HM Treasury's Green Book (2003) guidance on discounting future benefits.

2.6.5 Crime benefits

To estimate the value of reductions in crime caused by ECaR, we refer to Machin et al. (2010), who estimate the social costs and benefits of reducing the proportion of youths with no qualifications by 1%. In their analysis of the social benefits, they calculate the number of fewer property crimes[18] that would result from the increase in qualification levels, and multiply it by the estimated cost per property crime (taken from Dubourg et al., 2005) to arrive at the social benefit.[19]

The crime rate information is taken from the latest available British Crime Survey. To calculate the predicted fall in the propensity as a result of ECaR, we estimate models for the probability of obtaining some qualifications (defined as Level 2 vocational or academic, or above) instead of none. As usual, this is conducted under both depreciation scenarios. The effects of KS1 Reading and Writing on this outcome are combined with the estimated impacts of ECaR on KS1 Reading and Writing, to obtain the predicted increase in the proportion with some qualifications, as a result of ECaR. Using the results in Machin et al. (2010), the implied fall in property crime offences is calculated. To assign a value to these reductions in crime, we use the same cost of property crime as in Machin et al. (2010).

[18] They focus on property crimes arguing that these constitute the majority of crimes, and that other crimes are more difficult to assign a cost to.

[19] They subsequently subtract from this the funding cost of a 1% increase in post-16 education, in order to produce an estimated net social benefit. This has not been done in this case.

Table 2.4 summarises the various empirical strategies.

Table 2.4 Empirical strategy for measurement of expected lifetime benefits through each route

	Route through which benefits occur		
	Earnings	**Health**	**Crime**
Definition of age-18 attainment	Various qualification levels (see text)	Years of additional education (between ages 16 and 18)	Possession of some formal qualifications
Information source on lifetime benefits	DfE estimates of lifetime returns to each qualification level	Academic estimates of QALY benefit per additional year of education, plus Department of Health valuations of that QALY	Academic estimates of value of property crime reduction caused by obtaining formal qualifications

2.6.6 Break-even depreciation rate

Given the wide range of values under different depreciation scenarios, a rough break-even depreciation rate is calculated. In particular, we calculate what the effect achieving the expected level at KS1 Reading and Writing would have to have on the probability of achieving final measures of attainment, in order for the lifetime benefits (via earnings) to match the costs. In this case, the estimated long-term cost is used as the benchmark.

As the calculation of the lifetime benefits is quite a large process with many steps and parameters, a trial-and-error process is adopted rather than solving the calculation for the desired depreciation rate. We therefore guess different values of the effect of KS1 Reading and Writing on age-18 attainment, and calculate the total lifetime earnings benefits that result. This process is carried out iteratively, stopping when the average lifetime earnings benefits are approximately equal to the long-term cost of ECaR per participant.

3 Implementing ECaR at Local Authority level

Key Findings

- **Taking part** in ECaR was motivated by the expected impacts of the programme and its ability to contribute to or meet existing strategic priorities within Local Authorities. This reflects the Institute Of Education guidance on when ECaR is likely to be most effective.

- **Funding** was not seen as sufficient by Local Authorities. This may reflect a misunderstanding of the funding that was provided, but it also illustrates the challenges faced by Local Authorities in topping-up core funding for the programme in the current economic climate.

- **Support and guidance** from the Institute of Education and National Strategies was positively received by Local Authorities. Criticism was restricted to the quality of technical advice for setting-up the Reading Recovery Centre and a lack of co-ordination between IOE and NS to avoid duplication of content in sessions.

- **The Teacher Leader training programme** presented challenges in terms of workload and the mental shift required to re-engage in theory-based learning. Teacher Leaders did, however, acknowledge the value of the critical reflection that this approach instilled. The findings from quantitative and qualitative strands suggest that Teacher Leaders felt well equipped to fulfil the core aspects of their role.

- **The Teacher Leader role** was significantly time-pressured. A particular challenge was maintaining their Reading Recovery practice. This and other elements of the role consistently suffered as Teacher Leaders prioritised what they saw as core functions, such as advocating and providing Reading Recovery training.

- **Consortia working** proved beneficial for all parties in terms of sharing practice and building on existing relationships. Disadvantages of consortia, however, such as the burden of co-ordination, fell disproportionately on the lead Local Authority.

- **Implementation of ECAR was most effective** when the programme aligned with the wider Local Authority strategy and other interventions, where Teacher Leaders were supported by managers to fulfil training requirements and maintain professional development, and where consortia shared co-ordination and administrative tasks.

This chapter describes the implementation and delivery of ECaR by Local Authorities (LAs), identifying key barriers and facilitators. The chapter draws on data from the surveys of ECaR Managers and Teacher Leaders (TLs) within LAs[20] and depth interviews with ECaR managers and TLs. Table 3.1 below lays out the timeline for implementations activities that it is recommended LAs follow and indicates the sections of this chapter where findings on each of these elements are discussed.

Table 3.1 National Strategies timeline for implementation

Time	Activities	Relevant sections
Year 1 – January	Build ECaR into strategic planning, recruit TL	3.1, 3.2.1, 3.2.2
Year 2 - September	TL begins first year of training	3.2.3
Year 2 – September/October	Develop criteria for prioritising schools Identify location for Reading Recovery Centre	3.2.4, 3.2.5
Year 2 – March	Finalise school selection Ensure RRC ready for September opening	3.2.4, 3.2.5
Year 2 – June	Management activities, briefing head teachers, aligning strategy and resources with other programmes	3.3
Year 3 – September	Reading Recovery Teachers (RRTs) begin their training	3.4
Year 3 – Autumn	TLs trained in other ECaR layered interventions	3.2.3
Year 4 – Autumn	ECaR delivered in full in schools - RRTs fully trained in RR and other interventions	See Chapter 4

3.1 Deciding to take part in ECaR

The chapter starts by describing the rationale for an LA to become involved in ECaR and the factors affecting their decision to do so. LAs were offered the ECaR programme in stages, reflecting the layered approach to delivery of ECaR. For example, training in interventions other than Reading Recovery began in year 2. IOE has produced guidance in which it provides a range of questions that LAs should ask themselves to determine whether Reading Recovery or ECaR are appropriate programmes for them. The qualitative findings illustrate that a number of these were taken into consideration. Participants described three key motivations for choosing to implement the programme: knowledge and experience of aspects of ECaR (including Reading Recovery), the expected impacts of ECaR and the extent to which this fitted with the existing LA strategy.

3.1.1 Knowledge and experience of ECaR

LA staff in the qualitative interviews had a good understanding of ECaR in cases where RR had already been established as an intervention within the LA. ECaR provided an opportunity to build on the existing resources and facilities that LAs had in place (e.g. an

[20] Eighty-one ECaR Managers and 39 Teacher Leaders took part in the survey. The results are presented as nominal values rather than percentages because of the small numbers.

existing RR centre), provide funding and resources to continue and expand implementation at school level and allow the LA to support further interventions within schools through the layered approach. For LAs that had previously delivered RR but had stopped due to lack of available funding, ECaR provided the opportunity to re-engage with an 'evidence-based' intervention which was perceived as having proven results. Previous experience of delivering RR among LA staff was also seen as influential in championing the programme.

3.1.2 Expected impacts of ECaR

The anticipated impacts of the programme were also an important consideration. The implementation survey provided an insight into how ECaR Managers and TLs understood the goals of the programme. Improved reading and improved long-term outcomes for pupils were seen as primary goals by both groups. Teacher Leaders were more likely than ECaR Managers to consider 'greater staff awareness of how to support reading difficulties' to be a primary goal of ECaR (34/39 compared to 49/81). This may reflect the fact that their role put them closer to the delivery of ECaR and observing the wider impact of RR on schools (3.3.1). Other goals of ECaR were 'improved general academic attainment' and 'greater staff awareness of literacy interventions'.

Table 3.2 Goals of ECaR according to ECaR Managers and Teacher Leaders

Base: ECaR Manager: 81, Teacher Leader: 39					*Survey*
	Whether a goal for LA				
	Respondent	Primary goal	Secondary goal	Not a goal	Missing
Goals of ECaR:		N	N	N	N
Improved reading	ECaR manager	75	4	0	2
	Teacher Leader	38	1	0	-
Improved general academic attainment	ECaR manager	50	28	2	1
	Teacher Leader	26	11	0	2
Improved long-term outcomes for children	ECaR manager	73	5	1	2
	Teacher Leader	34	5	0	-
Greater staff awareness of literacy interventions	ECaR manager	30	47	2	2
	Teacher Leader	21	17	0	1
Greater staff awareness of how to support reading difficulties	ECaR manager	49	27	2	3
	Teacher Leader	34	4	1	-

In the qualitative interviews participants echoed the above results by describing the main expected impacts to be raising standards, reducing the attainment gap and wider pupil related impacts such as employability and well-being. In addition to this, ECaR's expected impact on the professional development of teaching staff skills in supporting literacy was also mentioned.

3.1.3 Fit with existing Local Authority strategy

Given the expected impacts of ECaR, LAs saw the programme as corresponding with existing educational strategy and priorities. The implementation survey showed the majority of ECaR Managers (51 out of 81) reporting that the programme was given a high priority within the overall LA early literacy strategy, with very few seeing it as a low priority (three out of 81). Qualitative interviews illustrated that ECaR fitted with the existing LA strategy in three ways: providing early interventions to pupils falling behind at Key Stage 1; addressing local priorities of raising standards at Key Stage 1 and reducing attainment gaps; and supporting the transition of pupils from the Early Years Foundation Stage to Key Stage 1. LAs also highlighted the potential for alignment with other intervention programmes targeting literacy and other key skill areas (such as Every Child Counts) through a joint strategic approach. Survey results showed a high uptake of these other programmes. All but one responding LA participated in other Every Child programmes. Every Child Counts and Every Child a Talker were the most common (with 73 and 71 out of 81 LAs respectively running these), followed by Every Child a Writer (54 out of 81). Participants in the qualitative interviews felt it was important that strategy around implementation and delivery was joined up where possible, so that different programmes complemented each other.[21]

3.2 Early Implementation

This section describes the early implementation activities undertaken by LAs which consisted of the recruitment of the Teacher Leader, establishing a Reading Recovery centre, the training of the TL and setting up a consortium (where LAs worked together to implement and deliver the programme). The implementation survey asked about perceptions of the support for this set-up stage and planning the programme. Most ECaR Managers (67 out of 81) found the information, advice and support available for setting up the programme to be sufficient. Table 3.3 shows that the majority thought LAs had been given sufficient planning and set-up time for the programme (62 out of 81), but fewer thought this was the case with regard to the Reading Recovery centre (29 out of 81). The majority felt that initial funds available were insufficient (45 out of 81).

Table 3.3 Aspects required for the successful launch of ECaR in LA

Base: ECaR Manager: 81						*Survey*
	Whether sufficient					
	Sufficient	Insufficient	Don't know	Too early to say	N/A	Missing
Type of activity	N	N	N	N	N	N
Planning and setting-up time for programme	62	9	6	1	2	1
Planning and set-up time for Reading Recovery Centre	29	12	9	2	25	4
Initial funds available	24	45	5	1	4	2

[21] It is worth noting that Every Child a Writer and Every Child a Talker were developed independently of ECaR and are aimed at different age groups.

The remainder of this section draws primarily on the qualitative data to provide further insight into some of the underlying reasons for the concerns around the set-up of the Reading Recovery Centre and the perceived lack of funding as well as a more detailed picture of the recruitment and training process for TLs.

3.2.1 Consortium set up

ECaR is implemented either by a single LA or consortium of LAs. A consortium was an arrangement between two or more LAs who shared a strategic approach and combined resources and expertise to implement the programme across their LAs.

The decision to work as a consortium was perceived to be driven by National Strategies (NS). LAs experienced this in two ways: either they were already running ECaR and were asked to work in a consortium as a condition of their ongoing funding or they joined the programme on the stipulation that they were to implement the programme as a consortium. Members of the consortia were chosen by NS. LAs were happy with the selection in cases where they had former joint working relationships with the non lead LAs concerned. However, some LAs felt that the choice of consortium LAs had been made using a simplistic rationale such as bordering geographical location and overlooking prior working relationships which may have better suited the LA.

National Strategies guidance[22] suggests that the members of a consortium should agree between them who should be the lead LA. The experience of lead LAs, however, was that this often fell naturally to them because they had an existing TL and proven expertise, e.g., recognised good or innovative practice. Other LAs were chosen because they were the most geographically central LA and easily accessible. In some consortia, this was not a smooth process with consortia being set up without clarity of who was the lead. One LA made the decision to have a rolling lead so that responsibility was shared and changed every year. There was also a feeling that there was little time to prepare for consortium working and that clear guidance and support on ways of working and the initial set up of the consortium would have been useful.

[22] Guidance on consortium working. The National Strategies: Every Child a Reader materials.

3.2.2 Selection and recruitment of Teacher Leaders

The qualitative study identified two different methods for recruiting TLs, which broadly reflect guidance from IOE. Participants described either an open or a targeted approach as illustrated in Table 3.4.

Table 3.4 Methods for recruiting Teacher Leaders

Recruitment approach	Factor influencing choice
Open recruitment • Advertised nationally • Advertised within the Network of Reading Recovery TL/ IoE RR centre • Advertised within LA	• Confidence in availability of suitable candidates • Time to 'find the best person'
Targeted recruitment • Transferring/'redesigning existing resources' • Secondment opportunity • Commissioning a school to provide a TL	• Concerns over standard of candidates or lack of suitable candidates applying to open processes • Lack of time to recruit

The approach taken was influenced by two main factors – the time available for recruitment and the perceived quality of the TL candidates. Open recruitment was used where LAs felt there was a competitive field of candidates including former or current Reading Recovery Teachers who were expected to apply for such a position. However, the actual experience of an open recruitment process did not always meet expectations, with some LAs receiving limited interest and few suitable candidates. Other LAs opted for a targeted approach identifying an existing member of staff that the ECaR manager or other LA staff, who had direct experience of the teacher's skills and aptitude for the job, knew. Avoiding an open recruitment process also enabled the TL to be in post more quickly. Where a secondment or commissioning process was used, there were challenges in terms of the home department or school feeling frustrated that they were continuing to keep a post open and essentially losing a valuable resource for a substantial length of time, with agreements often in place until 2011.

Despite these challenges outlined above, the implementation survey suggested that most LAs managed the process without too much difficulty. Thirty-six out 81 LAs found the process of finding a suitable candidate very easy or fairly easy (10 and 26 out of 81), with only twelve saying it was fairly difficult or very difficult (10 and two out of 81). However, the qualitative interviews revealed key challenges around the recruitment of additional or replacement TLs. Often LAs wanted a trained TL because they had already committed time and resources into the training of a TL previously, but were unable to find candidates who had this experience. LAs tried to overcome this by recruiting a trained international TL or commissioning the services of other LAs either within the consortium or outside, so they could continue to run the programme whilst they recruited a candidate to be trained as a TL at IOE.

For both approaches, however, LAs felt they had selected a TL who they perceived as meeting the required essential criteria suggested by IOE[23] (outlined in Table 3.5). LAs also discussed additional key factors that led to employing the right person. Key factors were described as local knowledge of the area, experience of training and engaging teaching assistants, teachers, head teachers and parents and a general passion for reading and learning. In the implementation survey of 39 TLs, the majority reported having some sort of teaching or school related experience immediately before being appointed: they were literacy consultants (13), primary school teachers (five), Reading Recovery teachers (three) and teacher leaders (three), and one was a head teacher. The remainder (14) held other non-educational roles.

Table 3.5	Essential criteria for the Teacher Leader role as specified by Institute of Education
Knowledge	• Clear understanding of curriculum and pedagogical issues relating to primary literacy and of the broader primary context • Detailed understanding of Reading Recovery, or the ability to acquire this understanding through a course of academic study at Masters level
Experience	• Successful teaching experience (including early-primary experience) • Proven leadership experience in literacy and/or inclusion • Recent experience of supporting colleagues in their professional development in literacy or inclusion • Experience of meeting deadlines and setting targets • Experience of evaluating teacher quality and providing feedback
Qualifications	• Graduate or equivalent QTS • Reading Recovery Teacher Leader qualification or able to meet the requirements to obtain this

3.2.3 Training of Teacher Leaders

All TLs are expected to undertake a full-time one year MA course delivered by IOE. The key aims of the training programme are to provide TLs with:

- relevant knowledge and understanding about current research in early literacy;
- the theories of Clay underpinning Reading Recovery; and,
- the skills required to manage the implementation in a LA and the ability to lead high quality professional development for practising teachers.[24]

The implementation survey found that 14 out of 39 Teacher Leaders had completed the MA, 19 were undertaking the course and four had not. Those who had completed the MA or were currently undertaking it were asked to indicate the usefulness of each of the training aspects. As Table 3.6 illustrates, all aspects of the MA training were considered very useful by most respondents.

[23]The National Strategies: Reading Recovery Teacher Leader -Model Job Description.
[24] IOE Programme Specification: http://www.ioe.ac.uk/documents/brochures/PMM9_LLDPIM.pdf

Table 3.6 Usefulness of different aspects of the MA undertaken				
Base: Teacher Leaders undertaking the MA				*Survey*
	Level of usefulness			
	Very useful	Quite useful	Not very or not at all useful	Too early to say
Aspect undertaken:	N	N	N	N
First-year taught course of MA *(Base: 33)*	33	0	0	0
Usefulness of teaching RR during the first year of MA *(Base: 33)*	33	0	0	0
Second year of research study *(Base: 18)*	10	5	0	3
Visits form National Trainers during MA *(Base: 33)*	29	4	0	0

The remainder of this section draws on the qualitative data to explore how the different aspects of training were considered useful for TLs to fulfil their role.

Year one training

The first year training involved attendance at the Institute of Education (IOE) one evening and one full day each week. The training consisted of the key elements and methods detailed in Table 3.7, which were in line with the IOE specification. A key aspect of the training was collaborative learning through critical reflection individually and in a group. This mode of learning also led to the development of a supportive network outside of training where TLs informally discussed practice and theory and arranged visits to colleagues' schools to observe their practice. It was felt that groups worked well when there was a mix of expertise and experience of Reading Recovery and of training adults and teachers.

Table 3.7 TL year 1 training	
Main aims of training	Specific activities
RRT Training Year 1 • The Theory and Practice of Reading Recovery: Research Methods in Literacy • Literacy Development Year 2 • (optional) Part-time year of study and completion of MA through undertaking a research report.	• workshops for reflecting upon pupils' literacy behaviour • observation of teaching behind a one-way screen and critical examination of pupil behaviour and teacher responses. • visits from National Trainer/Coordinators to trainee TLs. • visits to and from other TLs to observe and reflect upon RRT teaching. • Observation of experienced TLs delivery of RRT training. • TLs undertake case studies of RR pupils to gain an understanding of the rationale of early intervention. • TLs undertake RR sessions daily with pupils to refine and develop their understanding of RR procedures and techniques. • allocated personal tutor, provided individual support through regular meetings and contact via phone or email.
Continual support year 2 and beyond • National Trainer/Coordinators to support TL in their practice within their LA • Continued professional development training and resources	Institute of Education • Additional training provided in the layered interventions • 5 day professional development residential which involved learning about current research and best practice • IoE support visits 3 times in year 2 and then annually • RR network of trainers/coordinators and IoE best practice resources and materials • Regular updates and newsletters from the RR network National Strategies • Link manager and TL meetings focusing on implementation issues e.g. consortia working, management and funding. Regional networks • Regional cluster meetings run by TLs to share practice and reflect each others' practice and current literature and theory.

Year two training

On completion of the first year training, participants were qualified to carry out the full TL role. They also had the option to carry out research to gain a Masters qualification. TLs that did not complete the Masters either felt they did not have the time to commit to the programme, did not feel it was necessary for their role as TL or did not have the desire to complete academic research. Conversely, those completing the Masters did so out of their own interest in developing a research question, which sometimes required deferring or being given additional time to complete the research. This was made easier by supportive LAs who provided study leave and helped them manage their workload around the research.

Ongoing Support

Support and training beyond the first year was provided by IOE and NS, but also by developed and organised regional networks. LAs also provided additional support through line management provided in main by ECaR managers. NS also made annual visits to selected LAs to conduct observations within schools and discuss with key staff the implementation of the programme. However, TLs regarded such visits as a monitoring exercise rather than providing support. TLs particularly valued continued contact from ECaR managers whilst training to keep up to date with local strategy. One approach was for LAs not to expect TLs to project manage RR set-up due to their training commitments in the first year as it was felt important that TLs were not overburdened with implementation tasks at that stage.

TLs identified three challenges around completing the training and maintaining their TL role at the same time. Firstly, the course entailed assignments and reading outside the structured training, which was more challenging while also undertaking early implementation tasks. Secondly, there was a view that it was a huge challenge to develop new skills and re-engage in theoretical learning. Finally, the training was initially based in London, involving long hours of travel on top of the time spent training, requiring participants with children to reorganise childcare arrangements.[25] Although the training was largely regarded as enjoyable, these challenges had an impact on TLs in terms of their work/life balance and levels of stress during the set-up stages of ECaR. While one view was that there could have been a greater acknowledgement of this impact and more pastoral support provided, TLs did praise the flexibility of IOE in working with the TL schedules where they could, for example, in arranging support observations in schools.

Views on the effectiveness of TL training

It was noted at the outset of this section that TLs overwhelmingly reported their training as being useful. The survey also provided data on how capable TLs felt in different aspects of their role (Table 3.8). Teacher Leaders indicated their level of agreement with a number of statements describing their work. Most TLs agreed 'a lot' that they understood the 'aims and objectives of their role' (34 out of 39) that they enjoyed their work (36 out of 39) and were 'committed to it'. There were mixed views on whether they had sufficient time to carry out their role, with roughly the same number of TLs saying that they either agreed a lot, agreed a little or disagreed a little. Most TLs disagreed strongly with the statement that they were unable to carry out all parts of the role (21 out of 39).

[25] It should be noted that more recently training is delivered at regional training centre in an attempt to alleviate some of these challenges.

Table 3.8 Teacher Leaders' views on their role in ECaR					
Base: Teacher Leader: 37-39 depending on question					*Survey*
	Level of agreement				
	Agree a lot	Agree a little	Disagree a little	Disagree a lot	Too early to say
Aspect of TL's role	N	N	N	N	N
Has sufficient time to carry out the role	10	9	10	6	2
Has sufficient resources to carry out the role	21	10	4	3	1
Has sufficient training/support to carry out the role	29	7	2	0	1
Understands aims/objectives of the role	34	5	0	0	0
Has other responsibilities outside the role	7	14	5	12	0
Is unable to carry out all parts of the role	2	3	6	21	5
Is confident in carrying out the role	25	12	0	0	1
Enjoys working as a TL	36	2	1	0	0
Is committed to working as a TL	39	0	0	0	0
Has found role difficult	4	9	5	18	1
RR teachers are able to carry out their role	17	16	3	0	1

Although this shows high levels of confidence in completing many aspects of their role, in the qualitative interviews TLs provided insights into what could further help them to fulfil their role.

Skills required to train RRTs

TLs thought that the key to delivering RR and RR teacher (RRT) training was the development of good observational skills and a reflective approach to teaching and learning. TLs were required to be responsive to the specific needs facing both RR pupils and RRTs development of practice. This involved drawing on TLs own theoretical learning and practice to think strategically about how to overcome or support such challenges. Some TLs stressed that this model of delivering training was very different to skills used in classroom teaching where there is more structured approach, but were aware of the wider benefits it offered:

> *…you're used to a model of PD [professional development] that tells you what to do. And because with working one-to-one with children with literacy difficulties there often isn't a rule book; you have to use the theory, your subject knowledge, your expertise, your knowledge of teaching, and make decisions on the run. So it has to make you into a critically reflective teacher.*
>
> *(Teacher Leader, LA5, LA consortia)*

This approach underpinned much of the course structure. TL practice was constantly reflected upon through a circular model of delivery of theory, practice and observation (which was repeated within RRT training).There were two contrasting views on this approach. Where TLs valued the use of observation and reflection, this was not only to improve their practice but also for illustrating a model of good practice for facilitating critical reflection

within RRT training sessions. Alternatively, TLs who found the use of feedback and observations intimidating or questioned whether the nature of reflection was always constructive put less value on these sessions, despite an acknowledgement that the aim was to improve practice.

Implementing ECaR

An important aspect of the TL's role in implementing the programme at a local level was to advocate for RR and the wider ECaR programme both within LAs and schools. The elements of the training which engaged TLs in critical debate about RR and its effectiveness were seen as essential for discussing RR and the importance and wider impact of the programme, although TLs described mixed experiences of this approach. As noted above, it was felt that it was initially challenging to return to academic learning after having long absences, which was exacerbated where the academic nature of the course had not initially been explained clearly by IOE or the LA and that TLs would have benefited from understanding the importance of the theoretical learning and how it was useful in terms of feeding into TL practice. Alternative experiences suggest that the transition to theory-based learning could be better facilitated by clear guidance and feedback regarding writing and approaching theoretical assignments.

TLs also identified areas of unmet need around the skills needed for implementing the ECaR programme. The core focus of the first year of training on RR was criticised for not covering ECaR as a wider programme of layered interventions. This was raised particularly by TLs who had received training at the beginning of the national implementation of the programme. TLs had opportunities to access additional layered intervention training after the first year, but this was still seen as supplementary rather than at heart of the TL training. Acknowledging some of these criticisms, IOE have revised the first year of TL training to include wider ECaR interventions.

Continuing professional development (CPD)

TLs valued the opportunity to continue to learn and reflect on their practice. National trainer contact visits allowed for 1-1 support which focused on individuals' areas for development. The five day CPD residential course was seen as a way to further support this learning through engaging in current theoretical debate, and allowed the TL to feel part of national network to which they were also contributing. Regional cluster networks were highly regarded as an informal forum to discuss practice without the pressure of undertaking formal CPD training and support. Networks meetings were valued because they were attended by peers in the same role experiencing the same challenges and rewards, which helped to guard against the potential isolation TLs felt in some circumstances (this is discussed in relation to the TL role in section 3.3.1).

3.2.4 Setting-up the Reading Recovery Centre

The next step in implementing the programme was to establish a Reading Recovery Centre, accommodating a viewing room and teaching room separated by a one-way screen. The RR centre is required to be a suitable teaching venue accessible for teachers and pupils. LAs

highlighted the following key issues which both hindered and helped them to set up a RR centre that met this building specification.

Availability and suitability of buildings

Key to establishing an RR centre was finding a building. This was easier where LAs had a building already in use for RR or other training purposes and one that could be easily converted. If a spare building was not available, this led to either delays in the set up of the centre or the use of buildings which were perceived as inadequate for the teaching of RR. For example, temporary buildings and multi-use buildings used for other LA purposes meant that TLs needed to book rooms in advance or were unable to set up RR rooms in a way that was accessible for teaching. Even where a suitable building was found, some LAs still experienced challenges meeting other requirements around accessibility, including the physical size of teaching rooms, car parking space and the location of the RR centre. In some LAs, buildings had been acquired which did not have admin and IT support. This was not discussed as a requirement needed by IOE, but created an increased burden on TLs to also take responsibility for maintaining all aspects of the building when they felt their main role was to provide RRT training.

Advice and guidance

There were mixed views on the quality of guidance and support provided around the building specification of RR centres. Although in general it was felt that there was clear guidance regarding the specifications required (e.g. screen dimensions and sound proofing), more practical support was needed in terms of what contractors to use, expected time taken and cost. Consequently, support from IOE was particularly valued when it was practical in nature. For example, on-site help and feedback on building plans prevented potential problems such as incorrect installation or specification of the screen (e.g. size and position) and sound proofing.

Project management

In general, LAs, TLs or ECaR managers project managed the building and conversion of the RR centre. The lack of expertise in this kind of project management led to challenges in understanding what was a suitable building and in managing the construction work required, leading to delays to set up of the in setting up the centre. This affected the quality of training for RRTs:

> *'the actual centre itself and sorting it out I've had so many sleepless nights about organising it and mine wasn't ready in time, we had to rely on DVDs which is not ideal and certainly doesn't fit in with the philosophy of how teachers should be taught.'*
>
> (Teacher Leader, LA15, single delivery LA)

This was in contrast to one LA where the project management was undertaken by the LA facilities department, who were seen as having the necessarily skills and experience needed to successfully manage the process.

Funding

Resources for the RR centre (RRC) were not explicitly included as part of the funding provided for ECaR. In Year 1, LAs were provided with £20,000 on top of the money provided for TL salary, which LAs could use at their discretion for a range of set-up activities, including the RRC. No fixed amount was provided given the vast range of costs RRCs would likely entail, from a simple renovation of an existing building to the construction of a new site. LAs reported that they were required to find additional finances for setting-up the RRC, which led in some cases to not having a large enough budget to find and convert a suitable building. Compounding this, was a sense that they had received little guidance around the expected cost of set up of the RR centre and how to get the best value for money from contractors used. This was seen as especially frustrating when LAs were working within tight budgets. TLs and ECaR managers suggested the following recommendations to further support set up of suitable RR centres:

- The use of best practice case studies and visits to existing sites to understand the whole process of set up
- Advice and guidance on the expected time required to set up an RR centre
- Technical advice and support on the standards and specifications of construction
- Recommending contractors and suppliers for conversion and installation of the screen.

3.2.5 Process for the selection and recruitment of schools

Another key set-up activity was to recruit participant schools. ECaR Managers reported some difficulties with recruiting their target number of schools to the programme. The implementation survey found that around half found this either very difficult or fairly difficult (21 and 19 out of 81 respectively), some said it was a fairly easy process (26 out of 81), with fewer saying it was very easy (nine out of 81)[26]. Three broad approaches to the selection of schools were identified by the qualitative study:

- Programme open to all schools in the LA, no selection criteria
- Programme open to all schools but schools selected on a range of criteria
- Programme only open to schools meeting certain criteria

Each approach presented challenges for LAs. An open approach was seen as problematic because not all the schools that applied would benefit greatly from the programme. In some cases this led to LAs moving to a targeted approach. Targeted recruitment enabled LAs to implement the programme in schools where there was greatest need as well as in schools that had good or excellent attainment levels and the capacity to implement the ECaR. An advantage of targeting the latter was that schools that were perceived as examples of good leadership could act as 'champions' of the programme and would gain from potential wider impacts on schools' literacy programmes and quality first teaching.

[26] 4 responses were classified as 'Don't know' and 2 as 'Too early to say'.

Where selection was used, LAs used a variety of criteria but the common criteria as mentioned by the ECaR managers were high school commitment to ECaR and supporting a RRT (75 out of 81) and lower average reading attainment (74 out of 81). Higher levels of deprivation or number of pupils in vulnerable groups (59 out of 81) and a high quality of leadership (40 out of 81) were significant but less important, with the existence of procedures for monitoring/evaluation least likely to be taken into account. Participants in the qualitative study described using a combination of three sets of criteria to select schools: the needs of schools and pupils; school infrastructure and capacity to support the programme (which echo the survey results); and geographical setting.

- **Perceived need of school and pupils**: LAs looked at attainment data at KS1 and Foundation Stage Profiles to identify schools below national expectations for reading and writing. This was supplemented by LA consultant and adviser knowledge of the needs within schools. Additionally, LAs also considered other elements of FSP - Personal Social & Emotional Development (PSED) and Communication, Language and Literacy Development (CLLD) levels as well as high levels of deprivation using Free Schools Meal (FSM) eligibility and English as an Additional Language (EAL) numbers as a proxy.
- **School infrastructure and capacity to effectively support the programme**: There were three main measures of school infrastructure and capacity. First, whether schools had the staff capacity and resources to implement the programme, including whether there was a potentially suitable RRT candidate and the availability of space for RR sessions. Second, how ECaR would align and complement other non-ECaR interventions and whether schools had the capacity to implement the ECaR layered interventions. Finally, whether the school had strong leadership in place and would be committed to ECaR as an early literacy intervention was also considered. Existing good leadership was seen as an indicator of whether the senior management would facilitate the wider impact of the programme.
- **Geographical coverage across the LA**: LAs identified challenges implementing ECaR in larger rural areas. A strategic response was to select clusters of schools to ensure access to the programme across the LA and the opportunity for schools to share RRTs.

This finding on the variety of factors influencing the selection of schools has implications for the findings of the impact study as some of these criteria were not available for use in selecting the fully matched control group. This is discussed further in Chapter 6.

The use of the criteria varied across LAs but generally they followed a staged approach to prioritising schools. One variation of this was initially examining school need and then looking at capacity and leadership as a deciding factor for selection. For example, a school perceived as lacking in good leadership might not be included because of concerns that the funding will not be used effectively. Alternatively, in another case need was the overriding factor regardless of whether schools had the desired levels of capacity and infrastructure in

place. LAs provided additional support to school leadership or RRT to alleviate the concerns about ineffective use of funds.

LAs typically followed a similar format to recruit schools once they had been identified, involving head teacher briefings where the TL gave a presentation outlining the programme and the commitment required by the school. In some cases, schools were offered the opportunity to meet with other ECaR schools to see how the programme had worked in practice. The programme was also generally promoted within an LA through case studies and information in newsletters and primary strategy updates and signposting by other LA partners (SIPs) and advisers and consultants.

3.3 Management of ECaR

This section describes how LAs managed ECaR by exploring the roles of TLs and ECaR managers, consortium communication and working relationships, the funding of the programme and integration with other LA initiatives. The LA management of ECaR was important in supporting the successful implementation of the programme and sat within a range of LA departments comprising Inclusion, Primary Strategy, Advisory service and School improvement. The management of programme was led by ECaR managers who were the strategic leads for the programme and supported by TLs, whose role was to implement the programme and support the strategic development within the LA/consortium.

3.3.1 TL role and responsibilities

As part of the implementation survey, ECaR managers were asked about their understanding of the role of TLs, and whether each of the aspects listed was considered to be a major part, minor part or not part of the Teacher Leader's role in their LA (Table 3.9). Most frequently ECaR Managers reported that such aspects as training for RR teachers, giving support and advice to the teachers, quality assurance of RR teaching, as well as overseeing children's progress while on RR and evaluation of ECaR were a major role. In contrast, monitoring of literacy interventions (other than RR) in schools was least likely to be considered a part of the role. There were some mixed views across LAs whether providing RR to pupils constituted a role which may be surprising given that this is a requirements of the Teacher Leader's role in order to maintain an up-to-date knowledge of RR. The qualitative findings below shed further light on how TLs themselves defined these different aspects of their role.

Table 3.9 Different aspects of Teacher Leader's role according to ECaR Managers					
Base: ECaR Manager: 77-81 depending on question					*Survey*
	Whether seen as a role				
	Major role	Minor role	Not part of role	N/A	Missing
Aspect of TL's role	N	N	N	N	N
Recruitment of schools[27]	30	17	26	4	-
Advise on selection of RRTs	26	34	14	2	3
RR training for RRT	69	0	5	4	3
Support/advice in RR to RRTs	68	4	2	4	3
Quality assurance of RR teaching	65	9	2	2	3
Provision of training in literacy interventions to ECaR schools	29	26	14	9	3
Support/advice in literacy interventions to RRTs/ ECaR schools	28	35	8	7	3
Advice about RR and other interventions within LA	42	28	2	6	3
Oversight of RR pupil progress	62	10	0	3	6
Oversight of pupil progress after RR	37	27	7	6	4
Monitoring literacy interventions (other than RR) in schools	7	27	35	8	4
Evaluation of ECaR in conjunction with LA	62	14	0	2	3
Providing RR to children	26	26	23	3	3

The findings of the qualitative study largely reflect this picture but provide a more nuanced understanding of how TLs viewed their role. With a primary aim of organising and overseeing the local implementation of the programme, TLs split their role into core and secondary elements (Table 3.10). Core elements of the post were described in relation to training RRTs and set-up activities. The TLs role within the wider management of the programme largely related to advocating for the programme within the LA and working together with the ECaR manager to align the programme with other interventions. This involved working across the LA or consortium to ensure that ECaR stayed high on the agenda by sharing information about the programme and discussing impacts through meetings and written strategic reviews of the programme.

The diverse nature of the role and travel time involved in delivering training and supporting schools created a substantial workload and required TLs to prioritise the core elements of the role that were seen as most important. This had implications for other aspects of the role, in particular having time to dedicate to supporting the strategic direction of the programme. Both consortia and single LAs discussed workload as the main barrier to effectively carrying out the TL role, but where there was more than one TL it was felt that this helped to balance

[27] Four responses where classified as 'Vague' as 2 conflicting answers were provided for the question.

the workload as it enabled sharing and dividing a LA/consortia area and reducing travel time. For those TLs who worked alone, they felt they would have more time for implementing and promoting the layered approach if they role was shared with another TL. However, this was not explicitly discussed as an advantage in LAs where there was more than one TL.

Table 3.10 TL key responsibilities	
Core elements	• Delivering training and support to RRTs • Implementation and oversight of delivery of RR at a local level e.g. selection, recruitment of school and delivery within schools
Other elements	• Monitoring and evaluating other layered interventions • Training link teachers e.g. assessment for discontinuation • Assisting the set up of the consortia (Consortia LAs only) • Supporting schools to make use of the ECaR for wider impact • Advocating the ECaR programme within the LA • Aligning the programme to LA strategy and other interventions

TLs reported the potential to become isolated due to the amount of lone-working and travel. The implementation survey showed that most Teacher Leaders worked in more than one LA (28 out of 39), and on average they were assigned to work in three different LAs. Some also shared an LA with another Teacher Leader (11 out of 39 TLs reported this type of arrangement). TLs felt less isolated where their role was embedded within the LA, although others described challenges integrating the TL role with the programme more generally. TLs reported not having time to attend meetings and considered other LA staff to have a limited understanding of the role. Some LAs felt more could have been done to explain the TL role in implementing the programme and the wider impacts of the ECaR through the layered interventions.

TLs own RR practice and fidelity to the programme

One of the conditions of the TL role was to maintain their own RR teaching skills to feed in to the delivery of RRT training. TLs described the value of continuing practice in two main ways. Firstly, in strengthening the quality of teaching by enhancing knowledge and understanding of the programme and different needs of pupils. Secondly, by promoting critical reflection based on comparing aspects of the RRT's practice with their own. Once again, however, TLs experienced problems balancing their responsibilities - maintaining their practice in line with the fidelity of the programme alongside prioritising other key elements of their role. Fidelity to the model was sometimes compromised in terms of the frequency of sessions, and the length of the programme. TLs also reported selecting pupils just above the lowest 5% so to minimise the impact of not following the programme as required.

3.3.2 ECaR manager role

The role of the ECaR manager was seen as central to the management of the programme. As part of the implementation survey ECaR managers asked to specify what their main responsibilities in relation to ECaR were. Most commonly they reported that they were in charge of strategic management, recruitment of schools to the programme (72 out of 81 LAs

reported each), and dissemination and communication (65 out of 81). A minority managed a consortium of ECaR LAs (16 out of 81). Table 3.11 provides a more detailed understanding of the ECaR Managers' role from the qualitative data, breaking tasks down into strategic and management responsibilities. There was no evidence of any elements of their role that related to delivery of ECaR or training of staff.

Table 3.11 ECaR managers' responsibilities

Strategy	Management
• To oversee the operation of ECaR • Ensure that the programme supports raising school standards and outcomes • Develop a strategic action plan for ECaR to contribute to local and national indicators • Leading and supporting consortium strategy and working relationships	• Line management of TL • Monitoring and evaluating the programme • Attending relevant briefing meeting with IOE and NS • Support/guidance where schools on managing the programme • Managing the ECaR budget

ECaR managers discussed the support they received from NS and IOE in the qualitative interviews. Guidance on how to effectively manage the programme, training around consortium working, managing TL time and undertaking the NS evaluation were considered helpful. However lack of awareness of the support and the location of training were identified as barriers to accessing training. ECaR managers also suggested that there could be improvements to the training provided, notably improving communication between NS and IOE so that meetings did not cover the same issues and a greater strategic focus on ECaR and the impact for LAs.

Line Managing the Teacher Leader

A key part of the ECaR Manager's role was supervising Teacher Leaders. (In the survey only one LA reported an arrangement where the management of the TL fell outside of the consortium.) Their views on managing TLs were fairly positive as most of them felt they had had sufficient time (35 out of 39) and knowledge (46 out of 39) and very few (seven out of 39) reporting it difficult to manage TLs. Despite this, in some qualitative case studies it was evident that staff may not have had sufficient time to supervise Teacher Leaders effectively. Difficulties were exacerbated in cases were managing ECaR formed only a small aspect of a wider strategic or management role within the LA. Time spent on ECaR was not ring-fenced and meant that managers did not have time dedicated to ECaR, which sometimes prevented them fulfilling all the necessary tasks, especially if other work needed to take immediate priority. ECaR managers who did line manage TLs, highlighted this as one of their main responsibilities, with tasks described in five main areas:

1. **Performance management**

ECaR Managers 'performance-managed' TLs under standard LA protocols which included, one-to-one meetings to review performance and delivery of the programme, and annual reviews of performance looking at implementation of the programme against ECaR action

plan targets. Some ECaR managers undertook monitoring and quality assurance observations of RR delivery, but where ECaR managers felt they had only a limited understanding of and training in RR they did not conduct observations.

2. Supporting TL professional development

ECaR managers supported TL CPD through ensuring access to the IOE continual training programme and internal LA training to increase TLs' understanding of the broad literacy context and other literacy interventions. A more arms-length approach was also mentioned where TLs were seen as driving their own CPD based on the reflection and development that had been built into the TL role.

3. Monitoring workload and capacity

TLs were responsible for their own diaries and time, but ECaR managers felt there was a tension between TLs commitment to the role and balancing the diverse tasks it included. ECaR managers aimed to support TLs in managing their workload by helping them prioritise tasks and suggesting ways to reduce workload, which TLs reported as useful. However in some cases, ECaR managers suggested cutting back time on activities which TLs regarded as essential for successful implementation at school level, including additional support for school RRTs who were experiencing challenges in delivering RR.

4. Embedding of the TL role and ECaR within the LA

NS guidance to LAs stressed that ECaR is more effective when it is aligned with other initiatives and understood by all relevant staff in the LA[28]. ECaR managers supported this process by ensuring TLs had access to and attended wider primary literacy meetings and training. They also contributed to dissemination activities within the LA using their role and established links to share information on how ECaR relates to other LA interventions and programmes.

5. Brokering the relationship between schools and TLs

ECaR Managers did not work as closely with schools as TLs but would become involved in this relationship when there were disagreements over quality and implementation issues.

3.3.3 Consortia communication and working relationships

The previous section looked at the typical ECaR manager and TL role. This section identifies differences between single LA and consortia experiences, first explaining how consortia worked and then identifying benefits and disadvantages of this arrangement.

Within a consortium, both TLs and ECaR managers were required to take on additional tasks and roles. Teacher Leaders tended to have slightly more contact with their colleagues if they were in the same LA or consortium rather than a different one. However, they seemed to value the contact they had with those located elsewhere slightly higher. Most frequently

[28] The National Strategies: Every Child a Reader: Guidance for local authorities.

Teacher Leaders were in touch with their Line Managers and all thought this contact was either very helpful or quite helpful. Contact with the National Trainers or Co-ordinators was also highly ranked, although less frequent than with any other group mentioned.

As lead LAs within a consortium, ECaR managers in the qualitative case studies described their role and responsibility in four areas:

- Building capacity for the programme
- Ensuring sharing and sustainability of ECaR processes and best practice
- Leading the development of a shared vision and strategy
- Ensuring clear lines of communication and effective monitoring systems.

In lead LAs ECaR managers took on additional responsibilities of co-ordinating and chairing consortium meetings. In some cases this role was delegated to TLs who were responsible for the organisation of meetings at the initial set up stage, but was then assumed by the ECaR manager as the meetings focused on a strategic approach. Meetings were organised between once a month and once a term and covered the following range of issues:

- Updates regarding progress with implementation and delivery in each LA
- LA funding issues and concerns
- Feedback from TLs about training challenges and successes
- Approaches to selection and recruitment
- Directives and communication from NS
- Monitoring and evaluating
- How to ensure sustainability of the programme after implementation.

Participants described a range of **benefits to consortium working** related to sharing practice and learning. Consortium working had prevented established LAs from becoming complacent or insular in their strategic outlook and approach, because they had developed an understanding of the challenges and successes within other areas and strengthened the professional development of their TL. LAs also communicated via email and regional partnership meetings with NS. TLs were seen as having more regular contact because they often had a close relationship with RRTs and schools in the non-lead LAs and benefited from sharing notes with non-lead LAs regarding support visits to schools. TLs valued having formalised and agreed processes for sharing this information, so that the non-lead consortium LA was still responsible for their LA.

There were also **disadvantages to working as a consortium** which were often felt unevenly across the consortium. ECaR Managers in lead LAs described four challenges associated with the consortium arrangement. Firstly, non-lead LAs often had limited understanding of the programme at the set up stage, with the burden of alleviating initial concerns and educating partners falling to the lead. Secondly, it was difficult to organise meetings to fit schedules of all key members of the consortium which led to poor and

sporadic attendance. Thirdly, organisational change or staff turnover meant ECaR leads had to re-establish relationships and shared learning. Finally, when consortium meetings were not well attended by key strategic leads within LAs, ECaR managers thought this created delays in decision making. Working relationships were facilitated when LA staff had developed good channels of communication and a shared understanding of each other through previous joint working.

Consortia working also had implications for the nature of the TL's work. While sharing and pooling of resources was valued by TLs, the need to attend and present at briefings gave rise to three main challenges. Firstly, consortia work was seen as a further burden on an existing heavy workload, through the additional tasks (e.g. attendance of meetings and delivering training) and time spent travelling across LAs. Secondly, TLs did not have the same understanding and relationships within a non-lead LA to understand the context and background of the area and the schools. TLs felt less confident about challenging decisions made within schools which were not in line with 'best practice' or against the fidelity of the model and were less aware of who to refer to when these difficulties did arise. However, it was felt that a lack of familiarity with these processes could be overcome through establishing open and frequent communication with ECaR managers. Finally some TLs felt that there was a lack of engagement in and ownership of the programme amongst non-lead LAs. TLs consequently took on more responsibility than expected for implementation in other LAs.

As a result of these disadvantages and challenges there were two clear areas in which consortium working was seen to have less value and where improvement in the support provided by NS for consortium working needed to be made. Firstly, LAs thought that the benefits of the programme for LAs in a consortium were not equally distributed. Where ownership of the programme had rested with lead LAs, the pooling of resources had not been equally shared with the lead consortia TLs delivering the bulk of training. Lead LAs were also expanding the programme in other areas without receiving additional funding for the lead LA role and time spent organising and setting up consortium working. Secondly, consortium working could dilute the support a TL could provide their own LA. TLs felt that the increased burden to their workload meant that they were spreading themselves thinly and had less time to support the most challenging schools or focus strategically on building capacity in their LA.

3.3.4 Funding

ECaR was to be funded through core, central grants and contributions from Local Authority and school budgets. A set amount of core funding was provided to LAs based on calculations of the number of TLs and RRTs in training. LAs received £36,800 for the salary of the TL, and £13,600 (England), £14,900 (outer London) or £15,400 (inner London) for the salaries of RRTs, based on figures for the year September 2010 to August 2011. Consequently, this meant that LAs and, subsequently, schools were required to top-up funding for the salary of staff involved in the delivery of ECaR.

Participants in the qualitative case studies estimated that they were required to find up to half the salary of the TL and fund the RRC and resources. This perspective perhaps sheds some light on the finding from the LA survey that the majority of LAs felt that funding was insufficient. However, it would seem to be in only rare cases that LAs would be required to find half of the TLs salary as they would then have been paid upwards of £70,000 per annum. The funding that LAs received for RRTs contributed directly the RRT salary, which was expected to be matched by schools. In the implementation survey, ECaR managers reported additional set-up costs beyond those already accounted for, most frequently relating to books, materials and equipment, the RR centre and TL training costs. It was also noted previously that funding for the RRC was included as part of the overall ECaR package from NS, despite participants expressing an understanding to the contrary.

LAs reported that they and schools found it challenging to identify and access additional resources, particularly in the current climate of reduced LA funding. The qualitative interviews provided some detail on where LAs looked for additional funding and what helped them secure it. Three areas were identified:

- Harnessing other internal funding sources such as school improvement or reallocating unspent budgets from other areas of education
- Accessing funds from other external sources such as the standards fund (e.g. support for targeted schools), area based grants and private investment
- Buying and selling services to internal departments or other LAs in the consortium.

LAs used a combination of these methods to top-up funding. Lead LAs, however, did report that the total TL salary was covered by money paid by partner LAs for services rendered. However, in other LAs the money brought in was seen as a relatively small amount of revenue and other funding sources described above were also approached. The support and commitment of other key LA departments (e.g. school improvement) and council members was seen as essential in securing additional money internally and from external funding streams, particularly where the expected impacts of the programme and how it would help contribute to existing strategic priorities around literacy were well articulated.

3.3.5 Co-ordinating ECaR with other LA initiatives

As discussed earlier in this section, the alignment of ECaR with other LA initiatives was seen as crucial for the strategic impact of the programme locally and both ECaR managers and TLs had a role in promoting and advocating the programme. The implementation survey found that approaches towards the management of the Every Child programmes varied for different LAs: of the 81 respondents, 45 managers said that in their LA these programmes were planned and managed separately with some co-ordination on specific issues, 32 managed them jointly, and one kept them separate without any co-ordination (3 LAs indicated that they adopted other approaches to those mentioned above). The qualitative interviews identified the following factors as key for the successful coordination of ECaR with other LA programme and interventions:

- **Joined-up working and sharing knowledge**: integration with other literacy interventions and cross-programme strategic meetings or shared consortium groups; sharing best-practice and learning in relation to key set-up activities and ongoing difficulties.
- **Involvement in the wider LA strategy**: attendance at strategic LA meetings; involvement in LA action plans/priorities for primary literacy and education.

