

# Catch Up® Literacy Evaluation report and executive summary February 2019

# Independent evaluators:

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# **Executive summary**

# The project

Catch Up® Literacy is a structured one-to-one intervention that aims to improve the reading ability of struggling readers. The intervention is book-based and comprises two 15-minute sessions each week on a one-to-one basis. Students receive Catch Up® for approximately 6 to 12 months depending on individual need: once the pupil's reading age has caught up to their chronological reading age, they leave the programme. Schools receive three half-day training sessions for the Teaching Assistants (TAs) who deliver the intervention and their designated Catch Up® Literacy coordinator in their school, as well as materials to support the one-to-one sessions.

The project was a randomised controlled trial. One hundred and fifty six primary schools were randomised to receive Catch Up® Literacy or to continue with their existing practices and act as Business as Usual (BaU) control schools. All the schools nominated up to 12 pupils in Years 4 or 5 (aged eight to ten years old) who were underperforming or struggling with literacy. The purpose of this trial was to evaluate the effect of Catch Up® Literacy over existing practice - 'Business as Usual' - for these pupils. The evaluation sought to answer the primary research question: what is the impact of Catch Up® Literacy on Year 4 and Year 5 pupils' reading comprehension skills as measured by the Hodder Group Reading Test (HGRT). The implementation and process evaluation drew on observations of training sessions, surveys of TAs and coordinators, and telephone interviews in Catch Up® schools and a termly activity log for the BaU control schools.

The project started in May 2016 and the testing took place in June-July 2017. The intervention delivery was led by Dr Graham Sigley, Deputy Director of Catch Up®.

#### **Key conclusions**

- 1. The project found no evidence that Catch Up® Literacy improves reading comprehension for children in Years 4 and 5.
- Pupils that have ever been eligible for free school meals made two months additional progress compared to similar pupils in control schools. This result is not statistically significant. This means that the statistical evidence does not meet the threshold set by the evaluator to conclude that the true impact was not zero.
- 3. The intervention was not always delivered as intended. Some schools struggled to resource two one-to-one sessions per week, while in other schools TAs adapted how they delivered individual sessions from what they were taught in the training.

# How secure are the findings?

These findings have a high security rating. This trial was an effectiveness trial, which tested whether the intervention worked under everyday conditions in a large number of schools. The trial was a two armed randomised controlled trial. The trial was well powered. The pupils in Catch Up® classes were similar to those in the BaU control schools in terms of prior attainment. However, 17% of the pupils who started the trial were not included in the final analysis, which was mainly due to absence and illness.

# What are the findings?

There was no evidence that Catch Up® Literacy had an overall impact on the primary outcome -pupils' attainment in reading comprehension skills as measured by HGRT or the secondary outcomes - reading and reading comprehension skills as measured by Salford Sentence Reading Test (SSRT). This was also the case when considering pupils who were eligible for free school meals (FSM) at anytime during the last six years. There was also no evidence that the intervention had an effect on pupils' self-reported

attitude to literacy and attitude to school. The evaluation found that the intervention worked better for boys than for girls (the intervention boys scored, on average, 0.98 points higher on the HGRT when compared to the BaU control group boys and the intervention girls scored, on average, 1.05 points less on the HGRT when compared to the BaU control group girls). The negative gender effect for girls within intervention schools was found to be statistically significant.

Key factors for successful implementation of Catch Up® Literacy were: providing the time to deliver two one-to-one 15 minute sessions per week; selecting the 'right' pupils for the intervention (those that are struggling readers and identified as reading below their chronological age); only using trained TAs (or other trained individuals) to deliver the intervention, and considering succession planning (as developers do not allow Catch Up® Literacy to be cascaded to other staff, and must always be delivered by someone who has attended the training programme).

This trial built on the findings of a previous evaluation funded by the EEF. The first evaluation found that pupils who received Catch Up® Literacy improved their literacy outcome by two additional months compared with the control group pupils, although the result was not statically significant. It is possible that the difference in results between the two projects is due to differences in how Catch Up® Literacy was delivered. Most notably, in the first project, Catch Up® Literacy was delivered at the primary-secondary transition, whereas in this second larger evaluation, the focus was on primary pupils in Years 4 and 5.

#### How much does it cost?

The average cost per pupil per year (averaged over three years) was £53.20. The main costs were the cost of the training and the programme materials.

Table 1: Summary of impact on primary outcome (As measured by Hodder Group Reading Test)

Group	Effect size (95% confidence interval)	Estimated months' progress	EEF security rating	Number of pupils	p-value	EEF cost rating
Catch Up® Literacy vs. BaU control	0.01 (-0.16;0.18)	0		1,006	0.88	3333 <b>3</b>
Catch Up® Literacy vs. BaU control (everFSM only)	0.10 (-0.09;0.30)	2	N/A	494	0.10	£££££

# Introduction

#### Intervention

Catch Up® Literacy is a structured one-to-one intervention for learners from the age of six to fourteen who are struggling to learn to read (i.e. those whose reading age is significantly below¹ their chronological age). Catch Up® Literacy involves a 15-minute individual session for each pupil, delivered twice a week for approximately 6 to 12 months (depending on individual pupil need)². The intervention uses a book-based approach to support learners' reading so they activate both dimensions of reading – word recognition processes (including phonics) and language comprehension processes. It is targeted to the needs of individual learners, identified through a bank of assessments (part of the Catch Up® Literacy intervention). It brings together a range of evidence-based approaches and is grounded in academic research³. Catch Up® Literacy was first made available to schools in 1998.

A member of staff within each school manages Catch Up® Literacy and the intervention is usually delivered by supporting adults (including teachers, classroom assistants, carers and mentors) who have attended Catch Up® Literacy training delivered by a Catch Up® Accredited Trainer. In this evaluation, the intervention was delivered by TAs.

Catch Up® Literacy provides an integrated training, resource and support package which includes:

- three half-day training sessions
- a file for those delivering the intervention
- a pupil progress booklet and session record sheets to copy or download
- support sessions and resources for coordinators and
- the opportunity to attend a half-day review session six months after training.

# Deliverers also have access to:

- an online Catch Up® Literacy booklist (a catalogue of over 8,000 books that have been graded to Catch Up® Literacy levels)
- accreditation<sup>4</sup>
- support from the Catch Up® Literacy Community
- a website login to access extra resources
- credits for Catch Up® Digital games<sup>5</sup>.

Catch Up® Literacy is a structured intervention that deliverers are taught to follow. The training stresses the importance of adhering to the individual session structure and all resources and materials needed to deliver the intervention are standardised. The sessions are delivered in classrooms or quiet areas of participating schools.

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<sup>&</sup>lt;sup>1</sup> Defined using a standardised reading test to identify reading age and plotting this against chronological age on a graph provided by Catch Up® Literacy.

<sup>&</sup>lt;sup>2</sup> Once the pupil has caught up to their chronological age, Catch Up® Literacy support would be stopped.

<sup>&</sup>lt;sup>3</sup> E.g. Holmes, W., Reid, D., Dowker, A., (2012). Early intervention to prevent long-term literacy difficulties: the case of Catch Up<sup>®</sup> Literacy. 4th World Conference on Educational Sciences, 2012 and Brooks, G. (2016) What works for children and young people with literacy difficulties?

<sup>4</sup> Deliverers can obtain a Gateway Qualifications accreditation at Level 2 which is currently free of charge, on completion of three

<sup>&</sup>lt;sup>4</sup> Deliverers can obtain a Gateway Qualifications accreditation at Level 2 which is currently free of charge, on completion of three units of work, each requiring submission of evidence. The evidence is taken from activities undertaken as part of the training for and delivery of Catch Up® Literacy.

and delivery of Catch Up® Literacy.

These are based on Catch Up® Literacy, and feature listening, reading, spelling and comprehension activities in interactive games format. They are intended to complement the Catch Up® Literacy 15 minute sessions, not to replace them.

Catch Up® Literacy is a book-based intervention. There are four stages of Catch Up® Literacy:

- Stage 1: Assessments for Learning (assessments are made and targets are set).
- Stage 2: Selecting an appropriate book for the learner to read (the assessments for learning are used to identify the correct Catch Up® literacy level, and to select an appropriate book).
- Stage 3: Individual, twice weekly 15-minute sessions in which the learner reads from the selected book, the text is discussed and a writing activity is completed, which may include the learner practising spelling key words. The individual session consists of the following routine: prepared reading (for 3 minutes), the learner reads and the text is discussed (for 6 minutes) and linked writing (for 6 minutes).
- Stage 4: Ongoing monitoring (the individual sessions are monitored and reviewed, the Catch Up® Literacy assessments for learning are revisited<sup>6</sup> and the Catch Up® Literacy targets are reviewed).

Catch Up® Literacy was originally designed for seven - to eight-year-old (Year 3) pupils who only achieved level 1 for reading in the Key Stage 1 Standard Assessment Tests, but has since been developed for use in secondary schools (Catch Up®, 2008). It is now appropriate for learners from 6 to 14 years of age who struggle with reading. This effectiveness trial focused on pupils in Year 4 and 5.

As Catch Up® Literacy is a very structured intervention, the assessment of fidelity was central to the process and implementation evaluation. The evaluation identified some issues in fidelity that we discuss in more detail in the process evaluation section. These issues included some schools not delivering the two sessions per week of Catch Up® Literacy, TAs adapting how they delivered Catch Up® Literacy from what they were taught in the training, and only half of the coordinators who responded to our survey (n= 31) feeling that before randomisation they had nominated the pupils most likely to benefit from Catch Up® Literacy. The main barriers to delivery were a lack of time to deliver Catch Up® Literacy and the challenges of timetabling two sessions per week.

# **Background evidence**

In England in 2017, 28% of primary aged pupils failed to reach the expected standards in reading (DfE, 2017). Since 2010 the Government has had a focus on improving reading overall, and narrowing the attainment gap between disadvantaged students and their peers (DfE, 2015). The government argue that 'nothing is more important in education than ensuring that every child can read well' (Ibid, pp7). They point to evidence that shows that pupils who can read are overwhelmingly more likely to succeed at school, achieve good qualifications, and subsequently enjoy a fulfilling and rewarding career (OECD, 2013).

Catch Up® Literacy was developed following a review of existing research on reading. This includes evidence relating to: supporting struggling readers (Bentley and Reid, 1995); the influence of children's attitudes to reading on their progress in learning to read (Wray and Medwell, 1991); matching struggling readers to books that are sufficiently challenging but not frustrating (Kress and Johnson, 1965); the importance of fluency and reading for meaning (Stanovich, 1980); the reciprocal gains of reading and spelling (Clay, 1994); taking a known starting point for analogies in reading development (Goswami, 1994); and using 'Pause, Prompt and Praise for low progress readers (Wheldall *et al.*, 1987). These effective approaches to reading were built on and systemised to develop the Catch Up® intervention. It was piloted in schools, and then made available in 1998. Since then it has been extended and further developed in response to feedback from schools and other settings. Catch Up® Literacy has been implemented in more than 6,000 schools and other settings, in the UK and beyond.

Early data from the pilot stages of Catch Up® Literacy, which informed the project in its early stages of development, showed a considerable increase in pupils' reading ages across a 10 week period. A

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<sup>&</sup>lt;sup>6</sup> At the mid-point and end of the year.

smaller experimental study was also carried out in nine Oxfordshire schools (48 Year 3 pupils) to compare a Catch Up® sub-sample with a matched time group<sup>7</sup> and a control group. Findings showed that the Catch Up® pupils made considerably more progress during the same period than both the other groups (Clipson-Boyles, 2000).

More recently, Holmes *et al.*, (2012) evaluated the impact of Catch Up® Literacy. They used data for 3134 learners (with a mean chronological age of 86.51 months at the start of the intervention), in 27 local authorities, who received Catch Up® Literacy support and were tested with the Salford Sentence Reading Test at the beginning and end of the intervention. Results showed that the learners had increased their reading age more than expected in the time that the intervention was delivered, and a follow-up study of 185 children ten years after intervention indicated that they had maintained their gains. The authors also report findings from a more controlled study comparing the progress of 87 pupils in Years 7 (*ibid*). A 'treatment' group (n=20) were given Catch Up® Literacy support while a 'control' group (n=67) received 'matched-time support' (additional literacy support of the teacher's choice, but not Catch Up® Literacy, for approximately the same amount of time). Results showed that the learners receiving Catch Up® Literacy support achieved higher reading age ratio gains than the matched-time controls. Note, however, that these results were based on very small numbers and were not statistically significant.

More recently still, a randomised controlled trial, commissioned by the EEF, explored the impact of Catch Up® Literacy trained Teaching Assistants supporting pupils over 30 weeks (Rutt *et al.*, 2015). This efficacy trial focused on support delivered over the transition period between Year 6 and Year 7, with Teaching Assistants delivering Catch Up® Literacy to children at the end of Year 6 and up to two terms of Year 7. Outcomes from this trial were promising, suggesting that, on average, pupils who received the intervention improved their reading by two additional months compared with the control group pupils. However, this difference was not statistically significant. These findings, as well as the consistent and strong evidence of the effectiveness of one-to-one tuition in EEF's Teaching and Learning toolkit (EEF, 2018a) led to this current effectiveness evaluation.

As set out in the remainder of this report, this effectiveness trial is not a larger scale replication of the earlier efficacy trial. Significant differences are inherent in the two trials, such as this trial: focusing on younger pupils; not using specifically hired TAs; and having no transition element (from primary to secondary school). There are also differences in the assessments and marking methods that were used; the level of randomisation and the 'stopping' element. This should be borne in mind when considering the results of this current effectiveness trial.

#### **Evaluation objectives**

The evaluation was set up as an effectiveness trial with a target sample of 150 primary schools and 1,200 Year 4 and Year 5 pupils. The purpose of the trial was to evaluate the effect of Catch Up® Literacy over 'Business as Usual' (BaU) control schools in Key Stage 2. We sought to answer the following research questions.

The primary research question was:

1. What is the impact of Catch Up® Literacy on Year 4 and Year 5 pupils' reading comprehension skills, as measured by the Hodder Group Reading Test (HGRT)?

The secondary research questions were:

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<sup>&</sup>lt;sup>7</sup> This group received the same prescribed time allocation as Catch Up® Literacy (a weekly 10-minute individually taught session plus a 15-minute group reading session) but the teachers were provided with no guiding framework or resources to help them plan these sessions.

- 2. What is the impact of Catch Up® Literacy on Year 4 and Year 5 FSM (those eligible to receive free school meals) pupils' reading comprehension skills, as measured by HGRT?
- 3. What is the impact of Catch Up® Literacy on Year 4 and Year 5 pupils' reading skills, as measured by the Salford Sentence Reading Test (SSRT)?
- 4. What is the impact of Catch Up® Literacy on Year 4 and Year 5 pupils' attitudes towards literacy?
- 5. What is the impact of Catch Up® Literacy on Year 4 and Year 5 pupils' attitudes towards school?
- 6. What is the impact of Catch Up® Literacy on Year 4 and Year 5 pupils' self-esteem?

Much is already known from the previous efficacy trial (Rutt et al., 2015) and other research about how Catch Up® is delivered, its perceived outcomes (e.g. children's enjoyment and confidence with reading, deliverers' positive views of the structured programme), and its key effective elements (e.g. short structured sessions, incorporated reading strategies). The objective of the process evaluation for this trial was to investigate further questions about the nature and variety of implementation and how schools are managing the intervention in today's busy landscape. For example, how schools tailor the intervention delivery (or deviate from the design); perceptions of who it works best for; what the key messages for scale-up are; what the impact on TA capability is and whether there are any subsequent impacts on the schools' one-to-one strategies and TA deployment?

#### **Ethical review**

Catch Up® was responsible for school recruitment and pupil data collection. Schools opted into the trial through the headteacher signing a Memorandum of Understanding (MoU) during recruitment. This online form was sent to all schools that expressed interest in taking part in the evaluation. The MoU and the school information sheet contained relevant information about consent and how the pupil data would be matched with the National Pupil Database (NPD) and used. Catch Up® collected administrative pupil data (pupil names, dates of birth and Unique Pupil Number8) from the participating schools that signed the MoU. This was collected in order to match the assessment data and the attitudinal data to the NPD background characteristics (prior attainment at Key Stage 1 and FSM eligibility). Parental opt-out consent letters were administered by schools prior to schools sending this data to NFER. NFER's Code of Practice Committee approved the data collection on 28th July, 2016.

Appendix D, E and F provides the school information sheet, school MoU and parent consent letter.

#### Trial registration

The trial was designed, conducted and reported to CONSORT standards (http://www.consortstatement.org/consort.statement/). The trial was registered as trial number: ISRCTN11318637 on http://www.controlled-trials.com

#### Project team

The intervention delivery was led by Dr Graham Sigley, Deputy Director of Catch Up®. The delivery team was responsible for the recruitment of schools, collecting pupil data, the intervention delivery and administration of the Salford Sentence Reading Test (SSRT) at baseline and at follow-up. Dr Ann Dowker from University of Oxford led a team of Research Assistants who administered the SSRT in participating schools and was also responsible for marking the SSRT.

<sup>&</sup>lt;sup>8</sup> The unique pupil number (UPN) is a 13-character code that identifies each pupil in the state-funded school system.

The independent evaluation team at NFER was led by Simon Rutt, Head of Statistics. The day-to-day trial manager was Palak Roy, Senior Trials Manager from NFER's Centre for Statistics. They were supported by NFER trial statisticians Adam Rabiasz and Constance Rennie. The process evaluation was led by a team of researchers from NFER's Centre for Policy and Practice Research: Emily Buchanan, Fiona Walker and Kerry Martin. The school recruitment and communications were managed by researchers from NFER's Research Operations department: Priscilla Antwi, Keren Beddow and Kathryn Hurd. The Hodder Group Reading Test (HGRT) administration was managed by NFER's Shalini Sharma and the tests were administered by trained NFER test administrators.

NFER was responsible for the trial design and ongoing relationship with the schools (jointly with the delivery team), randomisation, administration of HGRT, pupil survey, termly TA survey, BaU log, coordinator survey, analysis and reporting of the independent evaluation.

The project was supported and guided by EEF staff Camilla Nevill, Triin Edovald, Emily Yeomans and from 2017 onwards, Thomas Martell and Guillermo Rodriguez-Guzmán.

# **Methods**

# Trial design

This was a school-randomised controlled trial that involved 156 primary schools. We chose to use school randomisation rather than pupil randomisation to reduce the risk of contamination. Schools selected up to 12 Year 4 and 5 pupils, who were underperforming or struggling in literacy. Schools also nominated two TAs to deliver the intervention (if they were randomised to the intervention group). Each school also identified a teacher to act as the project coordinator. If the school was randomised to the intervention group, three individuals (including the TAs and the coordinator) were offered the Catch Up® Literacy training. The TAs from the intervention group delivered the programme to nominated pupils (between September/October 2016 and June 2017). As part of the intervention, TAs were also asked to assess these pupils at the end of each academic term to determine whether they were at the expected level of reading for their age (but these assessments were not included in the independent evaluation). Once the pupils reached this level, they would stop receiving the intervention. If the school was randomised to the BaU control group, they were asked to continue with their teaching practices as normal. On successful completion of the end-point testing (HGRT) in summer 2017, the BaU control group schools received an incentive worth £790, either in the form of a grant or to put towards purchasing a programme of their choice.

Table 2: Trial design

Trial type and number of arms		Two-arm school-randomised controlled trial		
Unit of randomisation		Schools		
Stratification va (if applicable)	Geographical area  Geographical area			
Variable <b>Primary</b>		Reading comprehension score		
outcome	measure (instrument, scale)	Hodder Group Reading Test (HGRT)		
variable(s) Secondary outcome(s)		HGRT reading comprehension scores of FSM pupils SSRT reading score SSRT reading comprehension score Pupil attitudes towards literacy Pupil attitudes towards school Pupils' self-esteem		
	measure(s) (instrument, scale)	Hodder Group Reading Test Salford Sentence Reading Test (SSRT) NFER pupil survey		

# Participant selection

#### Selection criteria

Primary schools that were not already delivering Catch Up® Literacy or Catch Up® Numeracy were eligible to take part in the trial. Schools were asked to nominate up to 12 Year 4 and Year 5 pupils, who were underperforming or struggling in literacy. There was no threshold to describe the underperformance.

Once schools agreed to take part by signing a MoU, they were asked to send their school and pupil data to Catch Up®. This included school level information, such as names and contact information for a teacher to act as a coordinator and two nominated TAs. Pupil data included names, date of birth and UPNs. Baseline SSRT administration was intended to take place only after receiving the administrative pupil data. However, due to the delays in most schools providing this data, baseline administration of SSRT had to take place simultaneously with the pupil data collection. This resulted in three schools participating in the SSRT but not providing any administrative pupil data. These schools did not receive their randomisation results and were subsequently considered as unbiased dropout. Some schools also nominated pupils who were not in Year 4 or Year 5. Although at the outset these pupils were included in the pupil list, they were not eligible to be part of the trial and have been removed from our analysis. Please refer to section on participants for further information on school and pupil numbers.

As mentioned earlier, headteachers gave consent to participate in the evaluation. Schools administered letters in order to give an opportunity to the parents to withdraw their children from the study. In most cases, this was sought before the schools supplied the pupil data to Catch Up®. Where parents withdrew their child prior to their school supplying the pupil data, that pupil was removed from the nomination list before the data was submitted to Catch Up®. Where parents withdrew their child's participation after this point, personal data for these children was subsequently removed from the dataset.

#### Recruitment

Catch Up® was responsible for school recruitment. The original target was to recruit 150 primary schools – 75 from the North East region and 75 from the rest of the country. The latter group included primary schools from Brighton, Cumbria, Grimsby, Hull & Immingham, Bournemouth and Plymouth. Catch Up® sent project recruitment emails to at least 5,170 schools. These were based on all primary schools within a given radius of the likely training venue for the locality. They also circulated information about the project to their network schools and contacts, including strategic contacts provided by the EEF.

The original email message to the schools asked them to register an expression of interest (EoI) to receive full information. There were 299 registrations of an EoI using a SurveyMonkey link. All were sent full information about the project and were asked to formally sign up for the project by submitting an online (SurveyMonkey) MoU. In all, 170 did so and all were accepted. Subsequently, 156 schools submitted the required school and pupil data and were randomised. Please see Table 8 in impact evaluation section for further details on school and pupil characteristics.

#### **Outcomes measures**

#### **Primary outcome**

As per the protocol (EEF, 2016) and the Statistical Analysis Plan (SAP) (EEF, 2017), the primary research question was:

What is the impact of Catch Up® Literacy on Year 4 and Year 5 pupils' reading comprehension skills, as measured by the HGRT?