The main challenge to efficient coordination of initiatives was the accessibility of staff. Leads on other interventions had their own substantial workloads and staff turn-over meant that TLs had to re-establish working relationships. This challenge was magnified in consortia where TLs had less access to information about all LAs interventions and strategy.

3.4 Training provided to RRTs and schools

This section will describe the nature of training provided to RRTs and schools and identify barriers and facilitators experienced by TLs in delivering training. Schools' views on the value of the training and support provided will be explored in the next chapter.

3.4.1 Training provided to RRTs

An important aspect of the TL role was to provide training and support to RRTs in the early stages of the role. Table 3.12 presents the key elements of training as discussed by TLs in qualitative interviews and a typical training structure. The approach can be seen to mirror the training of TLs, covering both theory and practice which was brought together through in service sessions and following critical reflection. Key to delivering sessions was understanding the needs of the group and individuals, and tailoring the training accordingly. The in-service observations were used to examine the interaction between RRT and pupil and RRTs' understanding of pupil need. RRTs were further supported through observational visits 5-6 times a year. The aim of the visits was to observe the quality of the sessions and provide support and feedback. Each visit had a different focus and would vary in terms of observing different stages of the programme and levels of progress of pupils. For example, five sessions would cover an observation of a pupil who is improving fast, a pupil who is making less accelerated process, the discontinuation process and classroom progress.

Following the completion of the formal training, RRTs received continual advice and support from the TL. The number of RR teachers personally supported by the individual Teacher Leaders varied across those interviewed for the implementation survey: a maximum number of teachers supported was 50, the minimum was eight, and the average (mean) was 29. The variation in the number of RR teachers being assigned to each of the Teacher Leaders is reflected by the frequency of contact between the groups. TLs were most often in touch with RRTs on a weekly or monthly basis (16 and 19 of 39 respectively), however some of them managed to make the contact only every three months (two of 39) or even less often (one of 39). Data from the qualitative case studies shed light on the nature of these visits. There was a focus in particular on pupils who were not making accelerated progress and included advice and reflection on how RRTs were ensuring gains were maintained in the classroom. For example, whether RR pupils were supported back in the classroom and whether they

had discussed how RR could provide links with guided reading. TLs supported RRTs' work with heads and link teachers to embed the ECaR structure within schools and encourage wider impacts. TLs identified three main factors affecting the provision of training for RRTs:

- **RRT related**: TLs felt delivering training was particularly challenging where RRTs were not engaged in the programme or did not actively choose to become a RRT because they were put into the role by head teachers, which often meant they did not have the necessary skills. There was a view that some RRTs would choose less challenging pupils to be observed within in-service sessions due to feeling nervous but felt that they would learn more by observing pupils who were more challenging to work with.
- **Time and resources**: It was not always possible for TLs to allocate the desired time to supporting schools with additional needs. TLs felt there was less flexibility to do so in consortia where the lead LA was contracted to deliver a set amount of support sessions. TLs also found it increasingly hard to balance time between continual contact and training after their first year due to the increased number of teachers they were working with. Additionally, there were difficulties delivering training when facilities were unsuitable or where long journeys were required to reach the RR centre.
- **Group profile**: It was important that RRTs felt comfortable behind the screen and able to give constructive feedback. An open and trusting environment was facilitated by having set groups that were LA specific allowing RRTs to develop bonds with each other. TLs also found that it was beneficial to have a common level of experience within the groups. Where mixed groups had been used it was difficult to teach because those involved had different understandings of the programme and training needs.

Table 3.12 Key elements of RRT training

RRT Training session	• Four initial sessions twice a week covering training and identification • 18 sessions once a fortnight covering the components of: o Set theoretical reading underpinning RR o Two 30 minute in service session behind the one way screen o 30 minute discussion and feedback session on practice and theory.
5-6 observational visits	• Ensuring quality, fidelity to the model, professional development and support • First visit: meeting school staff and checking the set up of RRT • Subsequent visits: observation and evaluation of RRT delivery for each component of the session
Continual support	• Formal training once every half-term • Observation and reflection at more challenging level to match RRT CPD needs • Continued observational visits (a minimum of once a term) focusing on support and CPD.

3.4.2 Support and training provided to other staff

Support and training for other strategic staff aimed to provide guidance on managing the programme and to embed ECaR within wider school strategy to achieve wider impacts. This section describes support with layered interventions, support for head teachers, support for Link Teachers and other support and training before describing barriers to providing this support.

Layered interventions in Wave 2 and Wave 3

ECaR consists of a number of layered interventions at KS1 and decisions were made at LA level as to the interventions they wished to support and provide training in. It was then for schools to choose to take up interventions (further explored in the next chapter) depending on their assessment of pupil need and to make the most appropriate choice of interventions for their school. The layered approach included other early literacy interventions which are aligned with RR. LAs discussed specifically supporting Better Reading Partners, Talking Partners and Fischer Family Trust (FFT).

LAs adopted three different approaches to delivering the training in other interventions. One approach was for TLs to deliver the training, including follow-up CPD visits to teaching assistants and teachers. An alternative approach was to build capacity for delivering training within schools, by training RRTs to deliver layered interventions in their own schools or to deploy trained RRTs to support and coordinate training across a LA/consortium. Thirdly, TLs had limited involvement in delivering training where there were other staff trained in the interventions or the LAs had chosen to buy in training services.

Head teachers

The role of head teachers in supporting and driving the programme was seen by TLs as essential for effective implementation of ECaR (see the next chapter for head teachers' perception of their role). TLs worked to support head teachers in understanding how the programme could have a wider impact on schools through utilising RRT expertise and running the layered interventions in conjunction with RR. TLs also provided advocacy and support through ECaR meetings with head teachers from across the LA as well as 1-1 meetings. TLs used these meetings to highlight a range of areas of good practice and provide guidance on effective management in ensuring the fidelity of RR lessons and encouraging the wider impact of the programme.

Link Teachers

Link teachers were members of the school senior management who supported the programme. A key role was to conduct discontinuation assessments so that this was an impartial process and not carried out by the RRT who had carried out the initial assessment. Training for this involved two half days which covered general information and learning about RR and how to effectively assess whether pupils could be discontinued and or required a

referral to specialist support (for further discussion of the role of link teachers see next chapter).

Other support and training

LAs also offered additional support and training to help school staff (including strategic leads and teaching staff) to embed and implement the programme. TLs would hold events, such as facilitating briefing and information meetings, best practice workshops with RRTs and senior management and workshops on engaging parents in the programme. They also *'championed'* the programme, encouraging staff and parents to observe RR sessions to increase staff engagement in the programme and show parents a model of how to support a child's reading.

Barriers to providing wider support

There were three main barriers identified by TLs to providing wider support. The main challenge was developing a good dialogue and relationship with head teachers, seen as especially challenging where there was limited engagement in the programme by heads. Relationships were facilitated by liaising with other LA consultants and advisers to understand the school context and whether TLs had a previous relationship with the school through prior roles. A second and related factor was that TLs working within a consortium often limited this type of support to their own LA or found relationships even more difficult to build from outside the local area. However, some TLs felt they were more likely to support this if they were confident that a non-lead LA already had experience of running reading interventions prior to ECaR and good links with schools. A third issue was whether school staff had the time to access relevant training, especially additional training or best practice sessions. Finally, some of the activities above were not seen as the role of the LA, including increasing parent engagement, which was considered an issue for the school.

4 Implementing ECaR in Schools

Key Findings

- **Becoming involved in ECaR** was motivated by an understanding that the expected impacts of the programme would meet an identified need or priority within the school. The decision was also based on a consideration of the financial outlay required and a judgement as to whether ECaR represented value for money.

- **Recruiting Reading Recovery Teachers** was based on the criteria set out by the Institute for Education: knowledge, skills and experience. Giving consideration to applicants' perceived commitment to the role, time and convenience, encouraged schools to recruit internally, while policies in other schools dictated an external recruitment procedure.

- **Training and support** from Local Authorities was praised by Reading Recovery Teachers and Link Teachers for its relevance and suitability. However, there were challenges in terms of time pressure for Reading Recovery Teachers, while strategic leads without a background in Reading Recovery required clearer guidance on aims of ECaR.

- **An effective set-up of Reading Recovery** was facilitated by greater awareness of ECaR at Senior Management level. Where this was the case, requests for Reading Recovery space and resources were authorised and Reading Recovery Teachers enjoyed flexibility from other school staff.

- **Other ECaR interventions** were delivered in a more fragmented way than Reading Recovery. Reading Recovery Teachers found it challenging to train other staff to deliver the interventions given their other priorities, although this was more pronounced during the setting-up of the programme in the first year of ECaR.

- **Implementation was most effective** where ECaR fitted with existing school priorities and an identified need, where Senior Managers understood the aims of the programme and championed RR amongst pupils and staff, and where additional funding sources were identified early on. Internally recruited Reading Recovery Teachers could speed up implementation by on existing relationships to embed the programme within wider school procedures and strategies.

This chapter describes experiences of implementing ECaR in schools and the management of the programme. The chapter will identify the key factors which affected the implementation and on-going management of the programme in schools, drawing predominantly on qualitative interview data from strategic leads, RRTs and school staff members delivering ECaR interventions and the survey of head teachers and Reading Recovery teachers. The chapter first describes schools' reasons for joining the programme (4.1) and then moves on to describe the recruitment of key staff (4.2), other implementation activities (4.3), the management of ECaR in schools (4.4), the role of key staff members (4.5) and the training and support provided to school staff to set-up, deliver and manage ECaR (4.6). Finally, it will discuss the implementation of a 'layered approach' in schools (4.7).

4.1 Joining the programme

This section describes the initial attraction of ECaR for schools and identifies factors affecting their ability to join the programme. It also looks at the process of involvement in the programme, including identifying and securing funding.

4.1.1 Reasons for involvement

Reasons for becoming interested in the programme can be grouped under four headings: (1) ECaR met an identified need within the school; (2) the expected effectiveness of the programme; (3) the 'fit' of the ECaR with a school's ethos, literacy strategy or other improvement measure; and (4) pragmatic reasons.

1. The programme met an identified need within the school

Strategic leads reported that attainment levels for literacy in Foundation Stage, Key Stage1 or across year groups were below the national average. This was attributed to the barriers to learning faced by a high number of pupils within a year group, e.g. Special Educational Needs (SEN), or across year groups, e.g. English as an additional language (EAL) and/or because of the levels of deprivation experienced. Related to this, ECaR was also identified as filling a gap in provision for the lowest achieving pupils. Schools also identified a need for the programme in terms of supporting the professional development of staff members, particularly where there had been a high level of staff turnover and the introduction of 'special measures'.

2. Expected effectiveness of Reading Recovery or ECaR

Schools were also interested in ECaR because they were confident that it would address their identified needs by raising attainment for literacy. This was of particular relevance where strategic leads were already familiar with ECaR through the roll-out of the programme in other parts of the LA or with Reading Recovery from previous teaching roles. Strategic leads were also attracted to the programme because of the expected impact that the RRT would have upon whole school literacy practice, e.g. through familiarising school staff with the techniques used in Reading Recovery (see also Chapter 5).

3. 'Fit of programme' with school priority, other improvement measures or literacy strategy

ECaR was important to schools because it contributed to the related priorities of raising the attainment of the lowest achieving pupils and narrowing the gap in attainment between the lowest and highest achieving pupils. In some schools ECaR was chosen as part of a wider programme of improvement measures designed to raise attainment in literacy generally within the school. It may also have been chosen as part of a wider strategy to 'personalise learning'. ECaR was perceived by strategic leads to also complement the LA's wider literacy strategy. However, schools did report being advised by Local Authorities that other literacy programmes running in the school, for example Read Write Inc., did not 'fit' with ECaR. In the above example, the school proceeded with delivering both programmes because they were each perceived to be able to meet a distinct need within the school.

4. Pragmatic reasons

In addition to the considerations described above, schools also cited pragmatic reasons for joining the programme. Schools had identified a gap in provision for lowest achieving pupils which coincided with being invited by the LA to bid for the programme. Another attraction to the programme was the funding that was attached. This was an influencing factor in a school's decision to implement ECaR rather than another literacy programme.

4.1.2 Factors affecting joining the programme

Although there were some compelling reasons to participate in ECaR, schools considered the financial implications of doing so prior to joining the programme. These were the cost of implementing and delivering the programme and whether they felt this represented value for money.

As with LAs, schools were required to top-up the funding they received from the LA in order to pay for the TL salary and other resources (See Section 3.3.4 for funding received). Schools approached this challenge in three ways: re-budgeting and identifying new funding streams, and generating new sources of revenue.

Table 4.1 Sources of funding

Re-budgeting	Other funding streams	Generating revenue
Re-allocating surplus within one area of budget to ECaR Reducing cost across a number of areas e.g. administration, teaching supply, other curriculum areas Reducing costs by halting delivery of other interventions	Under-performance grants Area-based grants	Consultancy and training Fundraising activities/events

The survey of 394 head teachers indicated that the experience of identifying funding varied across schools. A similar proportion of head teachers found it 'fairly easy' (42 per cent) and 'fairly difficult' (38 per cent), with the remainder reporting that it was 'very difficult' (11 per

cent) and 'very easy' (7 per cent)[29]. During the qualitative interviews, schools reported it less challenging to identify additional funding if there was under-spend within the school budget that could be re-allocated to ECaR. In addition, recruiting an RRT internally also eased financial considerations. Two types of schools found it difficult to identify the additional funding required to implement and deliver the programme. These were schools with fewer than 250 pupils and schools that had an existing financial deficit. Concerns about funding meant that governors in some of these schools initially had reservations about joining the programme. A key factor which had enabled schools to overcome budgetary constraints was the commitment of the head teacher to joining the programme. This was because head teachers had resourced ECaR by reducing spending in other areas or by increasing revenue generating activities. Head teachers also played a key role in persuading school governors of the affordability of the programme.

It was reported that schools also considered whether the programme represented value for money. There were schools that had proceeded with joining the programme because the strategic lead felt that there were compelling ethical reasons for doing so:

> *'All but the severest special needs children should be getting Level 2 in my opinion. Prisons are full of people who can't read... we're a primary school, we teach them to read. They're here every single day, if we can't teach them to be competent readers, what are we doing?*
>
> (Head teacher, medium-sized primary school, LA2)

The cost of ECaR was therefore believed to be justified if it was effective in supporting pupils to acquire skills in literacy. Alternatively, it was perceived that other schools had not joined the programme because the head teacher did not think ECaR offered value for money. This was because the implementation and delivery of the Reading Recovery component was considered expensive when compared with the number of pupils who would directly benefit from the intervention. There was feeling among participants in this research (who were all involved in ECaR) that this view did not give due consideration to the impact of ECaR beyond those receiving Reading Recovery because the head teacher lacked understanding of the programme.

School related factors

When strategic leads considered whether to join the programme another influencing factor was whether a staff member was interested in undertaking the role of RRT. This was because it was perceived that enthusiasm for the programme by the RRT was important to ensuring the success of the programme within the school. A school also joined the programme because it would enable them to retain a valued staff member. This was because the staff member could be trained as an RRT and the school was provided with funding towards the cost of the RRT's salary.

[29] 2 per cent said it was 'too early too say'. Base: 394 head teachers.

4.2 Recruiting Key Staff

The previous section focused on joining the programme. The chapter will now move on to explore the process of setting up ECaR once a school had joined the programme. One of the principle set-up activities undertaken by schools was the recruitment and selection of key staff members: the RR teacher and the link teacher. This section describes the process for selecting and recruiting the RRT and the factors which influenced a school's method of recruitment. It also describes the criteria for selecting the link teacher.

4.2.1 Reading Recovery Teachers (RRTs)

Selection criteria

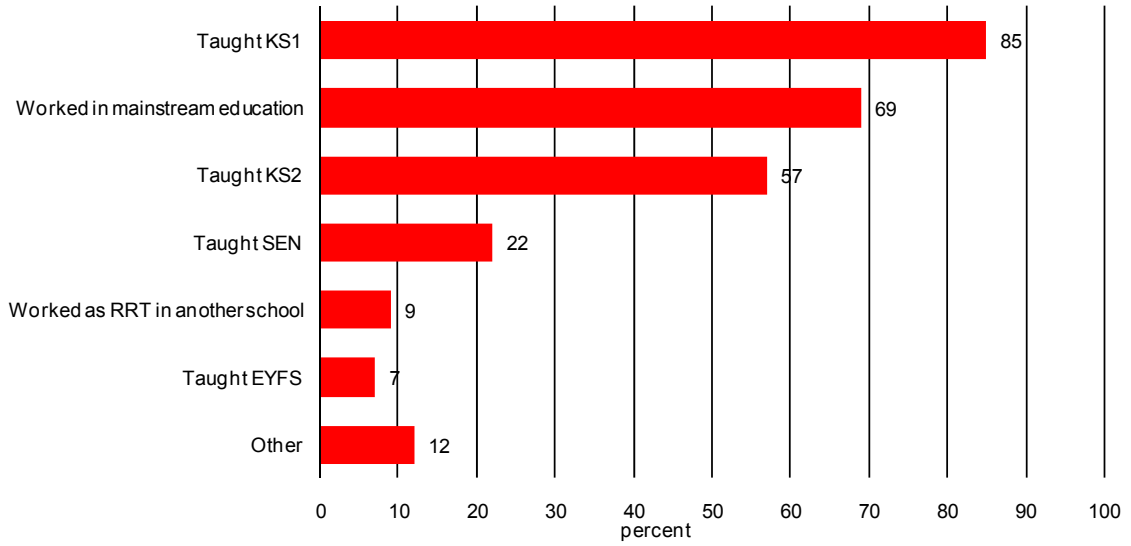
Schools considered four key factors when selecting RRTs. Firstly, commitment to the ECaR role was considered essential: candidates who were perceived to have been attracted to the role for primarily practical reasons such as reduced working hours were not felt by strategic leads to have been suitable. In addition to commitment, schools also selected candidates on the basis of their knowledge, skills and experiences relating to Reading Recovery as illustrated in Table 4.2. These findings are largely in accordance with guidance provided by IOE on selecting RRTs, which also acknowledge the benefits of RRTs being existing members of staff at the school.

Table 4.2	Selection criteria for RRTs	
Skills	*Reading Recovery* The ability to establish relationships with the parents of pupils receiving Reading Recovery	*ECaR* Leadership skills and the ability to establish relationships with other school staff members
Experience	▪ The RRT must have Qualified Teacher Status (QTS) ▪ At least three years experience teaching at Key Stage 1 ▪ Previous experience of working with pupils targeted by ECaR and providing one-to-one support, including Reading Recovery was desirable.	
Knowledge	▪ Knowledge and understanding of literacy and the barriers to learning faced by pupils targeted by ECaR supported interventions. • Awareness of the needs of pupils who attended the school e.g. pupils living in areas of high deprivation	

Whilst relevant experience, such as working with pupils targeted by ECaR, providing one-to-one support (including Reading Recovery) or early years teaching experience, was valued by strategic leads it was not considered essential. More important was observable and general teaching experience that demonstrated an aptitude for the role, a willingness to learn and in some cases level of teaching experience. Indeed, as Figure 4.1 demonstrates, the survey of Reading Recovery Teachers indicates they came from a wide range of teaching backgrounds prior to their appointment, with most having taught KS1 and/or KS2, and experience in mainstream education.

Figure 4.1 Prior experience of Reading Recovery teachers

Base: All responding Reading Recovery teachers: 570



The qualitative study identified schools that had also considered a candidate's aptitude for the ECaR role more generally because the leadership skills of the RRT were felt to be important to the overall success of the programme. It was acknowledged, however, that the ECaR role would be challenging for some teachers:

> *'… a key part of making this successful is the strategic organisation of the school. So you can eliminate people who find it difficult to step out of their own classrooms for large chunks of the time…'*
>
> (Link teacher, large primary school, LA4)

Lastly, the continuity of the programme was also considered. A school had taken into account the continuity of the programme when selecting a candidate to replace the outgoing RRT. This was because the outgoing RRT had only been in post for a limited period of time before they had retired and the school therefore wished to consider continuity when selecting the subsequent RRT.

Advice & guidance for developing selection criteria

Schools received two types of support to develop selection criteria. The LA provided written guidance which schools tailored to better reflect the particular needs of their pupils. For example, a school situated in an area of multiple deprivation required candidates to demonstrate an awareness of the barriers to learning experienced by urban pupils. Schools also drew upon internal resources when developing selection criteria such as the person specification for a classroom teacher.

Fidelity to criteria

Two issues were raised in relation to selection criteria for the ECaR role. Schools faced challenges recruiting an RRT if they were unaware of the selection criteria advised by the LA and the Institute of Education. This led to the selection of a candidate who did not have QTS and resulted in a delay to the programme whilst the criteria were clarified and a new candidate selected. Where the criteria were known, schools described opposing views on the suitability of the criteria. One perspective was that Reading Recovery could be effectively delivered by a non-qualified member of teaching staff such as Teaching Assistants (TA), if they received sufficient training. A second, contrasting view was that the success of Reading Recovery is dependent upon the intervention being delivered by a qualified teacher. This is because Reading Recovery is targeted at the lowest achieving pupils, some of whom face complex barriers to learning and therefore require the support of a fully qualified teacher.

Recruiting RRTs

Findings from the head teacher survey indicated that in most schools, RRTs were recruited from existing staff (73 per cent), with 19 per cent of schools having to recruit and then train a new member of staff specifically for the role and only 6 per cent of schools recruiting a trained RR teacher (two per cent reported other sources). The qualitative interviews identified that schools recruited RRTs internally, externally, but also a combination of internal and external recruitment. The factors influencing the choice of approach are summarised in Table 4.3.

Table 4.3 Process of RRT recruitment

Recruitment approach	Factor influencing choice
Internal recruitment • Advertised within the school • Suitable staff member was identified by senior leadership team	• Suitable candidate working within school / Lack of suitable candidate through external recruitment • Implications for staffing and finance • Lack of time to recruit • Convenience

External recruitment
• Targeted recruitment
• Open recruitment
  • Advertised within LA
  • Advertised locally
	• Lack of suitable candidates working within the school
	• Recruitment policy and practice

Where a combination of approaches was used, open external approaches did not always yield suitable candidates, but schools then implemented an open, internal recruitment process to ensure fairness. Whether internal or external, however, an alternative approach was to target particular candidates for the role. In these cases, strategic leads could be confident that they had selected a suitable candidate for the role. In contrast, it was perceived to be a greater risk to appoint a candidate who was unfamiliar to the school.

A challenge affecting both internal and external recruitment was that the nature of the ECaR role and the reputation of the school were seen to limit interest in the position. Where the ECaR role is concerned, this was because it was not a full-time position and it was not a classroom teaching role. In addition, it was perceived that some teachers would find it challenging to support the development of whole school literacy practice. However, where a school received a low number of applicants it was not reported to have led to the selection of a candidate who was unsuitable. The profile of a school, e.g. if it was in special measures, was also expected to have had a negative impact upon level of interest in the ECaR role. However, schools could still be successful in attracting a wider pool of candidates than expected by highlighting the benefits of the school's partnership with a well-regarded neighbouring school.

The method of recruiting RRTs had implications for the implementation and delivery of the programme in schools, particularly in relation to staff engagement, a factor that affected the ability of the RRT to deliver RR lessons effectively in the early stages of the programme and to inform whole school literacy practice in the longer term (discussed further in the section on engaging school staff in 4.3 and Chapter 5).

4.2.2 Link teachers

Another key activity undertaken by schools was the selection of the Link teacher. The decision to appoint a link teacher was taken by one or more members of a school's senior leadership team. The criteria taken into consideration when appointing the link teacher were the relevance of the staff member's current role and their skills and interests. Practical reasons also influenced the choice of the Link teacher. While schools appointed a senior member of staff to the link teacher role (deputy head, literacy co-ordinator), an exception was the appointment of a classroom teacher who had recently stepped down from a senior role for personal reasons. When selecting a senior member of staff, schools took into consideration the relevance of staff members' existing role. For example, a school had selected the assessment co-ordinator because they were familiar with the pupil monitoring data. However, a challenge faced when appointing a candidate was deciding which existing role was most relevant to the programme. The SENCO role was perceived to have been relevant because the programme aimed to raise the attainment of the lowest achieving pupils. An alternative perspective was that appointing the Literacy Co-ordinator as Link Teacher would further enable the programme to inform whole school literacy practice.

Link teachers were also selected because they were respected by school staff and had a good rapport with the RRT. A commitment and interest in literacy was also seen to be valuable. In addition, the capacity of a staff member to undertake the role was also considered. It was perceived to be advantageous for the link teacher to not have any classroom teaching duties.

4.3 Other implementation activities

The previous sections have described the recruitment, selection and training of key school staff members. This section will move on to describe the following additional set-up activities undertaken by schools:

- Establishing a dedicated space for Reading Recovery lessons
- Acquiring teaching materials
- Adjusting staffing and timetable
- Engaging staff in the programme
- Engaging parents in the programme

It will also describe the factors which affected a school's ability to undertake each set up activity. As discussed in 3.4, a general facilitator to carrying out implementation activities was receiving clear and comprehensive guidance from the LA.

4.3.1 Establishing a dedicated space for Reading Recovery

Schools were aware that Reading Recovery required a discrete and dedicated space, though the extent to which the space used for Reading Recovery met the criteria varied between schools (see also Chapter 5). A school's ability to identify (and maintain) a space for Reading Recovery was affected by whether there was suitable and available accommodation in the school building. An advantage to recruiting a RRT internally was that schools were able to convert the space used by the staff member in their former role, where they were not a classroom teacher.

4.3.2 Acquiring teaching materials

Schools were required to acquire teaching materials to support the delivery of Reading Recovery. The ease of acquiring these materials was influenced by the availability of funds within the school budget and existing teaching materials. However, it was more costly and time consuming for schools to acquire teaching materials for Reading Recovery if they perceived that existing key teaching materials, e.g. the reading scheme, were inadequate. Schools also faced delays in purchasing teaching materials; in certain cases, this seemed to be because members of the senior leadership team lacked awareness of the materials required to deliver Reading Recovery. There had also been a delay to the delivery of teaching materials. However, this had minimal impact upon the delivery of Reading Recovery because the school had borrowed resources from the LA on a temporary basis.

4.3.3 Adjustments to timetable and staffing

Adjustments to the roles and responsibilities of staff members and to the school timetable were discussed by schools who had appointed an existing staff member as the RRT. A key factor which affected a school's ability to make adjustments to the timetable and to staffing was the skill set of school staff. For example, where schools appointed an existing staff member as the RRT who had previously been responsible for other provision, it was challenging to identify other staff members to fill that role. In one school, however, where a

SEN co-ordinator took on the role of RRT, the fact that the appointment was made prior to the start of the school meant they had adequate time to make adjustments to staffing.

4.3.4 Engaging school staff

The strategic lead, RRT and Teacher Leader all had a role in informing school staff about the programme. This took the form of formal engagement, e.g. through staff meetings, and engagement on an informal basis. There were two keys factors affecting staff engagement in the programme: recruitment of the RRT and familiarity with Reading Recovery. Appointing an existing staff member as RRT was perceived to have facilitated staff engagement in the programme, as the RRT was seen to already have a good rapport with other staff members which, for example, made it easier to discuss the progress of pupils on Reading Recovery with classroom teachers. Engagement in ECaR was also facilitated by school staff members' familiarity with and experience of Reading Recovery. Those without familiarity and experience initially questioned the effectiveness and value for money of the programme.

Lack of engagement was perceived to have impacted upon the implementation of the 'layered approach'. This was because staff members were less engaged in training on other interventions (see Chapter 5 for the impact upon the delivery of Reading Recovery and other interventions). However, disengagement was perceived to have decreased over time amongst the classroom teachers of pupils receiving Reading Recovery. This was because RRTs were perceived by strategic leads to have demonstrated the effectiveness of the intervention. However, school staff that had not had opportunity to become familiar with ECaR were among those with reservations about the programme.

4.4 Management of ECaR

The previous sections described the recruitment of key staff and other implementation activities. It will now describe the management of ECaR in schools. As illustrated in Table 4.4, the key tasks involved in the management of ECaR once the programme had been set-up can be categorised as line management and support, resourcing and strategic management. Schools reported that one or more members of the senior leadership team such as the head teacher, the deputy head and the Link teacher were involved in key set up and management activities. The involvement of senior leadership was seen to have been greatest at the implementation stage. The on-going management of programme was not, however, perceived to be resource or time intensive, because the RRT teacher was responsible for the day-to-day delivery of the ECaR programme.

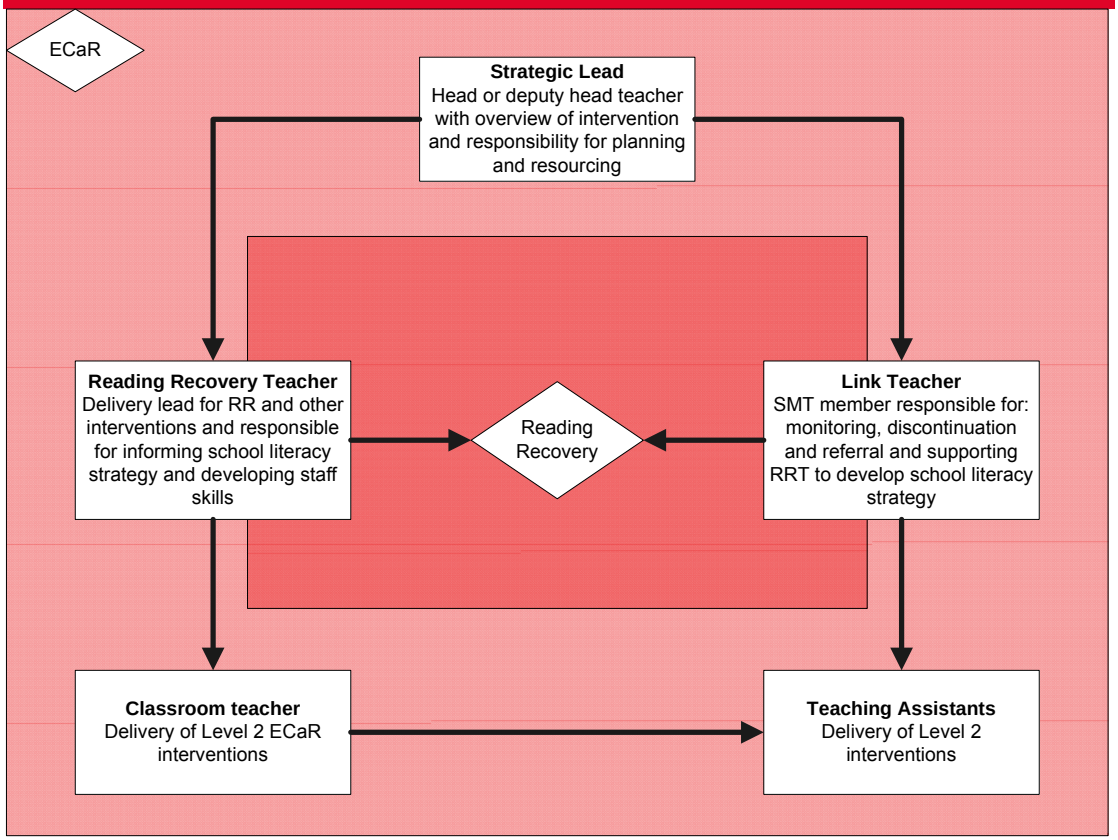
Table 4.4 Management of ECaR	
Line management & support	• Performance management of the RRT • Formal and informal support to the RRT and to other staff delivering interventions
Resourcing	• On-going resourcing of ECaR e.g. 'protecting' the RRT's time, organising cover to enable the Link teacher to discontinue pupils on Reading Recovery, staffing ECaR interventions
Strategic management	• Communicating with key stakeholders about ECaR e.g. Local Authorities and school staff • Monitoring and evaluation • Integrating the programme into the literacy or wider strategy. • Co-ordinating and overseeing the delivery of interventions in some schools.

Despite this, schools did report some challenges in relation to managing ECaR. Schools with fewer than 250 pupils or those delivering other interventions found it challenging to find time for some activities related to resourcing or strategic management of the programme. It was also difficult for schools to support staff delivering other ECaR interventions and to strategically manage the programme when they felt they lacked clarity about the structure and mechanics of the programme overall (discussed in further detail in 3.4).

4.5 Roles

The previous section described the overall management of the programme in schools. This section will now move on to describe the specific roles of the RRT and the link teacher. It will also identify the factors which affected the ability of school staff to undertake their roles. Figure 4.2 shows the organisational structure of ECaR delivery at a school level and key lines of responsibility. The remainder of this section provides more detail on each of these roles and relationships.

Figure 4.2 Organisational structure of ECaR



4.5.1 The role of the RRT

In addition to the daily delivery of Reading Recovery (which is discussed in Chapter 5), the role of RRTs was also to support the continued development of 'quality first' teaching within the school. Participants described three ways in which they were able to do this:

- Co-ordinating and supporting the delivery of ECaR interventions
- Familiarising school staff with the components and techniques used in Reading Recovery
- Providing general advice and guidance on literacy practice.

The extent to which the RRT's role extended to informing whole school literacy practice varied between schools and was on a continuum ranging from a limited to a greater role. This is illustrated in Table 4.5.

Table 4.5 Informing whole school literacy practice		
	More limited role	Greater role
Co-ordinating and supporting the delivery of ECaR interventions	▪ Limited role co-ordinating interventions ▪ 'Checking in' with school staff delivering interventions	▪ Responsibility for interventions ▪ Training school staff in ECaR interventions
Familiarising school staff with the components and techniques used in Reading Recovery	▪ Limited role ▪ Inviting school staff to observe Reading Recovery	▪ Delivering formal training and support to school staff in KS1, KS2 or whole school.
Providing general advice and guidance on literacy practice	▪ Low level/ limited contact with school staff	▪ Providing formal advice & guidance to school staff e.g. at INSET sessions

RRTs identified a range of factors as influencing their ability to inform whole school literacy practice. These can be categorised as those relating to the role itself and those relating to the school (Table 4.6). Factors that related to the school are discussed in Chapter 5. There were four RRT role related factors. These were time pressure, teaching experience, lack of clarity about the ECaR role and lack of familiarly with other ECaR interventions. It was perceived to be challenging for RRTs to inform whole school literacy practice in the time allocated to the ECaR role. This was particularly challenging for an RRT who worked across two schools. RRTs discussed three strategies for managing the time pressure of their role. RRTs supported the development of whole school practice to a limited degree or outside the 0.6 FTE allocated to their role. RRTs also attempted to balance the time spent on the different elements of their role. This was, however, perceived to be challenging because the flexibility required to support school staff members was, at times, in conflict with the structured nature of Reading Recovery.

Table 4.6 Factors affecting the ability of the RRT to inform whole school literacy practice	
RRT	▪ Challenges undertaking the ECaR role in 0.6 FTE ▪ Teaching experience ▪ Lack of clarity about the ECaR role ▪ Lack of familiarity with other ECaR interventions
School	▪ When school joined the programme ▪ Familiarity with school and rapport with school staff ▪ Time pressure on other school staff ▪ RRTs integration into school activities and decision making bodies

Where an RRT was recently qualified in RR, this also influenced the extent to which they supported whole school literacy practice, because the Teacher Leader and the RRT had

chosen to delay this element of ECaR to provide the RRT with greater time to become acquainted with the programme.

Finally, some RRTs did not perceive that the professional development training had adequately prepared them to support the development of whole school literacy practice. This was because the role of the RRT had not been clarified by Teacher Leaders during training. In addition, some RRTs had not been trained in each of the interventions which were implemented in their school (see Training for Link teachers in 4.6).

4.5.2 The role of the Link teacher

Interviews were carried out with one strategic staff member in each school. Data on the Link teacher role is therefore limited to the perspective of a staff member who in some schools was not the Link teacher. In addition to the discontinuation of pupils the role of Link teacher is to be knowledgeable about Reading Recovery, support the development of whole school literacy practice and have a role in management activities, including providing support to RRT and monitoring and evaluation. The tasks which were reported by participants to have been undertaken by Link teachers were related to Reading Recovery and providing support to the RRTs. In addition, there were schools in which the Link teacher had a role in the on-going management of the programme.

Link teachers found it challenging to discontinue pupils from Reading Recovery, to provide support to the RRT and to undertake management activities where the training for link teachers had not been considered effective. The factors influencing the efficacy of the link teacher training are described in 4.6: Training for Link teachers.

4.6 Training and Support

Once in post, key staff members received training and support to undertake their role within the programme. This section will describe the support provided to schools to implement and manage the programme. It will also outline the training and support received by Link teachers and RRTs and school staff delivering ECaR interventions. It will distinguish between the training and support provided to RRTs to deliver Reading Recovery and to undertake other elements of their role. It will also describe school staff members' views on the efficacy of the training and support.

4.6.1 Support, advice and guidance to implement and manage ECaR

Schools received advice, guidance and support for implementing and managing ECaR from two main sources: the LA and other staff members within the school (Table 4.7).

Table 4.7	Support, advice and guidance for strategic leads	
Local Authority	Teacher Leader	▪ Briefing events ▪ Face-to-face support when the strategic lead visited the Reading Recovery centre or the Teacher Leader visited the school ▪ Informal advice & guidance via email and phone ▪ Sharing good practice ▪ Visits to schools to raise awareness of programme amongst staff
	Other	▪ Written guidance on implementation activities such as acquiring teaching resources ▪ Ad-hoc advice and guidance from Local Authority staff e.g. the ECaR manager on implementing and managing the programme
School	RRTs	▪ Observing the RRT deliver Reading Recovery ▪ Discussion with the RRT about the programme.
	School Governors	▪ Discussion about the on-going delivery of the programme

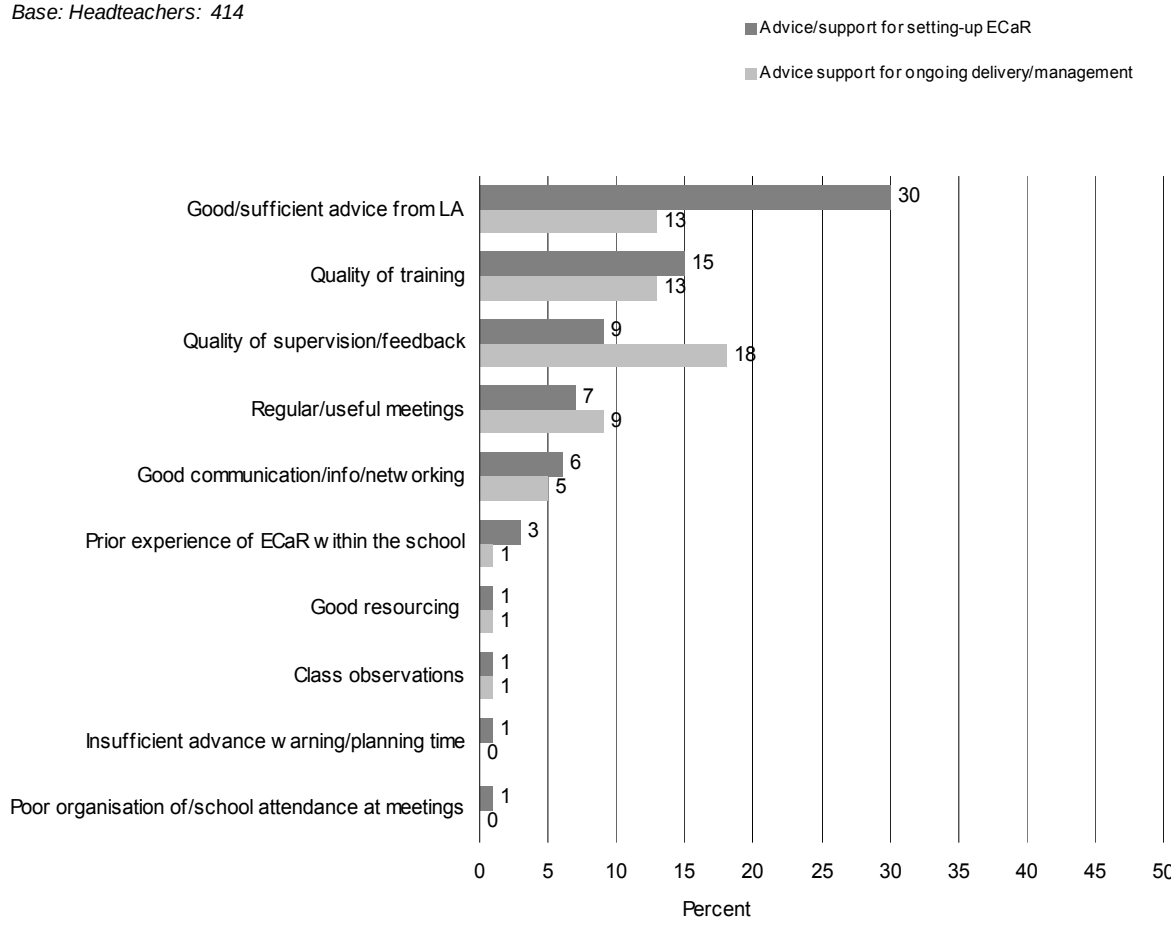
Strategic leads did not always feel they required a great deal of support from the LA to implement and manage ECaR because they received sufficient support from other school staff members. However, those who accessed LA support valued it because LA staff members were well regarded and 'on-hand' to answer questions about the programme. The advice and guidance on implementing and managing ECaR was considered clear and comprehensive and had enabled strategic staff to perform aspects of their role such as carrying out implementation activities and managing the on-going resourcing of the programme:

> *'…everything was made very clear…It was very prescribed…it was very clear about the cost of the materials that they would need, what they would need, they'd need their own space, it wasn't [enough] for someone to be taken out and used in another classroom.'*
>
> (Head teacher, medium-sized primary school, LA3)

This finding is reflected in the survey of head teachers. As the figure below illustrates, good and sufficient advice from the LA was the most frequently mentioned source for setting up the programme (30 per cent of heads), whereas the quality of supervision and feedback received from the Teacher Leader proved most helpful for the ongoing delivery of the programme (18 per cent).

Figure 4.3 Sources of advice and support helpful for the setting up and delivery

Base: Headteachers: 414



Despite this, there was a view identified in the cases studies that schools felt that they lacked clarity about the programme in the first year of implementation. This was felt to have arisen for three reasons. Firstly, there was a perceived gap in the support provided by the LA at the implementation stage, with the advice and guidance provided by the Teacher Leader focused on implementing and managing Reading Recovery rather than ECaR. This meant that the school lacked clarity about how the programme fitted together:

> *Nobody from the Centre had said to me as a senior leader how all of this was going to work, until I called everybody together and said, 'Can you please explain what you've been told?'. And I think that was a bit of a fault…it would've been better really if somebody like myself had been told in the beginning, 'This is how it works'… it took us a while to realise that the [Name of RRT] was Reading Recovery and that all these little programmes weren't Reading Recovery… So we were getting sort of cross wires.*
>
> (Deputy-head, large primary school, LA3*)*

[30] These categories were coded from open answers to a question about sources of advice and support that were helping in setting up and delivering ECaR in schools.

Schools also lacked clarity about the programme if there had been a gap in communication between the senior staff member who had received support from the LA and other members of the senior leadership team. A lack of clarity also became an issue if a member of the senior leadership had missed the training for link teachers. This meant it was challenging for schools to carry out aspects of their role such as co-ordinating the delivery of interventions and providing support to the RRT and other staff delivering interventions. In addition, it impacted upon the ability of the RRT to support literacy practice within the school. This was because head teachers in such instances had been unaware of this element of the RRTs' role and so had not facilitated their involvement in training and supporting other school staff members in the techniques used in Reading Recovery.

4.6.2 Reading Recovery Professional Development Programme

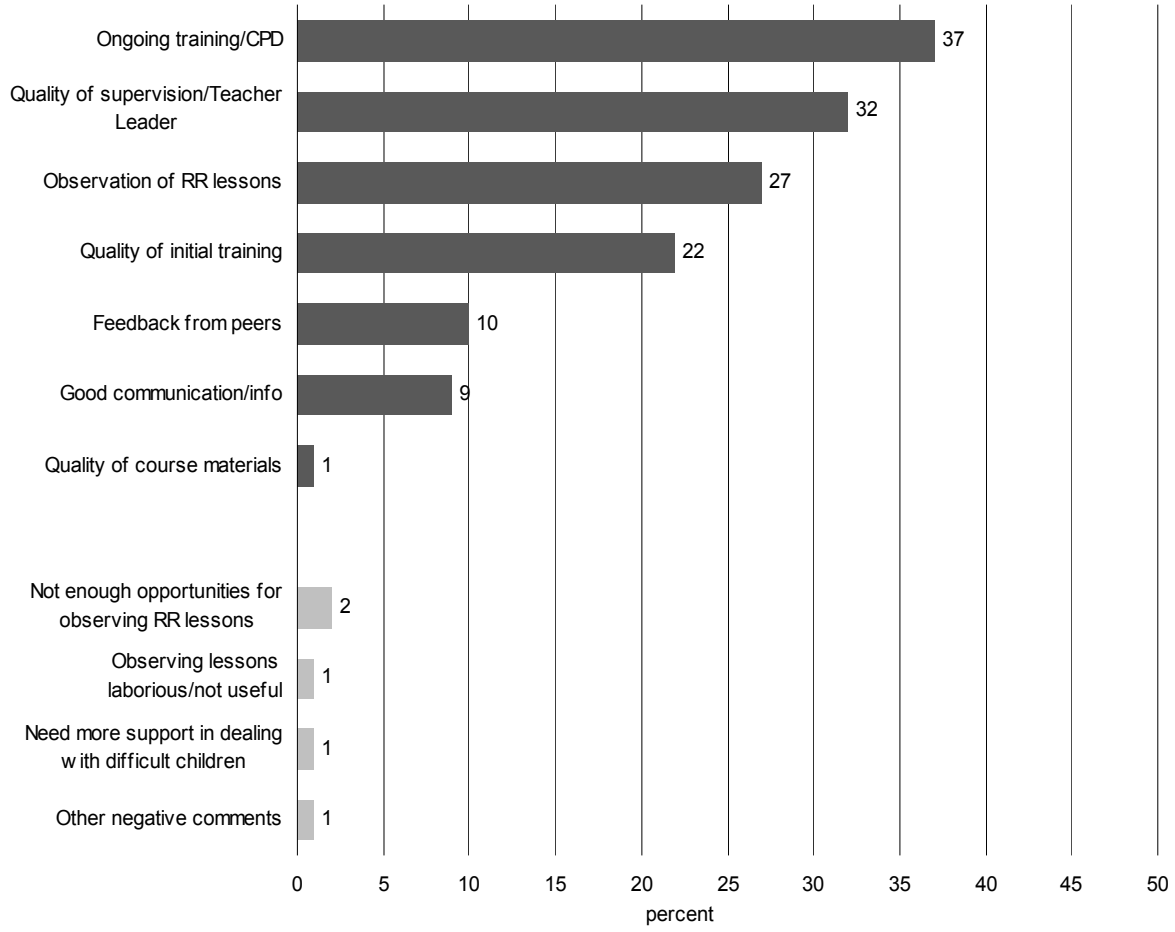
Shortly after they were in post, the RRT began a year long professional development programme to prepare them for their role. RRTs reported that the Reading Recovery Professional Development Programme had five key elements:

- Attending professional development sessions delivered by the Teacher Leader
- Teaching a pupil at a professional development session
- Receiving visits from the Teacher Leader
- Receiving visits from a peer colleague and making a visit to a peer colleague
- Delivering Reading Recovery daily to pupils

The professional development programme, described as being delivered in-line with IOE guidance, was highly regarded by RRTs, with the survey data finding that training was perceived as being sufficient by 97 per cent of teachers (one per cent thought it was insufficient and two per cent thought it was too early to say). As Figure 4.4 illustrates, RRTs particularly found quality supervision from the Teacher Leader (32 per cent) and observation of RR lessons (27 per cent) to be helpful at the initial training stage, with overall on-going training (37 per cent) to be helpful after this initial training. Some of these issues will be revisited below.

Figure 4.4 Reading Recovery teachers' perspectives on training

Base: All responding Reading Recovery teachers: 511



Each of the five elements of the training was perceived to have been important in preparing teachers to deliver Reading Recovery. However, the qualitative study identified RRTs that felt that becoming proficient in teaching Reading Recovery would require further practical experience. There were also reported challenges in relation to the pace of training, the training schedule, workload and time.

Engaging in theory

RRTs welcomed the opportunity to take time away from school to focus solely upon literacy teaching practice. They also welcomed the opportunity to engage with the theory of literacy teaching as it was seen to expand their understanding of how to teach literacy. This was perceived to be beneficial even for experienced teachers, as they acquired new knowledge which could be applied in practice and shared with other school staff members. In addition, engaging in theory also increased RRTs' confidence in Reading Recovery as it was perceived that the effectiveness of the intervention had been demonstrated.

The daily delivery of Reading Recovery

Despite the welcome immersion in literacy theory, the daily delivery of Reading Recovery was also seen to be important for three key reasons:

- It enabled RRTs to '*get to grips*' with Reading Recovery in a practical sense.
- It helped RRTs to process the volume of information covered during the training year.
- It enabled RRTs to reflect on their experiences of delivering Reading Recovery during training activities.

An alternative view was that it was difficult to 'keep up' with the training because of the requirement to deliver Reading Recovery. RRTs who experienced this felt it would be beneficial to slow down the pace of the training to ensure that they could adequately engage in both practice and literacy theory. RRTs also faced challenges delivering Reading Recovery during the training year when they perceived that their knowledge of Reading Recovery was fragmented or incomplete. For example, it was difficult for RRTs to respond to a pupil if relevant strategies had not yet been covered by the training.

Teaching a pupil and observing others teach

Teaching a pupil at a professional development session or during a visit from the TL was identified as particularly valuable to preparing RRTs for their role. RRTs received constructive feedback, advice and support from the TL and other trainee RRTs, which boosted morale and was perceived to have enhanced the delivery of Reading Recovery. However, teaching a pupil at a professional development session was a stressful experience for RRTs who were apprehensive about being observed. In addition, it was perceived to be difficult to predict how a pupil would respond to a lesson delivered in an unfamiliar environment. RRTs felt that observing their peers delivering a Reading Recovery lesson was also valuable for encouraging critical reflection. In addition, those observing also identified techniques which they could apply to their own practice.

Guidance and support

RRTs valued guidance and support from Teacher Leaders and peers during the training year. Firstly, the advice and guidance of the Teacher Leader was well regarded because they were considered knowledgeable and experienced in delivering Reading Recovery. Teacher Leaders also encouraged critical reflection and directed RRTs to relevant support materials e.g. Reading Recovery textbook. The support of other RRTs was also valued. During formal training activities peers exchanged experiences of delivering Reading Recovery and techniques for overcoming challenges. RRTs also informally supported each others' professional development by, for example, sharing good practice through formal training activities and providing moral support. Inter-personal relationships with the Teacher Leader and other trainee RRTs were important because RRTs may have been the only staff member who was trained in Reading Recovery within the school. A third source of support valued by RRTs was the support materials which accompanied the delivery of Reading Recovery, which was seen to be a comprehensive and authoritative source of guidance on Reading Recovery.

Workload

RRTs did find it challenging to adequately prepare for and attend training as well as delivering Reading Recovery lessons in the time allocated to their role. This was particularly difficult for staff members who had additional, non-ECaR roles within the school such as classroom teaching responsibilities. Consequently, RRTs did not feel as well prepared for professional development sessions as they would have liked. In addition, RRTs faced challenges delivering daily Reading Recovery lessons.

4.6.3 Training for Link Teachers

Link Teachers received training which lasted the equivalent of up to 1.5 days to undertake their role. The exception to this was when training was shortened due to extenuating circumstances such as bad weather. Link Teachers were trained on the discontinuation process and also received training on Reading Recovery. In a case where the Link teacher had been unable to attend the training, the Teacher Leader visited the school to conduct the training.

The training was praised by Link Teachers for two reasons. It had enabled Link teachers to carry out their role in the discontinuation process and it also clarified or consolidated the Link teachers' understanding of Reading Recovery. As a result Link teachers felt better able to provide support to the RRT. However, those who felt most confident to carry out the link teacher role were staff members who had a related role within the school, e.g. an assessment co-ordinator. Link teachers faced challenges carrying out their role when they had been unable to attend training, when training took place some time after the implementation of the programme in the school or the training had been shortened. This resulted in difficulty implementing and managing the programme when the Link teacher had responsibility for overseeing the ECaR programme within the school.

4.6.4 Training for school staff on other interventions

School staff members were trained in a range of ECaR supported interventions, as listed in Table 4.8. Three factors affected staff members' views on the efficacy of the training to deliver ECaR interventions. These were guidance and support, training techniques and the duration of training.

The guidance and support provided by the Teacher Leader and other staff members delivering training were well regarded by school staff. Similar to the views on the support for RRTs, this was because they were knowledgeable about strategies and techniques for teaching literacy and clearly communicated these during training. They had also provided moral support during training when school staff members were apprehensive about delivering interventions. School staff enjoyed sharing experiences and best practice with peers during training, as it had helped school staff identify solutions to difficulties they had faced and prevented them from feeling that they were the only person who had faced challenges delivering the intervention. Where staff members received on-going support for delivering the intervention in the shape of resource materials, these were also valued. However, some school staff would have liked to have had continuing contact with the

Reading Recovery centre and others who had been trained in the intervention as it would allow those training to continue to share experiences and ideas and would act as a refresher on the techniques and components of the intervention.

The techniques used during training sessions also supported staff to feel prepared to deliver interventions. Two techniques were identified by school staff as particularly valuable. These were observing teaching and 'practical' sessions. Observing teaching was beneficial because it had clarified school staff members' understanding of the intervention, demonstrated the effectiveness of the intervention, and highlighted new techniques and strategies. However, the value of observations which were not 'live' was limited when it was perceived that the video had not 'realistically' represented an encounter between a pupil and a member of school staff. School staff also reported that they valued practical sessions which had provided them with an opportunity to try out the techniques/ components covered during the training.

Table 4.8 Other literacy interventions identified by school staff

- Better Reading Partners
- Talking Partners
- Early Literacy Support
- Fischer Family Trust
- Read Write A-Z
- Reciprocal Reading
- Year 2 Intensive Reading Programme
- Reception Literacy Programme

Finally, the duration of the training affected how prepared school staff felt to deliver the intervention. There were two perspectives on the duration of training. Where staff already had prior experience of delivering the intervention it was felt that training could have been shortened. An alternative view was that school staff would have benefited from a longer period of training for interventions such as Fischer Family Trust or the Reception Literacy Programme. This would have allowed more time to have been spent on the components of interventions and made it easier to process the volume of information covered during training. This was felt to have been particularly important when fidelity was perceived to have been important to the success of the intervention.

4.7 A layered approach?

Once schools had recruited and trained staff, carried out key set-up activities and engaged other staff and parents there was an expectation that schools would implement and deliver other wave 2 and wave 3 interventions which are pedagogically aligned with Reading Recovery, as well as other interventions under the umbrella of ECaR. This section describes the variation in the 'layered approach' between schools. It also describes the key factors which affected a school's ability to implement a 'layered approach'.

In addition to schools that had implemented a range of wave 2 and 3 ECaR supported interventions, there were also schools that were not doing this. Schools who were in the first year of implementation or who had recruited an NQT to the ECaR role had decided to delay the implementation of layered interventions. This was to provide the RRT with sufficient time to become acquainted with Reading Recovery before rolling out the other elements of the

programme. Where a school was not delivering interventions beyond the first year of implementation this was because the school had been unable to maintain the delivery of ECaR interventions following changes to staffing, e.g. staff had left or been assigned new responsibilities. Finally, a school which shared its RRT had not implemented ECaR interventions, but planned to do so in the next school year. The RRT found it challenging to support the development of whole school literacy practice in the time afforded to their role. This could have been a contributing factor to the delay to implementing layered interventions.

There were also schools in which the implementation of layered interventions was fragmented e.g. school staff delivering the programme were working in silos and lacked awareness of the 'fit' between the intervention and the wider ECaR programme. Where this happened the schools were in the first year of implementing the programme and it was attributed to the RRT and/ or members of the senior leadership lacking clarity about the ECaR programme. This was perceived to have arisen as a result of gaps in the professional development training for RRTs or support to schools to set-up and manage the programme. However, it is important to note that there were schools that did not report challenges to implementing the layered approach and who were able to describe the perceived impacts of this (See Chapter 6 for more detail).

5 Delivering ECaR in Schools

Key Findings

- **Selection and recruitment of pupils** was based on age and attainment in accordance with IOE guidance. However, other factors were also considered, with SEN or EAL being used both to specifically include and exclude pupils from Reading Recovery. Pupils outside the specified age range were also included, which reflected a view that the formal criteria for inclusion were too restrictive.

- **Engaging parents** relied on timely information effectively communicated by the school, but the extent to which parents became involved was also dependent upon parents' own attitudes. No parents reported being unwilling to be involved, but there were different views on what their involvement should entail.

- **Delivering Reading Recovery** was more effective in a dedicated and discrete space, with adequate resources and in a supportive school infrastructure. This enabled Reading Recovery Teachers to fulfil their teaching responsibilities in the time allotted for Reading Recovery sessions. Reading Recovery Teachers' ability to manage these sessions and their time in general improved over time as they became more familiar not only with the role but with the needs of individual pupils.

- **Fidelity to Reading Recovery model** was considered important to delivering sessions effectively, but the concept of fidelity incorporated some flexibility. Reading Recovery Teachers spoke positively about the room for personal judgement within the Reading Recovery model.

- **Delivering other ECaR interventions** was affected by a similar range of factors to Reading Recovery, but faced additional challenges due to receiving fewer resources and having a lower profile than Reading Recovery. The interventions were perceived as having less kudos and the staff delivering them less authority within the school.

- **Effective delivery of the ECaR model** was facilitated by a supportive Senior Management Team and a clear and shared understanding of the various roles involved in delivering ECaR. This provided Reading Recovery Teachers with the authority to drive wider literacy strategy and develop key relationships.

5.1 Introduction

The previous chapter examined the set-up and management activities of schools. This chapter will complete the picture of how ECaR was implemented in schools by considering how Reading Recovery (RR) and other ECaR interventions were actually delivered once the programme had been introduced. This will be done with a view to highlighting factors that affect delivery and, where RR is concerned, fidelity of delivery to the RR model. In doing so, this chapter will extensively draw on interview data from Reading Recovery Teachers (RRTs) and other ECaR staff, as well as data from lesson observations and the quantitative survey of RRTs.

The chapter first considers how pupils were selected for the different interventions (5.2), then explores the delivery of RR (5.3) and other ECaR interventions (5.4) and the fidelity of delivery to the ECaR model (5.5) and describes the monitoring and evaluation conducted by schools (5.6).

5.2 Selecting pupils

Drawing on data from the qualitative case studies and the implementation survey, this section discusses the details and prevalence of different approaches to identifying which pupils should receive ECaR interventions. The key stages of the process were to select eligibility criteria, identify eligible pupils within the school and recruit the pupils onto the interventions, a large part of which involved engaging parents and receiving their consent. The focus here is predominantly Reading Recovery, but key differences with other interventions in selection criteria and approach are also highlighted.

Box 5.1 Guidance for selection pupils for RR

Procedure:

- Identify children aged 5 to 6 who have completed between 3 and 5 terms at school and, in consultation with class teacher(s), rank the bottom 50 per cent. If there are ten or fewer children identified, administer the Observation Survey to those children.
- Where more than ten, use other tests - Writing Vocabulary, Duncan Word Test, Concepts About Print - to identify lowest ten children administer the rest of the Observation Survey.
- Select the four (or more) children considered most suitable to enter the Reading Recovery programme.
- In exceptional circumstances the age and terms at school limits may be varied.

Sources

- Class teacher, SENCO, Language Co-ordinator, Link Teacher
- Observation Survey: Book level, Stanine scores, Writing and Dictation scores

5.2.1 Determining selection criteria

A summary of the guidance provided by IOE, through the LA, on the criteria pupils should meet in order to receive RR and other ECaR interventions is laid out in Box 1. In line with this guidance, data from the survey and the case studies suggest that the key characteristics of age and attainment played a significant role. In terms of age, qualitative data identified schools that delivered Reading Recovery only within the age bands suggested. Despite this, there was also a view that this was too restrictive with some schools making this point delivering Reading Recovery to older pupils. This approach was underpinned by the belief that there were pupils at Key Stage 2, particularly with English as an additional language, who would benefit more from receiving these teaching methods.

The picture for attainment is less complicated. In accordance with the guidance, almost all the teachers in the implementation survey reported using a score on the Observation Survey assessment, as well as reading ability as assessed by a Key Stage 1 teacher for selecting pupils for Reading Recovery. Qualitative interviews revealed that schools using this assessment aimed to identify either a specific proportion of pupils, 'the bottom 20 per cent', or an attainment level, for example those below a particular national curriculum score, rather than ten pupils to reduce to four as suggested by the guidance.

As Box 5.1 alludes to, other factors can be considered in exceptional circumstances. Data from the survey and the case studies provides an unclear picture as to the use of other capability-related criteria. The survey data showed a mixed response to the use of SEN or EAL in selecting pupils for Reading Recovery, reflecting some conflicting views on this reported in the qualitative interviews. In relation to SEN, one approach was not to exclude SEN pupils from the programme, but there was also a view, not reflected in the official selection guidance, that Reading Recovery was not appropriate for SEN students. These contrasting perspectives appeared to arise from the fact that staff were aware that pupils making no progress from Reading Recovery should be referred to the SEN lead, which led them to believe it was not an appropriate intervention for that group. Similarly, though schools did, in some cases predominantly, deliver Reading Recovery to pupils with EAL another perspective was that it was not appropriate for this group:

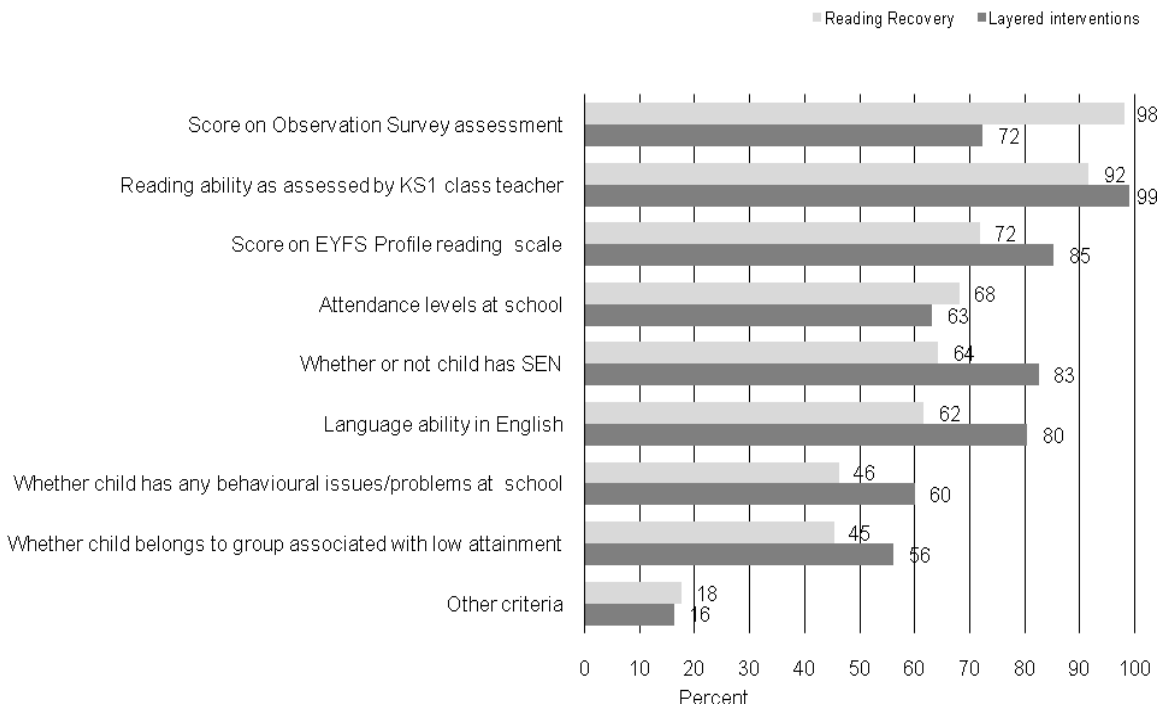
> *'We tend not to pick children who are [learning] EAL [English as an Additional Language]. For some it wouldn't help them because they're not going to understand the reading until they've improved their language skills'*
>
> (Reading Recovery Teacher, medium-sized primary school, LA3)

In the case of other layered interventions, reading ability was most often considered (99 per cent), followed by a score on the Early Years Foundation Stage Profile reading scale (85 per cent), and whether or not pupils were identified as having SEN (83 per cent). In the qualitative interviews, participants reported teacher referral as being a more significant element of identifying criteria for other interventions. For interventions such as Fisher Family Trust or Better Reading Partners, a discussion would take place between classroom teachers and teaching assistants to assess whether pupils met the criteria. There was also

evidence of additional criteria for other interventions including limited impact of previous interventions and lack of speech clarity.

Figure 5.1 Criteria in selecting pupils

Base: All responding Reading Recovery teachers



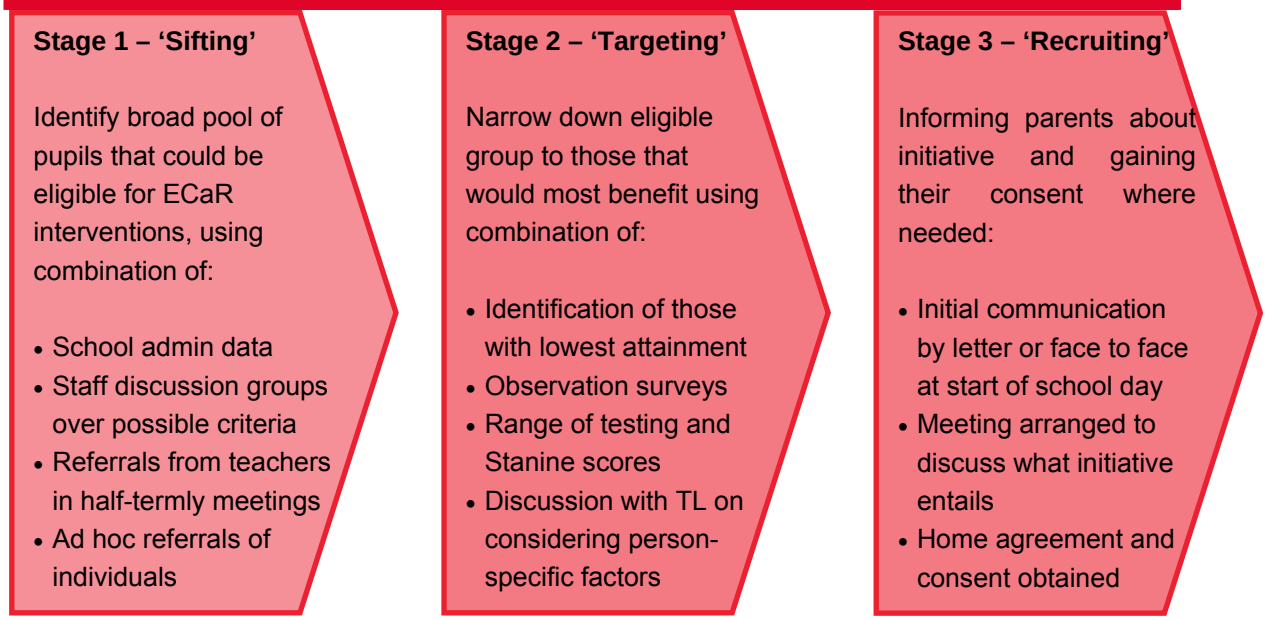
Note: Base varies across the question, min base: 501.

Non-attainment or performance related criteria were also taken into account but were not as prevalent, such as attendance and presence of behavioural issues at schools. In fact, the qualitative interviews suggest that these kinds of factors were only taken into account to *exclude* some pupils from Reading Recovery or other interventions. For Reading Recovery one approach was to exclude pupils that had not attended school for a minimum period of time, set from between two to four terms. An alternative approach promoted the *inclusion* of those with 'additional learning barriers' or from groups of participants associated with low attainment such as traveller communities.

5.2.2 Identifying and selecting the pupils

The qualitative case studies suggest that schools typically adopted a two stage approach to identifying and selecting pupils for Reading Recovery. Stage 1 involved mapping the pupils characteristics in relation to the chosen criteria; Stage 2 comprised a process of targeting, further narrowing the pool of eligible pupils. A third stage involved actually recruiting the pupil through contact with parents. Variations in how this took place in schools are illustrated in Figure 5.2. This tiered approach was reported as providing an efficient way to reach the right pupils, considering that observational surveys are time-consuming and resource intensive. There was greater diversity among schools' approach to stage 1 and 2 than to recruitment, which was fairly typical.

Figure 5.2 The typical process for selecting pupils for ECaR interventions

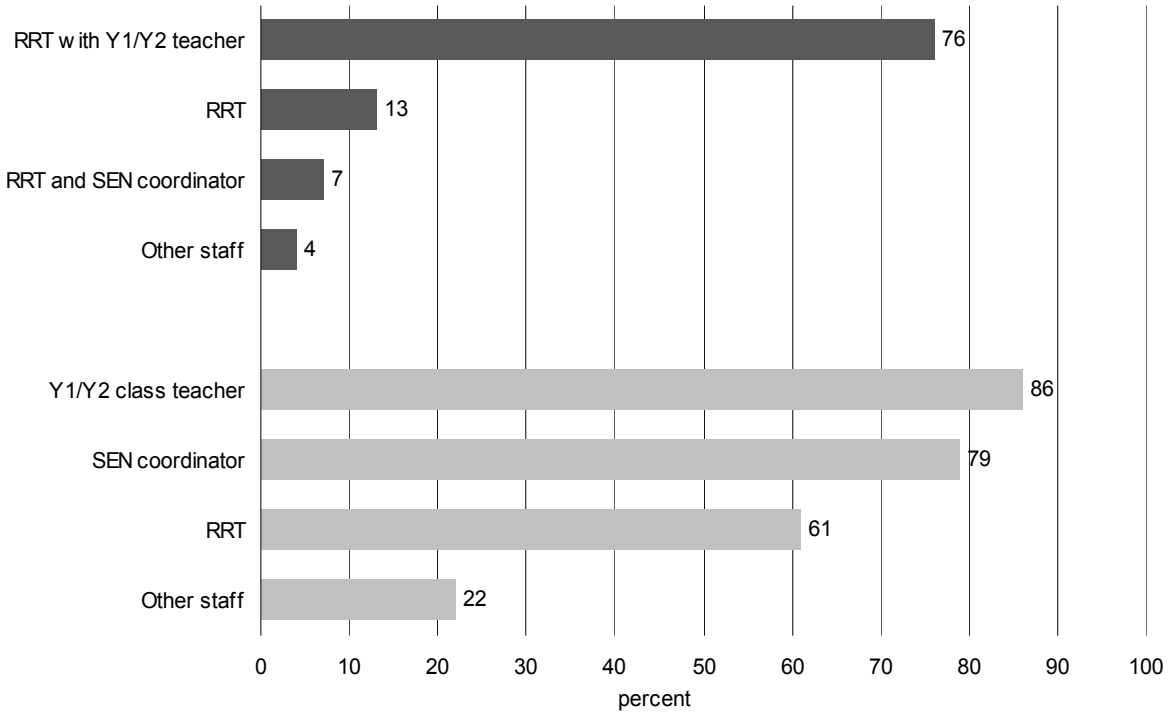


A similar approach was taken for selecting pupils for other ECaR interventions, but the processes described were less systematic and standardised. There were two key differences identified by participants. Firstly, referral from a classroom teacher could often be the first step, followed up by some observation and RRT support to determine which intervention would be most appropriate. The second difference was the inclusion of other factors beyond attainment. For example, the selection of children for the Fisher Family Trust would account for levels of parental engagement, punctuality and attendance in addition to reading ability; Talking Partners was described as focusing on children with unclear speech. Whether guidance was provided and the efficacy of this was not discussed in detail for other interventions.

Schools took different approaches in terms of who was responsible for selecting pupils depending on the type of intervention. Not surprisingly, in the case of Reading Recovery, RRTs were in charge of the pupil selection – most often in conjunction with the Year1/Year 2 class teachers (around three-quarters of the RR teachers reported this pattern). For layered interventions the Year 1/Year 2 teachers (86 per cent) and SEN co-ordinators tended to be more involved (79 per cent) (Figure 5.3).

Figure 5.3 Who was involved in selecting pupils for RR and ECaR interventions

Base: All responding Reading Recovery teachers: 511



Participants in the qualitative study described different levels of involvement from TLs in this process. TLs were reported as offering assistance in understanding and interpreting school administrative data in Stage 1, and in some cases this was where their involvement ended. Alternatively, there were schools that felt the main role of the TL in selection was in Stage 2. TLs would either always be involved in agreeing or overseeing the final selection of pupils or only in the first year of selection and this has since been the exclusive responsibility of the RRT. There was also a suggestion that schools discuss with TLs the situation of pupils that did not fit some or all of the criteria as originally defined but that they felt should be included due to other personal or contextual factors. A different experience was reported by schools that felt they could have received more support around setting the minimum attainment levels under which to select pupils for RR; consequently participants were less confident that they had selected the right pupils. Despite this, the implementation survey found a high level of confidence amongst Reading Recovery teachers for selecting pupils for layered interventions, with 60 per cent reporting that they felt 'very confident' and 40 per cent that they were 'fairly confident'.

5.2.3 Efficacy of criteria and selection processes

Views on the suitability of the guidance on selection criteria provide some explanation for the different approaches to defining criteria and selecting pupils as described in the previous sections. Schools either considered the guidance as effective and were in agreement with the criteria or felt that the guidance encouraged criteria that were too narrow and that more flexibility was required. These views led to three types of experience in terms of how schools ultimately selected pupils:

- **Guidance considered effective and closely followed**: schools were happy with the criteria set out in the guidance and felt that the positive results they were seeing were evidence that the right pupils were being selected.
- **Guidance considered to have weaknesses but still closely followed**: schools had concerns over the guidance, for example preferring to target EAL pupils or poor attendees. There was also the view that others outside the age range would benefit also. However, schools in this group chose still to follow the guidance either because following discussions with the TL they were told to 'do it by the book' or they had faith in the overall ECaR model to ultimately bring benefits to pupils not eligible for reading recovery. Others experienced problems actually identifying pupils that were so low achieving on all Stanine scores, and so had to include those with scores of one or two in the most areas.
- **Guidance considered to have weaknesses so additional criteria used**: this group had similar concerns, notably about the age bracket, but felt that the close personal contact they had with their pupils put them in a position to use the guidance more flexibly and deliver RR in a way that would most benefit the school. In these cases, pupils from outside the age bracket received RR as well as those with specific needs not identified in the guidance, such as unclear speech or difficulty concentrating in the classroom environment.

Schools also reported some challenges associated with the two stage identification and selection process. There was an acknowledgement that the process had to be rigorous and comprehensive, and was consequently described as time consuming. This desire to 'do it properly' may reflect a keen sense of the importance of providing value for money. Related to this, there was a suggestion that ECaR would have a greater impact by working with those achieving slightly above the very lowest literacy scores and that this would represent better value for money. Experiences of the process of selecting pupils were also affected by the school size and profile of the pupils. Larger schools or those that started from a low attainment base pointed out that whatever criteria and targeting was used to narrow down the pool of eligible pupils, it was always larger than the pool of available spaces for RR in particular and other interventions in general. Conversely, smaller schools found the process far simpler, notably where there was a single form entry, as pupils were easily identified.

5.2.4 Engaging parents

As part of this study, a small number of interviews were conducted with parents, accessed through the schools involved in the case studies. All the parents had a child on an ECaR intervention. This section describes parents' levels of awareness of the initiative being delivered to their child and perspectives on the efficacy of the communication they received from schools.

Levels of awareness

Parents that participated in the study displayed different levels of awareness of the intervention their child was receiving, and showed a range of understanding of what the intervention entailed. Along these two dimensions, three types of parent were identified in our sample.

- **Vaguely aware, minimal understanding**: This group could not name the intervention their child was receiving and were unclear on what it entailed. What awareness they did have came from written communication or directly from their child
- **Vaguely aware, some understanding**: While unable, as the previous group, to name the intervention their child was receiving, this group were able to describe some of the elements of the delivery approach and what was required of them. This group received information in a variety of ways (written and face to face communication with the school) but did not seek out any additional information
- **Very aware, full understanding**: The final group were very aware of the intervention, naming it correctly and showing a good grasp of what it was trying to achieve. This group were also well versed on many of the components of the intervention and had a clear sense of their role, which in some cases they had sought clarification on. Parents in this group all had children on Reading Recovery and no other ECaR intervention.

Describing parents' levels of awareness and understanding is an important starting point for this section as it has implications for understanding the value of different approaches to engaging parents and the extent to which they felt willing or able to be involved in delivery of the intervention in the home.

School communication and engaging parents

Figure 5.2 illustrates the typical approach to communicating with and engaging parents as described by teachers. This involved an initial approach to the parent either by letter or face to face. The latter was described as an informal chat 'at the school gates' at the end of the day by teachers, but parents also described first being made aware of the intervention at parents evening. Following this initial communication, the intervention was then further explained to parents through a leaflet or a more formal meeting with the teacher or a combination of the two. In some cases, parents did not have any face to face contact informing them of the intervention.

Parents reported a preference for written communication where they had limited time to meet face to face or where, due to not speaking English as their first language, written

communication was easier to understand and take in. In these cases, parents were happy to consent to their child receiving the intervention out of trust in the teachers to know what is best for pupils:

> *'I agree with the school because it's very close to me…if [there is] something I'm not happy with, I go to the teacher and I will sort it out with the teacher...I can't complain about [the] school, even the staff [are] good...I have three kids in that school and I didn't have any trouble or anything'*
>
> (Parent of pupil in medium-sized school, LA4)

Despite this, parents that received only written communication were all characterised by being only vaguely aware and having only minimal understanding of the intervention their child was receiving. In fact, other parents in this group were unhappy that it had not been discussed in person and relied on their child to inform them about the steps that were being taken. These parents felt unclear as to why their child was receiving the intervention, a feeling that was compounded when parents felt that the work they brought home was too easy.

Conversely, parents receiving a combination of written and verbal communication felt generally happy about how they had been informed of the intervention and the detail in which it had been explained. However, where this was the case, what appeared to distinguish between parents only vaguely aware from those fully aware was the pro-active approach of the parent to find out more. The data suggests that there were four key elements to the initial communication from the school that gave parents a good understanding of the intervention and facilitated their engagement: explaining why the child was on the intervention; outlining the timetable for the intervention; making clear what was expected of parents; and identifying where and how they could access more information.

Once recruited onto the intervention, schools aimed to provide ongoing support and information to parents, although there was some evidence that this aim was not always met; both teachers and parents acknowledged some of the difficulties in maintaining engagement. In the case studies, teachers described aiming to provide updates for parents on the progress of the child and to keep open channels of communication for parents requiring support with fulfilling their role in the intervention. The approaches experienced by parents varied in formality from fortnightly review meetings, communicating through homework diaries or daily verbal updates for Reading Recovery to more ad hoc verbal updates for other ECaR interventions. Parents experiencing more ad hoc approaches had to initiate these encounters themselves, sometimes following feedback from their child. In these cases parents had at best a vague awareness of the intervention and only some understanding of what it entailed. Conversely, parents described receiving regular, formal feedback in positive terms as it felt they were fully involved in the intervention.

Gaps in support and communication

This section has described some negative experiences of parents' communication with schools, yet even where experiences were positive, parents raised three areas in which they would have liked further information or have been offered greater involvement. One issue

was having the opportunity to observe a lesson in which their child was involved. Parents who did observe a lesson spoke positively about the experience and the learning it provided for them in terms of helping with homework, though parents also turned down this opportunity due to a lack of time or not wanting to distract their child in school. A second and related issue was raised by parents who felt their role would have been easier had they been given more guidance on how to help the child at home. This was raised by those who had some understanding of the programme but wanted to be more involved. It was noted that in addition to observing lessons, being able to talk with the teacher or read information on how to read with the child would have been helpful. This was not raised by those with vague awareness and no understanding of the intervention who showed no desire for further information or the most aware and engaged group who did have access to this information.

A final concern raised by parents was the need for better information regarding the progress of their child, in particular focusing on when or why discontinuation from the intervention would take place. This desire was particularly acute where parents had initially been anxious about their child being placed on the intervention in the first place as they were keen to know that it was working and that their child would not face longer-term learning difficulties.

5.3 Delivering RR in schools

This section explores how, once the right pupils were selected, the RR programme was delivered in schools. It also highlights the key factors that affected the delivery of RR and assesses the fidelity of this delivery to the RR model.

5.3.1 Model of delivery

RR delivery in schools was orientated towards equipping pupils to become independent readers. RRTs described their approach to RR as being a 'scaffolded' one in which pupils' current reading strategies were assessed and the support offered was targeted and structured to help pupils to incrementally progress towards independence in reading. This approach is broadly congruent with the overall ethos of RR (Hobsbaum et al, 1996).

School approaches towards the *structure of the RR programme* and the *structure of RR lesson* were also commensurate with the generally prescribed model of RR delivery – although the consistency to which schools kept to these structures varied (discussion on fidelity to follow). The general structure of the programme in schools is summarised in the figure below.

Figure 5.4 Structure of RR programme delivery in schools

- RR being delivered for around a **hundred sessions** (taking approximately 20 weeks with a session every day).
- **Daily half-hour lessons** to pupils. This was usually done in the morning, as this was the longest part of the school day.
- RRT typicallly having **4 pupils** – although there were instances of RRTs reporting working with 5 or more pupils.

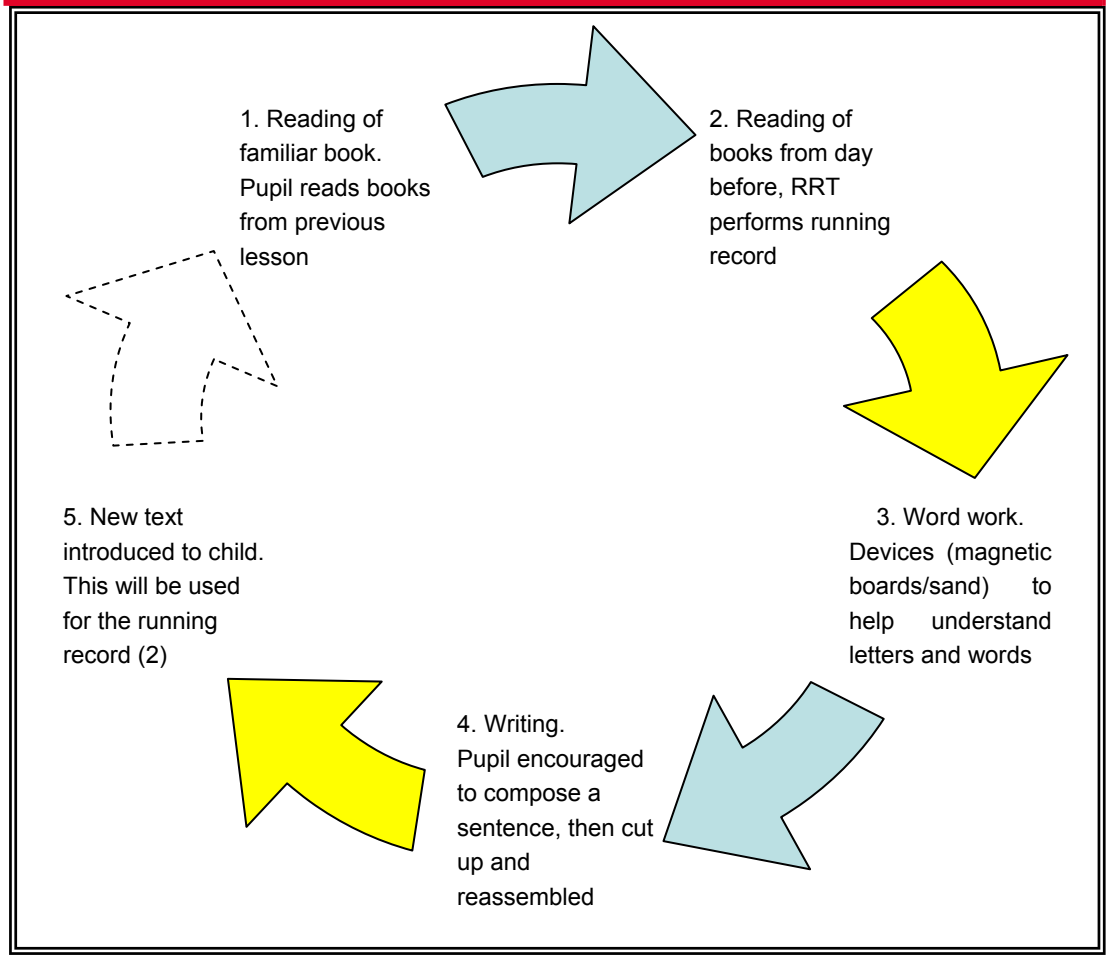
Schools aimed to deliver RR in a discrete space away from classrooms in schools (see chapter 4), although there were schools which delivered RR in shared or open areas due to a lack of space. However, there was a great deal of variation in how discrete and dedicated the RR space was in schools, depending on the physical capacity of the school:

- **RR delivered in a *semi-discrete* space that was not dedicated to RR.** In such schools, RR took placed in public areas (e.g. corridors) that were converted into make-shift RR spaces.
- **Schools having a *discrete but not dedicated* space for RR.** RR lessons took place in a space away from public areas but the room itself was used for other purposes, such as Breakfast and After-School Clubs, and so was not a dedicated RR space. This meant that RR resources could not be housed there.
- **Schools having *a discrete and dedicated* RR space.** Here, RR lessons took place in a discrete space that was entirely dedicated for this purpose and so enabled RR resources to be housed there.

In terms of the RR lesson structure, an initial period of two weeks was used to build a relationship with the child and work with them at their reading level on entry to RR.[31] Following this, RRTs adopted the familiar lesson structure of RR, the key components of which and how they are ordered are illustrated in the diagram below.

[31] Known as 'roaming around the known'.

Figure 5.5 RR lesson structure delivered in schools



The case study below illustrates how the RRT moves swiftly from one component to another during the course of a lesson and how praise and positive feedback is offered to pupils as part of the scaffolded approach in RR.

Box 1 Composite case illustration from lesson observations

Numbers refer to lesson structure in Figure 5.5

M enters the room with a shy smile accompanied by the RRT and quickly settles at the desk. She says that she wasn't able to read to anyone at home, but she had practised the sentence herself. She starts to read a familiar book without prompting, eager to get started (Stage 1). She reads fairly fluently, but occasionally looks for reassurance and receives an affirming nod from the RRT. Occasional prompts are given when M cannot work out a word. At the end of the book, the RRT praises M for her effort and explicitly praises her ability to self-correct a mistake and to add expression to her reading; she shows M the pages where she did this well.

The RRT moves quickly to the Running Record (Stage 2) and M reads, clearly finding the text more difficult. The RRT still gives occasional prompts, carefully recording details of the reading process. [During this time, a child knocks on the RR room eager to know when it is his turn for the RR lesson. He is reassured by the RRT that his turn will come, and he returns to class.]

The Word Work (Stage 3) is very fast moving and takes place at a large whiteboard. The RRT has picked up on the sound being practised in class and focuses on this with M, asking her to create words using the magnetic letters. M is praised for doing so correctly.

The RRT shows M a picture that she had promised to print off for her; M looks pleased. She is asked to create a sentence from the picture (Stage 4) and M makes up a sentence and says it aloud; she then starts to write in her workbook. The RRT uses white stickers to cover errors and draws a sound box on the practice page to help M work out the individual sounds in one of the words. M completes her sentence and reads it aloud several times. The RRT cuts up the sentence into words as the child reads the sentence once more; M is then asked to reassemble the sentence which she does with a little support. The RRT encourages M to practise the sentence at home and they move quickly on to the New Book (Stage 5).

The RRT introduces the book with great enthusiasm and draws the child into the story and the characters, pointing out proper names as well as difficult vocabulary and phrases. M is invited to read and needs encouragement. The RRT picks up on M becoming tired and suggests that they share the reading of the last few pages; this gives M the motivation to continue. M is praised for her effort during the lesson and is invited to choose a reward sticker. M walks back to class with the RRT; they are discussing what will be happening in the classroom.

5.3.2 The role of parents in delivery

Amongst both teachers and parents there was agreement that parental involvement was an important aspect of developing a child's reading in general and delivering ECaR interventions in particular. Within this agreement, however, there was a range of opinions on what constituted sufficient parental involvement. Three overlapping categories can be identified. Firstly, there was a view that parents should do as much as they can, characterised by parents who would read with their children above and beyond what was required by the ECaR intervention their child was receiving. This would involve not only the common tasks of reading designated books and doing sentence cut-up exercises, but also reading additional books, reading at weekends and holidays and practising reading and writing whenever possible. A second view was that the least a parent can do is to follow the designated guidelines given by schools. These parents did their best to help their children as required by the intervention and aspired to do more than this, but time pressures or other difficulties meant that they were unable to. Related to this, the third group managed most of the time to do what was required by the intervention but rather than aspiring to do more felt that while this involvement was important, it was also sufficient.

Barriers to involvement

All parents stressed the importance of being involved with the developed of their child's literacy at this stage of their education. Consequently, parents also described meeting their obligations in this respect as best they could, yet they also acknowledged that this was challenging. Three barriers to being able to be sufficiently involved were identified by parents. The first of these barriers, common irrespective of the parent's level of awareness and engagement, was time. Parents described the difficulties of juggling work commitments, the needs of siblings and other caring responsibilities as sometimes impacting upon the amount they were able help the child at home. A second barrier, which exacerbated time pressures, was speaking English as an additional language. For these parents, there were a number of issues: not being able to fully understand guidance from the school; difficulty explaining sentence structure or pronunciation to the child; and a lack of confidence in their ability to help.

The impact of both these two barriers, time and English as an additional language, meant that other family members, siblings or grandparents, would step-in to support the child with their homework. It is not clear from the data what the effect of this was on the usefulness of the homework. A third barrier, again further exacerbating the previous two, was a lack of information or guidance from the school on how to help the child at home. This was discussed earlier in the chapter, but it is clear that for parents whose own literacy was limited this was a more significant factor.

Parents' views on interventions and impact

Parents' views on the value the ECaR intervention their child had received varied as a result of their level of engagement and the perceived impact it had had. A range of positive views can be identified where parents felt they knew what the intervention was aiming to achieve. Parents described four reasons for viewing the interventions as positive. The first reason,

held by parents whose children were in the middle of an intervention, was that they themselves had concerns about the child's literacy and they were pleased something formal was now being done about it. Related to this, a second reason was the nature of the intervention. Parents particularly noted one-to-one tuition and being given specific tasks to complete at home as giving them confidence in the intervention to make a difference. Trust in the individual teacher responsible for delivery was also noted as a third reason for having positive views on the intervention. This was distinct from general trust in teachers and schools, which was a factor in those with little awareness of the interventions consenting to their child being involved; rather it was a specific confidence in an individual, something that could only come about from face to face contact between the parent and teacher. A final reason behind positive views was the impact on the child, either observed or perceived by the child or as communicated by the school. The impacts identified by parents largely mirror those described by teachers, stressing in particular a greater appetite for reading, improved confidence and more general enjoyment of school as well as improvements displayed in standardised testing.

Parents only expressed negative attitudes or indifference where the intervention had not been clearly explained to them or fully implemented at the time of the interview. Two distinct views were identified. The first was an indifference to the intervention as parents were unable to really distinguish it from other support the child was receiving. Parents holding this view were also unable to discern any impact of the intervention, although some acknowledged that this may be because it only began a short time ago. Negative views on the interventions were also identified, which largely appeared to stem from a lack of information from the school. Parents unsure as to why their child had 'been singled out' for the intervention felt they were a waste of time, a situation exacerbated where parents perceived that homework assignments were too easy.

5.3.3 Fidelity to RR

Fidelity of the delivery of RR to the prescribed model was discussed by participants in relation to two key elements:

- *fidelity to the structure of the programme*: number of lessons pupils received, the daily delivery of RR and the duration of each component of the lesson,
- *fidelity to the components of the RR lesson*: the use of the different components outlined in figure 3 (e.g. familiar reading, running record work), the order in which these components were delivered and the timing of each component.

RRTs widely acknowledged the importance of fidelity to the RR model in terms of both elements; RR was seen to be a "tried and tested" intervention whose efficacy rested on being delivered in a certain way.

The interview findings suggest that in practice, the fidelity to the delivery of RR existed along a spectrum according to whether any deviations were reported and the severity of these deviations. The figure below summarises this spectrum.

Figure 5.6 Fidelity to the delivery of RR in practice

No reported deviation	Unintentional deviation in the structure of programme	Intentional but minimal deviation in the structure of programme	Intentional key changes in the lesson components

As the figure indicates, at one end of the spectrum, RRTs reported **no deviation** to the prescribed RR model in either the structure of the programme or the lesson components. Moving down the spectrum, RRTs reported *almost* complete fidelity to the RR model. **Rare deviations related to the unavoidable disruption** to the structure of the programme caused by factors outside of the RRTs control. These included school events (e.g. trips, plays and sports days) and/or training related activities (e.g. an RRT having to attend a training event), both of which disrupted the daily delivery of RR to the pupil. RRTs did not perceive these disruptions to have a significant impact on pupils because they were seen to be rare occurrences. Both of these positions in the spectrum are reflected by the observational data, which suggests that RRTs adhered very closely to the fidelity of the RR model in terms of both the structure and approach to the lessons.

Further down the spectrum, RRTs reported **minimal deviation in the programme structure** that not only included the disruption to the daily delivery of RR, but extended beyond this to encompass other minor modifications to the structure made *intentionally* by the RRT. These other minor deviations to the programme structure included:

- *The duration of RR.* RRTs reported extending the length of time pupils spent on the programme over and above the typical 100 sessions if the pupil's progress towards the required book level was seen to be slow and/or if their progress had been temporarily suspended by illness or school holidays.
- *RR Lesson time.* RRTs extending the lesson time beyond the 30 minutes if the pupil was seen to be progressing slowly on a particular day for a variety of reasons, including if they were having difficulties focusing.
- *The time spent on different components.* RRTs deviated from the prescribed timing of different components if the pupil was seen to need more help around a particular component or if they were seen to derive particular benefit from more work around this component. For example, RRTs would spend less time on reading activities if the pupil was seen to require particular support with their writing.

These intentional deviations were seen to be a necessary response to judgement calls made by RRTs on how well a pupil was learning and progressing. As such, the modifications were seen to introduce an occasional degree of flexibility into the programme structure which, in

working with the pupil's moods and development, benefited the pupil. The interview data suggested that the exception to this was when lessons went significantly over 30 minutes, for example 5-10 minutes over time. In such cases, RRTs expressed concern over the adverse effect that going over time had on pupils (who may tire and suffer from a lack of concentration) and on the RR lessons, as lessons that went over encroached on the time RRTs dedicated to preparing for other RR lessons. However, the observational data did not reveal this to be the case, with lessons running even over five minutes still generally retaining focus. The difference between both findings may reflect the fact that RRTs may have held fears about going over time that may not have been largely realised or observable in practice.

The final category of deviations entailed **RRTs *intentionally* making changes to the key components of the lesson.** The changes made included the removal altogether of a key component (e.g. the writing element) if the lesson was running late or a pupil was having difficulty focussing and RRTs toying with the order in which components were delivered (e.g. a new book being introduced earlier than prescribed in a lesson because a pupil was having difficulties concentrating). As with the minor deviations mentioned above, RRTs felt that these changes often benefited pupils insofar as ensuring that RRT lessons were responsive to their learning needs on any given day.

5.3.4 Factors affecting the delivery of RR

RRTs reported a number of factors that affected their delivery of RR. These can be grouped according to three categories which relate to the school; the RRT role and to RR lesson and pupils. Each of these groups of factors will be discussed in turn below.

School related factors

RRT's experience of delivering RR was in part affected by the **school infrastructure** and facilities. Participants' experience suggested that delivery was more challenging if a school did not have at least a *discrete* space for RRTs to deliver the lesson. In such cases, RRTs reported pupil progress being adversely affected by the noise levels and other activities in the surrounding environment, all of which served to distract the pupil from the RR lesson. Noise and distraction were also a factor where RRTs had a discrete space that was adjacent to noisy corridors and rooms used for other purposes. For example, RRTs were concerned about being housed near rooms and open spaces where music lessons were conducted. RRTs' accounts indicated that the most desirable situation was to have a discrete space that was also dedicated to the delivery of RR, as a dedicated space was seen to ensure that all of the resources needed to deliver RR lessons (e.g. reading books and magnetic boards) were all in one place. These enabled RRTs to access material and equipment quickly and so deliver their lessons in a timely manner, which was particularly important given the tight timetable against which delivery takes place.

RRTs also commented favourably on the impact that the **resources** provided by schools had on the delivery of RR lessons. In particular, RRTs were appreciative of the financial support that schools and head teachers provided to purchase reading material and other

equipment (e.g. magnetic boards and sand trays for letter work) required for RR. On the whole, RR within schools was well resourced; the availability of reading material was only felt to be an issue when the programme was first introduced into schools – where schools initially underestimated the volume of books required – or when there was an unexpected surge in demand for books at a particular reading level due to the number of pupils starting RR. Aside from physical materials, RRTs were also appreciative of head teachers agreeing to provide and protect the human resources needed for the delivery of RR. This included head teachers agreeing to release teachers (usually a member of the Senior Management Team) for link-teacher training so that the RRT could be supported in the discontinuation process, as well as head teachers agreeing to ring-fence the RRTs' limited time so that they could focus on delivering RR.

In addition to head teachers, RRTs also reported the importance of having the **support of classroom teachers** for the delivery of RR. Acquiring this support was particularly problematic in schools that did not have a prior or recent history of RR and whose teaching staff therefore lacked an understanding of the role and value of RR and the RRT (see chapter 4). This lack of understanding translated into classroom teachers questioning the RRT's judgements around which pupils should be selected to be on RR, for example, classroom teachers feeling that RR should cater for pupils of a slightly higher ability level as they would progress quicker through RR than the less able ones. There was also an initial resistance to pupils being taken out of the class for RR lessons, although this tended to diminish as classroom teachers began to acknowledge the impact of RR on the pupil in their class (e.g. pupil being more engaging in the class etc) and as RRTs developed rapport with the classroom teachers. Developing a rapport was more challenging for RRTs that had not worked in a school before and so had to develop relationships from the start. This rapport building was aided by the following work practices of the RRT:

- **Developing good communication practices with classroom teachers**. This involved RRTs feeding back the progress of RR pupils to classroom teachers so that the pupil's strengths and weaknesses could be worked on in class, enabling the pupil to feel better integrated into the classroom. This working practice also allowed classroom teachers to appreciate the work that RRTs are doing and its demonstrable value.
- **RRTs being sensitive to the demands of the curriculum**. RRTs highlighted the importance of ensuring that pupils did not miss the same classroom lessons each time they attended a RR lesson. This not only ensured that RRTs secured the good will of core curriculum classroom teachers, but also meant that pupils did not systematically miss out on any one core subject area each week.