The HGRT was selected as the primary outcome measure and assesses pupils' reading comprehension at word, sentence and text levels. NFER's assessment experts felt it was imperative that the measure used is primarily one of comprehension, as this is the main purpose of reading. Decoding skills are clearly necessary, but not by themselves sufficient, in the development of comprehension. Unless the child is comprehending what s/he is reading, they will not succeed in the school system. It was also important that the measure linked well with Key Stage 2. For these reasons the HGRT was decided as

the primary outcome. For this trial, the raw total score (possible score range 1-53) from the HGRT 2A was used. The test is designed for 7-12 years old pupils.

NFER took responsibility for collecting and delivering the HGRT using its test administrators (June-July 2017). The test administrators had clear guidance from NFER on how to administer the tests, which included the evaluation aims and also emphasised the importance of primary outcomes testing in a trial. The administrators did not know whether schools belonged to the intervention or control groups, and the administration guidance specifically asked them to avoid discussion with the school staff about the group allocation. Once the tests were completed, the administrators sent the tests back to NFER for marking.

Marking was undertaken by three markers from NFER in July 2017. Markers were also blind to group allocation. They were qualified teachers, with experience of teaching and marking. The markers were given the Hodder Group Reading Test's Manual which contained the mark scheme for HGRT 2A. After all the scripts had been marked, they were then marked by another marker to check for marking accuracy. No issues were found during the second round of marking. Once the marking was complete, the data was cleaned by NFER's Data Management Unit (DMU) and checked by the trial statisticians. Subsequently, schools received their pupil results via the NFER school portal in October 2017<sup>9</sup>.

#### Secondary outcomes

Five secondary outcome measures were proposed for this trial. Two of these measures were based on the assessment data from HGRT and SSRT; the rest were measures of pupil attitude based on a pupil survey (see also the Theory of Change, Appendix J)

## FSM only analysis

As per the SAP (EEF, 2017), one of the secondary outcome measures was the impact of Catch Up® Literacy on Year 4 and Year 5 FSM (those eligible to receive free school meals) pupils' reading comprehension skills as measured by HGRT. In this analysis, we used the total raw score from the HGRT 2A. This analysis was run for FSM pupils only. FSM was measured by EVERFSM\_6<sup>10</sup> from the NPD.

#### SSRT

Another secondary outcome measure was:

• What is the impact of Catch Up® Literacy on Year 4 and Year 5 pupils' reading skills as measured by the Salford Sentence Reading Test (SSRT)?

Catch Up®, in partnership with the University of Oxford, administered the SSRT at baseline (September-October 2016) and at follow-up (June-July 2017).

This secondary outcome measure was required as Catch Up® felt a one-to-one administered assessment was a more reliable format to assess reading accuracy and comprehension skills for pupils who had been specifically selected as 'struggling', since they are more likely to identify the smaller steps in progress which such pupils are likely to make. These tests were administered by research assistants from University of Oxford. At follow-up administration, where possible, NFER randomly allocated the research assistants to schools. This randomisation was done to avoid the same research assistant administering both the baseline SSRT and the follow-up SSRT in the same schools. This was not

<sup>&</sup>lt;sup>9</sup> Sharing pupil results with the schools was not part of the intervention.

<sup>&</sup>lt;sup>10</sup> This variable indicates whether a pupil has ever been recorded as eligible for FSM on census day in any termly/annual census in the last six years up to the pupil's current year (not including nursery). This variable is based on the Spring Census, 2015/16.

always possible due to a range of restrictions, including the availability of the research assistants. Dr Ann Dowker marked the SSRT, blind to the knowledge of group allocation at both time points. NFER received the baseline SSRT data prior to the follow-up testing. We used two separate raw scores from the SSRT assessments – a reading score and a comprehension score – as the secondary outcome measures to answer the above research question.

#### Pupil attitudes

The secondary outcomes related to pupil attitudes were attitude to literacy, attitude to school and pupil self-confidence. These were included as attitudinal measures, as the previous Catch Up® Literacy evaluation (Rutt *et al.*, 2015) showed that the intervention had a significant effect on a number of these measures.

Secondary research questions related to pupil attitudes were:

- What is the impact of Catch Up® Literacy on Year 4 and Year 5 pupils' attitudes towards literacy?
- What is the impact of Catch Up® Literacy on Year 4 and Year 5 pupils' attitudes towards school?
- What is the impact of Catch Up® Literacy on Year 4 and Year 5 pupils' self-esteem?

These were measured via an end-point only pupil survey (see Appendix I). The pupil survey was administered in the same session as the HGRT but after the HGRT was completed. NFER test administrators handed these surveys out to all pupils who took the HGRT, to ensure a high survey response rate.

The pupil survey for this evaluation was adapted from the previous Catch Up® Literacy evaluation (Rutt *et al.*, 2015). The original survey was targeted at pupils from Year 6 moving into Year 7. Therefore, some items from the original survey had to be reworded (without changing the overall meaning) to make them more accessible to younger pupils involved in this evaluation. Images were also added to the survey to help explain the item response options. The 2015 evaluation identified a range of key pupil attitudes as composite measures of outcome by running a factor analysis. These were included as the secondary outcome measures in the current evaluation protocol (EEF, 2016.) and are presented in Table 3.

Table 3: Pupil attitudes- composite measures and constituent items

Composite Measure	Items from the pupil survey	Reliability (Cronbach's Alpha)
Attitude to literacy	Q3A. About reading and writing - I enjoy reading Q3B. About reading and writing - I feel confident reading out loud to the class Q3C. About reading and writing - I can work out how to read words that are difficult Q3D. About reading and writing - I enjoy reading in my own time Q3E. About reading and writing - Reading is one of my favourite things to do Q3F. About reading and writing - I enjoy talking to my friends and family about the books I have read Q3G. About reading and writing - I enjoy writing Q3H. About reading and writing - I find writing easy Q3I. About reading and writing - I feel confident about writing in whole sentences Q3J. About reading and writing - Writing is one of my favourite things to do Q3K. About reading and writing - I am doing well in reading Q3L. About reading and writing - I am doing well in writing	0.85
Attitude to school	Q2A. About school - It is important to do well at school Q2B. About school - I try hard at school Q2C. About school - I feel confident about doing my work in lessons Q2D. About school - I enjoy school Q2E. About school - I behave well in lessons Q2F. About school - I always do my homework	0.69
Self- esteem	Q1A. I feel happy most of the time Q1B. About me - I am confident Q1C. About me - I have people to talk to if I feel sad or worried Q1D. About me - I like who I am Q1E. About me - I enjoy making new friends	0.59

Table 3 lists the three composite measures and their corresponding items. Reliability for each composite measure was explored using Cronbach's Alpha, which indicates the extent to which the items are measuring the same underlying latent construct (the composite measure). Cronbach's alpha determines the average correlation of items to determine the reliability of the composite measure. A number nearer to one suggests a higher reliability of that measure.

The thresholds for the reliability of these composite measures were not discussed in the SAP as a decision criteria to include them as outcome measures. But we were aiming for the composite measures to achieve a Cronbach's Alpha of 0.7 or above as a good indication of reliability (Cortina, 1993). As seen in Table 3, the Cronbach's Alpha for attitude to school was 0.69. As it is at the edge of the threshold of 0.7, it was considered for secondary analysis as an outcome measure. The self-esteem measure (with Cronbach's Alpha of 0.59) cannot be considered a reliable measure. As a result, it was not included in the analysis as an outcome measure.

#### Sample size

As per the trial protocol (EEF, 2016), the intended sample size for this trial was 150 schools with an average of eight pupils each, which would be sufficient to detect an effect size of 0.16. We based our sample design around the ability to detect this effect size, because 0.16 is the minimum effect size for which the approach is cost effective assuming a maximum of £80/pupil for 0.1 SD change and an approximate cost of £130 per pupil based on the previous Catch Up® Literacy evaluation (Rutt *et al.*, 2015). This minimum detectable effect size (MDES) is achieved at more than 0.8 power by using the following assumptions: intra-cluster correlation of 0.137; correlation between Key Stage 1 and Key Stage 2 of 0.73 and average cohort size of eight pupils per school. This is illustrated in Figure 1.

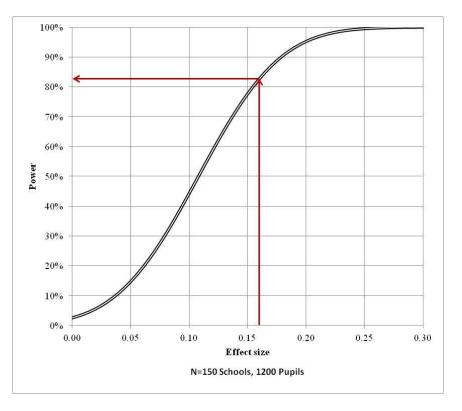


Figure 1: Power curve for a cluster design with 150 Primary schools (as per the protocol)

This design also allowed for a small amount of attrition. If eight schools withdrew from the trial, the MDES would be 0.16 with minimum statistical power of 0.8. We also expected that not all schools would put forward as many as eight pupils. On the whole, this would be balanced by other schools nominating more than eight pupils.

Randomisation was conducted at the school level. With similar assumptions to the protocol (intra-cluster correlation of 0.137 (EEF, 2015) and correlation between Key Stage 1 and Key Stage 2 of 0.73 (EEF, 2013), with 156 schools with an average cohort size of nine pupils per school, the MDES at 0.8 power was 0.15. However, at analysis similar assumptions were not applicable. The intra-cluster correlation was 0.268 and the correlation between Key Stage 1 and the HGRT was 0.57. As a result, the MDES with a statistical power of 0.8 was increased to 0.24 for an average cohort size of seven pupils (reduced due to attrition) in each of the 141 schools (69 intervention and 72 control). This is summarised in Table 8 in the analysis section.

Although a separate FSM analysis was planned while writing the protocol, the size of the sample was not powered to run this analysis.

# Randomisation

School randomisation at two different time-points was planned to accommodate staggered recruitment. It was anticipated that part of the sample would be recruited by the end of the summer term of 2016, with the remaining schools being recruited at the beginning of the autumn term of 2016. The randomisation was planned to be a stratified randomisation using six strata, one for each of the five coastal areas and one for the North East region altogether. However, due to the delays in receiving pupil data from the schools, the first wave of randomisation did not take place until September 2016, followed by two more waves of randomisation, in late September and in early October 2016. In order to achieve the recruitment target, primary schools from Southend were also recruited to take part in the trial (this area was not considered in the original protocol).

Recruitment was undertaken by Catch Up®. NFER carried out the stratified randomisation using geographical area as strata. There were seven strata (North East region, Brighton, Barrow-in-Furness, Grimsby, Hull & Immingham, Bournemouth, Plymouth and Southend). Three waves of randomisation were conducted, using a full SPSS syntax audit trail (see Appendix C). Table 4 presents the final randomisation results by geographical area.

Table 4: Catch Up® Literacy: results of the randomisation

Waves	Strata	Randomisation g	Total	
		Intervention	Control	
Wave 1 (13 <sup>th</sup>	Cumbria	12	13	25
September, 2016)	Grimsby, Hull and Immingham	9	8	17
Wave 2 (21 <sup>st</sup> September, 2016)	Brighton and Hove	4	4	8
	North East	37	36	73
	Plymouth	7	7	14
Wave 3 (5 <sup>th</sup> October, 2016)	Bournemouth	6	7	13
	Southend	3	3	6
Total		78	78	156

Randomisation, pupil data collection and baseline SSRT administration took place simultaneously. This arrangement meant that NFER provided the randomisation results to Catch Up® with a view to informing schools only when schools had undertaken baseline SSRT and had submitted their pupil data to Catch Up®. This resulted in three schools that did not submit the required pupil data and therefore did not know their group allocation. Of these, two were intervention schools and one was a control school. One further school was randomised due to an administrative error – this school never intended to take part and therefore was removed from the subsequent data collection. The resultant sample was 152 schools: 75 intervention schools and 77 control schools.

#### **Analysis**

We conducted the analysis in line with the latest EEF analysis guidance (EEF, 2018b) as well as the published SAP (EEF, 2017). This section provides an overview of the analysis undertaken; the SAP provides further details.

#### Primary intention-to-treat (ITT) analysis

The primary outcome analysis was 'intention to treat', including all schools and nominated pupils who took the HGRT test, irrespective of compliance to the intervention. Multilevel models with two levels (school and pupil) were used for the analysis to account for the cluster randomisation. This analysis determined whether the Catch Up® Literacy intervention had an overall effect on pupils' reading comprehension skills.

The dependent variable for this model was the raw total score on HGRT 2A with the following covariates:

- an indicator of whether the pupil is in the intervention school;
- pupil prior attainment as measured by Key Stage 1 reading attainment point score (KS1\_READPOINTS variable on NPD 2013-14 (for year 5 cohort) and 2014-15 (for year 4 cohort)); and

• school's geographical location (representing the stratification variable used at randomisation).

As just under half the schools were from the North East region, it was used as a reference category with the rest of the locations included in the model as separate variables.

As per the SAP (EEF, 2017), the numerator for the effect size calculation was the coefficient for the intervention group as identified in the model. The effect size was calculated using the total variance from the model without covariates as the denominator i.e. equivalent to Hedges' g.

$$ES = \frac{(\overline{Y}_T - \overline{Y}_C)_{adjusted}}{\sqrt{\sigma_S^2 + \sigma_{error}^2}}$$

Confidence intervals for the effect size were derived by multiplying the standard error of the intervention group model coefficient by 1.96 and converting this value to an effect size. These are reported in Tables 10 and 11 of the 'Outcomes and Analysis' section.

In addition to the above model, we also reported a point estimate (without a confidence interval) from a similar model that does not include the stratification variable. This was reported for the purposes of EEF's cross-study comparisons.

#### Imbalance at baseline

We obtained NPD data for all pupils for whom we had the administrative data; some of these pupils were from the schools that dropped out of the HGRT test administration. For these cases, we examined the imbalance in the final samples using pupil prior attainment at Key Stage 1. We used multilevel modelling to examine imbalance at baseline and presented differences in prior attainment as an effect size, as per the EEF analysis guidance.

# Missing data

We ran a multilevel logistic model with two levels (school and pupil) on whether or not a pupil was missing in the ITT model, regressed on the covariates of the main model. This model is discussed in the impact evaluation section. Since the extent of school dropout was unequal between the randomised groups, we needed to conduct sensitivity analysis. This was achieved by initially running a multilevel model to impute the missing data and then to extend it using a weighting approach according to Carpenter *et al.*, (2007). This approach works by replacing a simple average by a weighted average where estimates from the imputations that are more likely under 'missing not at random' are considered more important. After adjusting for the observed variables, the chance of observing the outcome measure per unit change in that measure has log-odds ratio of  $\delta$ . If data are 'missing at random',  $\delta$  will be zero. If  $\delta$  is positive, the chance of observing the outcome measure is higher for higher values of the outcome measure.

We ran the ITT models using each of the imputed datasets (these datasets included imputed values for missing covariates as well as the outcome measures). The results were pooled to give coefficients and standard errors that took account of the variance during imputation. These were compared with the original ITT models. While exploring further the assumption that 'data is missing at random', we adjusted the values of the outcome measure in the imputed datasets in a sensitivity analysis by changing the values of  $\delta$ .

# Secondary outcomes analyses

#### **FSM** only analysis

The model for the FSM<sup>11</sup> only pupils was run similarly to the primary outcome analysis, in which all nominated FSM pupils were included if they had data on the primary outcome measure irrespective of compliance to intervention. The covariates for this model were identical to those in the primary model.

#### **SSRT**

Two multilevel models were run in order to address the effect of the intervention, as measured by SSRT. The dependent variables for these models were the reading score and the comprehension score from the follow-up SSRT administration and included the following covariates:

- an indicator of whether the pupil is in the intervention school;
- prior attainment as measured by baseline SSRT (baseline reading score and baseline comprehension score used as respective prior attainment measure); and
- school's geographical location (representing the stratification variable used at randomisation).

As noted above, given that just under half the schools were from the North East region, we used this as a reference category and included the rest of the locations in the model as separate dummy variables.

#### **Pupil attitudes**

Two multilevel models were run, with 'attitude to literacy' and 'attitude to school' as dependent variables. The covariates for these models were identical to those in the primary model, as we did not administer a pupil survey at baseline. Therefore, these models identified effects of the intervention on pupil attitudes by controlling for prior attainment as measured by Key Stage 1.

# Effects in the presence of Non-Compliance

The developer collected data on the number of Catch Up® Literacy sessions throughout the delivery period via 'session logs' submitted by the intervention schools. The logs included information such as the number of sessions each pupil had, information on whether they reached the expected level and whether they stopped receiving the sessions because they had caught up.

As per the SAP (EEF, 2017), it was not possible to use this data to identify compliance, due to the 'stopping' strategy within the intervention. Therefore, exploratory analysis was undertaken using multilevel modelling to identify the association between the amount of intervention received by an intervention group pupil and the primary outcome. The covariates for this model were:

- pupil prior attainment as measured by Key Stage 1 reading attainment point score (KS1\_READPOINTS variable on NPD)
- the school's geographical location (to account for the stratification carried out within the randomisation process)
- the number of Catch Up® Literacy sessions received
- a flag to indicate that the intervention pupil stopped receiving the intervention (as they had reached the expected level of performance)
- an interaction of number of Catch Up® Literacy sessions and whether the pupil stopped receiving the intervention as they had reached the expected level of performance.

<sup>&</sup>lt;sup>11</sup> FSM was measured by EVERFSM\_6 from the NPD

The intervention guidelines have a clear protocol for this stopping process and all TAs received guidance on the procedure at the formal training sessions. Despite the guidance and multiple follow-ups from Catch Up®, many intervention schools didn't send the log data. This resulted in a large amount of missing data for the last two covariates mentioned in the above analysis. In order to include all intervention pupils, including those for whom we did not have session logs, we ran sensitivity checks. This included additional models with the same outcome variables and with all covariates identified above, but also including a variable to flag that the session data for a pupil was missing.

We also ran similar multilevel models for the secondary outcomes measures. For the models with pupil attitude to literacy and attitude to school as outcome measures, the covariates in the models were identical to the primary outcome measure. For the two models with SSRT reading score and SSRT reading comprehension score as outcome measures, the models were set up similar to the primary outcome except that the prior attainment measures were the baseline SSRT reading score and reading comprehension score respectively. We have discussed the models with the missing data flags in the impact evaluation section.

#### Subgroup analyses

Exploratory subgroup analyses on the primary outcome were carried out as per the SAP (EEF, 2017). We explored the differential effect based on pupil age (in months at the time of HGRT testing), gender ('male pupil' as a reference category) and pupil FSM status (measured by EVERFSM\_6 variable from NPD) in three separate interaction models. These models included all the covariates specified in the primary model, but also included the subgroup variable and the interaction term between the subgroup and the intervention indicator as covariates. For the gender model, the intervention indicator was interacted with pupil gender (girls versus boys, with 'boys' as a base case).

# Implementation and process evaluation

The implementation and process evaluation drew on five key methods:

- observations of a full suite of Catch Up® Literacy training sessions
- termly online surveys of TAs delivering Catch Up® Literacy in intervention schools
- an end of year paper survey of Catch Up® Literacy coordinators in intervention schools
- telephone interviews with TAs and coordinators from eight intervention schools
- a termly activity log for control schools.

These methods were selected as they offered both breadth and depth, and would provide information or views on the delivery as well as the management of Catch Up® Literacy. They were designed to offer regular and timely insights into intervention and control group activity, and to address all the required elements of a high quality process and implementation evaluation. Research questions were allocated carefully across the different methods. Further detail on each of these methods follows.

#### Observations of a full suite of Catch Up® Literacy training sessions

In September 2016, researchers attended three consecutive half-day training sessions in the North East of England. This allowed us to observe the training received by TAs (and in some cases, coordinators) from intervention schools. The observations allowed us to better understand Catch Up® Literacy and how it should be delivered, and to observe the levels of engagement and interaction amongst trainees.

#### Termly online surveys of TAs nominated to deliver Catch Up® Literacy in intervention schools

We distributed a short (less than five minute) survey to TAs in intervention schools at the start of the spring and summer terms, and at the end of the summer term. The survey asked TAs to reflect on their practice during the previous term<sup>12</sup>. The response rates to the surveys are detailed in Table 5.

Table 5: Response rates to the termly TA surveys

Response rates to the termly TA surveys			
	End of Term 1 survey (Jan 2016)	End of Term 2 survey (April 2016)	End of Term 3 survey (June 2017)
Response rate	78%	83%	74%
Number of completed surveys	93	90	82
Number of schools returning surveys <sup>13</sup>	-	58	50

For the end of Term 1 survey (Jan 2016), we invited the TAs in intervention schools who were nominated to deliver Catch Up® Literacy at the pre-randomisation stage to complete the survey. We did not invite TAs in schools where: the training took place in late November and in December (as they could not reflect on that term's practice); we were waiting for pupil data or consent; or where the school had withdrawn from the trial. Where we had email addresses, TAs were sent personalised links to the online survey, and the Catch Up® Literacy coordinators in their schools were made aware that the links had been sent. Where we did not have email addresses and/or names of the TAs delivering Catch Up® Literacy, we asked the coordinator from the school to distribute the survey links to their TAs. Four waves of reminder emails were sent, and one sweep of reminder phone calls was made. The survey asked TAs either to confirm their pre-populated contact details, or to provide them. This was to aid the survey administration for the next two terms. TAs were assured of anonymity in all three of the termly surveys.

We invited all TAs who had completed a Term 1 and/or Term 2 survey, all those who attended Catch Up® Literacy training and all those nominated to deliver Catch Up® Literacy at the prerandomisation stage to complete the end of Term 2 survey (April 2016) and end of Term 3 survey (June 2017). TAs received personalised survey links via their email addresses, and Catch Up® Literacy coordinators were made aware that the survey links had been sent. Two sweeps of reminder emails were sent to survey recipients.

The end of Term 1 survey included fidelity-related questions (session length, frequency and one-to-one nature, and how well the training prepared them for delivery), and questions to explore implementation (whether it replaced normal literacy lessons, the amount of time spent preparing for sessions, and whether they made any adaptations to how they were taught to deliver Catch Up® Literacy). It also asked about levels of pupil engagement, any other additional literacy support being provided to intervention pupils, and about TAs' experience and qualifications.

The end of Term 2 survey asked respondents if they were delivering Catch Up® Literacy, and if not, why. It included some more detailed questions about fidelity (on session length and frequency) and asked again about the one-to-one nature, preparation time, adaptations, pupil engagement and whether

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<sup>&</sup>lt;sup>12</sup> See Appendix H for the End of Term 3 TA survey.