Participants that had been involved in a given school prior to being an RRT reported advantages in terms of already having a rapport with classroom teachers, as well as being aware from the start about the needs of the schools and having a tacit knowledge of the range of resources and support that they could draw on. For example, a RRT who worked in

one school before felt that they knew they could informally approach the SEN co-ordinator if a pupil was facing language-related challenges.

Finally, **wider school related activities** were largely seen to have a disruptive effect on the delivery of RR. These included activities such as fire drills, which disrupted the flow of a lesson and other activities, such as school sports days and plays, which affected the pupil's attendance of RR and led to RRTs sometimes having to deliver the required 100 sessions over more than the usual 20 week period, thereby delaying when other pupils needing RR could start the programme.

Factors relating to the RRT role

Time allocated to their role as a RRT was the key challenge articulated by participants. Although RRTs were appreciative of having an afternoon built into their 0.6 FTE position to prepare for RR lessons, there was a view that more time was required in order to accommodate the level of preparation and paperwork required for each child. RRTs' accounts indicated that this preparation and paperwork did not only relate to the delivery of RR lessons (e.g. reviewing running records and other notes in preparing a lesson) but also to the ongoing assessment and monitoring of pupils, even when they were discontinued from RR. In order to meet these demands, RRTs reported sometimes working in their own time.

Although time pressure was the key challenges for RRTs in meeting their commitments within their 0.6 FTE position, this was also exacerbated by the following factors:

- **The number of pupils RRTs have to work with**. RRTs found it a challenge to work with four to five pupils at any one time due to the above workload.
- **The number of schools RRTs have to work with**. On the occasions where a RRT had responsibility for working with pupils across different schools, they mentioned the additional pressure on their time as a result of travelling between schools and managing their RR time across schools.
- **If the RRT had other roles in the school**. Although, as mentioned earlier, there was the view that having a previous role in the school enabled the RRT to feel and be perceived as a part of the school, where this role was maintained in additions to delivering RR, participants felt that this was particularly challenging in light of the time-intensive nature of RR. A full transition to a dedicated RRT role was therefore seen to be more preferable.

Being the only person delivering RR was another challenge that RRTs experienced in relation to their role. Working alone posed certain challenges for the RRT. At a strategic level, RRTs commented on the limited coverage, and therefore impact, that they, as a single RRT working with four to five pupils, could offer a school. Furthermore, RRTs mentioned the possibility of disruptions to the delivery of RR as a result of being away ill or on training. On a more personal level, RRTs mentioned the isolation they sometimes felt as the only member of staff delivering RR on a part-time basis. This sense of isolation was lessened by the support that RRTs from different schools often gave one another (either in person or over

the phone), particularly around trouble-shooting challenges experienced with pupils, as well as the similar type of support that RRTs accessed from Teacher Leaders (TLs). In contrast, isolation was less of an issue in schools which had two RRTs, as RRTs felt they could draw on one another for support more immediately. RRTs in such schools also felt that they were able to support one another in raising literacy issues with the Senior Management Team as well as in school meetings and discussions.

Factors relating to RR lessons and pupils

Delivering RR to time was a key challenge mentioned by RRTs in relation to both the *programme structure* and the *delivery of the lesson*. At the level of the RR programme structure, the view was expressed that 20 weeks (100 lessons) was possibly not enough time for *all* pupils to achieve the required level of progress in their reading ability. This was particularly seen to be the case for pupils who started the programme at a very low reading level; in such cases, the programme was seen to demand pupils to make a lot of progress in a short space of time. RRTs also cited other factors that could slow down the progress of pupils:

- A high rate of absenteeism in schools leading to slower than expected progress for pupils not only because they ended up missing RR lessons, but also because the RRT would need to re-start the lesson at a level where they had left off each time the pupil returned.
- A lack of parental involvement in supporting pupils with their reading and sentence work. RRTs were clear that RR as an approach worked irrespective of the involvement of parents; however, it was felt that parental involvement ensured that the pupil's progress was enhanced by enabling them to consolidate their classroom learning at home.
- There were also other reasons pupils struggled to complete their RR homework resulting in more time needed for them to consolidate their learning during the course of the RR programme. Reasons for pupils being unable to complete their homework given by RRTs includes their involvement in other educational interventions (e.g. around maths) and cultural reasons. For example, pupils not having a chance to read or do sentence work because they and their family had other commitments in the evening.

At the level of the RR lesson, RRTs appreciated the set structure of these lessons and felt that this prescribed structure ensured that scaffolded support was provided to pupils in a format that quickly became familiar, and therefore comfortable, to the pupil because the lesson components were repeated in the same order on a daily basis. However, a chief concern for RRTs was delivering the structured lesson within the allotted 30 minutes on a daily basis. Factors relating to both the pupil and the structure of the RR lesson were seen to contribute to lessons overrunning; these are summarised in the table below.

Table 5.1 Factors affecting the delivery of RR to time	
Pupil-related factors	• Pupil being a slow learner due to complex and multiple learning challenges. This led to a situation where RRTs ended up spending longer on components than anticipated. • Pupil being restless and disruptive during lessons. RRTs having to bring the pupil's attention back to the lesson was time consuming and resulting in lessons running over. • Pupil being tired and unable to work during lesson due to their home life - they may not have had breakfast or enough sleep. • Pupil being talkative (e.g. during composing a sentence) and RRTs experiencing challenges in trying to encourage this pupil engagement but ensuring that the lesson runs to time.
RR lesson related factors	• The number of components that need to be covered. This was particularly – though not exclusively – a challenge for newly qualified RRTs, who were still coming to terms with each component of the lesson and navigating these in a real-life setting, whilst trouble-shooting and prioritising the pupil's learning needs. • The length of the familiar book increasing as the pupil progresses in book levels – leading to a situation where RRTs could only allow pupils to read a few pages of the familiar book each lesson.

RRTs articulated that it was important for lessons to be as close to 30 minutes as possible, not only to meet the fidelity requirements of RR but also because of the pragmatic concern of trying to fit in RR pupils during the morning school timetable. This is because the morning session tended to be the longest part of the school day and so RRTs tried to deliver all of their RR lessons during this session. Where RR lessons did spill over in the afternoon, RRTs reported pupils being less able to concentrate as they were tired after lunch and felt that the RRT's time to prepare for the next day's lessons was also encroached upon.

It was acknowledged that as the RRT became more experienced, their ability to deliver lessons to time improved. This is because they became more attuned to the learning styles of the individual child and were able to selectively hone in on the important learning needs of the pupils (as opposed to focussing on all of their mistakes) and were better able to navigate the RR components as they became more familiar with delivering them.

5.3.5 Discontinuation from RR

Discontinuation from RR was undertaken largely by the RRT and the link teacher (usually a member of the senior management team) working in partnership. The TL was involved in supporting and helping to review the decisions to discontinue where the RRT was in the first year after their training. It was the RRT that initially identified pupils who were ready to be

discontinued based on whether they had reached a sufficient level of progress in their reading. There were two considerations around the progress attained by pupils:

- Whether the pupil had reached the required book level (identified by participants as book level 15-16).
- Whether the pupil showed signs of being an independent reader both in the RR lessons and in their normal classroom activities

In order to determine whether a pupil was capable of being an independent reader, RRTs sometimes engaged in classroom observations of pupils and consultations with classroom teachers in the period leading up their decision to discontinue.

The process of discontinuation entailed the RRT bringing a candidate for discontinuation to the link teacher's attention. It was seen to be good practice for the pupil to be made aware that they would be seeing the link teacher for a discontinuation assessment prior to this taking place, as this helped the pupil prepare themselves mentally for the assessment and ensured that they were not caught by surprise. The link teacher then arranged for a one-to-one session with the pupil and conducted the same observational survey conducted when the pupil first entered RR. The assessments were then used to ascertain the pupil's Stanine scores and these, along with any other evidence collected (e.g. classroom observations) were used to arrive at a decision whether to discontinue a pupil. Link teachers articulated three key challenges around undertaking these assessments: the length of time it took to do them, the cover needed for the link teacher's time and how tiring the assessments could be for both the pupil and the link teacher.

Post-discontinuation, RRTs were keen to ensure that pupils were integrated effectively into the classroom. A key strategy used to do this was a series of follow-up assessment three months and six months after the pupil had been discontinued. Additional strategies included:

- RRTs keeping in frequent contact with classroom teachers to gauge the pupil's progress.
- RRTs placing the pupil on another (group-based) ECaR intervention after they had been discontinued to facilitate the transition back into the classroom.
- More frequent observations of pupils in a classroom situation (e.g. a RRT observed discontinued pupils every two weeks).

Dialogue with classroom teachers about pupil progress was seen to be a key facilitator in helping RRTs ensure that pupil's were effectively integrated into the classroom. Where this rapport did not exist, RRTs found it more challenging to ascertain how well a pupil was doing and whether they had slipped back into their pre-RR reading habits. A further challenge to effective integration was the workload experienced by RRTs. RRTs who felt barely able to deal with their current RR pupils within their 0.6 FTE role felt unable to dedicate as much time as they would have wanted to ensuring that discontinued pupils were effectively

integrated. They also found conducting the three month and six month assessments problematic for the same reason.

RRTs also discussed the process of referring pupils who were not responding to RR during the interviews. Referrals took place either during the course of RR or, conversely, RRTs waited until the end of the 20 weeks in order give the pupil full exposure to RR. Referrals were usually discussed with TLs, who offered advice and support. The school's SENCO was involved in the actual referral process in terms of helping the RRT assess the suitability of the referral and for suggesting alternative interventions in the school that may be appropriate for the pupil.

5.4 Delivering other ECaR interventions

This section will provide an overview of the other ECaR interventions that were delivered in schools, how these were delivered and the keys factors that affected delivery.

5.4.1 Types of ECaR interventions

The survey of RRTs indicated that in most schools (85%) wave 2 and wave 3 literacy interventions were provided at KS1 as part of the ECaR programme. Out of the schools that did not provide any interventions other than RR, 8 per cent had plans to do so in the next 12 months and only 7 per cent said they had no such plans.

Table 5.2 shows the provision of different interventions across the academic years 2008/9 and 2009/10. The interviews indicated that RRTs and support staff lacked a clear understanding of the rationale for adopting certain interventions at the expense of others. Rather, there seemed to be a general awareness that interventions were chosen due to the preference of the head teacher or other members of the senior management team or for pragmatic reasons, such as the school having the resources needed to deliver these interventions or there being a historical precedence of these interventions being delivered in the school before. As the table below illustrates, Early Literacy Support proved to be the most wide-spread wave 2 intervention (offered by 57 per cent), followed by Better Reading Partnership (36 per cent) and wave 3 intervention Fisher Family Trust (32 per cent). The average number of pupils on each of the interventions increased in this academic year compared with 2008/9, with the highest average number of pupils per school being placed on Better Reading Partners.

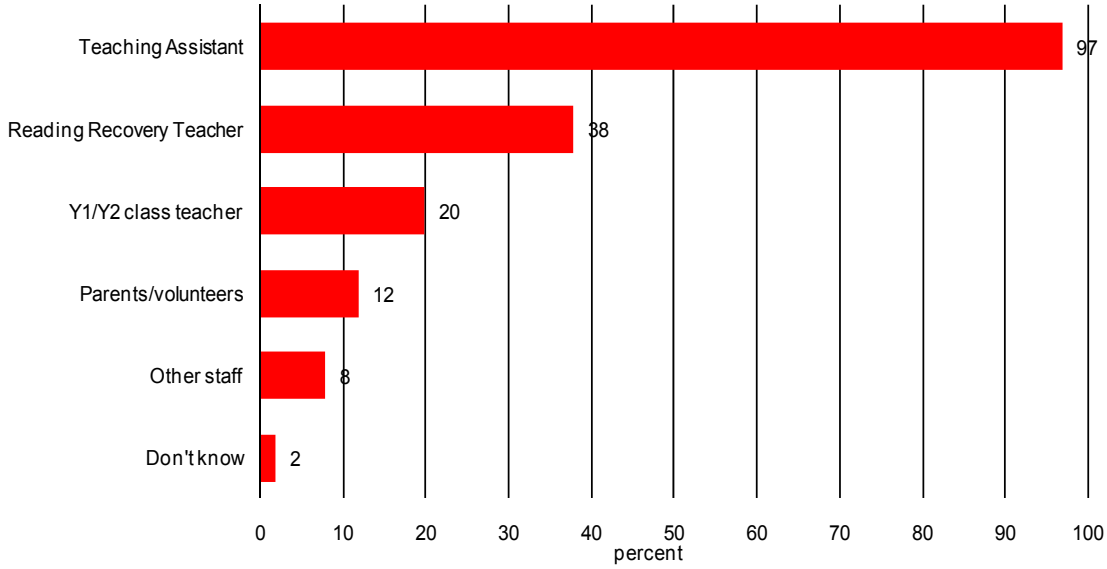
Table 5.2 Provision of layered interventions in ECaR schools			
Base: All responding RR teachers			*Survey*
Type of intervention	Interventions being provided	Number of pupils on each intervention in 2008/9	Number of pupils on each intervention in 2009/10
	%	Mean	Mean
Early Literacy Support	57	9	10
Better Reading Partners	36	8	12
Fisher Family Trust Wave 3	32	3	5
Talking Partners	27	7	9
Catch up Literacy	13	4	6
Other	31	10	16
No layered interventions	15	N/A	N/A
Bases	*571*	*511*	*511*

The qualitative interviews shed further light on the types of interventions being delivered in the 'other' category. These included interventions pedagogically aligned with the principles of RR, such as 'Read Write A-Z' and 'Reciprocal Reading', as well as the Reception Literacy programme which did not seem to be officially aligned to RR (this intervention seemed to be group-based, lasting for six weeks and utilising techniques that were similar to RR).

In line with the ECaR guidelines, teaching assistants were usually responsible for delivering layered interventions to pupils (see Figure 5.6). In some schools, RRTs, Year 1/Year 2 class teachers, as well as parents and other volunteers were also involved in delivery. However, the interviews indicated that even where RRTs were involved, this was with a view to handing over delivery responsibilities to support staff once they had been trained so that the RRTs could continue to deliver RR and coordinate ECaR. Although not clear in the interviews, the extensive use of support staff to deliver ECaR interventions could reflect judgments on the level of expertise required to deliver these other interventions when compared with RR, as well as pragmatic concerns, such as the capacity of classroom staff and RRTs and the budgetary constraints faced by schools. In any event, there was a general appreciation amongst support staff of the professional development opportunity that the delivery of these interventions afforded them.

Figure 5.7 Who delivers layered interventions?

Base: All responding Reading Recovery teachers: 510



5.4.2 Factors affecting the delivery of other ECaR interventions

The key challenges and facilitators that affected the delivery of other ECaR interventions were not dissimilar to those that affected RR, which have already been given extensive coverage above. The table below provides a brief overview of how these factors related specifically to other ECaR interventions.

Table 5.3 Factors affecting the delivery of other ECaR interventions	
Factor	Description of facilitators and challenges
School related factors	• *Importance of having a space* away from noisy classrooms to deliver interventions. • *Importance of establishing rapport with classroom teachers*. This led to joint decisions being made around when it was most convenient for pupils to taken from a class and ensured pupil received extra support when they returned to the class.
ECaR staff related factors	• *Support staff having other roles and responsibilities in school.* This led to competing priorities on the time of staff which could disrupt the delivery of ECaR interventions. • *Support from senior staff to protect ECaR time.* Support staff commented on the importance of the support given by senior staff in the school (including RRTs) and the value they placed on other ECaR interventions in ensuring delivery of ECaR interventions was prioritised.
Factors relating to intervention and pupils	• *Value of ECaR lesson format*. Staff valued both the one-to-one and group format of the different interventions. One-to-one format of lessons was seen to enable staff to better pick up on the literacy needs of a pupil, whereas group lessons were seen to help pupils feel less inhibited and better able to make friends than in a classroom. • *Value of ECaR resources*. Staff complimented ECaR resources on their colourful and attractive presentation and commented favourably on their content (e.g. story books having the same characters running through the series that pupils could identify with). • *Delivering interventions on time.* As with RR, other ECaR teachers also found it difficult to deliver lessons if a pupil was particularly talkative or if they experienced significant and complex learning needs.

In addition to the above, participants also raised factors that affected the delivery of ECaR interventions that were not raised when the delivery of RR was discussed. These factors were largely related to the comparative resources and attention schools allocated to these interventions and included: a **lack of material resources** (e.g. books and other equipment, such as magnetic boards) to deliver intervention; **schools underestimating the calibre of staff needed to deliver interventions**, with some support staff arguing that teaching assistants with less than proficient language skills were being drawn on to deliver interventions; and a **delay in the start of ECaR interventions within school**. The latter factor led to a situation where support staff did not always feel confident enough to deliver interventions as they were asked to deliver these some time after they had been trained to do so. Support staff therefore found themselves having to hastily familiarise themselves with the interventions through the training material and resources that they had acquired. There was therefore a strong preference amongst support staff for ECaR interventions to commence shortly after staff had been trained.

In contrast, aside from initial teething problems at the outset of RR, RRTs seldom mentioned resources being an issue nor, as discussed in chapter 4, does the data suggest that schools underestimated the calibre of candidate needed to deliver RR. This indicates that schools, in some instances, did not seem to be affording other ECaR interventions the same attention and priority they gave to RR. This may be due to a number of factors, including:

- The lack of authority and, therefore, 'bargaining power' of the support staff delivering the intervention in comparison to the RRT.
- The perceived lack of kudos, and hence priority, associated with other ECaR interventions in comparison to RR.
- The less prescriptive nature of other ECaR interventions. For example, schools may have found it easier to deny a discrete space for an ECaR intervention that was group based than would have been the case for RR, which has a prescriptive one-to-one format.

For support staff, these factors may also have amplified the challenges that other ECaR interventions shared with RR. For example, the amount of time support staff spent on their ECaR role, as mentioned earlier, was adversely affected by classroom teachers asking for cover at short notice. The authority of RRTs meant that they did not experience this pressure on their time.

Within this context, the data suggests support staff had a favourable view of delivering these other ECaR interventions when they were championed and coordinated by senior members of the school – including members of the senior management team, link teachers and/or RRTs – and, as a consequence, properly resourced. For example, support staff reported that classroom teachers were less likely to take them away from delivering ECaR interventions if the RRT was coordinating and supporting these interventions. In such cases, RRTs acted as powerful gate keepers that protected the ECaR time of support staff and the involvement of RRTs also sent clear signals about the importance of such interventions to a school's early literacy strategy. However, as mentioned in chapter 4, the ability of RRTs and link teachers to coordinate other ECaR interventions was dependent on the time they had available, as well as their knowledge (acquired through training) of these interventions.

5.5 Fidelity to the ECaR model

This section will address the issue of how schools have embraced the ECaR model as a set of layered interventions. A key aspect of this has already been discussed in the previous section; namely, the extent to which other ECaR interventions have been offered by schools and the factors affecting the delivery of these. This section will move on to consider the extent to which RRTs have worked within schools to support and strengthen these other layers, as well as how they have utilised their expertise to improve quality first teaching at wave one.

5.5.1 Informing whole school literacy practices

RRTs adopted a number of approaches to bring their expertise to bear on whole school literacy strategies. At a formal level, RRTs delivered training events to classroom teachers and support staff around the teaching of literacy. For example, the RRT in one school used a school's INSET (in-service training) day as a forum to inform colleagues of her role and to deliver training and advice around teaching early years literacy. In another school, the RRT worked closely with the school to deliver 'booster' sessions with staff on how to teach literacy to pupils that have English as an additional language (EAL). Aside from formal training, RRTs also used a process of systematic observation and feedback to influence literacy teaching practice. This entailed RRTs observing how selected classroom teachers delivered teaching around literacy in a live classroom situation and provided constructive feedback on how this could be developed.

However RRTs tended favour the provision of informal support over the formal support mentioned above. Reasons for this are discussed in the following section. Informal support assumed two forms:

- **RRTs being a point of advice and support on request for school staff**. RRTs had an 'open-door' policy where other school staff could feel free to contact them if they had literacy issues. The emphasis here was on staff being proactive to access the support they required from RRTs.
- **RRTs occasionally taking the time to check in with school staff**. Rather than waiting for staff to raise issues, this approach entailed RRTs periodically checking in with staff to see if they needed any support around teaching early years literacy in general or gauging how well the different ECaR interventions were progressing and targeting support accordingly.

The actual nature of the training and support given included RRTs familiarising school staff with key components (e.g. the familiar reading) and key techniques used in RR (e.g. running records or how to benchmark books) and encouraging them to apply these in their classroom practice. RRTs also provided help and support around the other ECaR interventions to school staff (e.g. support around techniques and which resources to use), as well as being key advocates of these other layers in helping to secure resources and protect the time of support staff. There was also evidence to indicate that RRTs shared assessment data for pupils that they gathered as part of the RR lesson with a view to ensuring that classroom teachers could work on the weaknesses and strengths of pupils in their normal classroom activity.

5.5.2 Factors affecting the ability of RRTs to influence literacy strategy within schools

There were a number of factors that affected the ability of RRTs to support literacy practice. Time was one key factor. As mentioned in 5.3, RRTs described challenges delivering their RR within the parameters of their 0.6 FTE post. Not being able to deliver their core activity

also meant that they did feel they had enough time to accommodate commitments around supporting whole school literacy strategy. This is illustrated in the table below, which shows that the average weekly number of hours spent by RRTs on delivering RR lessons was higher than those dedicated to supporting other interventions or delivering other ECaR related tasks.

Table 5.4 Time spent by RRTs on various tasks as a part of ECaR	
Base: All responding RR teachers	*Survey*
	Average number of hours per week
Teaching RR to children	13.2
Teaching Wave 2 and other Wave 3 interventions	1.2
Providing support about W2/W3 interventions	1.3
Other tasks as part of ECaR	3.6
Base	*571*

The time pressures experienced by RRTs could account for why RRTs favoured offering the more informal types of support to school staff as mentioned in the previous section and why RRTs also reported offering help and advice to other staff in their own time.

Time pressures were not unique to RRTs. Even where RRTs were able to offer support, other school staff also experienced time pressures which translated into them being unable to attend events set up by the RRT or to access the informal support offered. This was the case, for example, when support staff felt overwhelmed by other teaching work or commitments to other interventions running in the school.

The issue of the RRT's time was further compounded by a perceived lack of clarity amongst RRTs around whether they had a role in shaping whole school literacy strategy (see chapter 4 for further discussion of the RRT's role). This view emerged particularly amongst RRTs who worked in schools that expected them to just have a RR function. RRTs tended not to agree with this limited definition of their role because of a feeling that schools had bought into the ECaR programme as a whole and not just the RR element. In such instances, RRTs felt that TLs should establish a dialogue with the school in order clarify the RRT's wider role to head teachers and other members of the senior management team.

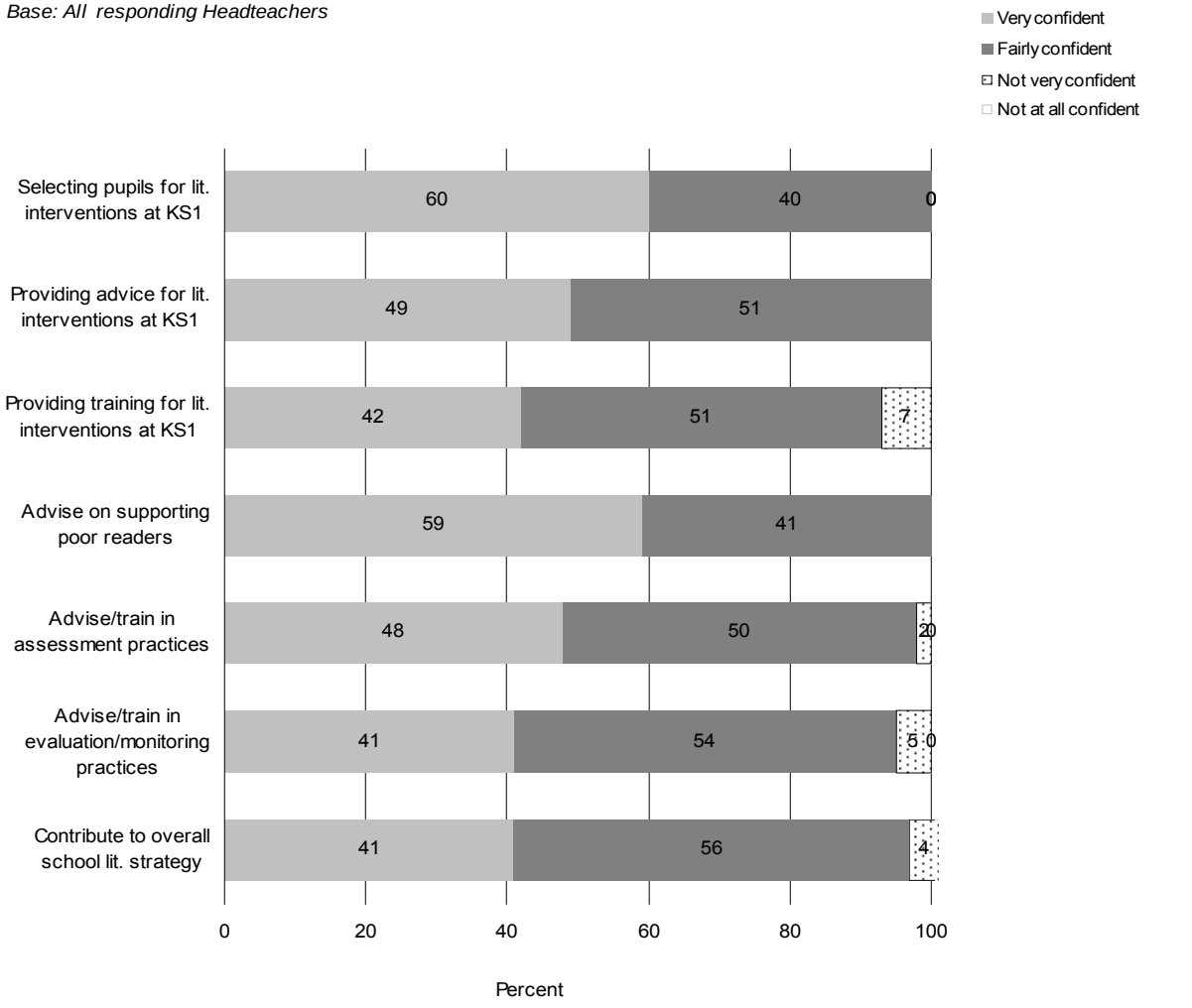
Conversely, RRTs reflected favourably on their ability to influence school literacy strategies where they felt they supported and integrated into schools. On a macro level, integration was facilitated by RRTs being included in key school activities and staff development opportunities such as INSET lessons and regular school meetings – activities which enabled RRTs to develop rapport with staff and provided a forum for the delivery of advice and training. RRT's involvement in Senior Management Teams was also seen to be helpful in this regard as it enabled them to gain a purchase on the overall literacy issues facing the school and a clearer idea on where best to contribute. On a more micro level, this integration

took the form of RRTs establishing a good rapport with school staff which, in turn, enabled them to cultivate relationships based on foundations of trust and mutual respect. Such relationships were seen to enable RRTs to work closely with school staff to help shape their literacy practices.

Finally, RRTs also commented on feeling a relative lack of confidence around delivering support to schools around their overall literacy strategy. This is illustrated in the figure below. The figure indicates that all teachers felt either 'very confident' or 'fairly confident' when selecting pupils for literacy interventions at Key Stage 1, providing advice on these interventions and giving general advice on supporting poor readers at school. However, the levels of teacher confidence were slightly lower for other tasks, including contributing to the overall school literacy strategy (teachers tended to feel 'fairly confident' rather than 'very confident', with a small proportion feeling 'not very confident').

Figure 5.8 Levels of confidence of RRTs in tasks undertaken as part of the ECaR role

Base: All responding Headteachers



5.6 Monitoring and Evaluation

Participants did not distinguish between monitoring and evaluation during the course of the interviews. Much of the focus also tended to be on the monitoring done around RR and this may be due to the more prescriptive and highly regulated nature of this intervention compared to the other ECaR interventions.

A key focus of the monitoring effort was on the effectiveness of interventions and, subsequently, a focus on the literacy levels of pupils prior to and after the ECaR intervention. Thus the formal collection of assessment data at these two measurement points, such as through the use of observational surveys for RR, was a recurrent theme during discussions of monitoring, There was also evidence of RRTs in particular – though not exclusively – drawing on other data, sometimes more informally, to monitor and evaluate their intervention; these included:

- Classroom teacher's perceptions of pupil progress
- Observational evidence of a pupil's progress
- Attendance records of pupils to gauge their engagement in intervention and to contextualise outcomes.
- Mapping of literacy provision in schools to gauge how an intervention fits into the school's approach

Monitoring activities tended to be undertaken by RRTs and TAs. However, there was also evidence of classroom teachers sharing their own assessment data with RRTs in order to provide a more complete picture of a pupil's progress.

The monitoring data was collected with different audiences in mind and put to different uses, summarised in the table below.

Table 5.5 The use of monitoring data

Audience	Uses of the data
Teacher Leaders and ECaR Managers	• This level of dissemination related particularly to RR. • This included sharing assessment data with TLs, the RR national network and the inputting of data into the international RR database. • This was done with a view to informing national and global perspectives on the effectiveness of RR.
Senior managers in schools	• This included sharing assessment data with headteachers and school governors to demonstrate the effectiveness of interventions. • This was done with a view to helping strategic staff assess the importance of the intervention and its usefulness in the given school
Teaching staff	• This included sharing information with classroom teachers and SENCOs. • This was done with a view to demonstrating the value of intervention to other members of staff as well as to ensure the pupil received targeted and joined-up support in the classroom.

6 The Impact of Reading Recovery and ECaR

Key Findings

- **ECaR had an overall impact on school level reading attainment.** In the second year of its operation, ECaR improved school level reading attainment at Key Stage 1 by between 2 and 6 percentage points.
- **ECaR also had an overall impact on school level writing attainment.** In its second and third years of operation, ECaR improved school level writing attainment at Key Stage 1 by between 4 and 6 percentage points.
- **The evidence suggested that boys benefited from Reading Recovery to a greater extent than girls.** Boys were 12 percentage points more likely than comparison pupils to reach the expected level of attainment on average, whereas girls were 6 percentage points more likely.
- **Reading Recovery had a positive impact on reading**. At the end of Year 1, Reading Recovery had an impact of 26 percentage points on pupils reaching level 1 or above in their reading as assessed by class teachers. Reading Recovery had a similar level of impact (23 percentage points) on pupils being assessed as good or very good at decoding text.
- **Reading Recovery had smaller positive impacts on reading related attitudes and behaviours**. Significant positive impacts were found on always or sometimes: enjoying silent reading (17 percentage points), confidence in tackling a new book (12 percentage points) and voluntarily choosing extra books to take home (12 percentage points), as assessed by class teachers.
- **Reading Recovery had an impact on parental engagement.** RR had an impact of 17 percentage points on parents encouraging the child to think that reading is important, as assessed by class teachers.
- **Reading Recovery had an impact of 18 per cent on the ability of pupils to initiate ideas and activities.**

The impact of ECaR and Reading Recovery on pupils was investigated by drawing on three different data sources to explore a range of outcomes. These analyses answer four distinct but related research questions:

- **What is the impact of participating in the ECaR programme on schools?** The first approach to investigating impact (section 6.1) was through analysis of administrative data from the National Pupil Database (NPD). The purpose of this analysis was to investigate the impact of ECaR as a package on attainment (KS1 and KS2) and SEN status at school level (among the schools that joined ECaR between 2006/7 and 2008/9) compared to a comparison group of schools joining the programme after 2008/09.

- **What is the impact of participating in the ECaR programme on pupils with low attainment in literacy?** NPD data was again used to examine the impact of ECaR on attainment and SEN status for individual pupils who had low attainment in literacy at the end of Foundation Stage compared to similar pupils in the comparison group of schools used in the school-level analysis (section 6.1). It was also possible to identify individual pupils who had received Reading Recovery in the development phase in relation to a comparison group of similar pupils; but this analysis does not provide genuine impact estimates and must be seen as descriptive only (section 6.1). Unlike the specially chosen comparison group used in analysis in section 6.2, we have very little certainty that the outcomes of the control group in our analysis in 6.1 are a good approximation of the outcomes of pupils that received ECaR in the counterfactual case.

- **What is the impact of participating in Reading Recovery on wider outcomes for pupils?** This was investigated through an impact study comprising a bespoke data collection exercise in schools in the ECaR programme alongside a matched comparison group of non-ECaR schools (section 6.2). The primary purpose of this element was to investigate outcomes that could not be measured through administrative data, namely attitudes, motivation and behaviours as they relate to reading and learning more generally. The impact on reading level was also investigated through this study.

- **What is the relative impact of Reading Recovery for different groups of pupils receiving it?** The second approach (section 6.3) was to analyse the administrative data held on all Reading Recovery pupils over a four year period. This provides an insight into whether particular types of pupil (e.g. in terms of demographics or other background characteristics) had better or worse outcomes after Reading Recovery compared to other groups receiving it. (Note that this analysis is unique in this section in that it compares the outcomes of pupils that received Reading Recovery only, without comparison to pupils that did not receive ECaR. This distinction means that results cannot be directly compared across sections).

6.1 Impact analysis with administrative data

This section presents the estimates of the impact of ECaR on academic and other outcomes based on administrative data sources. National Strategies provided records of schools and LAs that received ECaR, which were then matched to school level data (LEASIS) and pupil level data (the National Pupil Database) provided by the Department for Education (DfE). A record of each individual pupil that received ECaR in each academic year was provided by the Institute for Education (IOE), which was similarly matched to administrative data provided by DfE for the pupil level analysis.

While receiving ECaR or another intervention may have a direct positive impact on pupils' attainment, previous sections of this report have described how a school's decision to implement ECaR may also have a wider impact on the whole school. We will therefore assess the impact of ECaR at both the school level (Section 6.1.1) and pupil level (Section 6.1.2).

6.1.1 School level analysis

We present the impact analysis at the school level using the methodology described in Section 2.3. The programme group is defined as all schools that received ECaR for the first time between 2006/2007 and 2008/2009. As participation in ECaR can be transitory we also restrict the programme group to schools that kept ECaR continuously until 2008/2009 after it is first implemented.[32] The comparison group is defined as schools that first received ECaR in 2009/2010. We compare the average attainment outcomes of the programme and comparison schools before and after the programme group had implemented ECaR, and attribute any differential change to the impact of ECaR.

As described in the methodology section (2.3) our analysis relies on the assumption that the trend in outcomes for our set of comparison schools is a good approximation (or counterfactual) for the trend in outcomes that ECaR schools would have exhibited in the absence of the policy. Although this is an untestable assumption – there is no way to observe a school's outcomes both with and without ECaR – comparing the trend in outcomes before ECaR was introduced gives a good indication of whether outcomes in both sets of schools move broadly in line with each other.

Figure 6.1 shows the trend in the most relevant outcome of interest, the percentage of pupils achieving the expected level of attainment in reading. Outcomes for each group are shown up until the point when that group receives ECaR. The trend for our set of comparison schools is represented by the solid grey line, while schools that received ECaR in each year are represented by dashed black lines. We also include an average of the outcome for all schools that received ECaR between 2006/2007 and 2008/2009 which is represented by the solid black line.

[32] This may produce some bias in our estimates if those schools that choose to retain ECaR have a higher benefit than those schools that choose to leave the programme.

Figure 6.1 shows that the trend in outcomes, especially the average trend, is broadly similar for comparison and ECaR schools over time. This is encouraging as does not invalidate the assumption of a common trend in outcomes in the absence of the policy.[33]

Figure 6.2 shows the trend in the percentage of pupils achieving the expected level of attainment in writing. As with Figure 6.1, it is encouraging to find that the trend in outcomes for comparison and ECaR schools are broadly in line, despite the decline in outcomes over time[34].

For both reading and writing we observe that the attainment of our comparison schools improves in 2008/2009. This highlights an important feature of our difference-in-differences methodology: we assume that in the absence of ECaR our ECaR schools would also have experienced this increase. The impact of ECaR is therefore defined as the change in outcomes over and above that for the comparison schools. The methodology is explained in Box 1 in Section 2.3.

[33] The dotted grey line represents the trend in outcomes for schools that do not receive ECaR by 2009/10. It is clear that these schools have a much higher level of attainment on average, and so perhaps have less need for the programme. It is also clear that the trend in outcomes is broadly in line with that for ECaR schools, although our chosen set of comparison schools (those which receive ECaR in 2009/10) provide a closer match.

[34] Note that KS1 SATs (tests) were replaced with teacher assessment in academic year 2004/2005. This occurred nationally, and before the first year that we use in our analysis. It is therefore unlikely that the common trends assumption is violated because of this change. For the common trends assumption to be violated we would have to assume that teachers in ECaR schools assess pupils differently over time (for example are unfavourable when the change occurs and become more favourable over time) compared to teachers in control schools. We believe this is unlikely; even if teachers in different schools are systematically more positive or negative, we have no reason to believe that this will change over time. In addition, teachers follow specific guidelines when assessing pupils' progress: http://nationalstrategies.standards.dcsf.gov.uk/node/20683.

Figure 6.1 **Proportion of pupils achieving expected level of attainment in reading over time for comparison and ECaR schools, by the year that the school first received ECaR**

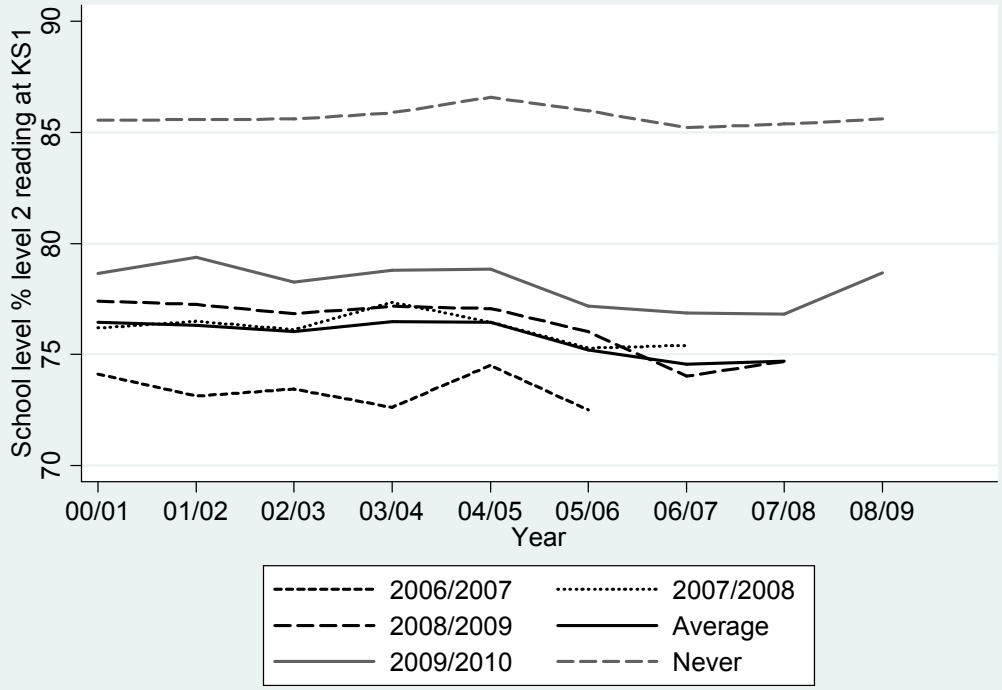
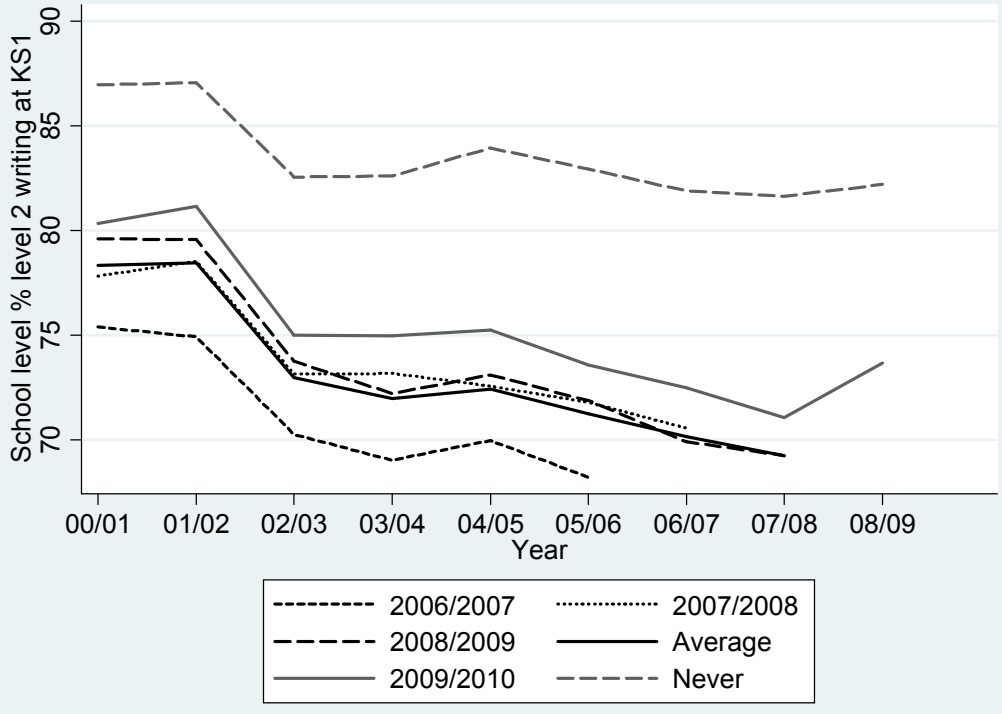


Figure 6.2 **Proportion of pupils achieving expected level of attainment in writing over time for comparison and ECaR schools, by the year that the school first received ECaR**



Our analysis at the school level allows us to capture positive impacts of ECaR across the whole year group, not just across the individual pupils that receive some form of ECaR. Considering the impact of ECaR on the year group as a whole, and indeed at older age-groups, captures any "spillovers" (wider impacts on non-ECaR participants) that may have arisen. We investigate this possibility given the focus of ECaR on whole school learning described in Section 5.5.1; despite pressures of time, the RRT may help other teachers in the school improve their teaching of literacy, either through formal or informal training. Another advantage of looking at impacts at the school level is that we can clearly identify schools that receive ECaR and appropriate comparison schools. Finding appropriate comparison pupils is not such a straightforward task, as pupils are selected for the programme in ways that are unobservable to us.[35]

We present estimated impacts on a wide range of outcomes at the school level. Some of these, such as the percentage of children reaching the expected level at KS1 in reading, would clearly be affected by ECaR if it were an effective intervention; others, such as the average point score (APS) at KS2, may not be affected by ECaR in the absence of spillovers at the wider school level. Alternatively, a significant difference between schools in our programme and comparison group may indicate the presence of some unobserved differences in outcomes (for example a motivated and effective head teacher) that means that attainment in ECaR schools might have improved in the absence of the policy. This would then represent a violation of the common trends assumption. The data do not permit us to distinguish between these two competing hypotheses.

The outcomes analysed in this section are:

- The percentage of students reaching the expected level of attainment in reading at KS1
- The percentage of students reaching the expected level of attainment in writing at KS1
- The percentage of students reaching the expected level of attainment in maths at KS1
- The percentage of students with special educational needs (with and without a statement)
- The percentage of total absences from sessions
- The percentage of students reaching the expected level of attainment (level 4) in English at KS2
- The percentage of students reaching level 5 in English at KS2
- The school's KS2 average points score.

[35] The matched comparison sample of children used for analysis in section 6.2 overcomes this problem to some extent by asking teachers in a chosen set of comparison schools to select pupils that would have been eligible for ECaR if the school had the programme. This method is not available without specially commissioned survey data.

Table 6.1 shows the average impact of receiving ECaR at the school level, for all schools that received ECaR from academic years 2006/2007 to 2008/2009. The average is therefore across schools that have spent one, two, or three years with the ECaR programme in place by 2008/09. All outcomes after the start of the policy are measured from the academic year 2008/2009, and the baseline year is 2005/2006 (before any of the schools in this analysis received ECaR).

The first column shows that there is a statistically significant difference in the percentage of students achieving the expected level of attainment in reading at KS1 between the programme schools and comparison schools. Specifically, the growth in attainment among the programme schools is 1.9 percentage points (ppts) higher than the growth in attainment among the comparison schools over the same period. This represents a 2.5 per cent increase in attainment at the classroom level (from a base of 75 per cent in 2005/2006).[36]

This is a quantitatively significant result, as only around 11 per cent of pupils in the year group actually received an ECaR intervention of some kind. This suggests that ECaR has a significant impact for those that receive it (enough to raise the school-level average by 2.5 per cent), and/or that there are benefits (spillovers) across the whole class or year group that result from the implementation of ECaR.

The second column shows that there is a statistically significant impact on the percentage of students achieving the expected level in writing at KS1: programme schools had attainment that is on average 2.4 percentage points higher than in comparison schools over the same period. This represents a 3.3 per cent improvement in attainment on a base level of 71 per cent in 2005/2006.

While ECaR placed no particular emphasis on achievement in maths, it is plausible that positive benefits from learning to read (or perhaps enhanced motivation in school[37]) extend to achievement in other subjects. Table 6.1 shows that there is no significant impact on the percentage of pupils achieving the expected level of attainment in maths, however, suggesting that spillovers from the programme do not extend to subjects that are not a focus of the ECaR intervention.

Similarly, there is no evidence that the percentage of students reaching the expected level of attainment at KS2 increased in schools that received ECaR relative to comparison schools.

[36] A *percentage point impact* is the difference between two percentages (in this case between ECaR schools before and after receiving ECaR). For example, the 1.9 percentage point impact reported in Table 6.1 is the same as saying that the impact of ECaR moves the school from 75% to 76.9% of pupils achieving the expected level of attainment in reading at KS1. The *percentage impact* puts the percentage point impact in context by showing the impact as a proportion of the baseline level of attainment. This is useful because the effect of moving from 5% to 6.9% is larger in relative terms than the effect of moving from 75% to 76.9%. If the baseline level of attainment is 75% then (for a 1.9 percentage point impact) the percentage impact is calculated as follows: (1.9/75) x 100 = 2.5 per cent.

[37] Although Section 6 finds little evidence of this.

This suggests that for all schools that receive ECaR between 2006/2007 and 2008/2009 there are no wider impacts of the policy at the school level in 2008/2009. It should be remembered, however, that we may not expect to see spillovers to other cohorts until the the later years of ECaR implementation; Section 4.7 describes the difficulties of implementing the “layered approach” early in the establishment of ECaR.

Table 6.1 Impact of Every Child a Reader on school-level outcomes in 2008/09

Comparison group: All schools that received ECaR for the first time in 2009/2010

ECaR group: All schools that received ECaR for the first time in either 2006/2007, 2007/2008 or 2008/2009 and kept it continuously until at least 2008/2009

	% reaching level 2 reading at KS1	% reaching level 2 writing at KS1	% reaching level 2 maths at KS1	% sen with statement	% sen without statement
Impact	1.881**	2.408***	-0.316	0.19	1.426
Standard error	[0.823]	[0.919]	[0.772]	[0.201]	[0.896]
N (comparison schools)	*513*	*513*	*513*	*507*	*507*
N (ECaR schools)	*578*	*578*	*578*	*578*	*578*

	% total absences from sessions	% reaching level 4 in English at KS2	% reaching level 5 in English at KS2	KS2 average points score
Impact	-0.103	1.455	0.377	-0.023
Standard error	[0.110]	[0.993]	[1.014]	[0.104]
N (comparison schools)	*385*	*427*	*427*	*425*
N (ECaR schools)	*463*	*506*	*506*	*506*

*Note 1: Standard errors in brackets. * p < 0.10, ** p < 0.05, *** p < 0.01. Outcomes are measured at the school level. Schools in the ECaR group receive ECaR (or Reading Recovery) for the first time between academic years 2006/2007 to 2008/2009. Schools in the "comparison" group receive ECaR for the first time in the academic year 2009/2010. All outcomes in the "post" period are taken from the academic year 2008/2009; outcomes in the "pre" period are taken from the academic year 2005/2006.*

Note 2: This specification takes account of contemporaneous characteristics of the school (%FSM, %EAL,%SEN, number of pupils in the yeargroup) and also accounts for its past performance (the mean score in the FSP CLL component from 2005/2006 and the average of the relevant outcome for the three years prior to 2006/2007). The estimated impacts are derived from a difference-in-differences model described in the methodology section (2.3). Standard errors are clustered at the school level to account for serial correlation in the error terms between the same school over time.

Schools that receive ECaR in our sample in Table 6.1 implement ECaR for the first time between 2006/2007 and 2008/2009, thus our group of ECaR schools comprises three different years or phases of the roll-out. The following three tables follow each 'phase' of schools separately over time. This allows us to measure the longer-term outcomes of ECaR for schools that received it earlier. It is worth bearing in mind that these results may be less robust than the ones above, however; Figure 6.1 and Figure 6.2 suggest that the 'common trends' assumption appeared to hold to a greater extent for the average trend across all phases, and is slightly less justified for schools that received ECaR in some years.

Section 4.7 describes how RRTs are not usually expected to implement wider literacy programmes or provide guidance to other members of staff in their first year as an RRT. They may also be less effective in RR provision if they are newly accredited, and expected to deliver the programme to fewer pupils. It is therefore reasonable to expect that the impact of ECaR will differ depending on the length of time it has been in place in a school.