<sup>&</sup>lt;sup>13</sup> Given the way that the first survey was administered, we do not have data on the number of schools in the achieved sample.

pupils were accessing any other additional literacy support. This survey also asked whether any of the pupils they were supporting had stopped receiving Catch Up® Literacy, and why.

The final, end of Term 3 survey also asked respondents if they had delivered Catch Up® Literacy in the Summer Term, and if not, why? It included questions about fidelity (on session length and frequency) and asked again about the one-to-one nature, whether Catch Up® Literacy took place at the same time as normal literacy lessons, preparation time, adaptations, and pupil engagement. This survey also asked whether any of the pupils they supported had stopped receiving Catch Up® Literacy, and why, and whether the pupils were receiving any additional literacy support. As it was the final survey, TAs were asked about impacts on the pupils and on their role as a TA, and the quality of the additional support elements offered by Catch Up® Literacy.

## An end of year paper survey of Catch Up® Literacy coordinators in intervention schools

In June 2017, a survey was posted to the Catch Up® Literacy coordinators in 70 of the intervention schools (See Appendix G). We sent this to all schools that were still participating in the evaluation. We received responses from 58 coordinators, representing an 83 per cent response rate. The coordinators were sent two reminder emails, one additional paper copy of the survey, and one sweep of reminder telephone calls. All respondents were assured anonymity.

The survey gathered information on: who delivered the Catch Up® Literacy sessions; the quality and impact of training and support sessions; whether they felt the 'right' pupils were nominated to receive support; how Catch Up® Literacy differed from existing support and other literacy interventions; how well it fitted with the school approach to literacy; and its impact on pupils, TAs and the wider school. The survey also gathered information on the time and costs involved in delivering Catch Up® Literacy.

#### Telephone interviews with TAs and coordinators from eight intervention schools

We interviewed a TA and the Catch Up® Literacy coordinator in eight intervention schools. In March 2017 we drew a sample of 16 intervention schools, representative of region and the number of pupils being supported. In late April 2017 we selected four more schools to add to the sample, in order to secure interviews with eight intervention schools. The interviews lasted 30 minutes, and were carried out from March to May 2017. Most of the eight schools had been delivering Catch Up® Literacy for at least a term and a half by the time of the interview.

The interviews with coordinators covered: the background to their schools' involvement with Catch Up® Literacy and their role in coordinating it; how Catch Up® Literacy fitted with wider school strategies; how distinct it was from existing support; and quality assurance. It also covered: the training and support offered by Catch Up® Literacy and the school; questions on the delivery of the intervention; its impacts on pupils, TAs and the wider school; barriers and difficulties; advice for other schools considering implementing Catch Up® Literacy in their school, and suggested improvements.

The interviews with TAs covered: the training and support they had had from Catch Up® Literacy and their school; how they delivered Catch Up® Literacy (timing, dosage, adaptations, tailoring); how different Catch Up® Literacy was from usual practice; impacts for them and their pupils; and any barriers or difficulties.

# A termly activity log for control schools

We distributed an activity log (Excel spreadsheet) to all control schools at the start of the spring and summer terms, and at the end of the summer term. This was designed to gather information on 'business as usual'. Capturing this data allowed us to consider whether usual practice changed in the control group as a result of the trial (using the pupil data logs which set out plans for all pupils prior to randomisation), to explore what 'usual' practice is, and to capture the costs of 'business as usual'. It asked the school coordinators who had been nominated prior to randomisation to provide pupil-level

information about any additional literacy support provided to their nominated pupils. To keep the data secure, the logs were uploaded to NFER's secure portal, downloaded by schools, completed by schools and then uploaded back to the secure portal for the NFER team to access. Between two and four email reminders were used to increase response rates each term, and a sweep of telephone reminders was used for the Term 1 activity log.

Coordinators were asked if any of their nominated pupils had received any additional literacy support beyond usual classroom teaching in the last term, and if so, to specify what form this took. If it was a purchased programme, we asked them to identify it from a list of pre-specified options. We asked about the time taken in the last term to provide that support to each pupil and the time associated with training and preparation. The log also asked coordinators to estimate the cost of providing the support to each pupil (excluding the cost of purchasing the programme) using a set of pre-specified options.

The response rates are set out in Table 6.

Table 6: Response rates to the termly activity logs

	Number of completed logs received (n)	Response rate (%)
End of Term 1	61	78%
End of Term 2	52	67%
End of Term 3	50	64%

#### Costs

Cost calculations were based on the information that was supplied by Catch Up® as well as the schools themselves. Catch Up® provided us with information about the training cost for one staff member, which was £395 at that time. They also provided us with information on the total number of individuals (from each intervention school) that attended the training and the total number of actual sessions delivered to each intervention pupil. The number of sessions for each intervention pupil was collected via the 'sessions log' on a termly basis. This data was collated and sent to us at the end of the delivery period. We asked all the intervention schools to provide their cost data by including cost related questions in the termly TA surveys and the end of year coordinator survey. All of the above were used to calculate and report on the costs of delivering Catch Up® Literacy.

The end of year coordinator survey asked for the information on direct, marginal costs for:

- travel and subsistence expenses for all staff to attend the training and/or support sessions provided by Catch Up® Literacy
- purchasing books, resources or materials specifically for delivering Catch Up® Literacy
- photocopying resources and materials specifically for Catch Up® Literacy
- 'other' costs in delivering Catch Up® Literacy.

We estimated the cost of delivering Catch Up® Literacy according to the EEF cost guidance (EEF, 2016). The cost was calculated per pupil per year for a period of three years. This was done by dividing the aforementioned costs between start-up costs and running costs. The first two costs were classified as start-up costs. Photocopying was classified as a running cost as this would likely need to be done every year of the intervention delivery. Depending on the nature of 'other' costs, they were classified as either start-up costs or running costs. The cost of the programme per TA trained was also included in the start-up costs. Once a cost per school per year had been calculated, this figure was then divided by

the number of pupils who received the intervention. Cumulative costs were, then, calculated and reported over a period of three years as per EEF guidance. More detail is provided in the analysis section.

#### Staff time

The termly TA surveys asked TAs to provide information on the average amount of time they invested in preparing for each Catch Up® Literacy session. The coordinator survey also asked for estimates of staff time for:

- liaising with Catch Up® Literacy staff (combined time spent by coordinators and TAs, not
  including engaging in evaluation activities, such as providing data, completing surveys or
  interviews), cover time for all staff to attend the training and/or support sessions provided by
  Catch Up® Literacy, as well as any supply time to cover delivering Catch Up® Literacy
- management and coordination of TAs who are delivering Catch Up® Literacy, and direct support provided by the coordinator or the schools to the TAs
- any additional 'other' staff time.

Time spent on supply cover for staff to attend training, and time spent liaising with Catch Up® Literacy staff were classed as 'starting up' time spent. The time spent delivering the intervention, supply cover associated with the intervention delivery, and time spent preparing for the intervention delivery were classed as 'running' or 'ongoing' time. The time estimate was then calculated using the same methodology as the financial cost estimate.

#### **BaU costs**

We collected cost data in the termly activity logs from control schools. This enabled us to gauge the cost of any literacy support received by nominated pupils in control schools (instead of Catch Up® Literacy). Control schools were asked to report if pupils were receiving any additional support and, if so, what kind of support was provided. The termly activity logs also asked for any additional costs, such as the cost of any additional resources and staff time. It was not possible to create an equivalent cost per pupil per year because of the way BaU schools reported the cost data. Therefore, average cost per academic term is reported in the results section.

If the pupil was receiving support from a purchased programme, NFER also contacted the programme providers for cost information. There was a variability in how the providers costed their programmes. They sometimes costed depending on the number of teachers being trained, or the number of pupils using the intervention, or other factors such as additional resources required. Further, we had no way of knowing whether control schools already had a trained teacher providing the programmes prior to the start of the trial. As such, costs were divided into two types; cost of the programme per school; and cost of additional resources spent per school. These figures are presented as a range between least 'spend per school' to most 'spend per school'. As mentioned previously, these figures cannot be compared to the cost calculated for intervention schools, but nonetheless provide important contextual information.

# **Timeline**

The intervention delivery for the trial commenced in September 2016. The primary attainment outcomes were captured through testing in the summer term of 2017 and the first draft report was submitted in June 2018. Table 7 summarises the timeline for all evaluation activities.

**Table 7: Timeline** 

Date	Activity
May-June 2016	Set up meeting with EEF and Catch Up®
	Write, agree and publish the protocol
	Catch Up® commence school recruitment
June 2016	Catch Up® commence administrative pupil data collection and baseline BaU data logs
August 2016	NFER Interviews the delivery provider
	Develop logic model
	Design process evaluation interview schedules
September- October	School randomisation
2016	Baseline SSRT administration (prior to notifying randomisation results to schools)
	Catch Up® commence intervention training delivery
January-March 2017	First BaU termly log and online survey with Catch Up® TAs
March-May 2017	Second BaU termly log and online survey with Catch Up® TAs
April-May 2017	Light touch process evaluation telephone interviews
June 2017	Intervention delivery ends
June-July 2017	Third BaU termly log and online survey with Catch Up® TAs
	Test administration: HGRT and SSRT
	Pupil attitude survey Catch Up® coordinator survey
October-November	HGRT and SSRT assessment results sent to schools
2017	Sessions log data received from Catch Up®
January 2018	Incentive payment to control schools
March-June 2018	Analysis and reporting

# **Impact evaluation**

## **Participants**

Figure 2 shows the participant flow diagram for the trial. As mentioned in the selection criteria, primary schools that were not already delivering Catch Up® Literacy or Catch Up® Numeracy were invited to take part in this evaluation. Catch Up® sent project recruitment emails to at least 5,170 schools. Of these, 299 expressed an initial interest. In order to be considered for randomisation, schools had to sign a MoU and provide their pupil data. This resulted in 156 schools being randomised. Please see the recruitment section for further details.

Of the 156 schools randomised, one was randomised due to an administrative error. Three further schools did not send their complete pupil data. Since these schools did not know their group allocation, they can be considered as unbiased dropout and have been removed from subsequent analysis.

As mentioned in the selection criteria, schools were asked to nominate Year 4 and Year 5 pupils. Despite this selection guidance at recruitment, there were a number of schools that nominated pupils who were not in these year groups. These pupils were included in the pupil data supplied by schools to Catch Up® and were part of the trial until their data was matched to the NPD. However, as these pupils did not fulfil the selection criteria for the trial, they have been excluded from the analysis. As a result of this 'pupil eligibility criteria', 154 pupils were excluded prior to analysis. Six schools were excluded at this stage as all nominated pupils in these schools were in year groups other than Years 4 and 5- 14 intervention pupils and 37 control pupils from these six schools. As these pupils were selected prior to the randomisation, we were confident that excluding these schools would not introduce bias. However, the exclusions affect the statistical power of the trial, slightly reducing our ability to detect any effect of the intervention. Please see Table 8 for the MDES. For further details, refer to the second half of 'allocation' section of Figure 2. As a result, 146 schools (73 in each randomised group) and 1,217 pupils are retained in the follow-up section.

As discussed earlier, NFER collected the primary outcomes data by administering the HGRT in the summer of 2017. Four intervention schools (24 pupils) who had already dropped out of the intervention delivery also decided to withdraw from the primary testing. Similarly, we lost one control school to follow-up because only one of the nominated pupils was eligible to take part in the trial, with the remainder failing to meet the eligibility criterion. This eligible pupil did not take the post-test. In addition, it was not possible to collect post-test data for 96 intervention pupils and 72 control pupils. They were either absent on the day of the testing (n=93), or had left the school (n=44), or were present but did not take the test (n=29), or parents had withdrawn their participation from the trial (n=2). These pupils were from a number of intervention and control schools where other pupils took the post-test. Please refer to the 'follow-up' section of Figure 2.

Finally, there were some pupils for whom we had post-test data but no prior attainment data. We excluded these from the primary analysis. Therefore, overall, the primary analysis involved 501 pupils from 69 intervention schools and 505 pupils from 72 control schools. On average, there were seven pupils per school, with some schools with two pupils and other schools with twelve pupils. Overall, 1,006 pupils were retained in the analysis out of 1,217 pupils who were meant to be followed up. This resulted in an overall pupil attrition to be 17%. In terms of school level attrition, all but one of the control schools were included in the analysis resulting in an attrition of 1.4%. Whereas, the attrition was 5.5% for the intervention group as 69 (out of 73) schools were present in the analysis.

Figure 2: Participant flow diagram

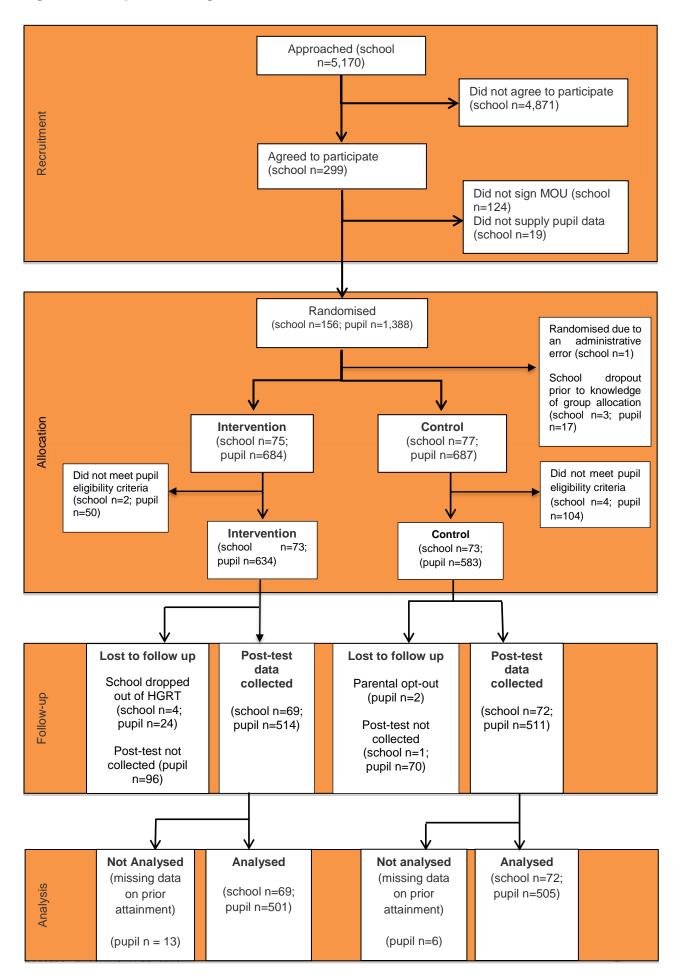


Table 8: Minimum detectable effect size at different stages

		Protocol	Randomisation	Analysis
MDES		0.16	0.15	0.24
Pre-test/ post- test correlations	level 1 (pupil)	0.73	0.73	0.57
Intra cluster correlations (ICCs)	level 2 (school)	0.137	0.137	0.268
Alpha		0.05	0.05	0.05
Power		0.83	0.80	0.80
One-sided or two	-sided?	2	2	2
Average cluster s	size	8	9	7
Number of	intervention	75	78	69
schools	control	75	78	72
	total	150	156	141
Number of	intervention	600	694	501
pupils	control	600	694	505
	total	1200	1388	1006

# **Pupil and school characteristics**

Table 9 presents baseline characteristics of the schools and pupils. There is a small imbalance between the groups, with regards to school governance and the school location (urban or rural). This might be expected due to random variation. The difference in prior attainment between intervention and control group pupils (for the analysed groups), expressed as an effect size from a multilevel model was -0.02 (-0.23, 0.19). This suggests that these differences were not statistically significant at the 5% level. Please see Appendix K for the distributions by randomisation group. Further exploration of bias that might have arisen as a result of attrition was carried out through a logistic model of the missingness mechanism. This model suggested that prior attainment was not associated with the missing data. Please see the section on missing data for further details.

Table 9: Baseline comparison

Table 9. Daseline Compa	Table 9: Baseline comparison								
Variable	Interventi	on group	Control	group					
School-level (categorical)	n/N (missing)	Percentage	n/N (missing)	Percentage					
School type: Academy or Free School Maintained school	22/69 (0) 47/69 (0)	32% 68%	29/72 (0) 43/72 (0)	40% 60%					
Overall Ofsted rating Outstanding Good Requires improvement Inadequate	10/69 (0) 50/69 (0) 8/69 (0) 1/69 (0)	15% 73% 12% 1%	11/72 (2) 49/72 (2) 9/72 (2) 1/72 (2)	16% 70% 13% 1%					
<b>Urban/Rural</b> Rural Urban	14/69 (0) 55/69 (0)	20% 80%	20/72 (1) 51/72 (1)	28% 72%					
Percentage pupils eligible for FSM 2015-16 (5 point scale): Lowest 20% 2nd lowest 20% Middle 20% 2nd highest 20% Highest 20%	4/69(0) 12/69(0) 13/69(0) 19/69(0) 21/69(0)	6% 17% 19% 28% 30%	9/72(1) 11/72(1) 14/72(1) 17/72(1) 20/72(1)	13% 16% 20% 24% 28%					
Key Stage 2 GPS performance band based on average scaled score, 2016 Lowest 20% 2nd lowest 20% Middle 20% 2nd highest 20% Highest 20%	17/69(6) 16/69(6) 7/69(6) 11/69(6) 12/69(6)	27% 25% 11% 18% 19%	19/72(9) 12/72(9) 5/72(9) 19/72(9) 8/72(9)	30% 19% 8% 30% 13%					
Key Stage 2 reading performance band based on average scaled score, 2016  Lowest 20% 2nd lowest 20% Middle 20% 2nd highest 20% Highest 20%	12/69(6) 14/69(6) 14/69(6) 11/69(6) 12/69(6)	19% 22% 22% 18% 19%	13/72(9) 18/72(9) 13/72(9) 6/72(9) 13/72(9)	21% 29% 21% 10% 21%					
Pupil-level (categorical)	n/N (missing)	Percentage	n/N (missing)	Percentage					
Percentage eligible for FSM (everfsm_6) Not eligible Eligible	252/50 1(2) 247/501(2)	51% 50%	258/505(0) 247/505(0)	51% 49%					
<b>Gender</b> Female Male	210/501(0) 291/501(0)	42% 58%	217/505(0) 288/505(0)	43% 57%					
<b>Year Group</b> Year 4 Year 5	244/501(0) 257/501(0)	49% 51%	251/505(0) 254/505(0)	50% 50%					

Pupil-level (continuous)	n (missing)	Mean	n (missing)	Mean	
Baseline SSRT reading score	515(0)	78.4	517(0)	79.4	
Baseline SSRT comprehension score	516(0)	20.9	519(0)	20.9	
Pupil-level (continuous)	n (missing)	Mean	n (missing)	Mean	Effect Size
KS1 reading point score	501(0)	13.06	505(0)	13.0	-0.02 (-0.23, 0.19)

Note: Due to percentages being rounded to the nearest integer, they may not sum to 100.

# **Outcomes and analysis**

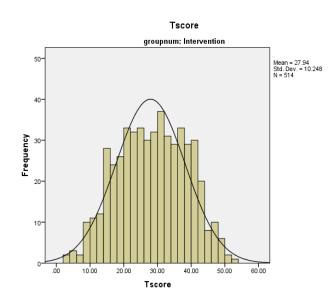
## **Primary ITT analysis**

As seen in Table 10, the mean value for the HGRT score for both randomised groups are fairly similar although it is slightly higher for the intervention group. Figure 3 presents the distributions of the outcome measure by randomised groups. The standard deviation of the HGRT score for the intervention group is also higher than the control group suggesting that there is a higher variation in the outcomes of the intervention group pupils. Table 10 also presents the results from the primary ITT analysis, which ascertains the impact of the intervention on pupil outcomes. The effect size for the impact of the intervention on Year 4 and Year 5 pupils was 0.01 (-0.16, 0.18). This difference is not statistically significant at the 5% level, which means the small difference between the groups is likely to be due to chance. This result suggests that there is no evidence of impact of Catch Up® Literacy on pupils' reading comprehension scores as measured by HGRT compared to BaU pupils.

As these models included the geographic location variable that was used to stratify the randomisation, we also ran another model so that it can be included in EEF's cross-study analysis. The effect size for this model was 0.02 (-0.16, 0.19).

Effect sizes are confidence intervals for all outcomes analyses are presented in Table 10 along with the parameters used to calculate the effect size in Table 11.

Figure 3: Histograms of the HGRT score by randomised group



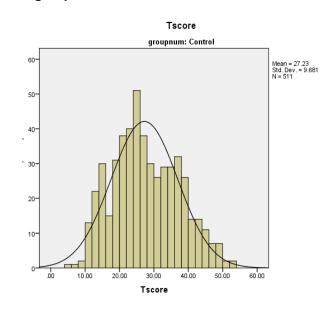


Table 10: Primary and secondary analyses

	Raw means					fect size	
	Intervention group		Intervention group Control group				
Outcome	n (missing)	Mean (95% CI)	n (missing)	Mean (95% CI)	n in model (intervention; control)	Hedges g (95% CI)	p- value
HGRT	514(120)	27.94 (27.05, 28.83)	511 (72)	27.23 (26.39, 28.07)	1006 (501;505)	0.01 (-0.16;0.18)	0.88
HGRT (FSM only)	251(68)	27.59 (26.35;28.84)	249(41)	26.29 (25.06;27.52)	494 (247;247)	0.10 (-0.09;0.30)	0.30
SSRT reading score	524(110)	89.89 (87.82;91.96)	522(61)	89.52 (87.68;91.36)	1032 (515;517)	0.04 (-0.05;0.12)	0.36
SSRT comprehen sion score	525(109)	22.98 (22.47;23.48)	524(59)	22.63 (22.19;23.07)	1035 (516;519)	0.04 (-0.10;0.18)	0.56
Attitude to literacy	506(128)	45.12 (44.33;45.92)	510(73)	44.37 (43.52;45.23)	997 (493;504)	0.09 (-0.04;0.22)	0.18
Attitude to school	505(129)	25.55 (25.22;25.88)	511(72)	25.47 (25.13;25.81)	997 (492;505)	0.04 (-0.10;0.17)	0.60

**Table 11: Effect size estimation** 

Table 11. Effect Size estillation				
Outcome	Unadjusted differences in means		Total variance from a model without covariates	Population variance (if available)
HGRT	0.71	0.13	99.22	
HGRT (FSM only)	1.30	1.02	98.73	
SSRT reading score	0.37	0.88	528.22	
SSRT comprehension score	0.35	0.23	30.55	
Attitude to literacy	0.75	0.86	90.97	
Attitude to school	0.08	0.14	14.87	

#### Missing data analysis

As per the SAP, we ran a multilevel logistic model with two levels (school and pupil) on whether or not a pupil was missing in the ITT model. This was regressed on the covariates of the main model. This model suggested that the intervention indicator was predictive of the missing data. As known from the number of schools followed up, the intervention schools (and pupils) were more likely to be missing from the ITT model (5.5% vs. 1.4% school level attrition and 21% vs. 13% pupil level attrition). This demonstrates that the data is not missing completely at random (MCAR). In addition to this, the Cumbria stratum was negatively associated with the missing data suggesting that the schools and pupils from this region (compared to the North East region) were less likely to be missing in the ITT model.