Table 6.2 shows the impact at the school level for all schools that received ECaR in 2006/2007 (and kept it until the academic year 2008/2009). It is clear that positive impacts from ECaR occur in the second and third years after ECaR is introduced (although there is only a significant impact on KS1 Writing in the third year). The second-year impact on reading (measured in 2007/08) is large and statistically significant: a 6 percentage point increase in the proportion of pupils achieving the expected level of attainment at KS1, or an 8 per cent improvement on this group of schools' average level in 2005/2006. In the same year, the proportion of pupils reaching the expected level of attainment in writing at KS1 rises by 6.2 percentage points, equivalent to an increase of 9 per cent on their level in 2005/2006.

There is also a positive and statistically significant impact by the third year on the percentage of pupils reaching the expected level of attainment in English at KS2 in the school. This may suggest that there is evidence of spillovers at the wider school level in literacy once ECaR is established. Alternatively, it may suggest that head teachers in schools that decide to implement ECaR earlier place more emphasis on improvement standards of literacy, which affects outcomes independently of ECaR. As described earlier, this would suggest a failure in the common trend assumption, and that our results are an overestimate of the impact of the programme.

In the methodology section (2.3) we noted that the schools that implement ECaR at a specific point in time may differ in some ways from schools that implement it at another point in time. This is particularly true for schools that choose to implement early in the development phase. It is plausible that these schools are the keenest, or most likely to benefit (through a mechanism unobservable to us) from the programme. They are also more deprived schools, on average. By construction, these schools also implement ECaR for at least three consecutive years, which suggests that the sample might contain only schools that find ECaR to be successful while excluding schools where ECaR is not deemed beneficial. To the extent that this occurs, the impacts in Table 6.2 could represent an over-

estimate of the impact of ECaR. Alternatively, however, the schools in this sample would have had less guidance in the early stages of development, which may offset this selection effect.

Similarly, Table 6.3 shows the average impact at the school level for all schools that received ECaR in 2007/2008 (and kept it until the academic year 2008/2009). Again, there is no evidence of an impact on KS1 outcomes in the first year of ECaR, but there is a statistically significant impact of the programme on KS1 Reading the second year of its adoption. The growth in the proportion of students reaching the expected level of attainment in reading at KS1 in 2008/2009 is 2 percentage points, equivalent to an increase of 2.7 per cent from the average level in 2005/2006.

Table 6.4 shows that average impact at the school level for all schools that received ECaR in 2008/2009. As outcomes are measured in 2008/2009, this table gives first-year impacts only. As seen in previous tables, there is at most weak evidence of an improvement in standards during the first year of ECaR's adoption.

There are 276 schools that receive ECaR in 2008/2009 (and that choose to give ECaR to students in Year 2 in this year). This means that for 42 per cent of schools in the sample of Table 6.1, the impact is a first-year impact only. Hence the average impact for all schools is likely to be lower than it would be if such schools were not included. The two tables cannot be directly compared however; in Table 6.1 we compare the change in outcomes between ECaR and comparison schools from 2005/2006 (before any of the schools in the sample received ECaR) and 2008/2009, whereas in Table 6.4 we compare the growth in outcomes between ECaR and comparison schools from 2007/2008 and 2008/2009.

Table 6.2 Impact of Every Child a Reader on school-level outcomes: Schools that first got ECaR in 2006/2007

Comparison group: All schools that received ECaR for the first time in 2009/2010

ECaR group: All schools that received ECaR for the first time in 2006/2007 and kept it in each year until at least 2008/2009

	% reaching level 2 reading at KS1	% reaching level 2 writing at KS1	% reaching level 2 maths at KS1	% sen with statement	% sen without statement
First year impact (2006/2007)	0.623	1.976	-1.311	0.818*	0.51
Standard error	[1.404]	[1.547]	[1.281]	[0.449]	[1.517]
Second year impact (2007/2008)	5.999***	6.246***	0.841	-0.117	0.479
Standard error	[1.603]	[1.888]	[1.346]	[0.325]	[1.920]
Third year impact (2008/2009)	2.598	4.554**	0.138	-0.085	0.275
Standard error	[1.611]	[1.797]	[1.350]	[0.415]	[1.804]
N (comparison schools)	*513*	*513*	*513*	*507*	*507*
N (ECaR schools)	*106*	*106*	*106*	*106*	*106*

	% total absences from sessions	% reaching level 4 in English at KS2	% reaching level 5 in English at KS2	KS2 average points score
First year impact (2006/2007)	-0.337*	1.285	-0.277	-0.011
Standard error	[0.172]	[1.704]	[1.456]	[0.151]
Second year impact (2007/2008)	-0.359**	2.213	0.464	0.112
Standard error	[0.156]	[1.785]	[1.572]	[0.179]
Third year impact (2008/2009)	-0.378*	4.325**	0.646	0.025
Standard error	[0.203]	[1.881]	[1.557]	[0.196]
N (comparison schools)	*385*	*427*	*427*	*425*
N (ECaR schools)	*87*	*96*	*96*	*96*

*Note 1: Standard errors in brackets. * p < 0.10, ** p < 0.05, *** p < 0.01. Outcomes are measured at the school level. Schools in the ECaR group receive ECaR (or Reading Recovery) for the first time in academic year 2006/2007 and receive ECaR in each year until at least 2008/2009. Schools in the "comparison" group receive ECaR for the first time in the academic year 2009/2010. All outcomes in the "post" period are taken from the academic years 2006/2007 to 2008/2009; outcomes in the "pre" period are taken from the academic year 2005/2006.*

Note 2: See Table 6.1

Table 6.3 Impact of Every Child a Reader on school-level outcomes: Schools that first got ECaR in 2007/2008

Comparison group: All schools that received ECaR for the first time in 2009/2010

ECaR group: All schools that received ECaR for the first time in 2006/2007 and kept it in each year until at least 2008/2009

	% reaching level 2 reading at KS1	% reaching level 2 writing at KS1	% reaching level 2 maths at KS1	% sen with statement	% sen without statement
First year impact (2007/2008)	1.254	1.659	0.732	-0.139	0.213
Standard error	[0.847]	[1.037]	[0.811]	[0.221]	[1.028]
Second year impact (2008/2009)	2.043**	1.868*	0.418	-0.011	-0.136
Standard error	[0.959]	[1.058]	[0.864]	[0.227]	[1.020]
N (comparison schools)	*513*	*513*	*513*	*507*	*507*
N (ECaR schools)	*232*	*232*	*232*	*232*	*232*

	% total absences from sessions	% reaching level 4 in English at KS2	% reaching level 5 in English at KS2	KS2 average points score
First year impact (2007/2008)	-0.023	0.862	-0.07	0.149
Standard error	[0.103]	[1.134]	[1.170]	[0.114]
Second year impact (2008/2009)	-0.082	1.783	1.029	0.179
Standard error	[0.109]	[1.214]	[1.253]	[0.128]
N (comparison schools)	*385*	*427*	*427*	*425*
N (ECaR schools)	*186*	*199*	*199*	*199*

*Note 1: Standard errors in brackets. * p < 0.10, ** p < 0.05, *** p < 0.01. Outcomes are measured at the school level. Schools in the ECaR group receive ECaR (or Reading Recovery) for the first time in academic year 2007/2008 and receive ECaR in each year until at least 2008/2009. Schools in the "comparison" group receive ECaR for the first time in the academic year 2009/2010. All outcomes in the "post" period are taken from the academic years 2007/2008 to 2008/2009; outcomes in the "pre" period are taken from the academic year 2006/2007.*

Note 2: See Table 6.1

Table 6.4 Impact of Every Child a Reader on school-level outcomes: Schools that first got ECaR in 2008/2009

Comparison group: All schools that received ECaR for the first time in 2009/2010

ECaR group: All schools that received ECaR for the first time in 2006/2007 and kept it in each year until at least 2008/2009

	% reaching level 2 reading at KS1	% reaching level 2 writing at KS1	% reaching level 2 maths at KS1	% sen with statement	% sen without statement
First year impact (2007/2008)	1.555*	1.493	0.997	0.366	0.239
Standard error	[0.934]	[1.098]	[0.849]	[0.252]	[1.095]
N (comparison schools)	*513*	*513*	*513*	*507*	*507*
N (ECaR schools)	*240*	*240*	*240*	*240*	*240*

	% total absences from sessions	% reaching level 4 in English at KS2	% reaching level 5 in English at KS2	KS2 average points score
First year impact (2007/2008)	-0.025	-1.811	-2.376*	-0.228**
Standard error	[0.103]	[1.136]	[1.219]	[0.114]
N (comparison schools)	*385*	*427*	*427*	*425*
N (ECaR schools)	*190*	*211*	*211*	*211*

*Note 1: Standard errors in brackets. * p < 0.10, ** p < 0.05, *** p < 0.01. Outcomes are measured at the school level. Schools in the ECaR group receive ECaR (or Reading Recovery) for the first time in academic year 2007/2008 and receive ECaR in each year until at least 2008/2009. Schools in the "comparison" group receive ECaR for the first time in the academic year 2009/2010. All outcomes in the "post" period are taken from the academic years 2007/2008 to 2008/2009; outcomes in the "pre" period are taken from the academic year 2006/2007.*

Note 2: See Table 6.1

Our analysis at the school level also considered whether there is evidence that the impacts of ECaR vary for different types of school. These results are presented in Appendix Tables D.1 to D.3, using the sample of all schools that received ECaR between 2006/2007 and 2008/2009 (and kept it continuously until 2008/2009).

Although the percentage point impacts are slightly higher for some types of school, they are not measured with enough to precision to be statistically significantly different from each other. For example, schools with a lower proportion of pupils that are White British exhibit a higher percentage point impact than those with a higher proportion of pupils that are White British, but the percentage point impacts have sufficient statistical uncertainty (shown by the standard errors reported in the table), that they could in fact be the same. Similarly, schools with a higher proportion of pupils that receive free school meals have a higher percentage point impact than schools with a lower proportion, but again there is not enough precision in these estimates to rule out the idea that they are the same.

Our broad conclusion is that there are no differences in impacts that are statistically significantly for different types of school.

6.1.2 Pupil level analysis

This section describes our findings from our first pupil level analysis. Our methodology in this section is the same as that for the school level analysis, but it now measures the impact of ECaR on the group of pupils in the cohort that were most likely to receive it. In this section, the programme group is defined as all pupils with a Foundation Stage Profile (FSP) score for the communication, language and literacy component (CLL) below the 10th percentile of the national distribution, in schools that received ECaR between 2006/2007 and 2008/2009. The comparison group is pupils with an FSP score for the CLL component below the 10th percentile of the national distribution, in schools that first received ECaR in 2009/2010 (the same comparison schools that were used in the school-level analysis). The assumption of common trends for the two groups is again required for valid estimates of the impact of ECaR. In this case the assumption is that the change in average outcomes between those in the lowest 10% of the FSP CLL distribution would have been the same in both the ECaR and comparison schools in the absence of ECaR.

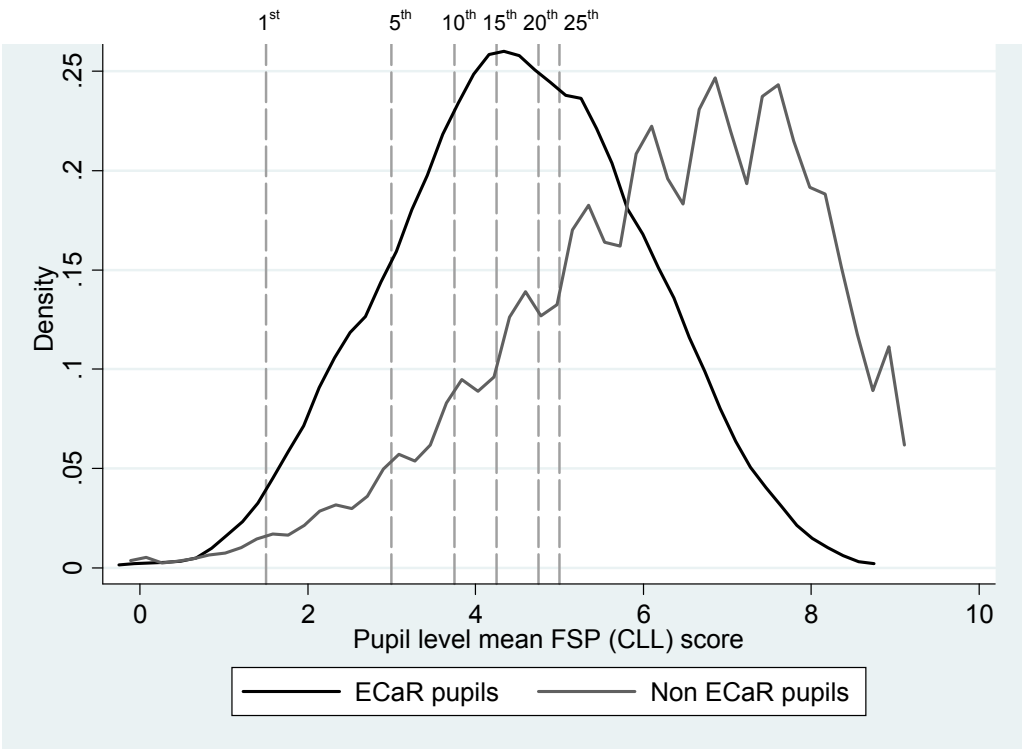
We also provide some analysis for programme and comparison pupils the CLL component of the FSP below the 25th percentile of the national distribution, as a large number of pupils that received ECaR were above the 10th percentile. The relative position in the national distribution for pupils that receive ECaR is shown in Figure 6.3. It is clear from comparing the distribution of the CLL component of FSP for ECaR and non-ECaR pupils that non-ECaR pupils perform more highly on average at FSP than ECaR pupils. There is a large spread in

the distribution for both groups, however; those that get ECaR do not perform universally poorly on this prior measure of ability in literacy: indeed 68% are above the national 10th percentile, and 37% are above the national 25th percentile.

This reflects the fact that the CLL component of the FSP is an imperfect measure of prior ability in literacy. It also reflects that the fact that RRTs and class teachers selected pupils for the programme based on other factors and perhaps more precise measures of the child's literacy that are not observable to researchers. In administrative data it is the best measure we have, however, and provides our only way to select a reasonably representative control group of pupils. Here we acknowledge that the matched comparison group of pupils from the survey data used in Section 6.2 is likely to provide a better comparison group for pupils that received ECaR, although it, of course, is not available for our larger sample.

The FSP unfortunately has an additional problem: it is only available for a random sample of one in ten pupils for cohorts who sat KS1 assessments before 2008/09. This means that the sample size of pupils in our pre-ECaR sample is reduced by 90 per cent, dramatically increasing the statistical uncertainty in our model and making it considerably more difficult to estimate precise impacts of ECaR. While the total sample size for this analysis looks large, some groups in our analysis have much smaller sample sizes. For example, the total sample size for column 1 in Table 6.5 is 10,987, where 6,816 pupils are in ECaR schools and 4,171 are in comparison schools. However, there are only 955 pupils in our baseline period, of whom 588 are in ECaR schools and 367 are in comparison schools. It is these small samples that cause the imprecision in the estimates (shown by the large standard errors).

Figure 6.3 Distribution of FSP (CLL) scores for ECaR and comparison



Given the caveats outlined above, Table 6.5 shows the impact on pupil level outcomes for pupils in schools that received ECaR between 2006/2007 and 2008/2009 relative to pupils in our set of comparison schools. Column 1 suggests that the impact on the likelihood of reaching the expected level in reading at KS1 is around 5.4 percentage points, although this is not statistically significant. This represents an increase of 13 per cent from this group's baseline level of 41 per cent in 2005/2006. The larger magnitude of the estimate (compared with Table 6.11) suggests that the impact on pupils below the 10th percentile is larger than the impact across the year group as whole; however it is not statistically significant because it is so imprecisely measured. There are no statistically significant impacts elsewhere.

Table 6.6 repeats this analysis across a broader sample of ECaR and comparison groups: those below the 25th percentile of the national FSP CLL distribution. The resulting point estimate of the impact on the likelihood of achieving the expected level in reading at KS1 is smaller and not significant at all. It is possible that that this positive estimate (and the one above) would be statistically significant if the baseline cohort was larger, but this cannot be verified without complete FSP data for entire the baseline cohort.

Table 6.7 examines how the impact on pupils below the 10th percentile of the national CLL FSP distribution varies by the year that the pupils' schools adopted ECaR. While the point estimate is higher if the pupils' school implemented ECaR earlier, these differences are not statistically significant so there is no evidence to suggest that the impact varies by the length of time ECaR has been in place at the school.

We now consider whether certain types of pupils seem to gain more from ECaR being present in their schools. We retain the sample restriction of being below the 10th percentile of the national distribution, but refine the research question to ask whether the estimated impact is stronger for some groups of pupils than others. In Appendix Tables E.1 to E.5 we consider the following sub-groups: those with/without EAL, those with/without FSM, males and females, and those of different ethnic groups. It is important to note that sample sizes get increasingly small as we split pupils up into these groups. We therefore advise caution in interpretation of the results.

In general there are no statistically significant differences between sub-groups of pupils. This is not surprising given the statistical uncertainty induced by the small sample size in the baseline cohort and in some of the sub-groups. There is no evidence that pupils with or without free school meals, or with or without English as an additional language (all below the 10th percentile of the CLL FSP national distribution) gain more from ECaR being present in the school. Some ethnic groups (in particular Black African and Indian pupils) seem to display a considerably higher estimated impact from ECaR being present at the school, although caution is needed in the interpretation of these results due to the sample sizes of these sub-groups.[38] The point estimate for the impact for males is higher than for females,

[38] See the note for Appendix Table E.3 for a detailed breakdown of the sample.

but again the two point estimates are not significantly different from each other and the latter is not statistically significant.

Table 6.5 Impact of Every Child a Reader in the school on pupil level outcomes (below 10th percentile FSP CLL)

Comparison group: All pupils below the 10th percentile of the FSP CLL national distribution in schools that received ECaR for the first time in 2009/2010

ECaR group: All pupils below the 10th percentile of the FSP CLL national distribution in schools that received ECaR for the first time in either 2006/2007, 2007/2008 or 2008/2009 and kept it continuously until at least 2008/2009

	Above level 2 at KS1 reading	Above level 2 at KS1 speaking and listening	Above level 2 at KS1 writing
Impact (for pupils below the 10th percentile of FSP CLL distribution)	5.363*	2.786	2.789
Standard error	[3.187]	[3.677]	[3.084]
N (comparison pupils)	*4171*	*4171*	*4171*
N (treatment pupils)	*6816*	*6808*	*6815*

	Above level 2 at KS1 maths	SEN with statement at KS1	SEN without statement at KS1
Impact (for pupils below the 10th percentile of FSP CLL distribution)	1.469	2.502	-3.929
Standard error	[3.422]	[1.740]	[3.766]
N (comparison pupils)	*4173*	*4168*	*4168*
N (treatment pupils)	*6813*	*6838*	*6838*

*Note: Standard errors in brackets. * p < 0.10, ** p < 0.05, *** p < 0.01. Outcomes are measured at the pupil level. Pupils in the ECaR group are in schools that receive ECaR (or Reading Recovery) for the first time between academic years 2006/2007 to 2008/2009. Pupils in the "comparison" group are in schools that receive ECaR for the first time in the academic year 2009/2010. All outcomes in the "post" period are taken from the academic year 2008/2009; outcomes in the "pre" period are taken from the academic year 2005/2006. This specification takes account of pupil level characteristics (EAL, FSM, SEN status, gender and FSP CLL score) and an average measure of the schools' past performance in reading (before any of the schools received ECaR). The estimated impacts are derived from a difference-in-differences model. Standard errors are clustered at the school level to account for serial correlation in the error terms between the same school over time, and for correlation of pupils' outcomes within schools.*

Table 6.6 Impact of Every Child a Reader in the school on pupil level outcomes (below 25h percentile FSP CLL)

Comparison group: All pupils below the 10th percentile of the FSP CLL national distribution in schools that received ECaR for the first time in 2009/2010

ECaR group: All pupils below the 10th percentile of the FSP CLL national distribution in schools that received ECaR for the first time in either 2006/2007, 2007/2008 or 2008/2009 and kept it continuously until at least 2008/2009

	Above level 2 at KS1 reading	Above level 2 at KS1 speaking and listening	Above level 2 at KS1 writing
Impact (for pupils below the 25th percentile of FSP CLL distribution)	3.044	-0.388	1.371
Standard error	[2.252]	[2.507]	[2.336]
N (comparison pupils)	*9047*	*9048*	*9047*
N (treatment pupils)	*14474*	*14457*	*14473*

	Above level 2 at KS1 maths	SEN with statement at KS1	SEN without statement at KS1
Impact (for pupils below the 25th percentile of FSP CLL distribution)	0.115	0.572	-1.976
Standard error	[2.273]	[0.940]	[2.706]
N (comparison pupils)	*9049*	*9036*	*9036*
N (treatment pupils)	*14465*	*14485*	*14485*

Note: See Table 6.5

Table 6.7 Impact of Every Child a Reader in the school on pupil level outcomes (below 10th percentile, broken down by year)

Comparison group: All pupils below the 10th percentile of the FSP CLL national distribution in schools that received ECaR for the first time in 2009/2010

ECaR group: All pupils below the 10th percentile of the FSP CLL national distribution in schools that received ECaR for the first time in either 2006/2007, 2007/2008 or 2008/2009 and kept it continuously until at least 2008/2009

Impact (for pupils below the 10th percentile of FSP CLL distribution)	Above level 2 at KS1 reading	Above level 2 at KS1 speaking and listening	Above level 2 at KS1 writing
For pupils in schools that got ECaR in 2006/2007	8.49	3.932	5.385
Standard error	[5.462]	[6.567]	[5.489]
For pupils in schools that got ECaR in 2007/2008	6.637	0.667	1.1
Standard error	[4.532]	[4.791]	[4.084]
For pupils in schools that got ECaR in 2008/2009	3.869	3.524	3.072
Standard error	[3.688]	[4.167]	[3.602]
N (comparison pupils)	*3804*	*3804*	*3804*
N (treatment pupils)	*6228*	*6221*	*6227*

Impact (for pupils below the 10th percentile of FSP CLL distribution)	Above level 2 at KS1 maths	SEN with statement at KS1	SEN without statement at KS1
For pupils in schools that got ECaR in 2006/2007	3.398	4.200*	-10.700*
Standard error	[6.257]	[2.455]	[5.925]
For pupils in schools that got ECaR in 2007/2008	-2.717	-0.642	2.698
Standard error	[4.689]	[2.530]	[5.095]
For pupils in schools that got ECaR in 2008/2009	3.25	3.802**	-5.906
Standard error	[3.854]	[1.894]	[4.310]
N (comparison pupils)	*3806*	*3799*	*3799*
N (treatment pupils)	*6227*	*6246*	*6246*

Note: See Table 6.5

6.1.3 Descriptive analysis of development phase of Reading Recovery participants

The final analysis using administrative data presents the outcomes for pupils that are known to have participated in Reading Recovery (RR) during the development phase (2005/2006 to 2007/2008).[39] We observe pupil-level outcomes in all of these years, as well as those in 2008/2009 for pupils that received RR in Year 1 in 2007/2008 then sit their KS1 tests in Year 2. An important caveat is that this analysis cannot provide genuine impact estimates because it is non-experimental and not a difference-in-differences model. We compare RR participants to a group of similar of pupils in schools that do not have an RR teacher. As above, this is done by controlling for a range of pupil and school characteristics, and by limiting the sample to pupils whose CLL component of FSP scores fell below the 10th percentile of the national CLL FSP distribution. In effect, this analysis uses the same comparison group as above but now uses children who actually received RR as the programme group.

As described in section 3.2.5, pupils were assigned to the RR programme based on a number of factors that are observable to the teacher but not to the researcher. This is problematic for our analysis as we have no way to identify the pupils that would have received RR in our set of comparison schools[40]. Pupils in RR schools with low FSP CLL scores may be more likely to be selected for the programme, but this is not the only determinant.

Here we therefore present descriptive estimates of differences in outcomes, rather than genuine impact estimates.

Table 6.8 presents the outcomes for the group of RR participants as a whole, across all years of the development phase. The pupils who received RR interventions were 10 percentage points more likely to reach the expected level in reading at KS1, and 4.6 percentage points more likely to reach the expected level in writing. They were also significantly less likely to have a statement of special educational needs. The current SEN status of RR pupils merely describes the sort of pupils who are selected for RR, however, rather than reflecting an outcome of it. A similar pattern is found when restricting the sample to those with an FSP score in the bottom 25 per cent, as shown in Table 6.9. As we would expect, the estimated impact is lower when we restrict the sample to those below the 25th percentile, as the outcomes for the pupils in the comparison group are likely to be higher.

[39] This information comes from the administrative data from IOE for these years. The information is recorded for each pupil that received Reading Recovery, but we have no information on pupils that may have received other ECaR interventions in this period.

[40] This again highlights the advantage of the matched comparison sample of pupils used for analysis in Section 6.2, as each comparison pupil was selected based on similar criteria to Reading Recovery recipients.

Table 6.8 Impact of receiving Reading Recovery on pupil level outcomes (below 10th percentile)

Comparison group: All pupils below the 10th percentile of the FSP CLL national distribution in schools that received ECaR for the first time in 2009/2010

ECaR group: All pupils below the 10th percentile of the FSP CLL national distribution that received Reading Recovery in schools that received ECaR for the first time in either 2006/2007, 2007/2008 or 2008/2009 and kept it continuously until at least 2008/2009

	Above level 2 at KS1 reading	Above level 2 at KS1 speaking and listening	Above level 2 at KS1 writing
Impact (for pupils below the 10th percentile of FSP CLL distribution)	10.048***	0.248	4.586**
Standard error	[2.234]	[2.371]	[2.174]
N (comparison pupils)	*4560*	*4559*	*4560*
N (treatment pupils)	*846*	*846*	*846*

	Above level 2 at KS1 maths	SEN with statement at KS1	SEN without statement at KS1
Impact (for pupils below the 10th percentile of FSP CLL distribution)	-3.04	-4.590***	10.77
Standard error	[2.259]	[0.666]	[2.103]
N (comparison pupils)	*4562*	*4556*	*4556*
N (treatment pupils)	*846*	*847*	*847*

*Note: Standard errors in brackets. * p < 0.10, ** p < 0.05, *** p < 0.01. Outcomes are measured at the pupil level. Schools in the ECaR group receive Reading Recovery for the first time between academic years 2006/2007 to 2008/2009. Schools in the "comparison" group receive ECaR for the first time in the academic year 2009/2010. All outcomes are taken from 2008/2009 only. The estimated impacts are derived from a regression model. This specification takes account of pupil level characteristics (EAL, FSM, SEN status, gender and FSP CLL score) and an average measure of the schools' past performance in reading (before any of the schools received ECaR). Standard errors are clustered at the school level to account for correlation of pupils' outcomes within schools.*

Table 6.9 Impact of receiving Reading Recovery on pupil level outcomes (below 25th percentile)

Comparison group: All pupils below the 25th percentile of the FSP CLL national distribution in schools that received ECaR for the first time in 2009/2010

ECaR group: All pupils below the 25th percentile of the FSP CLL national distribution that received Reading Recovery in schools that received ECaR for the first time in either 2006/2007, 2007/2008 or 2008/2009 and kept it continuously until at least 2008/2009

	Above level 2 at KS1 reading	Above level 2 at KS1 speaking and listening	Above level 2 at KS1 writing
Impact (for pupils below the 25th percentile of FSP CLL distribution)	7.439***	-0.261	3.704**
Standard error	[1.574]	[1.726]	[1.665]
N (comparison pupils)	*9960*	*9960*	*9960*
N (treatment pupils)	*1791*	*1786*	*1791*

	Above level 2 at KS1 maths	SEN with statement at KS1	SEN without statement at KS1
Impact (for pupils below the 25th percentile of FSP CLL distribution)	-2.102	-2.917***	14.915
Standard error	[1.566]	[0.392]	[1.757]
N (comparison pupils)	*9962*	*9947*	*9947*
N (treatment pupils)	*1787*	*1793*	*1793*

Note: See Table 6.8

As for the previous sections we also discuss results for subgroups of the population, which are presented in Appendix Tables F.1 to F.6. There are no statistically significant differences between pupils that receive RR in Year 1 or Year 2 (although the point estimate is higher for those in Year 1), between pupils with and without English as an additional language, between pupils with and without free school meals, or between pupils that are White and non-White[41]. In this analysis we find that males are 12 percentage points more likely to reach the expected level of attainment on average, whereas females are 6 percentage points more likely. This finding is corroborated elsewhere in the impact chapter. There is also a difference between those that are successfully discontinued from Reading Recovery and those that are not. Perhaps unsurprisingly, the outcomes are far more positive for the participants who are successfully discontinued: they are more likely to reach the expected level across all KS1 outcomes than the comparison pupils, but are also significantly less likely to have a statement of SEN. Interestingly, RR participants who are not successfully discontinued not only fare worse than those who are successfully discontinued, but also have worse KS1 outcomes than the comparison pupils. This perhaps reflects the pre-existing characteristics of pupils that are selected for the programme and are not successfully discontinued.

[41] Here the distinction is made between White and non-White pupils only due to sample size constraints.

6.1.4 Summary

School level analysis:

- In the first year that the programme is introduced in a school, ECaR has no significant impact on school level outcomes, such as the percentage of pupils reaching the expected level of attainment in reading at KS1.
- There is a positive and significant impact of ECaR on some school level outcomes in the second and third years that the school has ECaR. This suggests that any positive impacts of the programme become noticeable some time after the programme is established.
- There is some evidence of benefits to the cohort that receive ECaR in writing as well as reading.
- There is little evidence that the impact of ECaR varies according to the school's establishment type or the characteristics of its pupils.

Impact of ECaR on lowest-achieving pupils:

- Unfortunately the estimates from this analysis are very imprecise, which means that we cannot detect a statistically significant impact of ECaR on KS1 outcomes for this group (even though the point estimates are themselves sizeable). This is because of a problem with the baseline cohort, where the sample size is very small due to the FSP data being available for only one in ten children.

Outcomes of pupils who received Reading Recovery:

- The final analysis using administrative data charts the outcomes of the group of pupils who actually received Reading Recovery (RR), between 2005/2006 and 2007/2008. This is not intended to be a genuine impact analysis due to the difficulties of identifying an appropriate comparison group. The analysis instead provides a descriptive picture of the outcomes of Reading Recovery pupils, compared to a comparison group with low prior literacy levels (defined on the basis of the CLL component of the FSP).
- Relative to the comparison group, pupils that received RR were 10 percentage points more likely to reach the expected level in reading at KS1.
- There is some evidence that different subgroups of pupils had better outcomes after receiving RR. Male pupils were more likely to reach the expected level of attainment in reading than female pupils, and pupils that were successfully discontinued from RR were much more likely to have benefited from the programme; they were 31 percentage points more likely than the comparison group of pupils to reach the expected level in reading at KS1. In contrast, RR pupils who were not successfully discontinued were not more likely to have met this threshold.

6.2 Reading Recovery impact study

The impact study was carried out in 57 ECaR schools and a matched comparison group of 54 non-ECaR schools. Year 1 pupils participating in Reading Recovery in the academic year 2009/10 were eligible for the study in ECaR schools; in non-ECaR schools teachers selected children who had low attainment in reading at the start of Year 1. Given the survey design and selection of pupils it is likely that the outcomes of the matched comparison group of children in non-ECaR schools provide a very good counterfactual for the outcomes of children that received ECaR. Class teachers then completed assessments for these pupils in June – July 2010 based on their knowledge of the child. A discussion about the relative merits and potential limitations of this approach to measurement can be found in section 2.4.

6.2.1 What interventions did pupils receive?

Table 6.10 shows the reading interventions received by the Reading Recovery and comparison group samples of pupils.

By definition, all pupils in the Reading Recovery sample received this intervention but some also received other types of ECaR layered interventions: 14 per cent participated in Talking Partners, two per cent in Better Reading Partners and seven per cent in Early Literacy Support – all Wave 2 interventions (see section 1.2). A small proportion (four per cent) also received support for learning English as an Additional Language[42].

Importantly, this table also shows what reading support is typically received by pupils of similar ability to Reading Recovery pupils in schools of a similar profile – the counterfactual. Nearly all (97 per cent) comparison pupils received some form of reading support over and above classroom based literacy teaching. A substantial proportion were reported as receiving types of ECaR layered interventions even though their schools were not officially delivering ECaR, 82% read in small groups with an adult, and 85 per cent received one to one reading support.

[42] The 32 per cent receiving reading support in small groups and the 25 per cent receiving one to one reading support may overlap with or refer to Reading Recovery.

Table 6.10 Participation in all forms of reading support during Year 1 by the Reading Recovery and comparisons samples*[43]		
Base: All pupils		
	Reading Recovery sample	Matched comparison group
	%	%
ECaR layered interventions[44]		
Talking Partners (Wave 2)	14	28
Better Reading Partners (Wave 2)	2	2
Early Literacy Support (Wave 2)	7	32
Fischer Family Trust (Wave 3)	0	4
Reading Recovery (Wave 3)	100	2
Other non-ECaR support		
Catch Up Literacy[45]	0	4
Support for learning English as an Additional Language	4	11
Reading support in small groups 2+ with school staff or adult volunteers	32	82
One to one reading support	25	85
Other support	3	17
None of the above	0	3
Base (unweighted)	*237*	*216*

*Percentages add up to more than 100 since more than one answer could apply.

The majority of the pupils in the Reading Recovery sample had either completed the programme or were due to do so in the first term of Year 2. Table 6.11 provides the detail about start and end dates. The majority (85 per cent) of selected pupils *began* their Reading Recovery either in the Autumn (39 per cent) or Spring terms (46 per cent) and the remaining (14 per cent) pupils began in the Summer term. Nearly two-thirds (63 per cent) were due to complete the intervention by the end of Year 1, but given that the end date was not known for 29 per cent of pupils, it may be the case that a greater proportion than this were close to completion.

[43] The actual question asked was: 'Has the child received any of the following types of literacy support in Year 1?'

[44] Information about these interventions can be found here: http://readingrecovery.ioe.ac.uk/807.html (Accessed 7-12-2010).

[45] Information about Catch Up Literacy can be found here: http://www.catchup.org/CatchUpLiteracy/IntroducingCatchUpLiteracy.aspx (Accessed 7-12-2010).

Table 6.11 Start and end dates* of Reading Recovery		
Base: Reading Recovery pupils		*Survey*
	Started RR	Ended RR (actual or projected as reported by class teacher)
Academic term	%	%
Autumn term 2009	39	2
Spring term 2010	46	13
Summer term 2010	14	48
Autumn term 2010	0	7
Missing	0	29
Bases	*237*	*237*

*Respondents were asked to name the month of starting and ending RR, and this was collapsed into terms in this table for ease of reporting.

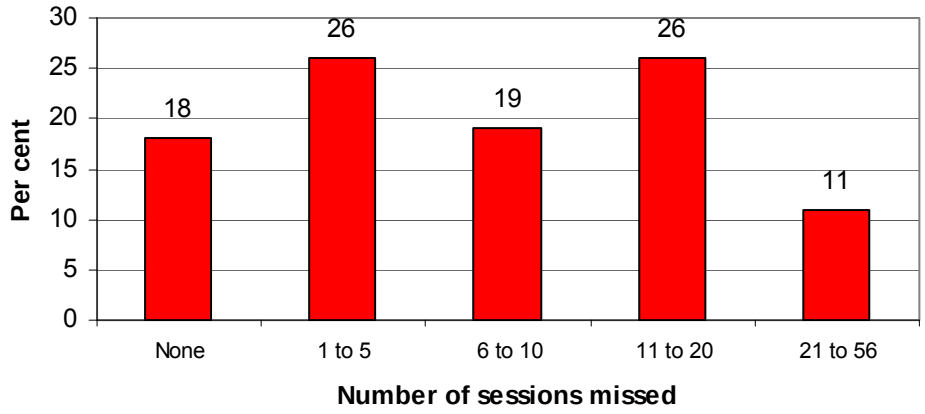
The number of months that pupils had spent doing Reading Recovery by the time of the assessment varied from one to 10 or more (calculated from the start and end dates in Table 6.11). One-third of pupils had received five or six months of Reading Recovery by the time of the assessment (which would include holiday periods)[46].

[46] The assessments did not ask for the exact number of weeks or sessions that the pupil spent on Reading Recovery because they were designed to be completed by class teachers who would not be expected to know that level of detail.

Most pupils had missed some Reading Recovery sessions (Figure 6.4), which would partly explain why some pupils spent ten or more months on Reading Recovery. There is no prescribed length for the Reading Recovery programme, so although it is considered important to build up a momentum of daily sessions, pupils can continue for longer if they miss sessions. Approximately one-quarter (26 per cent) missed between one and five sessions, 19 per cent missed six to 10 sessions, and 37 per cent missed more than 10 sessions. Just under one-fifth (18 per cent) did not miss any sessions.

Figure 6.4 Number of sessions missed

Base: 237 Reading Recovery pupils



6.2.2 Impact

The measurement of impact is the level of outcomes (positive or negative) for Reading Recovery pupils minus the level for the matched comparison group. The percentage points shown in the 'difference' column of the tables below indicates the proportion of Reading Recovery pupils who had this outcome as a result of participating in the programme.

Reading ability

Reading Recovery had substantial positive impacts on reading related outcomes, as assessed by class teachers. Participation had a 26 percentage point impact on having an overall reading level of level 1 or above. (Pupils are expected to be reading at a high level 1 or low level 2 by the end of Year 1[47].)

Just over half of the Reading Recovery pupils (52 per cent) were assessed as reading at or above the expected level for their age, compared to 30 per cent of those in the matched comparison group. Assuming that the outcomes for the Reading Recovery pupils and the matched comparison group would have been the same in the absence of Reading Recovery,

[47] 'High level 1' is equivalent to level 1a and 'low level 2' is equivalent to 2c.

this implies that there was a 22 percentage point increase as a direct result of Reading Recovery.

The Reading Assessment Focus is a tool designed for observational assessment across all Key Stages and has seven elements as shown in Table 6.12[48]. Reading Recovery had a positive impact of between 12 and 27 percentage points on achieving level 1 or higher across the different aspects of reading measured by this tool. The greatest impact was on the ability to identify and comment on the structure and organisation of texts, including grammatical and presentational features at text level (27 percentage points).

The ability to decode text is considered fundamental to learning to read and a question was designed for the purpose of this study. Reading Recovery had a positive impact on being assessed as good (15 percentage points) or very good (8 percentage points) at decoding. (Note that the Reading Recovery sessions observed in Chapter 5 consistently demonstrated a harmonious implementation of systematic phonics alongside the 'holistic' approach of RR.)

[48] Information about Assessment Focus can be found on the National Strategies website: http://nationalstrategies.standards.dcsf.gov.uk/node/20411?uc = force_uj (Accessed 7-12-2010).

Table 6.12 Impact of Reading Recovery on reading ability			
Base: All pupils for whom question completed.			*Survey*
	Reading Recovery sample	Matched comparison group	Difference
	%	%	%
Overall reading level***			
Working towards level 1	14	40	-26
Level 1	78	59	19
Level 2	8	1	7
Reading level in relation to age***			
Below expected level for age	48	70	-22
At or above expected level for age	52	30	22
Reading Assessment Focus	Level 1 or higher		
1. use a range of strategies, including accurate decoding of text, to read for meaning***	87	65	22
2. understand, describe, select or retrieve information, events or ideas from texts and use quotation and reference to text***	85	66	19
3. Deduce, infer, or interpret information, events or ideas from texts**	77	65	12
4. identify and comment on the structure and organisation of texts, including grammatical and presentational features at text level***	72	45	27
5. explain and comments on writers' use of language, including grammatical and literary features at word and sentence level***	67	46	21
6. explain and comments on writers' purposes and viewpoints, and the overall effect of the text on the reader***	71	51	20
7. relate texts to their social, cultural and historical traditions***	69	49	20
Decoding ability***			
Struggling / at risk (struggling to decode many/most words)	9	29	-20
Fair (able to decode some words, will attempt to decode unknown words, but with many errors)	45	48	-3
Good (able to decode many words and confident to attempt unknown words)	38	23	15
Very good (able to decode many words, and confident to attempt unknown words)	8	0	8
Bases	*234-236*	*214-216*	

*indicates significance at the 5% level. **indicates significance at the 1% level. ***indicates significance at the 0.1% level.

Reading related attitudes and behaviours

Smaller positive impacts of Reading Recovery were found on some reading-related behaviours and attitudes (Table 6.13). These questions, designed specifically for the study, aimed to measure behaviours and attitudes that are important prerequisites for becoming an effective reader. Reading Recovery had significant positive impacts on always or sometimes: enjoying silent reading (17 percentage points), confidence in tackling a new book (12 per cent) and voluntarily choosing extra books to take home (12 percentage points). Interestingly, the class teachers completing the assessments reported that all pupils (both Reading Recovery and comparison) enjoyed listening to stories always or sometimes.

Table 6.13 Impact of Reading Recovery on reading behaviours and attitudes

Base: All pupils for whom question completed.			*Survey*
	Reading Recovery sample	Matched comparison group	Difference
Reading attitudes and behaviours	%	%	%
Enjoys silent reading***			
Always	16	16	0
Sometimes	56	39	17
Never	28	45	-17
Shows confidence in tackling a new book***			
Always	40	29	11
Sometimes	52	51	1
Never	8	21	-13
Voluntarily chooses extra books to take home***			
Always	20	27	-7
Sometimes	49	30	19
Never	31	43	-12
Child enjoys listening to stories			
Always	74	70	4
Sometimes	25	30	-5
Never	0.4	0.4	0
Responds during book discussions with questions and comments			
Always	41	45	-4
Sometimes	53	48	5
Never	6	8	-2
Takes pride in reading diary or journal			
Always	29	23	6
Sometimes	47	43	4
Never	24	34	-10
Bases	*222-236*	*211-216*	

*indicates significance at the 5% level. **indicates significance at the 1% level. ***indicates significance at the 0.1% level.

Parental involvement

The support and involvement of parents and carers in reading is known to be related to success in reading (Desforges and Abouchaar, 2003). Reading Recovery had a positive impact on parents encouraging the child to think that reading is important, according to the assessment of teachers. Reading Recovery had an impact of 17 percentage points on parents encouraging their children to think that reading is important a lot. Reading Recovery was found to have no significant impact on parents reading with the child at home or on parents communicating with teachers about a child's reading (Table 6.14).

Table 6.14 Impact of Reading Recovery on parent involvement in reading

Base: All pupils for whom question completed.			*Survey*
	Reading Recovery sample	Matched comparison group	Difference
Parent involvement	%	%	%
Parents read with child at home			
A lot	33	25	8
A little	52	55	-3
Not at all	15	21	-6
Bases (unweighted)	214	208	
Parents communicate with teachers about a child's reading			
A lot	20	21	-1
A little	50	55	-5
Not at all	29	24	5
Bases (unweighted)	*230*	*215*	
Parents encourage child to think reading is important*			
A lot	41	24	17
A little	45	58	-13
Not at all	14	18	-4
Bases (unweighted)	*162*	*176*	

*indicates significance at the 5% level. **indicates significance at the 1% level. ***indicates significance at the 0.1% level.

General attitudes to learning and behaviour

Across the six measures of attitudes to learning in general, Reading Recovery only had a significant positive impact on one: the ability to initiate activities and ideas (Table 6.15). Although the difference is a negative number, the outcome was phrased negatively, so it is actually a positive 18 percentage point impact on Reading Recovery pupils being able to initiate activities and ideas as a result of participation in the programme. Reading Recovery did not have a measurable impact on motivation and interest in learning, selecting and using activities and resources, confidence in own ability, willingness to participate in classroom activities or enjoyment of school.

Table 6.15 Impact of Reading Recovery on attitudes to learning in general			
Base: All pupils			*Survey*
	Reading Recovery sample	Matched comparison group	Difference
	%	%	%
	Somewhat or certainly true		
Motivated and interested to learn	90	88	2
Unable to initiate activities and ideas	50	68	-18***
Selects and uses activities and resources independently	91	93	-2
Lacks confidence in own ability	75	83	-8
Unwilling to participate in classroom activities	29	23	-6
Enjoys school	97	99	-2
Bases (unweighted)	*236*	*215*	

*indicates significance at the 5% level. **indicates significance at the 1% level. ***indicates significance at the 0.1% level.

Reading Recovery did have an impact on one of the five domains of the Strengths and Difficulties Questionnaire, an internationally used and tested tool for measuring children's behaviour[49]. The percentages shown for the Reading Recovery and comparison pupils indicate the proportion who were classified as 'normal' in each domain (as opposed to abnormal or borderline) (Table 6.16). Reading Recovery had an impact of 11 percentage points on having a normal level of conduct problems[50], but did not have an impact on the total score (which encompasses all domains of behaviour except prosocial).

[49] http://www.sdqinfo.org/ (Accessed 7-12-2010).

[50] Five items comprise the conduct problems scale including temper tantrums, obedience, fighting and lying.

Table 6.16 Impact of Reading Recovery on child's behaviour at school (Strengths and Difficulties Questionnaire)			
Base: All pupils			*Survey*
	Reading Recovery sample	Matched comparison group	Difference
	%	%	%
	Normal		
Emotional symptoms score	87	90	-3
Conduct problems score	84	73	11***
Hyperactivity score	69	60	9
Peer problems score	83	86	-3
Prosocial score	69	68	1
Total score	72	63	9
Bases (unweighted)	*236*	*215*	

*indicates significance at the 5% level. **indicates significance at the 1% level. ***indicates significance at the 0.1% level.

Reading Recovery and comparison pupils were matched on special educational needs prior to Year 1. Reading Recovery did not have an impact on the likelihood of being identified as having a special educational need (Table 6.17).

Table 6.17 Impact of Reading Recovery on special educational needs			
Base: All pupils			*Survey*
	Reading Recovery sample	Matched comparison group	Difference
	%	%	%
Child currently identified as having a special educational need	38	42	4
Bases (unweighted)	*236*	*215*	

*indicates significance at the 5% level. **indicates significance at the 1% level. ***indicates significance at the 0.1% level.

6.2.3 Summary

Reading Recovery pupils were matched to children from schools that did not offer Reading Recovery on a wide range of individual and school level characteristics including prior attainment and demographic characteristics. The impact measurements were then the outcomes for Reading Recovery pupils minus the outcomes for the comparison pupils. Substantial significant impacts were found across a range of reading-related and wider

outcomes, despite the fact that the majority of comparison pupils had also received support with their reading beyond classroom teaching.

- Reading Recovery had substantial positive impacts on reading related outcomes, as assessed by class teachers. Participation had a 26 percentage point impact on having an overall reading level of level 1 or above at the end of Year 1.
- Reading Recovery had a positive impact of between 12 and 27 percentage points on achieving level 1 or above across the different aspects of reading measured by the Reading Assessment Focus. The greatest impact was on the ability to identify and comment on the structure and organisation of texts, including grammatical and presentational features at text level (27 percentage points).
- Reading Recovery had a positive impact on being assessed as good (15 percentage points) or very good (8 percentage points) at decoding text, a skill considered to be fundamental to learning to read.
- Smaller positive impacts of Reading Recovery were found on reading-related behaviours and attitudes. Reading Recovery had significant positive impacts on always or sometimes: enjoying silent reading (17 percentage points), confidence in tackling a new book (12 percentage points) and voluntarily choosing extra books to take home (12 percentage points).
- Reading Recovery was found to have no significant impact on parents reading with the child at home or on parents communicating with teachers about a child's reading. However, it did have a positive impact on parents encouraging the child to think that reading is important (17 percentage points).
- Across the six measures of attitudes to learning in general, Reading Recovery only had a significant positive impact on one - Reading Recovery pupils were 18 percentage points more able to initiate activities and ideas as a result of participation in the programme.
- Reading Recovery had an impact on one of the five domains of the Strengths and Difficulties Questionnaire - Reading Recovery had an impact of 11 percentage points on having a normal level of conduct problems, but did not have an impact on the total score, encompassing all domains of behaviour.

6.3 Relative impacts of Reading Recovery

Analysis of the Reading Recovery database maintained by the Institute of Education was carried out to investigate whether the impacts of Reading Recovery differed across subgroups of children. The data preparation process and analytic approach are described in the Technical Report. All results in this section are just for children who received Reading Recovery, and do not compare their outcomes to similar children that did not receive Reading Recovery. The analysis therefore doesn't account for the change in outcomes that is likely to have occurred in the absence Reading Recovery (which is estimated by the use of a comparison group in the other impact analysis strands.)

6.3.1 Profile analysis

One stage of the preliminary analysis was to compare the profiles of pupils who had completed Reading Recovery according to whether they were discontinued or referred. The background characteristics were the same as those used in the regression analyses and listed in the Technical Report. The tables are presented in Appendix B and the findings are summarised below.

A number of pupil demographic characteristics were associated with RR outcome:

- Pupils in Year 1 were slightly more likely to be discontinued than those in Year 2 (79 per cent, 76 per cent).
- Girls were more likely to be discontinued than boys (81 per cent, 76 per cent).
- Black and Asian pupils were more likely to be discontinued than white pupils (84 per cent, 81 per cent compared to 75 per cent).
- Those with a first language other than English were more likely to be discontinued than those with English as a first language (82 per cent, 76 per cent).
- Those who were not eligible for FSM were more likely to be discontinued than those who were eligible (80 per cent, 74 per cent).
- Pupils who were not registered as SEN (prior to RR) were more likely to be discontinued than those who were registered as SEN (87 per cent, 71 per cent).