Missing data was imputed (with chained equations, implemented using the mice package in R), under the assumption that the data was missing at random (MAR). The multilevel model for the imputation included pupil level variables- the HGRT raw score, intervention of control group, Key Stage 1 reading point score, dummy variables for the geographic locations (stratification variable at randomisation), everFSM eligibility, average Key Stage 1 point score and school level variables- school type and phase of education (Primary school or an all through school).

The main ITT model was run using each of the imputed datasets, and the results were pooled to give coefficients and standard errors that took account of the imputation variance. This analysis with the imputed data gave the coefficient of being in the intervention as 0.38 (-1.14, 1.89). This compares to a completers model raw intervention coefficient of 0.13 (-1.55, 1.81). As seen, the intervention coefficient for the imputed model is higher than that of the completers model. However the wide confidence intervals still straddle zero suggesting that the observed differences in the groups can be due to chance. The imputed model was, therefore, followed by sensitivity analysis.

In order to explore further the assumptions that the data is 'missing not at random', we adjusted the values of the primary outcome measure in the imputed datasets in a sensitivity analysis. The standard deviation of HGRT score was 9.91 so we adjusted by values ( $\delta$ ) ranging from +/- 5 (about half a standard deviation) and observed the impact on the imputed datasets.

Table 12: Results from the sensitivity analysis

coefficient for				
δ	intervention	s.e.		
-5	-0.01	0.83		
-4	-0.11	0.84		
-3	0.09	0.79		
-2	0.23	0.79		
-1	0.15	0.81		
0	0.28	0.75		
1	0.53	0.77		
2	0.47	0.77		
3	0.49	0.79		
4	0.62	0.75		
5	0.71	0.77		

This sensitivity analysis shows that as  $\delta$  increases the coefficient for intervention tends to increase but the pattern is not consistent. This would suggest that the results of our multiple imputation are sensitive to variations in the data that are not accounted for in the imputation model. However, it should be noted that even with very low and high values of  $\delta$ , the coefficient remained lower than its standard error. This

implies that even with quite extreme assumptions of the missing data values, the result remained well within the bounds of chance rather than a genuine effect.

# Secondary outcomes analyses

#### **FSM** analysis

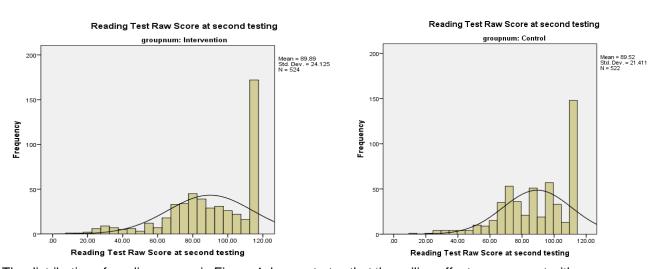
The analysis also suggests there is no evidence the intervention is having an impact on FSM pupils' attainment. The effect size for the FSM subgroup analysis was 0.1 (-0.09, 0.30). This difference is not statistically significant at the 5% level and therefore any small difference between the groups is likely to be due to chance. This analysis implies there is no evidence of Catch Up® Literacy having an impact on FSM pupils' reading comprehension scores, as measured by HGRT.

## Secondary outcomes-SSRT

The trial also explored the impact of Catch Up® Literacy on pupil attainment via SSRT. Two SSRT attainment outcomes were analysed- SSRT reading score and SSRT comprehension score. Figures 4 and 5 present histograms of the SSRT reading score and SSRT comprehension score by randomised groups.

As seen in Figure 4, the distributions are asymmetric with negative skewness suggesting that in both randomised groups, many pupils achieved higher scores on the SSRT reading measure resulting in an average reading score to be higher than the mid-point. Higher standard deviation in the intervention group suggests that there is a higher variation in the outcome measures within the intervention group compared to the control group. When SSRT reading score was analysed as an outcome in a multilevel model, the effect size was 0.04 (-0.05, 0.12). This suggests that the small differences in the SSRT reading scores observed between the groups are likely to be due to chance alone.

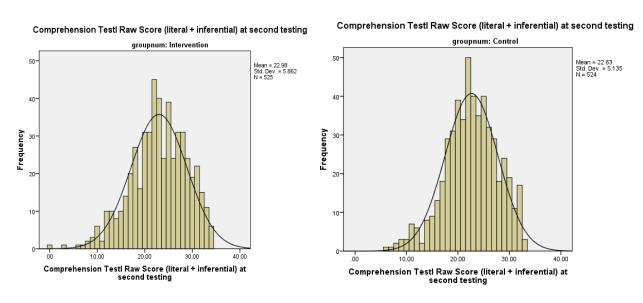
Figure 4: Histograms of the follow-up SSRT reading scores by randomised groups



The distribution of reading scores in Figure 4 demonstrates that the ceiling effects are present with over 30% pupils (from both randomisation groups) achieving the highest marks. This may identify that the selection of eligible pupils has inadvertently, according to this measure, included pupils who were not suitable for the intervention. This has been identified within the process evaluation with some TAs stating that different pupils could have been selected. If some pupils were included incorrectly and are part of the cohort who 'stopped' then they would have been identified analytically within the analysis that included a flag for these pupils. Any interpretation of this outcome measure should therefore be treated with a degree of caution. The inclusion of the SSRT measure was of particular interest to the intervention provider.

As seen in Figure 5, the distributions for the SSRT comprehension scores (outcomes measures) were nearly symmetric. The average score for the intervention group is slightly higher with higher standard deviation than the control group. Outcomes from the multilevel model with SSRT comprehension score as an outcome measure resulted in an effect size of 0.04 (-0.10, 0.18). These results, together with the SSRT reading score results, suggest that the small differences between the groups are likely to be due to chance and so there is no evidence of Catch Up® Literacy having an impact on pupils' attainment outcomes, as measured by SSRT.

Figure 5: Histograms of the follow-up SSRT comprehension scores by randomised groups



#### Secondary outcomes-pupil attitudes

As explained in the methods sections, we explored the effect of the intervention on pupil attitudes by running two multilevel models. The effect sizes for models with 'attitude to literacy' and 'attitude to school' as dependent variables were 0.09 (-0.04, 0.22) and 0.04 (-0.10, 0.17) respectively. These results suggest that there is no evidence of Catch Up® Literacy having an impact on pupils' attitudes to either literacy or to school.

#### Subgroup analyses

We conducted subgroup analyses on the primary outcome measure as per the SAP (EEF, 2017). We explored the differential effect based on pupils' age (in months at the time of testing), gender (boys as a base case) and pupil FSM status (measured by EVERFSM\_6 variable from NPD). The raw coefficient of the FSM interaction term was 1.15 (se=0.98, p=0.24) and age interaction term was -0.03 (se = 0.07, p = 0.71). None of these results were statistically significant, suggesting there is no evidence of differential impact when pupil FSM and age are considered. We also conducted subgroup analysis on the primary outcome measure to explore the differential effect of the intervention on gender. The intervention and gender coefficients were not significant, but the raw coefficient for the interaction term (girls in the intervention group) was -2.03 (se = 0.94, p = 0.03). This suggests that, on an average, the intervention is working less well for girls than for boys.

#### **Exploratory analysis- presence of Non-Compliance**

#### Primary outcome model

As mentioned in the methods section, a multilevel model was run to explore the effect of number of Catch Up® Literacy sessions the pupil had received. Due to a large number of intervention schools not submitting the session logs, we also ran another model with variables that flagged whether the

intervention pupil had missing data for number of sessions or the stopping variable. In this model, the coefficients for the missing flags were not significant at the 5% level suggesting that the intervention pupils who had missing session logs didn't have different HGRT score than their peers who had the log data. The coefficient for the number of sessions variable was -0.08 (se=0.03, p=0.02). This suggests that those who received more sessions (and did not reach the expected level of performance) had, on an average, lower scores on the primary outcome test. The coefficient for the stopping variable was 4.07 (se=1.63, p=0.01), suggesting that those who stopped receiving the intervention (those who had caught up) were performing better, on average, on the primary outcome test. The coefficient for the interaction term was -0.02 (se=0.07, p=0.81). This suggests that of those who stopped receiving the intervention, those with above average number of sessions were associated with lower scores on the primary outcome test. However, this finding is not statistically significant and therefore these differences may be observed due to chance.

#### SSRT models

The initial model (without the missing data flag) for the SSRT reading score as a dependant variable showed that the coefficients for the number of sessions and the stopping variable were not significant. These were -0.01 (se=0.04, p=0.78) and -2.70 (se=2.3, p=0.24) respectively. The coefficient for the interaction term was 0.21 (se=0.10, p=0.04). Model results are reported in Appendix L. This result suggests that the pupils with more than average number of sessions and those who stopped (because they had 'caught up') has, on average, higher SSRT reading score and this difference is not due to chance. Once the pupils with missing data on session logs were included in the model, this doesn't reach statistical significance. The models for the SSRT reading comprehension score as a dependant variable revealed that none of the variables were significant suggesting there is no evidence of impact on this outcome when the number of Catch Up® Literacy sessions and whether the pupil had 'caught up' were taken into consideration.

#### Cost

#### How much does it cost?

The intervention cost £146.12 per pupil for the first year of implementation. The main financial costs related to the costs for school staff members to receive the Catch Up® Literacy training <sup>14</sup> together with the travel and subsistence associated with training and/or support sessions, purchasing books, resources or material specifically to deliver the intervention and photocopying resources and materials specifically for the intervention. Due to high start-up costs and low running costs, the annual cost per pupil for the second and third year of implementation reduces to £76.43 and £53.20 per pupil per year respectively. This cost analysis is based on complete data received from 51 intervention schools. The average cost over three years of £53.20 per pupil per year equates to an EEF cost rating of 'very low' (See Appendix A).

The coordinator survey presented respondents with the cost of the lifetime training and support package for TAs offered by Catch Up® Literacy (£395 per individual at that time). It asked respondents how the cost effectiveness of Catch Up® Literacy compared to that of other literacy interventions used by the school. Over one quarter of respondents (n=16) felt that it was more cost effective, just under one quarter (n=13) felt that it was about the same, and the same proportion (n=13) were unsure. Just eight of the respondents felt that the intervention had been less cost effective.

# Staff time

As Catch Up® Literacy is a highly structured one-to-one intervention, it was important to ascertain the staff time involved in delivering the intervention. The intervention schools reported that, on average,

<sup>&</sup>lt;sup>14</sup> The cost of the training was covered by EEF and therefore schools only had to pay for the remaining financial costs.

they spent 14 hours of staff time per pupil (across all staff members) delivering the intervention in the first year. This includes TA time spent in preparing for and delivering the sessions, supply cover time for all staff to attend the training and/or to support sessions; as well as any supply cover time to cover the actual delivery of the sessions, liaising with Catch Up® literacy staff; coordinators' time in managing and coordinating the TAs who are delivering the intervention and providing direct support to the TAs. We were also able to estimate the staff time for the second and third years which averaged out to 12 hours per pupil per year for both subsequent years.