Higher levels of prior attainment as measured by FSP and the Observation assessment were positively associated with the outcome of RR.

Pupils who were discontinued had slightly fewer weeks on RR than those who were referred (20 compared to 22).

School level attainment was also associated with RR outcome. Pupils in schools with higher KS1 attainment were more likely to be discontinued.

It should be noted that this descriptive analysis reports associations between individual background variables and RR outcome. It may be the case that some associations are accounted for by other variables. The regression analyses reported below consider all background factors together.

6.3.2 Results of regression analyses

The purpose of this analysis was to investigate whether the impacts of Reading Recovery differed between subgroups of children or put differently, whether (conditional on receipt of Reading Recovery) some groups of children were more likely to benefit from taking part in Reading Recovery. Although follow up assessments are intended to be completed at three and six months after the end of the programme, the large amount of missing data meant that analyses had to be restricted to the exit scores. It should be emphasised, therefore, that the findings pertain to the outcomes at the end of the programme and do not necessarily reflect the patterns of longer-term impacts.

The analyses focused on four separate outcome measures which are briefly described below. They are all related to reading ability but the focus of each is different. The purpose of including a range of assessments was to identify pupil characteristics that were consistently associated with positive outcomes.

1. Overall outcome

There are two possible outcomes for children who have *completed* the Reading Recovery programme[51] - 'discontinued' and 'referred'. These outcomes are explained as follows:

1. Discontinued (otherwise referred to as Accelerated Progress): These children have made sufficient progress in literacy learning, within the time available, to catch up with the average band for their class, and have been judged to be likely to continue learning at the same rate as their peers, without the need for further special support.
2. Referred (otherwise referred to as Progress): The children have made progress, but have not reached the average band in literacy and will continue to need additional support.

Of the 15,560 children in the RR database, 56% were classified as 'discontinued' and 16% as 'referred' (with 22% ongoing and 6% left/incomplete).

[51] The other three outcomes are ongoing (not yet completed), left (children left the school part way through programme) and incomplete (children were part way through programme when it was suspended e.g., because of funding withdrawal. See Institute of Education Annual Report 2009-10, p.11.

2. **Book level**

Book Level is one of the six measures of the Observation Survey (Clay, 2002) and the test is administered at entry and on exit from Reading Recovery. The scores range from 0 – 26 and indicate the child's progress in reading text. The raw scores (not standardised for age) were used in the models and year group and birth quarter were included as separate variables.

3. **British Ability Scales Word Reading Test**

The British Ability Scales (BAS) Word Reading Test is a widely used assessment tool testing single words (regular and irregular).

4. **Reading Age (British Ability Scales)**

Reading age, as measured in half years, was the fourth assessment tool used in the regression models.

The tables and description of regression findings are presented in Appendix C. The variables independently associated with Reading Recovery outcomes are summarised in Table 6.18 and discussed below. Note that a blank cell indicates the absence of a significant relationship.

Table 6.18 Summary of model findings: factors associated with more positive outcomes from Reading Recovery				
	Overall outcome (being discontinued)	Book Level	British Ability Scale	Reading Age
RR entry assessments	+ (all)	+ (all)	+ (most)	+ (most)
RR in Y2	+	+	+	+
Number of weeks on RR	+	+	+	+
Later RR teacher training year	+	+	+	+
FSP scores				
Reading		+		
Writing	+		+	+
Numeracy	+	+	+	+
Creative development		-	-	-
Physical development	-			
Personal, social and emotional development	+			
School level attainment in reading (KS1)	+	+	+	
Ethnicity	+ (mixed heritage)		+ (Asian)	+ (Black, Asian)
SEN	+	-	+	-
Being younger in academic year	-	+	-	
FSM eligibility	-	+		
English not first language		+	+	+

+ positive association, - negative association

A consistent finding across the four outcome measures of overall outcome (discontinued/referred), Book Level, BAS and Reading Age was that **prior attainment in literacy and numeracy** was positively associated with the outcome of Reading Recovery. The scores from the Observation Survey, BAS and Reading Age assessments at entry to the RR programme were positively correlated with the outcome measures in all but one case (Concepts about Print and BAS exit score). The literacy and numeracy measures from the Foundation Stage Profile were always positively associated with the outcome measures. However, assessments of creative development and physical development from the FSP were negatively associated with RR outcome measures. This finding suggests that literacy/numeracy and other areas of development are distinct and that physical and creative development is not a prerequisite for progress in 'academic' skills.

By using regression analysis it was possible to detect which other variables predicted positive outcomes when prior attainment was held constant. The variables concerning **Reading Recovery participation** yielded fairly consistent results.

- The number of weeks spent on Reading Recovery was positively (and highly significantly) associated with all four outcomes suggesting that the length of time spent on Reading Recovery is important.
- Starting Reading Recovery in Year 2 (rather than Year 1) was also positively associated with all outcomes. This tells us that if attainment at the end of Reception year (measured by FSP) and at entry to RR is held constant, the older children to whom RR is offered have more positive outcomes[52].
- The training year of the Reading Recovery teacher was also influential. Being trained between 2006-7 and 2008-9 was consistently associated with positive outcomes compared to being trained between 1986 and 2006. This suggests that the quality or effectiveness of training may have improved in line with the growth of the Reading Recovery programme under National Strategies.

Two **school level variables**, attainment (as measured by Key Stage 1 results) and deprivation (as measured by IDACI) were investigated in relation to the Reading Recovery outcomes of pupils. School IDACI was not independently associated with the outcome variables over and above individual level deprivation (as measured by FSM eligibility) and was therefore dropped from the models. Key Stage 1 results (in reading only) *were* positively associated with Reading Recovery outcomes for pupils over and above their own prior attainment. This may be indicative of the positive influence of higher attaining peers. It may also suggest that where school level reading initiatives are effective in raising KS1 attainment, the lower attaining pupils on Reading Recovery also benefit.

With these prior attainment, Reading Recovery and school level attainment variables held constant, the associations between **pupil demographic characteristics** and outcome variables were less consistent.

- Notably, gender was not independently associated with outcome challenging any perception of different gains for boys and girls from RR.

- Ethnicity was associated with some outcomes, with minority ethnic groups achieving better than white pupils.

- Being older in the year group was positively associated with being discontinued at the end of the programme and also with BAS scores, but the opposite was true for Book Level scores. Age was not associated with the exit measurement of Reading Age.

[52] To give an indication of the size of these two groups, in the analysis for overall outcome of Reading Recovery, 6788 pupils started in Year 1 and 2300 started in Year 2.

- Other than age, there were three measures of disadvantage that were included in all the models – FSM eligibility (indicating economic disadvantage), special educational needs and English as an additional language.

- Being eligible for FSM reduced the likelihood of a successful outcome from Reading Recovery. However FSM eligibility was positively associated with Book Level scores. (It wasn't independently associated with BAS or Reading Age.) These findings suggest that economic disadvantage isn't strongly associated with the outcome of Reading Recovery over and above prior attainment.

- Being registered as having a special educational need on entry to RR was associated with a successful outcome from Reading Recovery and higher BAS scores, but was negatively associated with Book Level and Reading Age. The inconsistency may reflect the diversity of needs categorised by this variable. It may be the case that pupils with some types of needs are better placed to benefit from Reading recovery than others.

- Having English as an additional language was not independently associated with overall outcome, but it was positively associated with exit Book Level scores, BAS and Reading Age. This suggests that pupils whose first language is other than English are as much (if not better) able to benefit from the one-to-one tuition that Reading Recovery offers[53].

[53] Analysis of administrative data in section 6.1 finds no consistent evidence that this result holds once outcomes are compared to a control group of pupils. This suggests that pupils with English as an additional language make greater gains in the absence of Reading Recovery, which is conflated with the impact of the programme in the above analysis.

6.4 Perceived impacts from the qualitative study

To this point, this Chapter has presented quantitative findings from the impact study. To provide some extra context for these findings, this section briefly describes the views of the participants from the qualitative study on the perceived impact of the programme, highlighting the factors participants viewed as key to the programme having an impact and views on impacts on parents and siblings and wider society.

6.4.1 Perceived impacts of the programme

Participants in the qualitative study named five main areas in which they perceived the programme had had an impact: attainment and performance, wider pupil outcomes, improvements in wider literacy practice, the professional development of teaching staff and increased take-up of the programme in local areas.

Attainment and performance

As illustrated throughout this Chapter, LAs and schools had seen a marked improvement as a result of Reading Recovery on attainment and performance at school and pupil level with increases in school attainment at KS1 of pupils reaching level 2c and individual pupils making accelerated progress in line with national ECaR discontinuation rates. However, there were also pupils who had not made the same progress and were referred for additional support. For LAs and schools that had recently joined the programme, it was felt too early to judge the longer term impact of the programme on attainment, but suggested that results from the end of KS2 would act as a key indicator in showing pupils' sustained progress. An alternative view, only expressed amongst parents, was that an ECaR intervention had made no perceptible impact upon their child's literacy skills. This view was held by parents who felt they had not received full information about the intervention and was unsure why their child had been chosen.

Wider pupil outcomes

RR was also highlighted as having a wider impact within the classroom and pupil learning, by encouraging pupils to become independent learners and develop learning techniques that could be used in the classroom to increase participation and engagement with teaching. The most striking impact for some school staff was that Reading Recovery was anticipated to be 'life changing' for some pupils, particularly pupils living in poverty or with a disruptive home life. This was because it was perceived that without Reading Recovery these pupils would not have developed the literacy skills required to access the curriculum. Often these pupils had previously been classed as having special educational needs when in fact their main barrier was their levels of literacy rather than other specialist needs. School staff also noted soft outcomes such as confidence and self-esteem having a significant impact on the pupils' engagement in the classroom and appetite for learning.

> *[Pupil's name] didn't speak to [classroom teacher] for 12 months and I was very worried. I thought oh no, why won't she, but it was just neither of her parents particularly spoke a lot of English at home…and still in July didn't say anything to me. About a month ago the Teaching Assistant*

brought her down and she said could you just listen to her read her book and I had a bit of a lump in my throat, really, because it was the first time I'd really heard her talk…'

(Deputy-head, large primary school, LA1)

Finally, schools had also reported improved attendance for RR pupils. Access to daily one-to-one support had helped to overcome barriers to attendance for children who faced challenging circumstances at home.

Improving literacy practice

As noted in Chapter 4, schools varied in their experience of implementing a layered approach and informing wider literacy practice. Despite this, LAs noted that the practice of TAs was highlighted as an area where training to deliver the layered interventions had led to improvements in key areas of development in TA practice, for example, the use of running records. The sharing of practice and learning was facilitated by LAs providing forums and meetings for schools to discuss best practice around getting the most out of the layered approach. Impacts on wider attainment were discussed in relation to the development of whole school literacy practice. Amongst school staff, the RRT was perceived to have impacted upon literacy practice in schools in three key ways. Firstly, they were considered a valued source of advice and guidance for the senior leadership team when decisions were made about literacy provision. The RRT also increased staff members' engagement in literacy by facilitating informal and formal discussions about literacy teaching practice. Lastly, other staff members' understanding of literacy teaching practice was improved by the RRT assisting them to introduce techniques from Reading Recovery to the classroom which was perceived to have enhanced literacy practice.

An alternative view however, was that the RRT had a more limited impact upon whole school literacy practice. The reasons for this relate to the role of the RRT and to school related factors discussed in Chapters 4 and 5. With limited time to complete tasks beyond the delivery of Reading Recovery, RRTs found it difficult to have an impact on pupils not receiving ECaR interventions, although they was a perception that they can directly benefit from the improved attainment and confidence of their peers.

Professional development

Participants also discussed impacts of the layered approach of ECaR. LAs had expected the layered approach of ECaR to have an effect on the wider professional development of teaching staff. ECaR provided the opportunity to train a RRT who would become a literacy expert within the school and provide training to other teaching staff to deliver the layered interventions. In practice, LAs saw improvement to quality first teaching where schools had implemented other interventions and utilised the expertise of the RRT to support and work with other members of staff including KS1 teachers, TAs, SENCOs and literacy coordinators. School staff members' participation in the ECaR programme was also reported to have personal benefits for staff delivering interventions. It had boosted morale and increased job satisfaction and, in addition, it increased staff members' perceptions of self efficacy which

prompted staff to pursue opportunities for career progression. Finally, both RRTs and staff delivering interventions reported a positive impact upon self-esteem.

Increasing demand for ECaR

LAs who had established ECaR programmes running for several years discussed the overall impact on the implementation of the programme locally and demand for ECaR at school level. There were LAs who had seen an increase in take up in the programme as schools became more aware of the benefits and impacts in other schools. Some LAs had taken a strategic approach to encourage schools who had demonstrated existing good leadership to take on the programme and act as 'beacon' schools to inspire take up across the LA. However, there were also challenges to recruiting some schools, which will be discussed in the next section.

6.4.2 Key factors affecting pupils and school impact

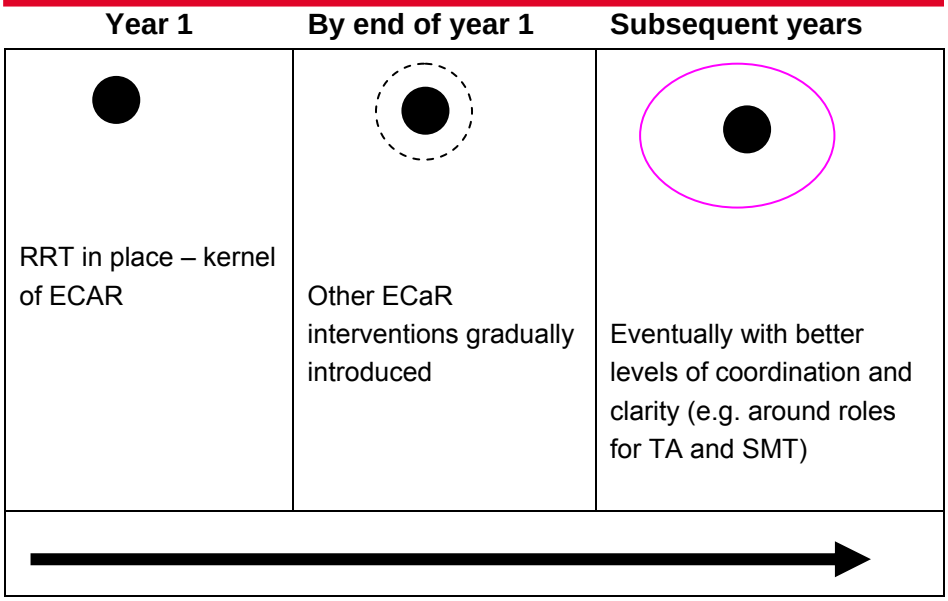
The key factors affecting impact revolved around the role and competence of the RRT and the effective championing of the programme within schools and LAs. The factors reported to have contributed to increased attainment for pupils on Reading Recovery were the skills and experience of the RRT and the structure of Reading Recovery, e.g. the daily delivery for thirty minutes and techniques used in the intervention. In addition, there were school staff members who perceived that a range of factors not related to Reading Recovery had also influenced outcomes. If pupils on Reading Recovery did not meet age related expectations this was attributed to the barriers to learning faced by individual pupils, including complex support needs and poor attendance. Consequently, the understanding and clarity of the role of the RRT - whether they were considered as purely a deliverer of RR or more as a focal point for improving literacy good-practice - affected the level of impact they were able to have. Understanding the role as the latter was crucial to having a wider impact, yet it is important to note that there were concerns amongst some RRTs as to whether they had the skills to perform this role, though this was more apparent amongst those with less experience.

Secondly, and related to the previous factor, having a senior staff member as an ECaR 'champion' within a school was seen as fundamental to the programme having an impact wider than the impact of reading recovery. Senior support enabled other ECaR interventions to be well resourced and understood and facilitated cascaded learning from the RRT to other staff and general lessons. Where a 'champion' of this sort was absent, schools pointed to a lack of support and guidance on exactly how the different aspects of the programme should fit together, leading to different interventions being delivered in 'silos'. Linked to this, engaging all staff in the aims and structure of the programme was important. The RRT found it easier to penetrate key decision-making mechanisms/processes within the school if recruited internally and/or holding other roles within the school in addition to RRT.

The implications of this are that both Reading Recovery in particular and the ECaR programme more generally are considered to have increasing impact as they become more embedded into school life. This is illustrated in Figure 6.2 below. The distinction to make

here, however, is that school staff perceived that the impacts of Reading Recovery would be observable sooner, but that it would take longer to see impacts on pupils' attainment of the effects of ECaR on the schools wider literacy practice.

Figure 6.5 Staged impact of ECaR



6.4.3 Perceived external impacts

In addition to pupil and school impacts, there were two key external impacts identified by school staff. There was a perception that the programme has the capacity to affect the parents and siblings of pupils receiving interventions and society more broadly. There were two experiences of the impact of Reading Recovery on parents. One experience reported by parents who had limited engagement with the school was of no or limited effect of the programme on the parent's attitude to literacy or to their role in their child's learning. It is difficult to explain from the data collected whether this is a reflection of a lack of willingness to engage with the child's learning, or a lack of ability to do so. However, where it may have been the latter it is clear that parents felt schools could sometimes have done more to support their involvement.

An alternative experience was reported by school staff and parents, who explained that ECaR interventions, in particular Reading Recovery,have had positive impacts upon the parents of pupils receiving the intervention. It was acknowledged however, that in some schools the impacts were the cumulative effect of a range of literacy related engagement activities which were being run by the school. Parental engagement in their child's learning was perceived to have increased in three key ways. These were:

- Increased and enhanced contact with school staff members
- Greater time spent supporting their child with literacy related homework activities
- Greater engagement in other learning activities such as visiting the library.

It was perceived that communication with the RRT/ school about Reading Recovery had helped to raise awareness of the value of parental engagement in education and more specifically it had made parents aware of the benefits to their child of additional home support. Parents were also more knowledgeable about how to best support and encourage their child's learning at home. This was particularly valued by parents who had previously wished to provide greater home support, but perceived they had been unaware of how best to do this. There were parents who also reported that supporting their child with literacy homework activities had positively impacted upon their own literacy skills or the time spent on recreational reading. Similarly, school staff reported that Reading Recovery had been a factor influencing parents' engagement in literacy. For example, it was reported that a parent had joined a reading course which had been run by the school. Lastly, Reading Recovery was felt to have a positive impact upon the literacy skills of the siblings of pupils receiving the intervention. This was because pupils receiving Reading Recovery assisted siblings with their homework once their attainment had increased. Parents also perceived that observing a sibling complete their homework for Reading Recovery positively affected the engagement of other siblings in learning.

Acquiring literacy skills was perceived not only to be beneficial for individual pupils or their immediate surroundings, but it was also considered to have a wider social value. Poor literacy skills were reported to be a factor influencing negative outcomes in latter life. In addition, literacy skills were seen to be important to becoming a 'fully functioning member of society':

> *'I think that in terms of society, if you have somebody who's able to read and write efficiently, then they can make an amazing contribution. If you can't read and write very well, you can still make an amazing contribution, but its harder to do that…I believe this is where your children grow and flourish, and they can go off and help other people in turn, it's that sort of cycle'*
>
> (Head teacher, medium sized primary, LA1)

6.5 Summary

6.5.1 Assessment of impact

This chapter has presented a range of evidence concerning the impact of ECaR and Reading Recovery on the pupils who were known to participate and on the school as a whole. Most of the evidence has been a quantitative assessment of impact, but we have also presented the perceptions of impact of those involved in delivering the programme to provide

a wider context for the findings. It should be noted that the evaluation focused on the short-term gains from ECaR and Reading Recovery.

As explained at the outset of the chapter, four distinct research questions underpinned the investigation of impact (set out under 'summary of findings' below). Different data sources and analytic approaches were used to answer these questions and the findings were presented in the order of the research questions. We have intentionally not placed greater emphasis on one approach than another but rather have been explicit about the strengths and limitations of each approach. In this section, we summarise the findings and discuss the wider themes.

6.5.2 Summary of findings

The key findings are set out below under the three core research questions:

What is the impact of participating in the ECaR programme on schools?

- In the first year that the programme was introduced in schools, ECaR had no significant impact on school level outcomes, such as the percentage of pupils reaching the expected level of attainment in reading at KS1.
- ECaR had a positive and significant impact on school level outcomes in the second and third years of delivering ECaR, suggesting that it took time for the programme to become established and become effective. Impacts were in the region of between 2 and 6 percentage points.
- There was some evidence of benefits in terms of writing (as well as reading) to the cohorts that receive ECaR.
- There is little evidence that the impact of ECaR varied according to the type of school or the characteristics of its pupils.

What is the impact of participating in Reading Recovery on wider outcomes for pupils?

- Reading Recovery had positive impacts on reading related attitudes and behaviours. Significant positive impacts were found on pupils 'always' or 'sometimes': enjoying silent reading (17 percentage points), having confidence in tackling a new book (12 percentage points) and voluntarily choosing extra books to take home (12 percentage points), as assessed by class teachers.
- Reading Recovery had an impact on parental engagement, with a specific impact of 17 percentage points on parents encouraging the child to think that reading is important, as assessed by class teachers.
- Reading Recovery increased the ability of pupils to initiate ideas and activities by 18 per cent.
- Reading Recovery had a positive impact on reading. At the end of Year 1, 26 per cent of pupils were assessed by class teachers as being at level 1 or above as a result of

participation in RR. A similar proportion of pupils (23 per cent) were assessed by class teachers as being good or very good at decoding text as a result of RR.

What is the relative impact of Reading Recovery for different groups of pupils receiving it?

- When all other background characteristics were held constant, the strongest and most consistent predictor of successful outcomes from Reading Recovery was prior attainment levels (as assessed by the Foundation Stage Profile at the end of Reception year and the assessment reading scores on entry to the Reading Recovery programme).
- When all other background characteristics were held constant, the number of weeks on Reading Recovery was positively associated with outcomes. Starting Reading Recovery in Year 2 rather than Year 1 and having a Reading Recovery teacher who was trained during the last two years was also significant and positive.
- Over and above background characteristics and prior individual attainment, school level Key Stage 1 results were positively associated with Reading Recovery outcomes for individual pupils.
- The associations between most of the pupil level demographic characteristics (including ethnicity, age within year group, FSM eligibility and SEN) and outcomes were inconsistent. The only exceptions were that gender was not independently associated with outcomes and having English as an additional language (EAL) was positively associated with the measures of reading but not overall outcome.

6.5.3 Key messages

The evaluation has provided strong evidence of the impact of the ECaR programme and Reading Recovery in relation to its central aim of improving children's reading for overall measures of attainment at Key Stage 1 and specific aspects of reading. This finding was consistent across the different strands of the impact design. The school level study of Reading Recovery pupils and comparison pupils found substantial impacts of Reading Recovery on reading ability, attitudes and behaviours. The relative impact analysis of management information data did not have a comparison group, but showed how the majority of pupils had successful outcomes from Reading Recovery. The administrative data demonstrated the impacts of ECaR at a whole school level.

The programme's success in improving attainment and performance chimed with the perceptions of local authority and school staff in the case studies, who also referred to the potential for impacts on individual pupils' learning in general. Participants described how the programme made the wider curriculum more accessible for pupils, not only through improved literacy skills, but also by contributing to improved confidence, self-esteem and engagement in the classroom.

Among the pupils who received Reading Recovery, the strongest predictors of positive outcomes were prior attainment (particularly in literacy) and the number of weeks on

Reading Recovery. Of a smaller magnitude but also positively related to outcomes were starting Reading Recovery in Year 2 rather than Year 1 (controlling for birth quarter in year and prior attainment) and teacher training year. The evidence from the relative impact analysis did not suggest that there were certain demographic groups of pupils who clearly benefited from Reading Recovery more or less than others. The exceptions to this were that having English as an additional language was positively related to outcomes when all else was held constant in regression models, supporting the view that pupils whose first language is not English are able to benefit from Reading Recovery. However, given that there was no comparison group, it is possible that EAL pupils would have made greater progress even in the absence of Reading Recovery.

The administrative data analysis found that compared to comparison pupils in non ECaR schools, boys receiving Reading Recovery made greater gains than girls suggesting that the intervention may be particularly effective in lifting the attainment of boys.

The relative magnitude of impacts was consistent with the finding from the qualitative work about the central position of Reading Recovery within the ECaR programme. The impacts were largest for the pupils receiving the intensive support from Reading Recovery. The impacts at the school level for ECaR schools were smaller. It was not possible to measure the impacts of participating in the individual components of the ECaR programme other than Reading Recovery, but benefits were nevertheless detectable in the school-level Key Stage 1 results.

The qualitative evidence regarding the timing and patterns of implementation concurred with the impact assessments showing that it took time for ECaR to become embedded and effective. The analysis of administrative data found that the impacts were ECaR were evident in the second and third years of ECaR's operation but not the first.

The evidence suggested that the year when teachers had undertaken Reading Recovery training was also important. The analysis of management information data showed that outcomes were related to being taught by a RR teacher who was trained during the last two years, rather than earlier suggesting that the training had become more effective over time.

7 Value for Money analysis

Key Findings

- **ECaR costs roughly £3,100 per participant in the short-term, and £2,600 in the long-term:** these costs are central estimates only. Margins of error around these estimates are provided in the chapter.
- **Given the impact estimates, we calculate a measure of cost effectiveness:** this is in the region of £15,000-£20,000 per additional child reaching the expected level at KS1.
- **The lifetime benefits of ECaR are not yet observed, and are predicted via three routes:** greater earnings, better health and lower crime.
- **Benefits are predicted under two assumptions about depreciation:** no depreciation (impact of ECaR persists until 18) and full depreciation (impact of ECaR disappears by age 11).
- **The lifetime earnings benefit is potentially substantial but extremely uncertain:** we calculate a central estimate of £6,000 or £300 depending on the depreciation scenario.
- **The same is true for the total benefits through all three routes:** these have a central estimate of £7,500 or £600 depending on the depreciation scenario.
- **We calculate a break-even depreciation scenario:** Based on the central estimates of the earnings benefits, ECaR would have to improve the chances of achieving all formal qualifications by 4 percentage points for the policy to break even in the long run.
- **These estimates are extremely uncertain:** the margins of error around them may make comparisons of costs and benefits less meaningful.
- **Many benefits have not been measured:** these include psychological benefits of ECaR and direct effects of ECaR on earnings, health and crime.
- **Tracking the longer-term outcomes of ECaR participants is crucial:** it will enable more reliable and precise VfM analysis.

7.1 Summary of Value for Money (VfM) analysis

- This chapter attempts to quantify the costs incurred at present in providing ECaR, and compare with them some estimated benefits that may result from it in the future. All monetary amounts are in 2010/11 prices.
- The costs are estimated based on the costs questionnaire administered by NatCen, and are expressed as a cash amount per ECaR participant. The benefits are estimated based on (i) the direct impact of ECaR on KS1 attainment, taken from Section 6.1; (ii) the predicted effect of KS1 attainment on final educational attainment; (iii) the future benefits that are associated with final educational attainment; and (iv) the lifetime present value of those benefits. All benefits are expressed as a cash amount per ECaR participant.
- This analysis considers future benefits through three possible routes: (i) higher earnings, (ii) improved health, (iii) reduced crime rates. The final assessment of the benefits considers both the earnings benefits alone, and the total benefits across all three routes. However improvements in these outcomes caused directly by participation in ECaR itself have not been measured. Other factors, such as psychological benefits or externalities, have not been included as they are even more difficult to measure.
- VfM analysis involves a huge amount of uncertainty, particularly when measuring the lifetime benefits of ECaR. There would be considerable uncertainty even if adult outcomes were observed; here, only child attainment is observed and potential adult outcomes must be predicted on the basis of these.
- Since the lifetime benefits all depend on the impact of ECaR on final educational attainment – which is not yet known – assumptions must be made about this. These assumptions are known as 'depreciation scenarios'. One extreme scenario is no depreciation, whereby the impact of ECaR persists fully throughout education until 18; the other extreme is full depreciation, whereby the impact of ECaR disappears by age 11.
- Statistical uncertainty is also important: upper and lower bounds are presented at all stages. Rather than focussing on a specific magnitude for the costs and benefits, this analysis derives a range within which these quantities are likely to lie with a high probability.

Costs

- The cost information is aggregated from the questionnaire of 81 LAs operating ECaR. It provides information on direct costs incurred by LAs in the delivery of the programme. Information on costs incurred by schools is obtained from a separate survey of 414 ECaR schools.
- Since different LAs within an ECaR consortium might share costs (such as the costs of a Teacher Leader), the information is aggregated up to the consortium level.
- Non-response is a significant issue, leading to some missing values for each item of costs. We retain the 22 consortia for whom at least half of the items are non-missing, and

then impute the missing values for each item with the average value across the non-missing values.

- We calculate a short-term cost of ECaR, taking into account both the start-up and running costs, and a long-term cost per pupil, taking into account just the running costs.
- To calculate a cost per ECaR pupil, we match in the totals numbers of pupils receiving ECaR interventions in each consortium, for the year to which the costs relate. The total cost across all remaining consortia is then divided by the total number of ECaR pupils in these consortia, to get an estimate of the cost per pupil.
- The short-term cost per ECaR pupil is estimated to be around £3,100 per and the long-term cost per pupil is estimated to be around £2,600. These are only central estimates and we provide a margin of error around these estimates to take into account the sampling error that arises from using only a sample of ECaR LAs. This range is approximately £2,600 to £3,600 for the short-term cost, and £2,200 to £3,000 for the long-term cost.
- On the basis of the cost estimates and the impact estimates, it is possible to derive measures of cost effectiveness: the expenditure incurred per additional child reaching the expected level at KS1. The central estimate of this measure is in the region of £15,000 to £20,000, but there is very large uncertainty around it.
- Our measure of costs does not take account of potential cost offsets due to reductions in the amount of SEN provision required if ECaR reduces the number of children designated as having SEN. To the extent that this occurs, the cost estimates will be over-estimates. We do not quantify this effect as this report has been unable to explore it sufficiently.

Benefits

- The earnings benefits are estimated by combining DfE estimates of the lifetime productivity returns to various qualification levels, with the predicted increased chance of achieving those qualification levels as a result of participation in ECaR.
- The relationship between qualification level reached by 18 and KS1 attainment is estimated using administrative data. This allows direct impacts of ECaR on KS1 attainment to be translated into predicted impacts on age-18 qualifications. The exercise is conducted under both depreciation scenarios.
- The central estimate of the lifetime earnings benefit per ECaR pupil is around £6,000 if there is no depreciation of the impact on attainment, and around £300 if there is complete depreciation of the impact on attainment.
- However, statistical uncertainty places a wide margin of error around these estimates. The no-depreciation earnings benefits lie between £170 and £12,400, while the full-depreciation earnings benefits lie between -£500 and £1,600.

- The health benefits are estimated by combining Department of Health estimates of the value of a Quality-Adjusted Life Year (QALY) with estimates of the additional QALYs

caused by an additional year of education, and the predicted increase in years of education as a result of participation in ECaR.

- The relationship between years of education and KS1 attainment is estimated using administrative data. This allows direct impacts of ECaR on KS1 attainment to be translated into predicted impacts on years of education. The exercise is conducted under both depreciation scenarios.
- The central estimate of the lifetime health benefit per ECaR pupil is around £1,300 if there is no depreciation, and around £200 if there is complete depreciation. Taking into account statistical uncertainty, the no-depreciation health benefits lie between -£20 and £5,300, while the full-depreciation earnings benefits lie between £0 and £1,100.

- The crime benefits are estimated by adopting a method used in Machin et al. (2010) to place a social value on the benefits of an increase in the proportion of people leaving school with some formal qualifications.
- The relationship between the chances of obtaining some qualifications and KS1 attainment is estimated using administrative data. This allows direct impacts of ECaR on KS1 attainment to be translated into predicted impacts on the chances of obtaining formal qualifications. The exercise is conducted under both depreciation scenarios.
- The central estimate of the lifetime crime benefit per ECaR pupil is around £200 if there is no depreciation, and around £10 if there is complete depreciation. Taking into account statistical uncertainty, the no-depreciation earnings benefit lies between £0 and £700, while the full-depreciation earnings benefit lies between £0 and £70.

- If the impact of ECaR does not depreciate over time, the total benefits across earnings, health and crime would lie somewhere between £200 and £18,400 per pupil, with a central estimate of £7,500. If the impact of ECaR disappears over time, the total benefit through these routes would lie somewhere between -£500 and £2,800 per pupil, with a central estimate of £560.
- Depreciation is clearly a crucial factor: how the impact on attainment persists through school will eventually determine whether the spending on ECaR is likely to be recouped through the routes considered here.
- Given the extremely wide range of values under different depreciation scenarios, a break-even depreciation rate might be more informative. A rough calculation suggests that ECaR would break even in the long term (considering only the benefits through earnings) if reaching the expected level in KS1 increased the chances of achieving each kind of formal qualification level by 6.7 percentage points.
- This analysis underlines the crucial role of the longer-term educational impact of ECaR. Following the future educational outcomes of schools and pupils that have taken part in ECaR is extremely important: it will help inform and refine this cost-benefit analysis by reducing the uncertainty in the depreciation rate up to age 18.

7.2 Introduction

This chapter sets out our estimates of the likely value for money (VfM) of ECaR, via a comparison of the costs that have been incurred and the potential benefits that may accrue in future to the ECaR participants (and, where applicable, society in general).

It should be stressed from the outset that this exercise features a huge amount of uncertainty, particularly in terms of quantifying and measuring the lifetime benefits of ECaR. This would be a significant problem even in a setting where adult outcomes were measured; here, only child outcomes are measured and *potential* adult outcomes must be predicted on the basis of those. This only serves to compound the uncertainties throughout the analysis.

Consequently, the estimates presented in this chapter attempt to reflect these uncertainties as much as possible, by providing upper and lower bounds around the central estimate of each particular benefit. While central estimates have been provided, they have not been stressed in what follows, as the margins of uncertainty around them are just as important and are necessary for a cautious interpretation of the findings. This approach contrasts to other VfM analyses, including previous ones relating to ECaR, which present central estimates of costs and benefits with little to convey a sense of the (potentially very large) uncertainty around those figures.[54] This variability should always be borne in mind when interpreting and disseminating these estimates.

This section is set out as follows: Section 7.3 discusses the measurement of the costs of ECaR implementation, based on the survey of local authorities (LAs) administered by NatCen as part of this evaluation. It provides estimates of the predicted cost of ECaR per ECaR participant. Section 7.4 then sets out the approach that was employed to measure the expected lifetime benefits – in terms of earnings, health and crime – and provides an estimated total benefits per ECaR participant. Finally, Section 7.5 draws these analyses together and considers the overall findings.

7.3 Calculation of costs

During the National Strategies phase of ECaR, LAs or consortia of LAs received an initial grant from central government to contribute towards the cost of training a Teacher Leader (TL) and establishing a Reading Recovery (RR) centre. The LA or consortium had to top-up the cost of these activities. After the first year of participation the LA or consortium also received an annual grant as a contribution towards the salary of the TL.[55] Other costs that LAs face are described in Table 7.1.

[54] See, for example, KPMG (2006).

[55] During the national pilot initiative (2005/2006 to 2007/2008) funding for the programme was assisted by donations from charitable trusts. We have no information on these donations or costs during the pilot phase. Some level of support from these charitable trusts continued during the National Strategies phase (or national roll-out, from 2008/2009), but LAs with ECaR now received additional central government funding. National Strategies has kindly provided us with information on

To estimate these costs we have primarily used data from the Implementation Survey of LAs described in Section 2.1. This survey data contains responses from 81 LAs that operate ECaR and provides information on direct costs for LAs incurred from the programme. We have also used information from the survey of head teachers described in Section 2.1. This provides us with an estimate for the principal direct cost incurred by schools that adopted ECaR: the employment of a Reading Recovery teacher. Guidance for schools suggests that an RR teacher is employed 0.6 of a full time equivalent on ECaR duties, and may top up their hours by performing another role in the school. Schools also face other costs which are described in Table 7.1.

The Implementation Survey asked a series of questions on the fixed costs of the programme (such as establishing a Reading Recovery centre, buying books and materials and training a TL). These can be thought of as the "short-term only" or "implementation" costs of the programme, and are assumed not to be incurred thereafter. The survey also asked a series of questions on the running costs of the programme (such as the annual salary for the TL and upkeep of the centre). These costs are assumed to be incurred in both the short and long term. The survey also asked for information on salary costs for staff members from the LA involved with ECaR, from which we derive the cost of management and administrative support at the LA level.

Some LAs reported costs for the academic year 2008/09, while others reported costs for 2009/10. Depending on when the LA first implemented ECaR, the total costs they reported may more accurately represent fixed and running costs, or just running costs. We uprate all costs using the GDP deflators published by HM Treasury[56] to convert them to 2010/2011 prices.

As described in Section 3.2.1, LAs were typically grouped into consortia. The allocation of an LA to a particular consortium was primarily determined by proximity, but also based on the LA's experience of ECaR. If the lead LA had already established a Reading Recovery centre for example, then this would be shared with all LAs that joined the consortium. The cost of the Teacher Leader (in most cases one per consortium) would typically be split between LAs in the consortium. For this reason we have aggregated the LA survey data from the implementation survey to the consortium level.[57] In all cases where one LA in a consortium reports a cost of zero for an item that may be a common consortium cost, we have assumed that they make no contribution to this cost.

We have also aggregated the number of pupils that received ECaR to the consortium level. Our measure of the number of ECaR pupils is taken from the Reading Recovery data

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the funding that each LA received in each year of the National Strategies phase. This is a useful to cross-check the costs reported in our main source of data.

[56] http://www.hm-treasury.gov.uk/data_gdp_fig.htm

[57] We acquired consortium membership for each LA in the survey from National Strategies administrative information.

(provided by the IOE), for the same year for which the cost information is provided. This means that costs per pupil are based on total spending in all consortia, divided by the total number of pupils in all consortia that received ECaR in the relevant year.

We have assumed that each school that participates in ECaR employs one RR teacher. As noted in Section 4.5.1, this is typically true, with a minority of exceptions: in a rural area with small schools a teacher may divide their time between schools, or a school may employ more than one RR teacher if they have sufficient pupil numbers. We assume that these differences balance out, and that on average there is one RR teacher per school. We also calculate the cost per school for the cost of a Link teacher and use an estimate from the head teacher survey for books and materials.

Based on this information, and the additional assumptions made, we estimate two cost parameters: (i) the short-term cost of ECaR, per ECaR participant; (ii) the long-term cost of ECaR, per ECaR participant.

Our estimates of the short-term (initial) cost of the programme are based on the total costs – both fixed and annual running costs – across all consortia, divided by the total number of pupils that received ECaR in these consortia in the relevant year. The fixed costs are assumed to be first year costs only which do not need to be incurred in subsequent years. The short-term cost can therefore be considered as a simple first-year average total cost.

Our estimate of the total long-term cost is based on the annual running costs incurred by schools and LAs, aggregated across all consortia in the data. This is then divided by an annual total number of pupils that participated in ECaR in the relevant year. Over time, fixed costs become less important, and decline both per ECaR participant and as a share of total costs. In the very long term, they constitute a negligible proportion of the total cost. Hence the second cost measure, which takes into account only running costs, can be thought of as the limit (and lower bound) of the average total cost of ECaR.

The LA and head teacher surveys contain a large amount of missing data, meaning that some imputation is necessary. We retain the 22 consortia with at least 50% complete information on their costs. The number of consortia for which we base our estimates of the mean for each separate cost is reported in the Table 7.1. These consortia provide the source information that is then used in imputing the costs for other consortia. This process obviously assumes that the costs (per pupil) that are reported in the data are in some sense representative of the costs (per pupil) that are not reported.[58] After the imputation is done, we take the sum over all the items of costs to create the total short-term and long-term cost in each consortium. These costs are then added up across consortium to create an aggregate ECaR cost, which is then divided by the aggregate number of ECaR participants across the same consortia.

[58] We repeat this process for all variables, except the cost of other staff such as consultants and advisors. In this case we assume that only consortia that reported this cost employ other staff.

Table 7.1 Fixed and running costs of ECaR for LAs and schools			
LA/consortium costs (fixed)	Sample estimates		
	N non-missing	Mean	Sample st. dev.
Conversion of centre premises	16	£47,917	£30,143
Training costs for Teacher Leader: fees	21	£11,296	£9,202
Training costs for Teacher Leader: travel expenses while on course	21	£6,304	£5,822
Training costs for Teacher Leader: salary while seconded for training[1]	21	£70,446	£34,326
Travel expenses and time for Link Support Person to visit London (once) to meet National Trainer/Coordinators[2]	22	£736	£422
Magnetic boards, easels and letters for each teacher	21	£9,989	£10,716
LA/consortium costs (running)			
Teacher Leaders salary for a full-time professional development post (equivalent to literacy consultant or Advisory Teacher)	21	£70,446	£34,326
Centre costs – running costs	14	£13,769	£12,914
Administrative support for the Teacher Leader	7	£6,307	£2,932
Teacher Leaders travel	19	£3,925	£4,501
Books and materials for courses[3]	/	£300	N/A
A proportion (5% for example) of the time of the Link Support Person and their travel costs to one meeting annually[4]	15	£13,945	£26,437
Service Level Agreement with National Trainer/Coordinators to provide ongoing monitoring, professional development and quality control of local implementation	15	£6,428	£9,756
Consultant/other staff	8	£20,592	£14,694
Costs per school (fixed)			
Reading Recovery Teacher training course	155	£191	£585
Costs per school (running)			
0.5 – 0.6 full-time employment Reading Recovery teacher salary	291	£24,063	£11,965
Reading Recovery teacher books and other interventions	291	£1,102	£2,011
Other equipment	223	£380	£961
Other costs[5]	54	£3,191	£8,986
Schools' Link Support or liaison teacher for whom some training is required[5]	/	£820	N/A

Note: All LA/consortium costs are estimated from the LA Implementation survey, unless a footnote accompanies the item. All school level costs are estimated from the Head Teacher survey unless a footnote accompanies the item.

[1] We assume that the salary for the TL during the training year is equivalent to that in their full time post.

[2] We assume a cost of £300 per LA. Variation in the sample is therefore entirely due to different numbers of LAs per consortia.

[3] This requires an educated guess; we assume that each consortium spends £300 per year on books and materials.

[4] We take this value from the Implementation Survey for all those that reported costs for ECaR managers/Primary Strategies Managers/Primary National Strategies/Lead of LA.

[5] We do not assume that all schools have these costs. While all other missing values for costs at the school level are imputed in the bootstrapping procedure, in this case we assume a missing value is equivalent to zero.

[6] We assume that per school, a senior teacher devotes 2% of their time to being the school Link person. We therefore apply a cost of £820 per school.

Table 7.2 presents the final calculation of per pupil costs. The short-term (or implementation) cost per pupil is £3,076 on average. As we would expect the long-term per pupil cost is lower, estimated to be £2,591 on average.[59]

Table 7.2 Short-term and long-term estimates of cost of ECaR per ECaR recipient

		Estimates from the bootstrap sample		
Per pupil costs	Sample average	Standard deviation	Lower bound (2.5th percentile)	Upper bound (97.5th percentile)
Per pupil short-term cost (fixed plus running cost for one year)	£3,076	£261	£2,628	£3,611
Per pupil long-term cost (annual running cost)	£2,591	£211	£2,206	£3,032

Note: Standard errors and 95 per cent confidence intervals are derived from a bootstrap procedure; see Technical Report.

However, these estimates are merely the cost per pupil for the *sample* of data that was used; they are not necessarily the 'true' cost per pupil across all ECaR LAs. The latter cannot be known with certainty based on a sample of 22 consortia, so it is important to reflect the uncertainty in estimating costs across the country as a whole. The source of the uncertainty is the fact that the cost survey covers a sub-sample of ECaR LAs, rather than every ECaR LA in the country. Our estimates are therefore subject to sampling error: if the survey was conducted again, different ECaR LAs might be sampled and the resulting estimates would be different.

We accommodate the uncertainty around these estimated costs by producing an estimated standard deviation for them using a statistical technique known as 'bootstrapping'. More information on this is contained in the Technical Report.

The remaining columns of Table 7.2 present the statistics from the bootstrapping procedure. The standard deviation for long term-costs per ECaR participant is £211, and for short-term costs per ECaR participant is £261. The table also provides 95% confidence intervals for both measures: these are lower and upper bounds, between which the 'true' cost per ECaR participant has a 95 per cent chance of lying, given the data. There is a 95 per cent chance that the short-term cost per ECaR participant is between £2,628 and £3,611, and a 95 per cent chance that the long-term cost per ECaR participant is between £2,206 and £3,032.

[59] The cost-benefit analysis done by KPMG in 2006 estimated the per pupil cost of ECaR to be £2,389. This took the cost of the programme in the first five years (including implementation costs) and divided by the expected number of pupils to be given the programme in the first five years. Despite some different assumptions made in our calculations, this estimate is not inconsistent with our estimated long-run costs per pupil (and falls within the 95% confidence interval).

Having estimated the costs of ECaR per ECaR participant, it is now possible to produce an intermediate measure of VfM that does not rely on quantifying the expected future benefits. The cost-effectiveness ratio measures the expenditure required to yield a given improvement in the target outcome (or the improvement in that outcome associated with a given level of expenditure), and allows policies with similar aims and interventions to be compared against each other.

In this case, the cost-effectiveness ratio will be the expenditure per additional child reaching the expected level at KS1. To produce this estimate, we first need an estimate of the impact per ECaR participant on KS1 outcomes.

The direct estimates of ECaR's impact are taken from Table 6.1, and reproduced below in Table 7.3. These estimates are translated into implied impacts per ECaR pupil by dividing them by the proportion of the year group in ECaR schools who received ECaR (around 11.64).[60] Table 7.3 sets out estimated implied ECaR impact per ECaR pupil in more detail.

Table 7.3 Implied impact of ECaR on KS1 attainment, per ECaR participant

Estimated impact on Level 2 at KS1 Reading (ppts)[61]	1.881
Proportion receiving ECaR (%)	11.4
Implied impact across ECaR participants (ppts)	16.5
Estimated impact on Level 2 at KS1 Writing (ppts)[62]	2.408
Proportion receiving ECaR (%)	11.4
Implied impact across ECaR participants (ppts)	21.2

Note: 'Implied impact across ECaR participants' is the estimated impact across the relevant year group, divided by the percentage of the year group who received ECaR interventions. For example, if the impact across the cohort is 2 ppts, but only 10% of them actually received ECaR, then the *implied* impact per ECaR participant is 20 ppts. This is not necessarily the actual impact per ECaR participant, which we have not been able to measure.

The school-level impact estimates imply that the spending on ECaR made children 16.5 percentage points (ppts) more likely to achieve the expected level in reading, and 21.2 ppts more likely to achieve the expected level in writing. However, there are quite wide bounds around these numbers due to the statistical uncertainty in the impact estimates.

To calculate a cost-effectiveness ratio we divide these estimates into the estimated unit costs of ECaR (both short-term and long-term). Note that there are wide lower and upper

[60] Here the concept is notional, as it may be that the benefits of ECaR are spread across a wider set of pupils than just those that receive it. To capture the total positive impact we use the school-level impacts as a starting point and proceed through this analysis on the basis of the total impact of ECaR per ECaR recipient. Clearly some of this impact might accrue to non-ECaR pupils as spillovers: these are still legitimate benefits whose value ought to be included in any cost-benefit exercise.

[61] The standard error on this impact is 0.823 ppts.

[62] The standard error on this impact is 0.919 ppts.

bounds on the cost-effectiveness ratio because there are lower and upper bounds on both the costs and the impact of ECaR; both sources of uncertainty are important and they will compound each other in this calculation. Table 7.4 presents the results of this exercise.

Table 7.4 Estimated cost per additional child reaching expected level at KS1

	Reading	Writing
Short-term costs		
Lower bound	£174,865	£72,093
Central estimate	£18,610	£14,537
Upper bound	£8,479	£7,043
Long-term costs		
Lower bound	£146,826	£60,534
Central estimate	£15,675	£12,245
Upper bound	£7,118	£5,912

Note: Figures are derived as the ratio of the costs in Table 7.2 to the implied impacts per ECaR participant in Table 7.3. The lower and upper bounds reflect the statistical uncertainty in both the costs and impact estimates.

In the central scenario, the initial cost is approximately £18,600 per additional child at the expected level in reading, and £14,500 per additional child at the expected level in writing. Clearly these costs should not be added together because both outcomes occur simultaneously, and many children who achieve one also achieve the other. In the longer term, when only running costs are incurred, ECaR costs around £15,700 (£12,245) per additional child at the expected level in reading (writing).

7.4 Calculation and valuation of lifetime benefits

This section sets out the methodology for measuring, and valuing, the lifetime benefits of ECaR that would be predicted to arise in the future. Again, there are very wide uncertainties around these estimates, and bounds are provided to reflect this. The benefits of ECaR are measured along three potential dimensions: (i) higher earnings, (ii) better health (in particular, longer life expectancy), (iii) reductions in crime.

The strategy for each type of benefit is broadly similar. First, the KS1 attainment outcomes measured in Section 6.1 are translated into some measure of adult education outcomes, in order to ascertain ECaR's potential longer-term educational impact. This is then combined with estimates – where suitably robust estimates exist – of the impact of education on the three dimensions above. Finally, a total discounted cash value is applied to these lifetime benefits. Depending on what is most appropriate or relevant in each case, estimates from either peer-reviewed econometric research or Departmental guidance are used.

7.4.1 Measuring and valuing lifetime earnings impacts

To measure lifetime earnings impacts, we use DfE estimates of the lifetime returns to various qualifications: Level 2 vocational, Level 2 academic, Level 3 vocational and Level 3 academic. The returns to these qualifications were taken from a DfE (forthcoming) technical

report due to be published later this year. The lifetime returns are based on estimates of wage and employment returns provided by Jenkins et al. (2007), and are illustrated below in Figure 7.1.[63]

Figure 7.1 Estimated lifetime earnings returns to different qualification levels and routes (Source: DfE, forthcoming)

Table 1a Lifetime Productivity Differentials to Level 2 and Level 3 Qualifications, Males, 2008/9 prices (Rounded to the nearest £5,000)

Male (PV) Lifetime productivity differentials	Level 2				Level 3			
	Academic	Vocational		Apprenticeships	Academic	Vocational		Apprenticeships
	5+ GCSEs A*-C	VRQ2	NVQ2	FMA	2+ A levels	VRQ3	NVQ3	AMA
Level 1*	£100,000							
Level 1/ Level 2		£20,000	£10,000	£160,000				
Level 2					£110,000	£75,000	£75,000	£160,000

Level 1 refers to people who have some qualifications at GCSE-level but fewer than 5 at A-C

Table 1b Lifetime Productivity Differentials to Level 2 and Level 3 Qualifications, Females, 2008/9 prices (Rounded to the nearest £5,000)

Female (PV) Lifetime productivity differentials	Level 2				Level 3			
	Academic	Vocational		Apprenticeships	Academic	Vocational		Apprenticeships
	5+ GCSEs A*-C	VRQ2	NVQ2	FMA	2+ A levels	VRQ3	NVQ3	AMA
Level 1*	£85,000							
Level 1/ Level 2		£25,000	£20,000	£30,000				
Level 2					£80,000	£40,000	£40,000	£70,000

Level 1 refers to people who have some qualifications at GCSE level but fewer than 5 at A-C

Thus, in order to make use of these estimated returns, it was necessary to predict the impact that exposure to ECaR might have on the probability of attaining these qualifications, via its impact on KS1 attainment. To examine this, a statistical model was created using a series of attainment records from KS1 all the way through to post-16 qualifications, based on linked National Pupil Database (NPD), Individual Learner Record (ILR) and National Information System for Vocational Qualifications (NISVQ) data. Indicators for whether children had reached the Level 2 or 3 threshold – and through which route – were derived from this information. This information was all linked together for one specific cohort – children who reached age 18 in 2008/09 – to provide a complete history of academic attainment.[64] It was matched to School Census (formerly PLASC) data containing basic pupil-level contextual factors that might influence attainment, or the progress made between different attainment stages. Table 7.5 presents summary statistics for this cohort of data.

[63] As these returns are expressed in 2008/09 prices, they were uprated using the HM Treasury GDP deflators in order to be consistent with the costs information.

[64] This was the youngest cohort for which attainment records up to age 18 were available at the time of writing.

Table 7.5 Characteristics of NPD cohort used to predict long-term educational impacts of ECaR		
Attainment measures	Mean	Standard deviation
Reached expected level at KS1 Reading (%)	81.2	39.0
Reached expected level at KS1 Writing (%)	79.4	40.4
Reached expected level at KS1 Maths (%)	85.7	35.0
Reached expected level at KS1 Science (%)	86.7	33.9
Average KS2 points score	27.2	4.1
Average KS3 points score	34.3	6.4
Achieved 5 A*-C grades at KS4 (%)	58.0	49.4
Reached Level 2 threshold via GCSEs or equivalents at KS4 (%)	61.1	48.8
Participated in education at age 16/17 (%)	88.3	32.2
Participated in education at age 17/18 (%)	80.7	39.5
Reached Level 3 threshold via academic route by 18 (%)	33.7	47.3
Reached Level 3 threshold via any route by 18 (%)	41.1	49.2
Note: Attainment measures are summarised for the cohort of state-school pupils that sat KS1 in1997/98, KS2 in 2001/02, KS3 in 2003/04, KS4 in 2006/07, and, if applicable, KS5 in 2008/09. FSP information was not available for this cohort.		

As shown in Figure 7.1, the returns provided by DfE indicate the lifetime earnings premium associated with one particular qualification level, relative to the qualification below just below it. There is therefore a whole range of earnings returns to take into account; incorporating them necessitates taking into account a range of possible improvements in qualification levels, right across the distribution of qualifications. With this dataset, models were estimated for the probability of reaching any of the qualification levels above a given qualification level. These models were estimated separately for each current qualification level and each potential higher qualification level; obviously this model could not be estimated for the highest qualification level observed in the data. This is set out in more detail in the Technical Report.

Table 7.6 Qualification levels used to model potential longer-term improvements in qualifications		
Current qualification level	Proportion	Potential higher qualification levels
No formal qualifications	25.4%	L2 vocational, L2 academic, L2 academic + L3 vocational, L2 academic + L3 academic
L2 threshold (vocational)	14.1%	L2 academic, L2 academic + L3 vocational, L2 academic + L3 academic
L2 threshold (academic)	19.4%	L2 academic + L3 vocational, L2 academic + L3 academic
L2 threshold (academic) + L3 threshold (vocational)	7.4%	L2 academic + L3 academic
L2 threshold (academic) + L3 threshold (academic)	33.7%	N/A
Note: Some pupils observed in the data had reached the both the L2 and L3 threshold via the vocational route only. This combination of qualifications would have significantly increased the complexity of this analysis; as such pupils accounted for around 2% of the cohort, they were excluded from the model.		

These models provide the chosen method for analysing a range of assumptions about how the impact of ECaR on educational attainment persists at different ages. This analysis considered two scenarios: a 'no depreciation' scenario, where the impact of ECaR persists until age 18 (beyond secondary school), and a 'full depreciation' scenario, where the impact disappears by age 11 (KS2). To implement these scenarios, the models were estimated with and without controlling for attainment at KS2, KS3 and KS4. That is, the 'no depreciation' model relates the probability of moving between the different qualification levels above to attainment at KS1 only (and contextual factors). This assumes that attainment at other Key Stages is redundant because it is fully encapsulated in KS1 attainment. The 'full depreciation' model relates the qualification outcome to KS1, KS2, KS3 and KS4 attainment jointly (plus the contextual factors). The resulting estimated effect of KS1 attainment is therefore the long-run impact of improved attainment at age 7, holding fixed the attainment at ages 11, 14 and 16. In other words, it assumes no corresponding improvement in attainment at these ages.

Having estimated these models, the effects of KS1 – in particular, whether the expected level was reached at KS1 Reading and KS1 Writing – were extracted and combined with the implied impact of ECaR per ECaR participant of each gender. Repeating the school-level analysis separately for each gender (i.e. the impact of ECaR across all boys or girls in the year group) yields the estimates in Table 7.7. The upper and lower bounds on the implied impact per ECaR child are determined from the 95 per cent confidence interval around the estimated impact. [65]

[65] The impact across females is not statistically significant. However, we still use it in this analysis, rather than assuming it to be zero and conducting the analysis assuming only an impact on males. While that would simplify the analysis, it is misleading to distinguish between significant and insignificant coefficients in this case. This is for two reasons. First, a lack of statistical significance for the estimated impact does not imply that the 'true value' of the impact is zero (this is known in statistics as a 'Type II error'.) Second, as stated above, of equal importance as the effect sizes is the degree of uncertainty around those effects; using a value of 0 for the impact on females would falsely eliminate such uncertainty. Both the impacts on males and females are objects measured with uncertainty: it just so happens that the margin of uncertainty around the impact for females includes zero. As long as these uncertainties are fully reflected, then the inclusion of the impact on females is not inconsistent or incompatible with its lack of statistical significance

Table 7.7 School-level impact of ECaR on KS1 attainement, by gender		
	Males	Females
Estimated impact on Level 2 at KS1 Reading (ppts)	3.732	0.047
Standard error (ppts)	1.182	0.981
Proportion receiving ECaR (%)	13.6	9.1
Implied impact across ECaR participants (ppts)	27.5	0.52
Estimated impact on Level 2 at KS1 Writing (ppts)	4.141	0.615
Standard error	1.295	1.037
Proportion receiving ECaR (%)	13.6	9.1
Implied impact across ECaR participants (ppts)	30.5	6.8
Note: 'Implied impact across ECaR participants' is the estimated impact (across the relevant year group for that particular gender), divided by the percentage of the year group who received ECaR interventions. For example, if the impact across the cohort is 2 ppts, but only 10% of them actually received ECaR, then the *implied* impact per ECaR participant is 20 ppts. This is not necessarily the actual impact per ECaR participant, which we have not been able to measure. The gender-specific impacts are estimated at the school level, so the sample size will be the same as the sample sizes in the school-level impact analysis.		

The direct impacts of ECaR in Table 7.7 are then translated into predicted longer-term impacts on the eventual qualification level by combining them with the coefficients on KS1 in each of the models outlined above. This yields, for a given current qualification level, the probability of an ECaR participant attaining each of the potential higher qualification levels (and receiving the associated lifetime return). These returns are then averaged across all potential higher qualification levels, to give an expected lifetime earnings benefit for each current education level. This is then averaged across all current education levels to give the average expected return for each gender. Finally, this is averaged across genders, weighting by the gender split of ECaR participants (61% male, 39% female), to give an average expected lifetime earnings return for the group of ECaR participants as a whole. The Technical Report provides specific details on the calculation process used.

This, however, is only the central estimate. Equally important are the upper and lower bounds on this, taking into account the statistical uncertainty in both (i) the ECaR impact estimates and (ii) the models of longer-term impacts.[66] Based on the 95 per cent confidence intervals around these estimates, lower and upper bounds on the lifetime earnings return are also derived.[67] The final estimates of lifetime earnings returns are contained in Table 7.8.

[66] In the interests of robustness, it would be desirable to take account of an additional source of uncertainty: the confidence intervals around the estimated lifetime returns in Figure 7.1. Unfortunately this information was not available.

[67] We assume these sources of uncertainty are independent of each other, rather than modelling them jointly.

Table 7.8 Estimated value of lifetime earnings benefit of ECaR, per ECaR participant		
	No depreciation	Full depreciation
Lower bound	£169	-£470
Central estimate	£6,001	£335
Upper bound	£12,426	£1,618
Note: Estimated earnings benefits of ECaR are based on DfE estimates of lifetime earnings returns to various qualifications, and estimates of the longer-term educational impact of ECaR under each depreciation scenario. The benefits have not taken into account some incidental costs, such as the funding cost of additional places in post-16 education.		

7.4.2 Measuring and valuing lifetime health impacts

While there is a large and established literature on the pecuniary returns to education, and Departmental estimates of this effect exist, authoritative information on the effect of education on health is less prevalent. Many studies have attempted to measure the causal impact of education on health; see Cutler and Lleras-Muney (2010) and Lochner (2011) for recent overviews. There is a fast-growing economic literature on this subject, but there is not yet a clear consensus from these studies about the magnitude of the impact of education on health (and how it might be valued). Many studies have examined the impact of education on self-reported health measures (Chevalier and Feinstein, 2006; Lleras-Muney, 2005; Oreopoulos, 2007; Silles, 2009) and found a significant causal effect of education on self-reported health or mortality. On the other hand, others, such as Albouy and Lequien (2009) and Clark and Royer (2010), have employed very similar methods but failed to find a causal effect of education on health. Given this lack of consensus, we investigate the potential benefits of health as a separate outcome, so that the overall benefits of ECaR can be assessed both with and without the value of any future health impact. It may also be recommended that the health benefits be interpreted even more tentatively than the earnings benefits.

To quantify the potential value of any health benefits of ECaR, we use estimates of the value of a Quality-Adjusted Life Year (QALY) provided by the Department of Health (2010) alongside estimates of the QALY benefit of an additional year of education taken from Groot and Maassen van den Brink (2006). These are combined with our own estimates of the eventual additional years of education caused by ECaR.

We start by specifying a model to translate the short-run impact of ECaR (on KS1 attainment) into a long-run impact on final educational outcomes for which benefits can be quantified and valued, in a similar process to that described in Section 7.4.1. This time, the educational outcome of interest is years of education. We therefore define for each child in

the administrative data cohort their additional years of education beyond 16 (up to age 18).[68] This is measured on the basis of (i) ILR participation records for 2007/08 and 2008/09, and (ii) whether the Level 3 threshold had been achieved by age 18.

The additional years of education are then related back to KS1 attainment (or the entire history of attainment, under the full depreciation scenario) in a statistical model. Given that our attainment data continues up until age 18, the measure of additional years of schooling can only take the value 0, 1 or 2. We estimate the model of additional years of schooling, pooling both genders together, and retain the effects of KS1 Reading and KS1 Writing.[69]

Again, the estimates of the initial impact of ECaR on KS1 outcomes are those in Table 7.3. These estimates are then fed into the model for years of education to estimate the predicted increase in years of education among ECaR participants, under both depreciation scenarios. Under the central estimate scenario, the average increase in schooling caused by ECaR lies between 0.006 years (assuming full depreciation) and 0.036 years (assuming no depreciation).

The estimated increase in years of education is then combined with a QALY value of an additional year in school. In their meta-analysis, Groot and Maassen van den Brink (2006a) estimate this to be 0.015 for European countries and Canada (with a standard error of 0.008).[70]

Finally, this needs to be combined with an actual monetary value per QALY. According to the Department of Health (2010), this is £60,000 in 2008/09 prices. Using the GDP deflators, we uprate this to 2010/11 prices for the purposes of consistency with the other figures in this analysis, giving a monetary value of approximately £63,000 per QALY.

Multiplying this by the expected QALY benefit caused by ECaR gives an annual monetary value of the improved health resulting from ECaR. Under the central scenario, this amounts to £2 a year (assuming full depreciation) and £24 a year (assuming no depreciation). We then compute the discounted sum of this amount between the ages of 16 and 76,[71] using HM Treasury's Green Book (2003) guidance on discounting future benefits. The discounting

[68] Additional years of education beyond 18 cannot be observed; this is a limitation of the data at hand. Thus any increases in years of education beyond this will not be captured. To the extent that this occurs, the benefits via health may be under-estimated.

[69] The model is an OLS regression, but ordered probit results gave similar findings.

[70] Another paper by the same authors (Groot and Maassen van den Brink, 2006b) provides lower estimates of the QALY benefit of an additional year of education. However, this estimate is derived from their own analysis only, whereas Groot and Maassen van den Brink (2006a) is a meta-analysis that brings together a large number of studies. We have deemed the latter to be more reliable for this reason.

[71] 76 is a basic life-expectancy assumption informed by ONS life expectancy figures. The eventual estimated benefit is not very sensitive to this number because of the compound discounting.

assumes that individuals reach age 16 in 10 years time, and are therefore aged 6 today (the age at which participation in ECaR would take place).

Table 7.9 presents the final results of this calculation, giving the present discounted monetary value of the health benefits that might be caused by ECaR, taking as given the QALY benefit of an additional year of education, the Departmental estimate of the monetary value per QALY.[72] Further details of the specific methodology can be found in the Technical Report.

Table 7.9 Estimated value of lifetime health benefit of ECaR, per ECaR participant

	No depreciation	Full depreciation
Lower bound	-£17	-£1
Central estimate	£1,310	£207
Upper bound	£5,257	£1,137

Note: Estimated health benefits of ECaR are based on Department of Health (2010) estimates of the value of a Quality-Adjusted Life Year (QALY), estimates from Groot and Maassen van den Brink (2006) of the QALY benefit of an additional year of education, and estimates of the additional years of education caused by ECaR under each depreciation scenario. The benefits have not taken into account some incidental costs, such as the funding cost of additional places in post-16 education.

7.4.3 Measuring and valuing lifetime crime impacts

Economists have long been interested in the links between education and crime; see Glaeser et al. (1996), Freeman (1999) and Lochner (2004) for overviews. Research attempting to isolate the causal impact of education on crime rates is rare, however, as is research on the value of that reduction. The most well-known paper in this area is Lochner and Moretti (2004), who use information on prison inmates alongside official data on crime rates and the costs of crime in the US. They exploit compulsory schooling laws to investigate the causal impact of education on crime. A more recent paper (Machin et al., 2010) conducts a similar analysis for the UK, again using variation in education levels driven by increases in the school leaving age. Since there is little evidence on the crime-related benefits of education, and these benefits are extremely difficult to value, these benefits are also treated differently and should also be interpreted with these caveats in mind.

To estimate the value of reductions in crime caused by ECaR, we refer to Machin et al. (2010), who find that reducing the proportion of youths with no qualifications by 1 per cent - and giving them some level of formal qualifications instead – reduces the property crime rate[73] by 0.851 percentage points (with a standard error of 0.370 percentage points) or 0.999 percentage points (with a standard error of 0.306 percentage points) depending on the

[72] The lower bounds on the lifetime value of health benefits are slightly negative because the lower bound on the QALY benefit of an additional year's education is negative (this parameter is only significant at the 10% level).

[73] While this calculation excludes other crimes such as serious crimes against the person, the value of reductions in those crimes is may not be as reliable.

empirical specification.[74] In their analysis of the social benefits, they calculate the reduction in crimes that would result, and multiply it by the estimated cost per property (taken from Dubourg et al., 2005) to arrive at the social benefit.[75]

Many aspects of this calculation are specific to the data that Machin et al. (2010) use, however. To perform a similar calculation we use alternative estimates of crime rates. In particular, we use the latest release of the British Crime Survey, which indicates that in the year to September 2010 there were approximately 5.9 million property crimes committed in England and Wales. Dividing this by the ONS estimates of the under-65 population of England and Wales (approximately 48.6 million) implies that around 0.129 property crimes per person were committed. [76] We assume this ratio applies to ECaR participants as well as the wider population.

To calculate the predicted fall in this crime propensity as a result of ECaR, we estimate models for the probability of obtaining some qualifications (defined as Level 2 vocational or academic, or above) in terms of prior attainment. As usual, this is conducted under both depreciation scenarios. The effects of KS1 from this model are then combined with the impacts of ECaR on KS1 (see Table 7.3) to obtain the predicted increase in the proportion with some qualifications. Under the central scenario, the predicted increase in the likelihood of achieving the Level 2 threshold lies between 0.24 percentage points (full depreciation) and 3.6 percentage points (no depreciation), as a result of ECaR. For full details of the methodology, see the Technical Report.

Using the results in Machin et al. (2010), this implies a fall in property crime offences (for ECaR participants) of between 0.5 ppts and 7.7 ppts under the central scenario. To assign a value to these reductions in crime, we use the same cost of property crime (£1,369 in 2007/08 prices) and uprate it to £1,475 in 2010/11 prices. This results in an estimated annual cash benefit per person per year of between 42p and £6.39 (depending on depreciation), under the central scenario. This is then discounted over time in a similar fashion to the health benefits, except that the benefits are only assumed to accumulate up to age 64, rather than 76. Table 7.10 presents the full range of estimated final benefits, in present-value monetary terms, of the benefits that might be expected from ECaR through reduced property crime rates.

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[74] We use the average of both estimates in the central estimate scenario, the lower bound of the lower estimate for the lower scenario and the upper bound of the higher estimate for the upper scenario.

[75] They subsequently subtract from this the funding cost of a 1% increase in post-16 education, in order to produce an estimated net social benefit. This has not been done in this case.

[76] In other words, it is assumed that no crime is committed by anybody from age 65 onward. This is purely an assumption and need not always be true, but crime rates clearly decline with age so some sort of upper age limit is more realistic than none. In any case, the estimated benefits are not very sensitive to this number because of the compound discounting. Since the benefits are assumed to accumulate from age 16 onward, it is also assumed that no crime is committed before age 16. Again, this is a simplifying assumption that does not have significant implications for the final result.

Table 7.10 Estimated value of lifetime benefit of ECaR from reduced property crime, per ECaR participant		
	No depreciation	Full depreciation
Lower bound	£4	£1
Central estimate	£208	£14
Upper bound	£687	£69
Note: Estimated health benefits of ECaR are based on estimates of value of crime reduction from Machin et al. (2010), and estimates of the longer-term educational impact of ECaR under each depreciation scenario. The benefits have not taken into account some incidental costs, such as the funding cost of additional places in post-16 education.		

7.5 Combining the benefits and costs

Having estimated the benefits for each dimension, they can now be compared to the costs of ECaR estimated in Section 7.3. Due to the speculative and potentially tenuous nature of the benefits via health and crime, the benefits are presented both including and excluding these components. This facilitates both cautious and more optimistic readings of the likely future benefits of the ECaR intervention. The estimated benefits through the routes under consideration here are presented in Table 7.11, while the estimated costs are reproduced in Table 7.12 (containing the same figures as in Table 7.2).

Table 7.11 Estimated benefits of ECaR through routes considered, per ECaR participant		
	Benefit via earnings only	Benefit via earnings, health and crime
No depreciation		
Lower bound	£169	£157
Central estimate	£6,001	£7,518
Upper bound	£12,426	£18,371
Full depreciation		
Lower bound	-£470	-£470
Central estimate	£335	£556
Upper bound	£1,618	£2,824
Note: Estimated health benefits of ECaR are based on estimates of value of higher earnings, better health and less crime, combined with estimates of the longer-term educational impact of ECaR under each depreciation scenario. The benefits have not taken into account some incidental costs, such as the funding cost of additional places in post-16 education.		

Table 7.12 Estimated costs of ECaR, per ECaR participant		
	Short-term costs	Long-term costs
Lower bound	£2,628	£2,206
Central estimate	£3,076	£2,591
Upper bound	£3,611	£3,032
Note: The costs are based on a survey of ECaR LAs and are thus subject to sampling uncertainty, hence the lower and upper bounds.		

Table 7.11 emphasises the crucial role played by how long the impact of ECaR persists for during the school years. The estimated benefits differ by a factor of roughly 10 or 20 depending on the depreciation scenario, and this sort of uncertainty is at least as important, if not more important, than the statistical uncertainty arising from the imprecision in the parameters that have been estimated throughout this exercise. Together, the two sources of uncertainty make it clear that there is a very wide range of possible error in these estimates, and that the central estimates, while convenient, are not very informative.

That the estimates differ to such a large extent under different depreciation scenarios presents the risk that the estimates in this analysis may not be informative or meaningful. To help alleviate this, we carry out a rough calculation that aims to shed some more light on what the break-even rate of depreciation might be. We focus on the earnings benefits (which are the least tenuous) and ask the following question: "Given the impact estimates, how much persistence up to age 18 must ECaR's impact have in order for the central scenario to be a break-even one?". This thought experiment is as close as it is possible to get to the concept of a break-even depreciation rate within the context of the statistical model that was used to project the final educational impact.

More specifically, we seek to identify the impact that KS1 attainment must have on final educational attainment, in order for the estimated earnings benefit (in the central scenario) to broadly match the costs of ECaR (in the central scenario). This is done both for the short-term and long-term costs.

Table 7.13 Estimated break-even depreciation rates

	Short-term costs	Long-term costs
Break-even impact of KS1 expected level on prob. of achieving qualifications (ppts)	8.0	6.7
Implied impact of ECaR on females' probability of achieving qualifications, given impact of ECaR on KS1 attainment (ppts)	0.58	0.49
Implied impact of ECaR on males' probability of achieving qualifications, given impact of ECaR on KS1 attainment (ppts)	4.63	3.88

Note: Figures reflect estimated break-even scenarios using the central estimates of the earnings benefit and the central estimates of costs, while also taking as given the estimated impact of ECaR on KS1 attainment.

Table 7.13 presents the result of this calculation. For each column (short-term or long-term costs), the first row contains the increase in the probability of achieving each of the final qualification levels in Table 7.6 that is required for the policy to break even in the central scenario. The short-term costs are higher than the long-term costs, so the impact of KS1 must persist more for ECaR to break even in the short-term. This will happen if achieving the expected level at KS1 Reading and Writing increases the probability of achieving each final qualification level by at least 8.0 ppts. To match the long-term cost, the required increase in the probability of achieving each qualification level is 6.7 ppts. Speaking very roughly, these required effects are of a similar magnitude to the estimated effect of EAL and estimated (negative) effect of FSM on the probability of achieving qualifications, that is found when

measuring the earnings benefits. Hence the ECaR policy might be expected to break-even (in the central scenario in the long term) if reaching the expected level at KS1 is as important in determining final educational attainment as key contextual factors such as EAL and FSM.

The following rows then work backward to calculate the implied impact of ECaR on the probability of achieving these qualifications if the policy breaks even, taking as given the impact that ECaR was estimated to have on KS1 attainment. The impact estimate was large and significant for males only, so (assuming the same persistence for both genders), if ECaR breaks even in the short term then it will have made male participants 4.6 ppts more likely to achieve each qualification level, and female participants 0.6 ppts more likely to do so. For ECaR to break even in the long term, its male participants must be 3.9 ppts more likely to achieve each qualification level, while the female participants would be 0.49 ppts more likely. Again, note that these are estimates for the central scenarios only; there are uncertainties around this estimate that have not been used here as it is only a rough, suggestive calculation.

It is also important to note that the benefits included in this analysis only include those for which it was possible to find (a) some estimates of a causal link from education, (b) some estimates of the lifetime value. There may be other benefits of ECaR that have not been taken into account here, such as impacts on social or non-cognitive skills. Furthermore, the health benefits do not take into account potential improvements in longevity, while the crime benefits only take into account property crimes (although Machin et al., 2010 argue that these form the majority of offences committed). Another limitation of the measurement of benefits is it only measures improvements in later life outcomes via an improvement in education levels. Thus if participation in ECaR has a direct effect on earnings, health or crime levels, they will not be picked up in the analysis.

Based on these results, the most definite answer that one could provide in response to the bottom-line question about whether ECaR may deliver value for money is that it will depend on how the impact of ECaR, which is evident at age 7, persists through to later ages. If the benefits delivered at Key Stage 1 can be maintained and result in an increased likelihood of obtaining formal qualifications, then the future benefits would be expected, on the balance of probabilities, to outweigh the costs. However, if the benefits delivered by ECaR at age 7 attenuate over time, then (depending on how quickly this occurs) there may not be any chance of the expenditure on ECaR being recouped in terms of improved earnings and wellbeing in future.

Given the importance of depreciation scenarios in this analysis, following the outcomes of ECaR schools or participants over time is a very important research activity. It has the potential to significantly inform and refine the cost-benefit analysis, by enabling the actual degree of persistence of the impact of ECaR to be observed.

8 Lessons learned and looking to the future

In this concluding chapter, we summarise the overall lessons learned in relation to the impacts, facilitators and challenges of the programme. We also present findings from the evaluation on local authority and school staff views on the future and sustainability of the programme, and consider wider lessons for the future.

8.1 Who benefited from ECaR and Reading Recovery?

The evaluation provided strong evidence of the impact of the ECaR programme and Reading Recovery in relation to its central aim of improving children's reading for overall measures of attainment at Key Stage 1 and specific aspects of reading. There were indications that ECaR was associated with some additional school-level benefits, for example on writing measures or wider school literacy. There were also positive findings about Reading Recovery's impact on pupils' attitudes towards and behaviours related to reading.

The programme's success in improving attainment and performance chimed with the perceptions of local authority and school staff in the case studies, who also referred to the potential for impacts on individual pupils' learning in general. Staff also pointed to potential benefits for schools in the programme, including improving schools' wider literacy practice (although see Section 7.2 below) and professional development.

There was evidence from different strands of the impact analysis that some groups of pupils were particularly likely to benefit from ECaR and Reading Recovery. The most consistent finding from the relative impact analysis was for pupils with English as an additional language (EAL): pupils with EAL tended to have better outcomes than their non-EAL counterparts. In the analysis of administrative data where the outcomes for Reading Recovery pupils were compared to similar pupils in non ECaR schools, the evidence suggested that boys made greater gains than girls.

The set up time required for the programme – in particular the length of training for Reading Recovery teachers and the gradual introduction of other ECaR interventions - means that the full effects of ECaR take time to show: in the NPD analysis impacts at the school-level were only significant for the second year of implementation onwards. This means that we cannot yet comment on whether the national roll-out of the programme from 2008/09 is associated with any dilution of the effect of ECaR (as we only have first-year impacts for the larger cohort of schools involved in the roll-out). The report has also been unable to look at the longer-term effects of ECaR and Reading Recovery and whether these are sustained. Getting a final answer to this question is key to determining the long-term value-for-money of the programme - as the sustainability of any effects underpins any calculation of the

programme's benefits. However, the analysis undertaken for this report provides a template for future work in all these areas.

8.2 What were the facilitators and challenges to ECaR?

The evaluation identified a number of critical factors in successfully implementing and delivering the ECaR programme, and in maximizing the impact.

Having a **strong champion** at a senior level within schools (and local authorities) was seen as key to the success of the programme. This could be vital in securing time and resources, as well as promoting ECaR strategically and facilitating wider engagement. The need to **engage other staff** and embed the programme was also seen as key. Both local authority and school management played a part in this, using a variety of formal and informal means. However, successful engagement was clearly linked to the **skills and experience of the Reading Recovery teacher,** who worked most closely with classroom staff**.** There was some evidence that the prevailing practice of recruiting existing staff who were familiar with the school could be helpful in this respect. The school **infrastructure** also had a bearing on the success of the programme, in terms of providing suitable spaces and resources for the more intensive reading interventions.

Local authority and school staff involved in ECaR were generally very supportive of the programme and valued the training and support it incorporated. There were however a number of challenges raised in delivering the full programme.

The evaluation found that **Reading Recovery had dominated the ECaR programme** compared to other interventions. This was manifested in a number of ways: for example, training and support for Reading Recovery was more established; Teacher Leaders and Reading Recovery Teachers were more likely to see their role as one of supporting/delivering Reading Recovery, and were less confident about how much they could support other reading interventions. Schools also tended to delay the introduction of these other interventions, and in some cases the delivery was seen as fragmented. Given that Reading Recovery can only directly target a small number of pupils, the lower priority given to these other interventions may have limited potential wider benefits within schools, particularly in terms of improving whole school literacy teaching and support. Linked to this, it was felt that training would have benefited from additional emphasis on aspects of programme management including the more practical and technical aspects of set-up and embedding ECaR and Reading Recovery within wider school and local authority strategies.

The model of consortium working between local authorities was seen to have a number of benefits related to sharing practice and learning. However, the experiences and views of lead and non-lead local authorities could be very different, particularly with respect to the **disadvantages of consortium working.** Two particular issues were identified: firstly, the need for more explicit recognition of the greater resourcing, time and effort spent by the lead local authority in consortia; secondly, the impacts of consortium working on Teacher

Leaders, which could dilute support for their own local authority, require them to operate in other authorities where they were not known or had less influence, and increase their overall workload.

8.3 Sustainability of and the future of ECaR

Since the introduction of ECaR, there have been significant political and economic changes, with the election of the coalition government and fiscal tightening affecting both central and local government. The criteria for sustainability and viable models of funding for ECaR that were in place at the time of the national roll-out have therefore also altered significantly. Readers should also bear in mind that much of the work with local authorities took place prior to the election, with school fieldwork taking place during and after the election period when concerns about future funding may have been more pronounced.

8.3.1 Views on the future and sustainability of ECaR

Head teachers and local authority ECaR leads were asked what they thought would happen to the ECaR programme without central government funding (Table 8.1). The majority of ECaR leads and head teachers felt that the ECaR programme would either run on a reduced scale or that the programme would be stopped and alternative reading interventions adopted.

Table 8.1 What would happen to ECaR without central government funding

Base: ECaR Leads and head teachers	ECaR Leads	Head teachers in ECaR schools
	%	%
Run programme on the same scale as now (with alternative funding)	1	8
Run programme on reduced scale (with alternative funding)	31	40
Stop the programme and adopt different literacy interventions	32	38
Stop the programme without adopting different literacy interventions	7	4
Other	5	3
Don't know	17	2
Missing	6	5
Base	*81*	*414*

The case studies provided further insight into school staff views in this area. The ECaR programme was greatly valued as an effective way of improving reading levels amongst those that most needed the support, but staff took other factors into account in assessing its sustainability. These included financial factors: some schools were currently struggling to balance their books while there was also anxiety around future anticipated cuts in school budgets. The efficacy of ECaR interventions was also another consideration cited by participants. In particular there were concerns about:

- **The coverage and whole school impact of ECaR interventions** (particularly in relation to Reading Recovery), with head teachers questioning the cost-effectiveness of an intervention that only dealt with a small number of pupils at any one time.
- **The resources needed to deliver interventions***.* Staff costs were cited as a key issue and, again, Reading Recovery was seen as an expensive intervention due to the quality of staff and training needed to deliver it.
- **Balancing the need for ECaR against other school interventions***.* Strategic staff in particular felt that future decisions about ECaR should be weighed against the need to fund other interventions running in the school – e.g. interventions designed to improve school attendance levels.

Accordingly, views on whether ECaR *would* be sustained varied, although it is worth noting that strategic staff were generally more cautious about the sustainability of Reading Recovery compared to other ECaR interventions.

Where schools felt that ECaR would be sustained in some form, some said they would continue to fund both Reading Recovery and other ECaR interventions. Others felt that the legacy would outlast the funding even if the programme did not exist in its current form, as the school would have a trained literacy expert (i.e. RRT) and/or classroom teachers/teaching assistants trained in the other literacy interventions. Other schools thought that ECaR would only survive in a modified form and anticipated changes primarily to Reading Recovery. These included reducing the number of RRTs, increasing the number of pupils that RRTs work with (e.g. it was suggested that RRTs might reduce the time they spend on pupils by working only with those that have less acute reading needs) or RRTs taking on other teaching responsibilities in the school.

Where schools did not feel that ECaR (and particularly Reading Recovery) would be sustained, there were three main views. Some felt they could not justify a member of staff working with a small number of pupils on a part-time basis. Others felt that RRTs could not cascade their understanding of RR as it required highly trained and high calibre candidates; Lastly, some felt that losing the RRT and their role in co-ordination would impact on other ECaR interventions.

8.3.2 The future for ECaR?

The evaluation has found that ECaR is effective at improving reading behaviour in schools and with pupils involved in the programme, but decisions about its future must be balanced against the costs of delivery. Below we identify some key messages in relation to sustainability:

- **A model for managing school interventions:** The ECaR infrastructure drew from the established Reading Recovery model allocating explicit roles and links at national, local-authority and school level for training, delivery, quality assurance and monitoring. The ECaR model developed this further to operate as an umbrella programme supporting a wide range of targeted interventions. Overall, this general model seemed to work well and was valued by staff involved in the programme. It provides a template for working

which could be refined and developed further in the future. Any model will need to bear in mind possible developments in the relationship between local authorities and schools and the procurement of school-level interventions.

- **Consortia working:** The majority of local authorities operated as consortia sharing expertise and support. Generally, this approach was seen to work well and may be a sustainable model in the face of scarce(r) resources at local authority level. The evaluation suggested that it will be important to tackle some of the downsides of consortium working, for example by allocating roles/resources more evenly, or finding ways to harness knowledge or secure influence and engagement across a number of authorities.
- **Alternative funding:** Dedicated central government funding for ECaR was partial, with local authorities and schools expected to make up the shortfall from other sources. Up to now this has primarily been from other central or local government funds. However, a small number of alternative sources were used for ECaR funding and any experience in this area should be exploited to provide support to others in seeking wider funding.
- **The balance between Reading Recovery and other ECaR interventions:** Reading Recovery was a well-established highly structured intervention even prior to ECaR and the evaluation found that it had dominated the ECaR programme. We believe there is scope for shifting the balance towards other ECaR interventions, which may also aid ambitions for the programme to improve whole school literacy practice. However, this will represent a shift in (actual and/or perceived) roles for many Teacher Leaders and RRTs and will need adequate support and training. There is also evidence of greater concern about the sustainability of Reading Recovery and its greater expense: targeting and resource requirements may make it more vulnerable to cuts or adaptations that detract from programme fidelity. In this context, reducing the use of Reading Recovery may be one model of sustainability that schools choose to adopt which may be preferable to the alternatives.

In summary, the evaluation has demonstrated the impact of ECaR and RR on the literacy attainment of children in Key Stage 1, and has identified the factors that underpin the successful delivery of the interventions. The research has shown how ECaR and RR have the capacity to help children at risk of falling behind to catch up with their peers early on in their school career. These findings match the positive views of the interventions held by the staff involved in delivery. If the progress these children make is sustained throughout school, the long-term benefits of ECaR would be expected to exceed the costs. However, with the changing political and economic climate, it is not clear whether the funding and resources necessary to maintain what is an expensive and intensive programme will be available in the future. Monitoring the extent to which the immediate gains from the programme are maintained by pupils would help to inform decisions about the future role of ECaR and RR relative to other forms of reading support.

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Appendix B Profile of discontinued and referred Reading Recovery pupils

Appendix Table B.1 Profile analysis of pupils who completed Reading Recovery – Pupil demographic characteristics

Base: pupils who started and completed Reading Recovery between 2005-6 and 2008-9 (N=11,171)

	Row %	*Row %*	
	Discontinued	Referred	Base for all completers
Year group in which RR started*			
Year 1	79	22	8195
Year 2	76	24	2969
Gender***			
Male	76	24	6424
Female	81	19	4020
Age within year			
Sept-Nov	77	23	3520
Dec-Feb	79	22	2646
Mar-May	79	21	1829
Jun-Aug	76	24	2443
Ethnic group***			
White	75	25	6487
Black	84	16	1082
Asian	81	19	1414
Mixed heritage	78	22	421
Other	78	22	275
First language***			
English	76	24	7180
Other than English	82	18	2923
FSM eligibility***			
Eligible	74	26	4374
Not eligible	80	20	6034
SEN status at start of programme***			
Not registered as SEN	87	13	4471
SEN registered	71	29	6180
Total	8695	2476	11,171

Significance: p<0.05 (indicated by *), p<0.01 (**), p<0.001 (***).

Note that percentages have been rounded and may not add to 100.

Appendix Table B.2 Profile analysis of pupils who started and completed Reading Recovery between 2005-6 and 2008-9 (N=11,171) – Entry assessment scores			
Base: pupils who started and completed Reading Recovery between 2005-6 and 2008-9 (N=11,171)			
	Discontinued	Referred	All completers
Book Level***			
Mean	1.2	0.4	1.0
SD	1.7	0.7	1.6
Total	8301	2395	10696
Letter Identification***			
Mean	41.8	30.1	39.2
SD	11.2	13.8	12.8
Total	8311	2399	10710
Concepts about Print***			
Mean	11.1	9.0	10.6
SD	3.8	3.7	3.9
Total	8309	2400	10709
Word Test***			
Mean	6.9	2.7	5.9
SD	5.3	3.4	5.3
Total	8295	2394	10689
Writing Vocabulary***			
Mean	9.6	4.5	8.5
SD	7.9	5.0	7.6
Total	8309	2399	10708
Hearing and Recording Sounds in Words***			
Mean	19.7	10.3	17.6
SD	9.9	8.8	10.4
Total	8309	2399	10708
BAS Raw Score***			
Mean	4.8	1.5	4.0
SD	5.6	2.9	5.3
Total	8204	2377	10581
Reading Age***			
Median	4	4	4
Total	6410	1066	7476

Significance: p<0.05 (indicated by *), p<0.01 (**), p<0.001 (***).

Appendix Table B.3 Profile analysis of pupils who started and completed Reading Recovery between 2005-6 and 2008-9 (N=11,171) – Foundation Stage Profile scores			
	Discontinued	Referred	All completers
FSP total score***			
Mean	6.6	5.8	6.4
SD	1.8	1.7	1.8
Total	5589	1584	7173
Communication, language and literacy (CLL) – language for communication and thinking***			
Mean	5.7	5.0	5.6
SD	1.6	1.7	1.7
Total	5589	1584	7173
Communication, language and literacy (CLL) – linking sounds and letters***			
Mean	4.8	3.6	4.5
SD	1.7	1.6	1.8
Total	5588	1584	7172
Communication, language and literacy (CLL) – reading***			
Mean	5.0	4.0	4.8
SD	1.5	1.5	1.5
Total	5588	1584	7172
Communication, language and literacy (CLL) – writing***			
Mean	4.4	3.4	4.2
SD	1.7	1.6	1.7
Total	5588	1583	7171
Problem solving, reasoning and numeracy (MAT) – numbers as labels and for counting***			
Mean	6.3	5.1	6.0
SD	1.5	1.8	1.6
Total	5589	1584	7173
Problem solving, reasoning and numeracy (MAT) – calculating***			
Mean	5.0	3.8	4.7
SD	1.8	1.8	1.9
Total	5588	1580	7168
Problem solving, reasoning and numeracy (MAT) – shape, space and measures***			
Mean	5.7	4.8	5.5
SD	1.6	1.8	1.7
Total	5587	1584	7171
Personal, social and emotional (PSE) – dispositions and attitudes***			
Mean	6.6	6.0	6.4
SD	1.3	1.4	1.4
Total	5589	1584	7173
Personal, social and emotional (PSE) – social development***			

Mean	6.0	5.4	5.8
SD	1.4	1.5	1.4
Total	5589	1584	7173
Personal, social and emotional (PSE) – emotional development***			
Mean	5.8	5.1	5.8
SD	1.7	1.8	1.4
Total	5589	1584	7173
Knowledge and understanding of the world***			
Mean	5.7	5.1	5.6
SD	1.6	1.8	1.7
Total	5589	1584	7173
Physical development ***			
Mean	6.6	6.0	6.4
SD	1.4	1.7	1.5
Total	5589	1584	7173
Creative development***			
Mean	5.9	5.3	5.7
SD	1.4	1.5	1.5
Total	5589	1584	7173

Significance: p<0.05 (indicated by *), p<0.01 (**), p<0.001 (***).

Appendix Table B.4 Profile analysis of pupils who started and completed Reading Recovery between 2005-6 and 2008-9 (N=11,171) – Reading Recovery participation

	Discontinued	Referred	All completers
Year began RR*			
2005-6	77	23	1396
2006-7	75	25	1367
2007-8	77	23	3996
2008-9	79	21	4412
Number of weeks on RR***			
Mean	19.9	21.5	20.2
SD	5.2	5.0	5.2
Total	6879	1891	8770
RR Teacher training year			
1986-2006	79	21	3828
2006-7	79	21	2103
2007-8	77	23	2804
2008-9	77	23	2391
Total	8695	2476	11171

Significance: p<0.05 (indicated by *), p<0.01 (**), p<0.001 (***).

Note that percentages have been rounded and may not add to 100.

Appendix Table B.5 Profile analysis of pupils who started and completed Reading Recovery between 2005-6 and 2008-9 (N=11,171) – School characteristics			
	Discontinued	Referred	All completers
% achieving L2 or above – Reading***			
Mean	78.3	75.5	77.6
SD	12.0	12.7	12.2
Total	6648	1893	8541
% achieving L2 or above – Writing***			
Mean	73.3	70.9	72.8
SD	14.1	14.7	14.3
Total	6648	1893	8541
% achieving L2 or above – Maths***			
Mean	84.5	83.2	84.2
SD	10.3	10.9	10.4
Total	6648	1893	8541
% achieving L2 or above – Science***			
Mean	82.5	81.0	82.2
SD	13.1	13.8	13.3
Total	6648	1893	8541
School IDACI			
Mean	0.41	0.41	0.41
SD	0.17	0.16	0.17
Total	7390	2099	9489

Significance: p<0.05 (indicated by *), p<0.01 (**), p<0.001 (***).

Appendix C Regression tables for relative impact analysis

This section presents the results of linear and logistic regression analyses that show the associations between pupil demographic characteristics, prior attainment, characteristics of RR participation and school characteristics with the following key outcome variables: overall outcome of RR, Book Level, British Ability Scale, and Reading Age. The findings are discussed following the presentation of the four regression analyses.

- **Overall outcome**

There are two possible outcomes for children who have *completed* the Reading Recovery programme[77] - 'discontinued' and 'referred'. These outcomes are explained as follows:

1. Discontinued (otherwise referred to as Accelerated Progress): These children have made sufficient progress in literacy learning, within the time available, to catch up with the average band for their class, and have been judged to be likely to continue learning at the same rate as their peers, without the need for further special support.
2. Referred (otherwise referred to as Progress): The children have made progress, but have not reached the average band in literacy and will continue to need additional support.

Of the 15,560 children in the RR database, 56% were classified as 'discontinued' and 16% as 'referred' (with 22% ongoing and 6% left/incomplete). The logistic regression analysis investigated the factors associated with the positive outcome of 'discontinued' for those who had completed the programme.

The following variables were independently associated with a *positive* outcome from Reading Recovery (that is, when controlling for all other variables in the model):

- *Ethnicity*: children of mixed heritage background were 1.5 times more likely than children who were white (the reference category) to be discontinued. If the reference category were different, these results may be different.
- *SEN*: children classified as having a special educational need at the start of Reading Recovery were 1.6 times more likely than those without an SEN to be discontinued.

[77] The other three outcomes are ongoing (not yet completed), left (children left the school part way through programme) and incomplete (children were part way through programme when it was suspended e.g., because of funding withdrawal. See Institute of Education Annual Report 2009-10, p.11.

- *RR entry assessments*: all the entry assessments included in the model were positively associated with being discontinued. For example, for each increment in the Book Level score, children were 1.2 times as likely to achieve a positive outcome.
- *FSP scores (prior attainment)*: scores for writing and 'numbers as labels and for counting' were highly significantly associated with being discontinued from RR. Personal, social and emotional development (dispositions and attitudes) was also positively associated.
- *School year*: children who started Reading Recovery in Year 2 were 1.9 times as likely to achieve a positive outcome compared to those in Year 1.
- *Number of weeks on RR*: spending more weeks on RR was associated with being discontinued.
- *RR training year*: being taught by a RR teacher who was trained between 2006-7 and 2008-9 was associated with a greater likelihood of being discontinued compared to being taught by a teacher trained between 1986-7 and 2005-6. Positive outcomes were most strongly associated with a teacher training year of 2007-8, the first year of the national roll-out.
- *School level KS1 attainment*: school level KS1 results were positively associated with a successful outcome from RR.

The following variables were independently associated with a *negative* outcome from Reading Recovery (that is, when controlling for all other variables in the model):

- *Age*: being younger within the academic year. Compared to children born in the first quarter of the academic year, those born between December and May were 20% less likely to have a positive outcome.
- *FSM eligibility*: being eligible for FSM (a proxy for being deprived) was associated with a lesser likelihood of a positive outcome from RR compared to children who were not eligible.
- *FSP scores (prior attainment)*: physical development at the end of Reception year was negatively associated with being discontinued.

Overall, 21% of the variance in the overall outcome was explained by the variables in the model.

Table 8.2	Logistic regression: factors associated with a positive outcome (discontinued) from Reading Recovery
Base: pupils who started the programme between 2005-6 and 2008-9 (N=9088)	
	Odds
Age (in quarters)	
Born Sep-Nov (reference)	1.0
Born Dec-Feb	0.8**
Born Mar-May	0.8**
Born Jun-Aug	0.9
Ethnic group	
White (reference)	1.0
Black	1.0
Asian	1.4
Mixed heritage	1.5*
Other	1.0
FSM eligibility	
Not eligible (reference)	1.0
Eligible	0.8**
SEN status	
Not classified as SEN (reference)	1.0
Classified as SEN	1.6***
RR entry assessments	
Book level (at entry)	1.2***
Letter identification (at entry)	1.0***
Writing vocabulary (at entry)	1.0***
BAS (at entry)	1.1***
FSP scores (prior attainment)	
Writing	1.1***
Numbers as labels and for counting	1.2***
Personal, social and emotional development – dispositions and attitudes	1.1*
Physical development	0.9*
School year	
Year 1 (reference)	1.0
Year 2	1.9***
Number of weeks on RR	1.1***
RR training year	
Before 2006 (reference)	1.0
2006-7	1.3**
2007-8	1.5***
2008-9	1.2*
% achieving L2 in reading (school level)	1.0***
R^2	0.21***

Significance: p<0.05 (indicated by *), p<0.01 (**), p<0.001 (***).

- **Book Level**

As explained above, Book Level is one of the six measures of the Observation Survey (Clay, 2002) and the test is administered at entry and on exit from Reading Recovery. The scores range from 0 – 26 and indicate the child's progress in reading text. The following variables were independently and *positively* associated with Book Level scores on exit from Reading Recovery (when controlling for all other variables in the model):

- *Age*: being younger in the year (born between March and August, compared to being born September to November).
- *First language*: having English as an additional language, compared to having English as a first language.
- *FSM* eligibility: being eligible for FSM, compared to not being eligible.
- *RR entry assessments*: higher scores at entry to RR were associated with a higher Book Level exit score.
- *FSP*: Reading scores and two numeracy measures: 'numbers as labels and for counting' and 'shape, space and measures'.
- *School year*: Starting RR in Year 2.
- *Number of weeks on RR*: Spending more weeks on RR.
- *RR teacher training year:* being taught by a RR teacher who was trained in 2006-7, compared to 1986-2006.
- *School level KS1 results.*

The following variables were independently and *negatively* associated with Book Level scores on exit from Reading Recovery:

- *SEN*: being registered as having an SEN, compared to not being registered.
- *FSP*: Creative development at the end of Reception year.

The variance explained by the model was 33%.

Table 8.3 Linear regression: factors associated with Book Level scores on exit from Reading Recovery			
Base: pupils who started the programme between 2005-6 and 2008-9 (N=9140)			
	Standard error	Standardised coefficients	Unstandardised coefficients (Beta)
Age (quarters)			
Born Mar – May	0.11	0.02*	0.22*
Born June – August	0.12	0.05***	0.52***
Other pupil background characteristics			
First Language – not English	0.09	0.05***	0.4***
FSM –eligible	0.08	0.03**	0.26**
SEN - registered	0.08	-0.07***	-0.60***
RR entry assessments			
Book level (at entry)	0.03	0.066***	0.18***
Letter identification (at entry)	0.00	0.315***	0.11***
Writing vocabulary (at entry)	0.01	0.069***	0.04***
BAS raw score (at entry)	0.01	0.153***	0.12***
FSP scores (prior attainment)			
Reading	0.04	0.07**	0.13**
Numbers as labels and for counting	0.04	0.24***	0.34***
Shape, space and measures	0.04	0.07**	0.11**
Creative development	0.04	-0.06*	-0.09*
School year			
Started RR in Year 2	0.13	0.10***	1.0***
Number of weeks on RR	0.01	0.31***	0.15***
RR training year			
RR training year 2006-7	0.10	0.06***	0.63***
% achieving L2 in reading (school level)	0.00	0.05***	0.02***
R^2	0.33***		

Significance: p<0.05 (indicated by *), p<0.01 (**), p<0.001 (***).

- **British Ability Scales Word Reading Test**

The British Ability Scales (BAS) Word Reading Test is administered as a standardised assessment external to Reading Recovery and is a single word reading test, containing regular and irregular words. The following variables were independently and *positively* associated with BAS scores at exit from RR (when controlling for all other variables in the model):

- *Ethnicity*: being Asian, compared to being White.
- *First language*: having English as an additional language.
- *SEN*: being registered as SEN.
- *RR entry assessments*: Letter Identification, Writing Vocabulary and BAS score at entry.
- *FSP*: The measures 'writing', 'numbers as labels and for counting' and 'shape, space and measures'.
- *School year*: Starting RR in Year 2.
- *Number of weeks on RR*: Spending more weeks on RR.
- *RR teacher training year:* being taught by a RR teacher who was trained in 2006-7, 2007-8 or 2008-9.
- *School level KS1 results:* in reading.

The following variables were *negatively* associated with BAS exit scores:

- *Age*: being born between December and May, compared to being born Sep-Nov.
- *RR entry assessments*: Concepts about Print.
- *FSP*: creative development.

Twenty-nine per cent of the variance was explained by the model.

Table 8.4	Linear regression: factors associated with British Ability Scale scores on exit from Reading Recovery		
Base: pupils who started the programme between 2005-6 and 2008-9 (N=9073)			
	Standard error	Standardised coefficients	Unstandardised coefficients (Beta)
Age			
Born Dec – Feb	0.23	-0.02*	-0.62*
Born Mar – May	0.27	-0.02*	-0.62*
Other pupil background characteristics			
Ethnicity – Asian	0.34	0.05***	1.55***
First Language – not English	0.27	0.06***	1.45***
SEN - registered	0.20	0.06***	-1.18***
RR entry assessments			
Letter identification (at entry)	0.01	0.25***	0.21***
Concepts About Print (at entry)	0.03	-0.04***	-0.11***
Writing Vocabulary (at entry)	0.02	0.03**	0.05**
BAS Raw Score (at entry)	0.02	0.33***	0.65***
FSP scores (prior attainment)			
Creative development	.098	-0.11***	-.412
Writing	.088	0.05**	.234
Numbers as labels and for counting	.092	0.18***	.645
Shape, space and measures	.097	0.06*	.228
School year			
Started RR in Year 2	.285	0.07***	1.685
Number of weeks on RR	.022	0.15***	.175
RR teacher training year			
2006-7	.281	0.08***	2.192
2007-8	.268	0.05***	1.165
2008-9	.292	0.07***	1.730
% achieving L2 in reading (school level)	.008	0.02*	.018
R^2	0.29***		

Significance: p<0.05 (indicated by *), p<0.01 (**), p<0.001 (***).

- **Reading Age (British Ability Scales)**

The following variables were *positively* associated with Reading Age on exit from RR as measured in half years (4.0 – 4.5, 4.5 – 5.0 etc):

- *Ethnicity*: being Black or Asian, compared to being White.
- *First Language*: not English.
- *RR entry assessments*: Letter Identification, Writing Vocabulary and BAS score at entry.
- *FSP*: The maths measures 'numbers as labels and for counting' and 'shape, space and measures' and writing.
- *Number of weeks on RR*: Spending more weeks on RR.
- *RR teacher training year:* being taught by a RR teacher who was trained in 2006-7, 2007-8 or 2008-9.
- *School year*: Starting RR in Year 2.

The following variables were *negatively* associated with Reading Age on exit from RR:

- *SEN*: registered as SEN.
- *FSP*: creative development at the end of Reception year.

The model explained 28% of the variance.

Table 8.5 Linear regression: factors associated with Reading Age (measured in half years) on exit from Reading Recovery			
Base: pupils who started the programme between 2005-6 and 2008-9 (N=9017)			
	Standard error	Standardised coefficients	Unstandardised coefficients (Beta)
Ethnicity			
Black	0.02	0.03**	0.06**
Asian	0.02	0.06***	0.12***
SEN - registered	0.01	-0.05***	-0.08***
First language – not English	0.02	0.05***	0.08***
RR entry assessments			
Letter identification (at entry)	0.00	0.28***	0.02***
Writing Vocabulary (at entry)	0.00	0.05***	0.00***
BAS Raw Score (at entry)	0.00	0.26***	0.03***
FSP scores (prior attainment)			
Creative development	0.01	-0.10***	-0.03***
Writing	0.01	0.04*	0.01*
Numbers as labels and for counting	0.01	0.20***	0.05***
Shape, space and measures	0.01	0.06*	0.02*
Number of weeks on RR	0.00	0.19***	0.01***
RR training year			
2006-7	0.02	0.09***	0.15***
2007-8	0.02	0.05***	0.08***
2008-9	0.02	0.08***	0.12***
School year			
Started RR in Year 2	.018	0.06***	0.09***
R^2	0.27***		

Significance: p<0.05 (indicated by *), p<0.01 (**), p<0.001 (***).

Appendix D Sub-group analysis for impact with school level administrative data

Appendix Table D.1 Impact of Every Child a Reader on school-level outcomes in 2008/09: School type

Comparison group: All schools that received ECaR for the first time in 2009/2010

ECaR group: All schools that received ECaR for the first time in either 2006/2007, 2007/2008 or 2008/2009 and kept it continuously until at least 2008/2009

	% reaching level 2 reading at KS1	% reaching level 2 writing at KS1	% reaching level 2 maths at KS1	% reaching level 4 in English at KS2	% reaching level 5 in English at KS2
Community schools	1.674*	2.404**	-0.323	1.594	0.656
Standard error	[0.869]	[0.968]	[0.812]	[1.044]	[1.059]
VA and VC schools	2.474*	2.266	-0.688	1.123	0.036
Standard error	[1.280]	[1.410]	[1.121]	[1.452]	[1.671]
Academy and foundation schools	6.828	9.034	11.905***	3.811	-9.067*
Standard error	[5.053]	[5.583]	[4.070]	[5.424]	[5.385]
N (comparison schools)	*513*	*513*	*513*	*427*	*427*
N (ECaR schools)	*578*	*578*	*578*	*506*	*506*

*Note 1: Standard errors in brackets. * p < 0.10, ** p < 0.05, *** p < 0.01. Outcomes are measured at the school level. Schools in the ECaR group receive ECaR (or Reading Recovery) for the first time between academic years 2006/2007 to 2008/2009. Schools in the "comparison" group receive ECaR for the first time in the academic year 2009/2010. All outcomes in the "post" period are taken from the academic year 2008/2009; outcomes in the "pre" period are taken from the academic year 2005/2006.*

Note 2: This specification takes account of contemporaneous characteristics of the school (%FSM, %EAL,%SEN, number of pupils in the yeargroup) and also accounts for its past performance (the mean score in the FSP CLL component from 2005/2006 and the average of the relevant outcome for the three years prior to 2006/2007). The estimated impacts are derived from a difference-in-differences model described in the methodology section (2.3). Standard errors are clustered at the school level to account for serial correlation in the error terms between the same school over time.

Appendix Table D.2 Impact of Every Child a Reader on school-level outcomes in 2008/09: School composition: % White British

Comparison group: All schools that received ECaR for the first time in 2009/2010

ECaR group: All schools that received ECaR for the first time in either 2006/2007, 2007/2008 or 2008/2009 and kept it continuously until at least 2008/2009

	% reaching level 2 reading at KS1	% reaching level 2 writing at KS1	% reaching level 2 maths at KS1	% reaching level 4 in English at KS2	% reaching level 5 in English at KS2
% White British: Lowest quintile	2.310**	2.587**	0.068	1.687	0.538
Standard error	[1.026]	[1.147]	[0.936]	[1.218]	[1.217]
% White British: 2nd quintile	2.052	3.343**	-0.796	1.871	1.511
Standard error	[1.359]	[1.439]	[1.181]	[1.571]	[1.549]
% White British: 3rd quintile	2.287	3.362*	1.527	-0.503	-3.630*
Standard error	[1.708]	[1.851]	[1.488]	[1.944]	[1.951]
% White British: 4th quintile	1.882	2.185*	0.226	2.649	2.207
Standard error	[1.829]	[2.184]	[1.517]	[2.095]	[2.643]
% White British: Highest quintile	0.877	-1.93	-1.966	0.29	2.213
Standard error	[1.822]	[2.181]	[1.839]	[2.374]	[2.618]
N (comparison schools)	*498*	*498*	*498*	*418*	*418*
N (ECaR schools)	*562*	*562*	*562*	*491*	*491*

Note 1: see Appendix Table D.1

Note 2: see Appendix Table D.1

Note 3: Quintiles of % White British students at the school level was derived from the national sample of schools.

Appendix Table D.3 Impact of Every Child a Reader on school-level outcomes in 2008/09: School composition: % Eligible for Free School Meals (FSM)

Comparison group: All schools that received ECaR for the first time in 2009/2010

ECaR group: All schools that received ECaR for the first time in either 2006/2007, 2007/2008 or 2008/2009 and kept it continuously until at least 2008/2009

	% reaching level 2 reading at KS1	% reaching level 2 writing at KS1	% reaching level 2 maths at KS1	% reaching level 4 in English at KS2	% reaching level 5 in English at KS2
% FSM: Lowest quintile	1.607	1.109	0.951	5.144***	6.508
Standard error	[2.384]	[2.450]	[1.494]	[1.866]	[4.645]
% FSM: 2nd quintile	1.212	2.631	-0.202	-0.92	-0.611
Standard error	[1.638]	[2.012]	[1.306]	[2.617]	[3.533]
% FSM: 3rd quintile	2.005	2.496	0.425	0.807	-1.784
Standard error	[1.513]	[1.670]	[1.250]	[1.829]	[2.327]
% FSM: 4th quintile	1.760*	1.883	-0.931	-0.446	-1.182
Standard error	[1.069]	[1.224]	[1.020]	[1.348]	[1.462]
% FSM: highest quintile	2.112**	2.372**	-0.392	2.219*	1.335
Standard error	[0.984]	[1.095]	[0.904]	[1.153]	[1.084]
N (comparison schools)	*513*	*513*	*513*	*427*	*427*
N (ECaR schools)	*578*	*578*	*578*	*506*	*506*

Note 1: see Appendix Table D.1

Note 2: see Appendix Table D.1

Note 3: Quintiles of % students with FSM at the school level was derived from the national sample of schools.

Appendix E Sub-group analysis for impact with pupil level administrative data

Appendix Table E.1 Impact of Every Child a Reader in the school on pupil level outcomes (below 10th percentile, broken down by pupil's FSM status)

Comparison group: All pupils below the 10th percentile of the FSP CLL national distribution in schools that received ECaR for the first time in 2009/2010

ECaR group: All pupils below the 10th percentile of the FSP CLL national distribution in schools that received ECaR for the first time in either 2006/2007, 2007/2008 or 2008/2009 and kept it continuously until at least 2008/2009

Impact (for pupils below the 10th percentile of FSP CLL distribution)	Above level 2 at KS1 reading	Above level 2 at KS1 speaking and listening	Above level 2 at KS1 writing
For pupils without FSM	5.640*	2.458	3.207
Standard error	[3.347]	[3.816]	[3.245]
For pupils with FSM	5.01	3.126	2.346
Standard error	[3.271]	[3.778]	[3.152]
N (comparison pupils)	*3789*	*3789*	*3789*
N (treatment pupils)	*6213*	*6206*	*6212*

Impact (for pupils below the 10th percentile of FSP CLL distribution)	Above level 2 at KS1 maths	SEN with statement at KS1	SEN without statement at KS1
For pupils without FSM	1.485	1.908	-2.568
Standard error	[3.521]	[1.802]	[3.964]
For pupils with FSM	1.515	3.103*	-5.855
Standard error	[3.570]	[1.810]	[3.822]
N (comparison pupils)	*3791*	*3799*	*3799*
N (treatment pupils)	*6212*	*6246*	*6246*

*Note: Standard errors in brackets. * p < 0.10, ** p < 0.05, *** p < 0.01. Outcomes are measured at the pupil level. Pupils in the ECaR group are in schools that receive ECaR (or Reading Recovery) for the first time between academic years 2006/2007 to 2008/2009. Pupils in the "comparison" group are in schools that receive ECaR for the first time in the academic year 2009/2010. All outcomes in the "post" period are taken from the academic year 2008/2009; outcomes in the "pre" period are taken from the academic year 2005/2006. This specification takes account of pupil level characteristics (EAL, FSM, SEN status, gender and FSP CLL score) and an average measure of the schools' past performance in reading (before any of the schools received ECaR). The estimated impacts are derived from a difference-in-differences model. Standard errors are clustered at the school level to account for serial correlation in the error terms between the same school over time, and for correlation of pupils' outcomes within schools.*

Appendix Table E.2 Impact of Every Child a Reader in the school on pupil level outcomes (below 10th percentile, broken down by pupil's EAL status)

Comparison group: All pupils below the 10th percentile of the FSP CLL national distribution in schools that received ECaR for the first time in 2009/2010

ECaR group: All pupils below the 10th percentile of the FSP CLL national distribution in schools that received ECaR for the first time in either 2006/2007, 2007/2008 or 2008/2009 and kept it continuously until at least 2008/2009

Impact (for pupils below the 10th percentile of FSP CLL distribution)	Above level 2 at KS1 reading	Above level 2 at KS1 speaking and listening	Above level 2 at KS1 writing
For pupils without EAL	4.711	2.923	1.24
Standard error	[3.331]	[3.778]	[3.230]
For pupils with EAL	6.199*	3.187	4.516
Standard error	[3.458]	[3.963]	[3.330]
N (comparison pupils)	*3792*	*3792*	*3792*
N (treatment pupils)	*6205*	*6198*	*6204*

Impact (for pupils below the 10th percentile of FSP CLL distribution)	Above level 2 at KS1 maths	SEN with statement at KS1	SEN without statement at KS1
For pupils without EAL	0.18	2.684	-4.226
Standard error	[3.553]	[1.829]	[3.927]
For pupils with EAL	3.034	2.294	-3.217
Standard error	[3.661]	[1.803]	[4.042]
N (comparison pupils)	*3794*	*3795*	*3795*
N (treatment pupils)	*6204*	*6231*	*6231*

Note: See Appendix Table E.1

Appendix Table E.3 Impact of Every Child a Reader in the school on pupil level outcomes (below 10th percentile, broken down by pupil's ethnic group)

Comparison group: All pupils below the 10th percentile of the FSP CLL national distribution in schools that received ECaR for the first time in 2009/2010

ECaR group: All pupils below the 10th percentile of the FSP CLL national distribution in schools that received ECaR for the first time in either 2006/2007, 2007/2008 or 2008/2009 and kept it continuously until at least 2008/2009

Impact (for pupils below the 10th percentile of FSP CLL distribution)	Above level 2 at KS1 reading	Above level 2 at KS1 speaking and listening	Above level 2 at KS1 writing
White	5.659*	3.997	2.563
Standard error	[3.352]	[3.809]	[3.260]
Black Caribbean	0.004	1.431	-7.541
Standard error	[6.532]	[6.636]	[6.047]
Black African	11.131**	0.86	7.904*
Standard error	[4.839]	[5.232]	[4.654]
Indian	7.402	10.142*	11.319**
Standard error	[5.411]	[5.759]	[5.433]
Pakistani	2.845	4.441	0.673
Standard error	[4.452]	[4.628]	[4.208]
Bangladeshi	4.437	-5.234	1.882
Standard error	[5.501]	[5.950]	[4.821]
Mixed any	4.032	-0.865	0.897
Standard error	[5.348]	[5.612]	[5.303]
N (comparison pupils)	*3776*	*3776*	*3776*
N (treatment pupils)	*6185*	*6178*	*6184*

Appendix Table E.3 (continued)

Impact (for pupils below the 10th percentile of FSP CLL distribution)	Above level 2 at KS1 maths	SEN with statement at KS1	SEN without statement at KS1
White	0.613	2.468	-5.444
Standard error	[3.628]	[1.823]	[3.923]
Black Caribbean	-1.615	3.937	-2.79
Standard error	[6.931]	[3.849]	[7.057]
Black African	3.701	1.026	-4.606
Standard error	[4.983]	[2.461]	[5.360]
Indian	1.373	1.143	-2.511
Standard error	[5.755]	[3.039]	[7.933]
Pakistani	5.693	1.643	1.093
Standard error	[4.507]	[1.965]	[4.894]
Bangladeshi	-2.911	5.425**	-9.564
Standard error	[5.195]	[2.483]	[6.057]
Mixed any	1.015	3.341	0.295
Standard error	[5.402]	[2.850]	[5.742]
N (comparison pupils)	*3778*	*3779*	*3779*
N (treatment pupils)	*6184*	*6211*	*6211*

Note: See Appendix Table E.1

As an indication of the cell sizes in the regression, column 1 in Appendix Table E.3 includes 9,961 pupils, 6,185 in ECaR schools and 3,776 in comparison schools. Of those in ECaR schools, 3,529 are white. The number of those in each other ethnic group is as follows: Black Caribbean: 200, Black African: 516, Indian: 201, Pakistani: 1,061, Bangladeshi: 470, mixed race: 360, other: 430. Our restricted sample of FSP scores in our "pre" period means that these pupils are not distributed evenly across years. In the "pre" period the sample size for each ethnic group are very low: white: 309, Black Caribbean: 15, Black African: 40, Indian: 21, Pakistani: 101, Bangladeshi: 41, mixed race: 18, other: 37.

Appendix Table E.4 Impact of Every Child a Reader in the school on pupil level outcomes (below 10th percentile, broken down by pupil's gender)

Comparison group: All pupils below the 10th percentile of the FSP CLL national distribution in schools that received ECaR for the first time in 2009/2010

ECaR group: All pupils below the 10th percentile of the FSP CLL national distribution in schools that received ECaR for the first time in either 2006/2007, 2007/2008 or 2008/2009 and kept it continuously until at least 2008/2009

Impact (for pupils below the 10th percentile of FSP CLL distribution)	Above level 2 at KS1 reading	Above level 2 at KS1 speaking and listening	Above level 2 at KS1 writing
Female pupils	3.536	1.353	1.263
Standard error	[3.407]	[3.868]	[3.322]
Male pupils	6.402**	3.599	3.658
Standard error	[3.241]	[3.734]	[3.132]
N (comparison pupils)	*3804*	*3804*	*3804*
N (treatment pupils)	*6228*	*6221*	*6227*

Impact (for pupils below the 10th percentile of FSP CLL distribution)	Above level 2 at KS1 maths	SEN with statement at KS1	SEN without statement at KS1
Female pupils	0.4	2.656	-4.475
Standard error	[3.624]	[1.771]	[4.045]
Male pupils	2.075	2.414	-3.616
Standard error	[3.485]	[1.810]	[3.788]
N (comparison pupils)	*3806*	*3799*	*3799*
N (treatment pupils)	*6227*	*6246*	*6246*

Note: See Appendix Table E.1

Appendix Table E.5 Impact of receiving Reading Recovery on pupil level outcomes (below 10th percentile, broken down by the year group in which the pupil first received Reading Recovery)

Comparison group: All pupils below the 10th percentile of the FSP CLL national distribution in schools that received ECaR for the first time in 2009/2010

ECaR group: All pupils below the 10th percentile of the FSP CLL national distribution that received Reading Recovery in schools that received ECaR for the first time in either 2006/2007, 2007/2008 or 2008/2009 and kept it continuously until at least 2008/2009

Impact (for pupils below the 10th percentile of FSP CLL distribution):	Above level 2 at KS1 reading	Above level 2 at KS1 speaking and listening	Above level 2 at KS1 writing
Year 1	8.49	3.932	5.385
Standard error	[5.462]	[6.567]	[5.489]
Year 2	6.637	0.667	1.1
Standard error	[4.532]	[4.791]	[4.084]
N (comparison pupils)	*4560*	*4559*	*4560*
N (treatment pupils)	*846*	*846*	*846*

Impact (for pupils below the 10th percentile of FSP CLL distribution):	Above level 2 at KS1 maths	SEN with statement at KS1	SEN without statement at KS1
Year 1	3.398	4.200*	-10.700*
Standard error	[6.257]	[2.455]	[5.925]
Year 2	-2.717	-0.642	2.698
Standard error	[4.689]	[2.530]	[5.095]
N (comparison pupils)	*4562*	*4556*	*4556*
N (treatment pupils)	*846*	*847*	*847*

Note: See Appendix Table E.1

Appendix F Additional tables for analysis of impact with administrative data

Appendix Table F.1 Impact of receiving Reading Recovery on pupil level outcomes (below 10th percentile, broken down by the pupil's EAL status)

Comparison group: All pupils below the 10th percentile of the FSP CLL national distribution in schools that received ECaR for the first time in 2009/2010

ECaR group: All pupils below the 10th percentile of the FSP CLL national distribution that received Reading Recovery in schools that received ECaR for the first time in either 2006/2007, 2007/2008 or 2008/2009 and kept it continuously until at least 2008/2009

Impact (for pupils below the 10th percentile of FSP CLL distribution):	Above level 2 at KS1 reading	Above level 2 at KS1 speaking and listening	Above level 2 at KS1 writing
Non- EAL	9.660***	1.155	4.103
Standard error	[2.629]	[2.861]	[2.527]
EAL	10.650***	-0.958	5.611
Standard error	[3.431]	[3.590]	[3.469]
N (comparison pupils)	*4544*	*4543*	*4544*
N (treatment pupils)	*845*	*845*	*845*

Impact (for pupils below the 10th percentile of FSP CLL distribution):	Above level 2 at KS1 maths	SEN with statement at KS1	SEN without statement at KS1
Non- EAL	-3.137	-5.533***	9.279***
Standard error	[2.594]	[0.942]	[2.358]
EAL	-2.679	-3.077***	12.947***
Standard error	[3.612]	[0.814]	[3.670]
N (comparison pupils)	*4546*	*4551*	*4551*
N (treatment pupils)	*845*	*846*	*846*

*Note: Standard errors in brackets. * p < 0.10, ** p < 0.05, *** p < 0.01. Outcomes are measured at the pupil level. Schools in the ECaR group receive Reading Recovery for the first time between academic years 2006/2007 to 2008/2009. Schools in the "comparison" group receive ECaR for the first time in the academic year 2009/2010. All outcomes are taken from 2008/2009 only. The estimated impacts are derived from a regression model. This specification takes account of pupil level characteristics (EAL, FSM, SEN status, gender and FSP CLL score) and an average measure of the schools' past performance in reading (before any of the schools received ECaR). Standard errors are clustered at the school level to account for correlation of pupils' outcomes within schools.*

Appendix Table F.2 Impact of receiving Reading Recovery on pupil level outcomes (below 10th percentile, broken down by the pupil's FSM status)

Comparison group: All pupils below the 10th percentile of the FSP CLL national distribution in schools that received ECaR for the first time in 2009/2010

ECaR group: All pupils below the 10th percentile of the FSP CLL national distribution that received Reading Recovery in schools that received ECaR for the first time in either 2006/2007, 2007/2008 or 2008/2009 and kept it continuously until at least 2008/2009

Impact (for pupils below the 10th percentile of FSP CLL distribution):	Above level 2 at KS1 reading	Above level 2 at KS1 speaking and listening	Above level 2 at KS1 writing
Non- FSM	9.095***	-1.495	4.484*
Standard error	[2.793]	[2.952]	[2.723]
FSM	11.151***	2.29	4.681
Standard error	[2.961]	[3.063]	[2.866]
N (comparison pupils)	*4542*	*4541*	*4542*
N (treatment pupils)	*846*	*846*	*846*

Impact (for pupils below the 10th percentile of FSP CLL distribution):	Above level 2 at KS1 maths	SEN with statement at KS1	SEN without statement at KS1
Non- FSM	-4.134	-5.316***	13.511***
Standard error	[2.817]	[0.851]	[2.740]
FSM	-1.756	-3.732***	7.533***
Standard error	[3.007]	[0.923]	[2.629]
N (comparison pupils)	*4544*	*4556*	*4556*
N (treatment pupils)	*846*	*847*	*847*

Note: See Appendix Table F.1

Appendix Table F.3 Impact of receiving Reading Recovery on pupil level outcomes (below 10th percentile, broken down by whether Reading Recovery was successfully discontinued)

Comparison group: All pupils below the 10th percentile of the FSP CLL national distribution in schools that received ECaR for the first time in 2009/2010

ECaR group: All pupils below the 10th percentile of the FSP CLL national distribution that received Reading Recovery in schools that received ECaR for the first time in either 2006/2007, 2007/2008 or 2008/2009 and kept it continuously until at least 2008/2009

Impact (for pupils below the 10th percentile of FSP CLL distribution):	Above level 2 at KS1 reading	Above level 2 at KS1 speaking and listening	Above level 2 at KS1 writing
Not successfully discontinued	2.277	-4.724*	-1.524
Standard error	[2.469]	[2.673]	[2.344]
Successfully discontinued	30.676***	13.447***	20.805***
Standard error	[3.023]	[3.213]	[3.335]
N (comparison pupils)	*4560*	*4559*	*4560*
N (treatment pupils)	*846*	*846*	*846*

Impact (for pupils below the 10th percentile of FSP CLL distribution):	Above level 2 at KS1 maths	SEN with statement at KS1	SEN without statement at KS1
Not successfully discontinued	-7.983***	-5.248***	15.229***
Standard error	[2.602]	[0.753]	[2.232]
Successfully discontinued	10.082***	-2.819***	-1.224
Standard error	[3.141]	[0.937]	[3.539]
N (comparison pupils)	*4562*	*4556*	*4556*
N (treatment pupils)	*846*	*847*	*847*

Note: See Appendix Table F.1

Appendix Table F.4 Impact of receiving Reading Recovery on pupil level outcomes (below 10th percentile, broken down by the pupil's ethnic group)

Comparison group: All pupils below the 10th percentile of the FSP CLL national distribution in schools that received ECaR for the first time in 2009/2010

ECaR group: All pupils below the 10th percentile of the FSP CLL national distribution that received Reading Recovery in schools that received ECaR for the first time in either 2006/2007, 2007/2008 or 2008/2009 and kept it continuously until at least 2008/2009

Impact (for pupils below the 10th percentile of FSP CLL distribution):	Above level 2 at KS1 reading	Above level 2 at KS1 speaking and listening	Above level 2 at KS1 writing
White, any	11.195***	-1.553	5.788*
Standard error	[3.197]	[3.421]	[3.279]
Any other ethnic group	9.337***	1.765	3.571
Standard error	[2.744]	[2.967]	[2.633]
N (comparison pupils)	*4523*	*4522*	*4523*
N (treatment pupils)	*840*	*840*	*840*

Impact (for pupils below the 10th percentile of FSP CLL distribution):	Above level 2 at KS1 maths	SEN with statement at KS1	SEN without statement at KS1
White, any	-4.1	-4.086***	12.341***
Standard error	[3.517]	[0.820]	[3.398]
Any other ethnic group	-1.993	-5.108***	9.362***
Standard error	[2.647]	[0.929]	[2.457]
N (comparison pupils)	*4525*	*4530*	*4530*
N (treatment pupils)	*840*	*841*	*841*

Note: See Appendix Table F.1

Appendix Table F.5 Impact of receiving Reading Recovery on pupil level outcomes (below 10th percentile, broken down by the pupil's gender)

Comparison group: All pupils below the 10th percentile of the FSP CLL national distribution in schools that received ECaR for the first time in 2009/2010

ECaR group: All pupils below the 10th percentile of the FSP CLL national distribution that received Reading Recovery in schools that received ECaR for the first time in either 2006/2007, 2007/2008 or 2008/2009 and kept it continuously until at least 2008/2009

Impact (for pupils below the 10th percentile of FSP CLL distribution):	Above level 2 at KS1 reading	Above level 2 at KS1 speaking and listening	Above level 2 at KS1 writing
Female	5.914*	-2.304	-0.984
Standard error	[3.160]	[3.317]	[3.199]
Male	12.383***	1.69	7.733***
Standard error	[2.579]	[2.759]	[2.425]
N (comparison pupils)	*4560*	*4559*	*4560*
N (treatment pupils)	*846*	*846*	*846*

Impact (for pupils below the 10th percentile of FSP CLL distribution):	Above level 2 at KS1 maths	SEN with statement at KS1	SEN without statement at KS1
Female	-8.103**	-3.177***	9.414***
Standard error	[3.205]	[0.969]	[3.454]
Male	-0.179	-5.385***	11.534***
Standard error	[2.538]	[0.796]	[2.242]
N (comparison pupils)	*4562*	*4556*	*4556*
N (treatment pupils)	*846*	*847*	*847*

Note: See Appendix Table F.1

Appendix G Additional tables for analysis of impact with administrative data

Appendix Table G.1 Descriptive statistics for school level outcome variables

Base: Schools in England, excluding special and independent schools							*Survey*
	School's participation in ECaR						
	ECaR never introduced	First ECaR pupils in 2006/2007	First ECaR pupils in 2007/2008	First ECaR pupils in 2008/2009	First ECaR pupils between 2006/2007 and 2008/2009	First ECaR pupils in 2009/2010 (control group)	Total
Reach level 2 reading at KS1	%	%	%	%	%	%	%
2004/2005	86.58	74.60	76.71	77.07	76.62	78.91	85.73
2005/2006	85.98	72.72	75.19	76.03	75.31	77.31	85.03
2006/2007	85.22	73.74	75.60	74.03	74.48	76.98	84.26
2007/2008	85.38	77.71	76.91	74.70	75.79	77.04	84.46
2008/2009	85.62	78.59	79.83	77.13	78.16	78.90	84.90
Bases	*69743*	*607*	*1357*	*2439*	*4403*	*3216*	*77362*
Reach level 2 writing at KS1							
2004/2005	83.95	70.22	72.7	73.11	72.59	75.27	82.98
2005/2006	82.95	68.27	71.88	71.88	71.38	73.72	81.93
2006/2007	81.90	68.94	70.89	69.91	70.07	72.62	80.84
2007/2008	81.65	71.76	71.69	69.26	70.35	71.28	80.54
2008/2009	82.21	74.00	74.42	72.22	73.14	73.91	81.32
Bases	*69743*	*607*	*1357*	*2439*	*4403*	*3216*	*77362*
Reach level 2 maths at KS1							
2004/2005	92.15	82.49	85.65	85.13	84.93	87.12	91.55
2005/2006	91.50	83.24	84.01	84.68	84.27	85.57	90.86
2006/2007	91.08	82.20	84.12	83.91	83.74	85.35	90.42
2007/2008	90.86	83.76	84.54	82.93	83.54	85.11	90.18
2008/2009	90.61	84.36	84.79	84.08	84.34	85.56	90.02
Bases	*69379*	*607*	*1357*	*2439*	*4403*	*3216*	*77362*
Special Educational Needs with statement							
2004/2005	1.45	1.95	1.72	1.75	1.77	1.87	1.49
2005/2006	1.40	1.93	1.62	1.69	1.7	1.93	1.44
2006/2007	1.35	2.31	1.48	1.74	1.74	1.58	1.38
2007/2008	1.27	1.69	1.52	1.50	1.53	1.91	1.31
2008/2009	1.27	1.38	1.58	1.62	1.57	1.58	1.30
Bases	*69379*	*607*	*1357*	*2439*	*4403*	*3210*	*76992*
Special Educational Needs							

without statement							
2004/2005	12.69	17.52	17.46	18.04	17.79	16.82	13.13
2005/2006	13.21	20.38	18.00	19.10	18.94	17.23	13.70
2006/2007	18.69	28.71	25.69	25.72	26.13	23.55	19.32
2007/2008	19.21	29.41	26.99	27.03	27.35	24.88	19.93
2008/2009	19.32	29.08	26.9	27.51	27.54	25.21	20.07
Bases	*69371*	*607*	*1357*	*2439*	*4403*	*3210*	*76984*
Total absences from sessions							
2004/2005	5.34	6.78	6.59	6.31	6.46	6.30	5.46
2005/2006	5.67	7.21	6.96	6.70	6.85	6.68	5.79
2006/2007	5.02	6.30	6.12	5.95	6.05	6.01	5.12
2007/2008	5.13	6.62	6.46	6.37	6.43	6.22	5.26
2008/2009	5.26	6.80	6.50	6.47	6.52	6.36	5.39
Bases	*52935*	*542*	*1146*	*2096*	*3784*	*2444*	*59392*
Reach level 4 in English at KS2							
2004/2005	81.33	65.95	69.57	71.33	70.02	72.97	80.22
2005/2006	81.47	66.84	71.26	71.29	70.63	72.89	80.36
2006/2007	82.68	69.38	72.54	72.35	71.98	73.83	81.55
2007/2008	83.80	73.30	74.20	75.20	74.62	75.32	82.77
2008/2009	82.42	73.25	74.40	73.06	73.49	73.94	81.42
Bases	*52996*	*542*	*1146*	*2096*	*3867*	*2593*	*59373*
Reach level 5 in English at KS2							
2004/2005	28.22	16.24	18.87	18.92	18.52	19.24	27.19
2005/2006	33.91	19.35	23.00	22.20	22.02	24.16	32.67
2006/2007	35.08	19.67	23.22	23.02	22.59	24.43	33.75
2007/2008	31.58	19.49	20.39	21.51	20.88	21.96	30.40
2008/2009	30.93	18.54	21.52	20.56	20.56	21.89	29.79
Bases	*51015*	*556*	*1173*	*2138*	*3867*	*2651*	*57533*
KS2average points score							
2004/2005	27.93	25.83	26.40	26.53	26.39	26.78	27.78
2005/2006	28.10	26.04	26.57	26.65	26.54	26.87	27.94
2006/2007	28.22	26.34	26.74	26.83	26.73	27.03	28.06
2007/2008	28.17	26.61	26.84	26.96	26.88	27.02	28.03
2008/2009	28.17	26.63	27.05	26.95	26.94	27.10	28.03
Bases	*50992*	*556*	*1173*	*2137*	*3868*	*2649*	*57507*

Appendix Table G.2 Descriptive statistics for school level control variables

Base: Schools in England, excluding special and independent schools							*Survey*
	School's participation in ECaR						
Comprehensive school	ECaR never introduced	First ECaR pupils in 2006/2007	First ECaR pupils in 2007/2008	First ECaR pupils in 2008/2009	First ECaR pupils between 2006/2007 and 2008/2009	First ECaR pupils in 2009/2010 (control group)	Total
	%	%	%	%	%	%	%
2004/2005	58.67	79.67	78.06	75.9	77.08	77.46	60.48
2005/2006	58.67	79.67	78.06	75.9	77.08	77.46	60.48
2006/2007	58.65	79.67	78.06	75.9	77.08	77.46	60.46
2007/2008	58.65	79.67	78.06	75.9	77.08	77.46	60.46
2008/2009	58.46	79.67	78.06	75.7	76.97	77.16	60.27
Bases	*72490*	*615*	*1390*	*2510*	*4515*	*3305*	*80310*
Voluntary Aided school							
2004/2005	23.22	10.57	15.83	14.34	14.29	14.37	22.35
2005/2006	23.24	10.57	15.83	14.34	14.29	14.37	22.37
2006/2007	23.24	10.57	15.83	14.34	14.29	14.37	22.38
2007/2008	23.24	10.57	15.83	14.34	14.29	14.37	22.38
2008/2009	23.26	10.57	15.83	14.34	14.29	14.37	22.39
Bases	*72490*	*615*	*1390*	*2510*	*4515*	*3305*	*80310*
Voluntary Controlled school							
2004/2005	16.21	8.94	4.68	8.37	7.31	6.35	15.30
2005/2006	16.18	8.94	4.68	8.37	7.31	6.35	15.28
2006/2007	16.17	8.94	4.68	8.37	7.31	6.35	15.27
2007/2008	16.17	8.94	4.68	8.37	7.31	6.35	15.27
2008/2009	16.13	8.94	4.68	8.37	7.31	6.35	15.23
Bases	*72490*	*615*	*1390*	*2510*	*4515*	*3305*	*80310*
Academy/Foundation school							
2004/2005	1.90	0.81	1.44	1.39	1.33	1.82	1.87
2005/2006	1.91	0.81	1.44	1.39	1.33	1.82	1.87
2006/2007	1.94	0.81	1.44	1.39	1.33	1.82	1.90
2007/2008	1.94	0.81	1.44	1.39	1.33	1.82	1.90
2008/2009	2.15	0.81	1.44	1.59	1.44	2.12	2.11
Bases	*72490*	*615*	*1390*	*2510*	*4515*	*3305*	*80310*
Free school meals							
2004/2005	14.58	36.26	33.25	28.90	31.25	25.82	16.05
2005/2006	13.87	34.44	31.09	27.33	29.49	24.43	15.27
2006/2007	13.65	34.22	31.01	26.76	29.12	24.68	15.09
2007/2008	13.40	32.66	30.22	26.55	28.53	24.04	14.84
2008/2009	13.90	32.50	29.89	26.96	28.62	24.67	15.31
Bases	*64277*	*604*	*1355*	*2424*	*4408*	*3207*	*71867*
White British							
2004/2005	83.78	55.26	58.22	64.65	61.33	69.43	81.88
2005/2006	84.63	55.79	57.88	65.30	61.67	69.50	82.74
2006/2007	82.80	54.77	56.17	62.91	59.63	67.64	80.74
2007/2008	82.00	54.96	55.20	61.97	58.92	67.50	79.93

2008/2009	81.49	52.07	54.30	60.73	57.57	67.01	79.37
Bases	*65080*	*594*	*1339*	*2366*	*4383*	*3115*	*72494*
English as an additional language							
2004/2005	8.59	32.52	28.39	25.86	22.59	10.34	8.59
2005/2006	9.22	32.91	28.80	27.30	23.08	11.03	9.22
2006/2007	8.32	30.72	29.04	25.33	21.36	9.93	8.32
2007/2008	10.65	34.00	32.53	28.65	25.37	12.62	10.65
2008/2009	11.36	35.49	33.64	29.78	25.73	13.37	11.36
Bases	*58648*	*563*	*1277*	*2217*	*4057*	*2875*	*65580*
Special education needs with statement at the year group level							
2004/2005	1.45	1.95	1.72	1.75	1.77	1.87	1.49
2005/2006	1.40	1.93	1.62	1.69	1.70	1.93	1.44
2006/2007	1.35	2.31	1.48	1.74	1.74	1.58	1.38
2007/2008	1.27	1.69	1.52	1.50	1.53	1.91	1.31
2008/2009	1.27	1.38	1.58	1.62	1.57	1.58	1.30
Bases	*69379*	*607*	*1357*	*2439*	*4403*	*3210*	*76992*
Special education needs without statement at the year group level							
2004/2005	12.69	17.52	17.46	18.04	17.79	16.82	13.13
2005/2006	13.21	20.38	18.00	19.10	18.94	17.23	13.70
2006/2007	18.69	28.71	25.69	25.72	26.13	23.55	19.32
2007/2008	19.21	29.41	26.99	27.03	27.35	24.88	19.93
2008/2009	19.32	29.08	26.9	27.51	27.54	25.21	20.07
Bases	*69371*	*607*	*1357*	*2439*	*4403*	*3210*	*76984*
Number of pupils							
2004/2005	215.76	317.32	313.43	304.64	309.09	294.46	224.03
2005/2006	215.01	316.71	313.09	303.47	308.27	292.71	223.38
2006/2007	214.80	312.97	312.60	305.51	308.74	289.88	223.27
2007/2008	216.03	313.01	313.51	306.83	309.74	290.38	224.66
2008/2009	218.03	315.36	314.4	310.05	312.11	291.57	226.69
Bases	*69289*	*617*	*1375*	*2705*	*4408*	*3026*	*77012*

Appendix Table G.3	Descriptive statistics for pupil level outcomes (two cohorts)						
Base: Pupils in comparison and ECaR schools in two cohorts: academic years 2005/2006 and 2008/2009							*Survey*
	School's participation in ECaR and pupil selection						
	Pupils in comparison schools	Pupils in ECaR schools	Pupils in comparison schools (below 10th percentile)	Pupils in ECaR schools (below 10th percentile)	Pupils in comparison schools (below 25th percentile)	Pupils in ECaR schools (below 25th percentile)	Total
Reach level 2 reading at KS1	%	%	%	%	%	%	%
2004/2005	78.33	76.11	41.53	39.12	53.76	52.64	77.05
2008/2009	79.93	78.93	39.02	42.80	55.11	57.54	79.34
Bases	*56126*	*78959*	*4427*	*7208*	*9562*	*15306*	*135085*
Reach level 2 speaking and listening at KS1							
2004/2005	82.05	80.00	47.88	43.58	61.01	59.36	80.87
2008/2009	83.24	80.90	47.42	47.84	63.26	62.17	81.85
Bases	*56131*	*78885*	*4427*	*7191*	*9563*	*15276*	*135016*
Reach level 2 writing at KS1							
2004/2005	74.90	72.33	33.60	33.22	47.41	47.93	73.42
2008/2009	75.45	74.17	32.48	35.80	47.74	50.16	74.69
Bases	*56127*	*78951*	*4427*	*7207*	*9562*	*15305*	*135078*
Reach level 2 maths at KS1							
2004/2005	86.48	84.91	55.82	54.15	68.13	67.86	85.57
2008/2009	86.40	84.88	53.05	53.16	68.05	67.59	85.50
Bases	*56118*	*78912*	*4429*	*7205*	*9564*	*15297*	*135030*
Special educational needs without statement							
2004/2005	22.94	25.00	57.37	60.30	47.23	48.18	24.13
2008/2009	24.97	27.05	64.20	63.10	52.24	51.35	26.20
Bases	*55868*	*78536*	*4428*	*7231*	*9555*	*15317*	*134404*
Special educational needs with statement							
2004/2005	1.77	1.70	8.42	5.70	4.77	3.72	1.73
2008/2009	1.52	1.49	6.84	5.88	3.93	3.38	1.50
Bases	*55868*	*78536*	*4428*	*7231*	*9555*	*15317*	*134404*

Appendix Table G.4 Descriptive statistics for pupil level covariates (two cohorts)

Base: Pupils in comparison and ECaR schools in two cohorts: academic years 2005/2006 and 2008/2009							*Survey*
	School's participation in ECaR and pupil selection						
	Pupils in comparison schools	Pupils in ECaR schools	Pupils in comparison schools (below 10th percentile)	Pupils in ECaR schools (below 10th percentile)	Pupils in comparison schools (below 25th percentile)	Pupils in ECaR schools (below 25th percentile)	Total
White British	%	%	%	%	%	%	%
2004/2005	70.57	62.02	64.12	53.47	65.28	55.58	65.64
2008/2009	67.16	58.38	61.53	52.91	63.29	54.83	61.97
Bases	*55491*	*77945*	*4413*	*7191*	*9530*	*15228*	*133436*
Free school meals							
2004/2005	25.82	32.36	35.26	41.21	33.94	40.97	29.59
2008/2009	26.38	31.30	40.71	42.84	36.63	40.43	29.29
Bases	*55868*	*78536*	*4428*	*7231*	*9555*	*15317*	*134404*
English as an additional language							
2004/2005	23.39	30.00	29.29	40.20	27.39	36.79	27.2
2008/2009	27.47	34.65	36.02	44.23	32.35	39.42	31.72
Bases	*55827*	*78459*	*4430*	*7224*	*9561*	*15307*	*134286*
Foundation stage profile, communication, language and literacy component							
2004/2005	6.24	6.01	3.00	2.96	3.91	3.91	6.11
2008/2009	5.81	5.64	2.83	2.83	3.75	3.73	5.71
Bases	*28868*	*41016*	*4444*	*7249*	*9585*	*15354*	*69884*

Appendix Table G.5 Descriptive statistics for pupil level outcomes (four cohorts)

Base: Pupils in comparison and ECaR schools in one cohorts: academic year2008/2009							*Survey*
	School's participation in ECaR and pupil selection						
	Pupils in comparison schools	Pupils in ECaR schools	Pupils in comparison schools (below 10th percentile)	Pupils in ECaR schools (below 10th percentile)	Pupils in comparison schools (below 25th percentile)	Pupils in ECaR schools (below 25th percentile)	Total
Reach level 2 reading at KS1	%	%	%	%	%	%	%
2005/2006	78.69	66.17	41.41	44.44	53.19	61.36	78.41
2006/2007	78.46	59.73	31.16	40.00	52.56	50.00	78.10
2007/2008	78.65	65.76	37.29	45.95	51.25	57.25	77.78
2008/2009	80.22	67.96	38.89	48.56	55.29	57.90	79.04
Bases	*104774*	*5755*	*4806*	*878*	*10479*	*1861*	*110529*
Reach level 2 speaking and listening at KS1							
2005/2006	82.48	67.16	47.32	33.33	60.69	50.00	82.13
2006/2007	82.11	62.21	44.03	65.00	61.93	67.50	81.72
2007/2008	81.87	66.63	45.04	47.3	59.71	57.25	80.83
2008/2009	83.45	69.36	47.33	47.91	63.33	59.61	82.09
Bases	*104787*	*5747*	*4805*	*878*	*10479*	*1856*	*110534*
Reach level 2 writing at KS1							
2005/2006	75.28	58.29	33.52	38.89	47.50	52.27	74.90
2006/2007	74.06	46.37	26.35	30.00	45.35	40.00	73.52
2007/2008	73.47	54.08	31.96	27.03	45.89	46.38	72.15
2008/2009	75.83	58.25	32.46	36.55	47.98	46.37	74.14
Bases	*104766*	*5756*	*4806*	*878*	*10479*	*1861*	*110522*
Reach level 2 maths at KS1							
2005/2006	86.64	71.05	55.21	44.44	67.08	61.36	86.29
2006/2007	86.36	64.89	52.12	35.00	68.72	50.00	85.94
2007/2008	86.49	71.00	54.00	48.65	67.46	58.70	85.44
2008/2009	86.78	73.13	53.21	51.83	68.54	64.53	85.47
Bases	*104766*	*5752*	*4808*	*878*	*10481*	*1857*	*110518*
Special educational needs without statement							
2005/2006	22.72	59.28	57.42	83.33	47.58	65.91	23.53
2006/2007	23.08	66.98	64.77	90.00	47.61	85.00	23.94
2007/2008	24.37	61.39	59.66	79.73	49.05	74.64	26.90
2008/2009	24.79	55.75	64.97	74.19	52.56	66.42	27.79
Bases	*104299*	*5759*	*4806*	*879*	*10470*	*1863*	*110058*
Special educational needs with statement							
2005/2006	1.77	0.66	8.68	5.56	4.98	2.27	1.75
2006/2007	1.55	1.34	9.38	5.00	4.55	2.50	1.54
2007/2008	1.73	0.99	6.52	1.35	4.05	1.45	1.68
2008/2009	1.48	0.52	6.73	0.91	3.83	0.67	1.39
Bases	*104299*	*5759*	*4806*	*879*	*10470*	*1863*	*110058*

Appendix Table G.6	Descriptive statistics for pupil level covariates (four cohorts)						
Base: Pupils in comparison and ECaR schools in two cohorts: academic years 2005/2006 and 2008/2009							*Survey*
	School's participation in ECaR and pupil selection						
	Pupils in comparison schools	Pupils in ECaR schools	Pupils in comparison schools (below 10th percentile)	Pupils in ECaR schools (below 10th percentile)	Pupils in comparison schools (below 25th percentile)	Pupils in ECaR schools (below 25th percentile)	Total
White British	%	%	%	%	%	%	%
2005/2006	71.54	71.57	66.29	55.56	67.27	68.18	71.54
2006/2007	70.57	62.19	63.32	70.00	66.23	72.50	70.41
2007/2008	69.44	63.40	61.56	55.56	65.15	62.69	69.03
2008/2009	68.12	61.52	62.29	58.85	64.02	60.50	67.49
Bases	*103575*	*5717*	*4786*	*873*	*10432*	*1846*	*109292*
Free school meals							
2005/2006	25.06	45.98	34.17	44.44	33.61	52.27	25.53
2006/2007	25.59	47.90	41.76	60.00	35.24	52.50	26.03
2007/2008	25.38	43.47	44.93	41.89	38.57	42.75	26.61
2008/2009	25.53	43.81	39.70	46.81	35.91	45.52	27.30
Bases	*104299*	*5759*	*4806*	*879*	*10470*	*1863*	*110058*
English as an additional language							
2005/2006	22.42	22.99	26.97	27.78	25.76	29.55	22.44
2006/2007	23.74	28.63	32.39	35.00	28.07	27.50	23.84
2007/2008	25.27	29.73	34.14	43.24	30.87	34.06	25.57
2008/2009	26.59	33.14	35.45	38.12	31.89	35.02	27.22
Bases	*104213*	*5754*	*4808*	*878*	*10473*	*1861*	*109967*
Foundation stage profile, communication, language and literacy component							
2005/2006	6.26	4.77	3.02	3.17	3.91	4.07	6.22
2006/2007	5.95	4.33	2.80	2.94	3.90	3.77	5.91
2007/2008	5.77	4.41	2.85	3.05	3.69	3.71	5.67
2008/2009	5.83	4.65	2.83	2.94	3.76	3.78	5.71
Bases	*31455*	*2951*	*4828*	*879*	*10507*	*1863*	*34406*

Ref: DFE-RR114

ISBN: 978-1-84775-910-8

May 2011