Table 13: Cost of delivering Catch Up® Literacy

Item	Type of cost	Cost	Total cost over 3 years	Total cost per pupil per year over 3 years (Average 9.24 pupils per school)
Programme cost	Start-up cost per school	£1042.94	£1042.94	£37.62
Travel and subsistence associated with training/or support sessions	Start-up cost per school	£49.51	£49.51	£1.79
Purchasing book, recourses or material specifically for delivering Catch Up®	Start-up cost per school	£81.86	£81.86	£2.95
Photocopying resources and materials specifically for Catch Up®	Running cost per school	£55.39	£166.17	£5.99
Totals		£1,229.70	£1,340.48	£48.36

Note: The total for the last column is slightly different from the per pupil cost over three years reported in this section. This is due to a small difference in the way pupil numbers were considered - pupil numbers for each school were considered for the calculation that reported cost per pupil over three years whereas above table generates this number based on average number of pupils per school (n=9.24) across the whole sample.

Table 14: Cumulative costs of delivering Catch Up® Literacy

	Year 1	Year 2	Year 3
Catch Up® Literacy	£1,229.70	£1,285.09	£1,340.48

# **Implementation and Process evaluation**

# **Summary**

### School readiness and preparedness

- The intervention schools were well placed to begin delivery of Catch Up® Literacy. It aligned
  well with their approaches to literacy and with wider school strategies and plans for
  improvements. Coordinators stated that their schools had the capacity and readiness to take
  on the intervention and had been keen to get involved.
- The TAs who delivered Catch Up® Literacy were largely experienced (e.g. had longstanding careers as TAs, had TA qualifications and/or were experienced in delivering interventions) and/or handpicked to deliver the intervention. Most TAs interviewed felt well supported by their school.
- The Catch Up® Literacy training programme prepared TAs and coordinators well to deliver the intervention. The ongoing support that Catch Up® Literacy provided was rated as high quality.

# **Fidelity**

- In the majority of schools, the intervention was delivered by trained TAs (as intended). However, in a small number of schools, teachers trained in the delivery of Catch Up® Literacy were delivering it as well as or instead of trained TAs.
- Not all schools were able to provide the two sessions per week of Catch Up® Literacy. Reasons
  for not delivering the sessions centred on pupils missing Catch Up® Literacy to participate in
  other activities or opportunities in school, or because the TA was too stretched to provide the
  support.
- The majority of schools adhered to the 15-minute individual session length, and to delivering the sessions on a one-to-one basis.
- By term 3, five or six out of every ten TAs were adapting how they deliver Catch Up® Literacy from how they were taught in the training.
- By the end of the trial, over one-third of TAs stated that one or more of the pupils they support had stopped receiving Catch Up® Literacy. This was most often because their pupils had 'caught up' to their target reading age.
- Catch Up® Literacy was largely implemented in addition to usual literacy lessons. The majority
  of sessions took place outside of pupils' usual literacy lessons.

### Implementation

- Only half of the coordinators who responded to our survey felt that the 'right' pupils had been selected for the intervention. Interviewees suggested that although their nominated pupils would benefit, with hindsight, they could identify pupils who might have benefitted more.
- Pupils were reported to have engaged well with the individual sessions.
- Over half of the coordinators who responded to our survey rated Catch Up® Literacy as different
  from existing support for pupils who are below age expected reading levels. The elements that
  were said to differentiate it from usual practice were the same elements as those considered
  key to its success.
- The key effective elements were identified as: the one-to-one nature of the support; its structure; the accessible and clear supporting documents; the manageability of a short 15-minute session; its breadth (in focusing on reading and spelling as well as writing); the prepared reading element; and the wide variety of books that can be used in the intervention.
- The main barriers to delivery were a lack of time to deliver Catch Up® Literacy and the challenges of timetabling two sessions per week.

### **Impacts**

- TAs and coordinators reported a range of perceived impacts on pupils. Overall, around half or more TAs reported that pupils had improved (to some, or a great extent) their: enjoyment, confidence and attainment in literacy; attitude towards school; motivation in class; and selfesteem. Survey respondents most commonly identified improvements in pupils' confidence in literacy. Interviewees most commonly identified improved reading skills and abilities.
- Delivering Catch Up® Literacy had been beneficial for TAs. Impacts included increased understanding of pupils' strengths and weaknesses in literacy, and improved relationships with pupils.

# **Control group activity**

- The majority of control group pupils received some form of additional literacy support during the trial period. The main form of additional support was small group support; only a small number of control group pupils (peaking at 8 per cent across the three terms) received one-to-one support.
- Around one half of the additional literacy support provided to control group pupils was provided 2 to 3 times a week, and in the majority of cases TAs provided the support.
- The support that was planned for the control group pupils prior to randomisation reflects what
  was actually received, suggesting that the control group did not change their 'business as usual'
  as a result of the trial.

# **Factors behind implementation**

### School readiness and foundations for the intervention

The interviews and surveys with TAs and coordinators provided insight into the pre-planning that went on the intervention schools, as well as the environments in which the interventions were delivered. Catch Up® Literacy was attractive to schools. Interviewed coordinators stated that they got involved with the trial as they recognised the value in the opportunity to take on a new intervention, free of charge; because reading was a school focus or concern; and, for some, because they serve a deprived area where pupils are below expected levels of achievement and would benefit from targeted support. Over three-quarters of respondents to the coordinator survey stated that Catch Up® Literacy fitted well with their whole school approach to literacy, and all of the interviewed coordinators explained that the intervention fitted well with wider school strategies or plans for improvement. The interviewed schools also stated that they had the capacity and readiness to take on Catch Up® Literacy (although two noted that it had been a challenge to find the time it required). This suggests that the intervention schools were well placed to deliver Catch Up® Literacy.

#### The TAs and coordinators

Just over three-quarters of the coordinators who responded to our survey were a member of their school's senior leadership team (or equivalent). However, from our interviews, we know that in some schools TAs took on the coordinator role<sup>15</sup>. The vast majority of the TAs who responded to our surveys (nine out of every 10) had a TA qualification (or were working towards one). Almost two-thirds had over six years of experience as a TA (within their current school or in others). Indeed, over one-third of all of the TAs who responded had 11 or more years' experience. Coordinators told us that they selected the TAs in their school because they had delivered interventions before (some similar to Catch Up® Literacy), because they already worked with the pupils/year groups involved, or because of

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<sup>&</sup>lt;sup>15</sup> In two of the interviewed schools the TAs were taking on some or all responsibility for the coordination of Catch Up® Literacy

availability/resource. Two schools also chose TAs based on their specific skills or abilities. This suggests that the TAs were largely experienced and/or hand-picked to deliver the intervention.

### **Training and support**

Our evaluation explored the extent to which the Catch Up® Literacy training prepared coordinators and TAs for delivering and managing Catch Up® Literacy. We also explored the levels of support that TAs received from schools, and views on the additional support elements offered by Catch Up® Literacy. The training commenced in the third week of September 2016. Just over one-third of schools received the training in September, with a further three-fifths of schools receiving the training in October. The remaining schools (n=4) received training in late November.

### Were the TAs well trained and prepared for delivering Catch Up® Literacy?

TAs were asked to what extent the Catch Up® Literacy training programme had prepared them for delivery. One respondent had not attended the training. Of the remainder of the TAs who responded to the question, around three-quarters stated that it had prepared them 'completely'; and the remainder felt that it had prepared them 'to some extent'. Further, all but two of the TAs we interviewed felt that the training had fully prepared them for delivering Catch Up® Literacy. The time lag between training and starting the intervention in their school meant that two of the TAs didn't feel 100 per cent prepared. Interviewees particularly valued the supporting file and the videos that were used in the training sessions. Only one interviewee noted that they would have liked further support or training, and this related to the assessment element of the intervention<sup>16</sup>. This suggests that training prepared TAs well for delivering Catch Up® Literacy.

### Were the coordinators prepared for managing and coordinating Catch Up® Literacy?

The coordinators also responded positively when asked how prepared they felt for managing and coordinating Catch Up® Literacy following the training. They were asked to rate their response on a five point scale, with 1 meaning 'Not at all prepared' to 5 being 'Fully prepared'. Of the 57 respondents, five had not attended the training. The vast majority of those who had attended the training felt it had prepared them well (47 out of 52 attendees responded with a 4 or 5 on the scale). The coordinators interviewed said that the training was excellent for preparing them and their TAs for delivery. Like the TAs, they also highly rated the supporting file. They noted that the training was less focused on the management or coordination of Catch Up® Literacy, and as such had welcomed the webinars that were made available to specifically support coordinators. Despite the training not being focused on the management side of the intervention, the coordinators recognised the value in fully understanding delivery in order to equip them to provide the appropriate support and resource that the intervention required.

### Were the TAs well supported by their schools?

All but one of the TAs that we spoke to felt well supported by their school. They were provided with sufficient time to prepare for and deliver their sessions, and to meet with other TAs who delivered Catch Up® Literacy, the coordinators and their pupils' teachers. The TAs particularly valued support from other TAs delivering the intervention. Despite feeling well supported, one TA felt very time limited as they delivered a number of other interventions, and another suggested that a lack of books in their school was sometimes problematic.

<sup>&</sup>lt;sup>16</sup> These are 'Assessments for Learning', where assessments of progress are used for individual pupils, from which Catch Up® Literacy targets are set

### Did the TAs and coordinators receive ongoing, quality support from Catch Up® Literacy?

In Term 3, we asked the TAs how they rated some of the additional support elements offered by Catch Up® Literacy. We asked specifically about the Catch Up® Literacy file (the file/handbook that supports delivery), the website, Review and Refresh meetings¹7, and the accreditation support. Respondents were asked to rate the quality on a scale of 1 to 5 with 1 being 'very poor quality' and 5 being 'excellent quality'. TAs could also note if they hadn't accessed or used that form of support. Just under half of all respondents stated that they had not accessed any accreditation support, and one quarter had not accessed the website or the Review and Refresh meetings. Where these forms of support had been accessed, TAs were very positive about their quality, with the majority (at least 8 out of every 10 respondents) rating them as a 4 or 5. The Catch Up® Literacy file was rated particularly strongly and accessed by almost all respondents.

We also asked coordinators about the quality of the website, the management resources, Review and Refresh meetings, the coordinator network meetings, and the management accreditation support. We used the same scale as that used for the TAs. The Review and Refresh meetings were most highly rated (with around 8 out of every 10 respondents who had accessed it rating it as a 4 or 5). Around seven out of every ten coordinators who had accessed them also rated the website and management resources as high quality (rating these as a 4 or 5). Around six out of every ten coordinators had accessed the coordinator network meetings, and two-thirds of these rated them as a 4 or 5 in terms of quality. Only half of the survey respondents had accessed the management accreditation support and, of these, just over a half rated it as a 4 or 5 in terms of quality.

This suggests that TAs were accessing more of the available support than coordinators. The support that was accessed was largely rated as high quality.

# **Fidelity**

Catch Up® Literacy is a set programme that deliverers are trained to follow. Anyone delivering Catch Up® Literacy should have attended the three half-days training programme, where adherence to its structure is consistently stressed. This section discusses whether the intervention was delivered as intended, drawing on the surveys of and interviews with TAs and coordinators.

### Was it delivered by trained TAs?

All but one of the coordinators who returned a survey stated that TAs who attended the Catch Up® Literacy training delivered Catch Up® Literacy in their school. Sixteen coordinators also stated that teachers who had attended the training also delivered the intervention, and in three schools, other TAs (who had not attended the training) delivered Catch Up® Literacy. This suggests that in the majority of schools the intervention was delivered by trained TAs. In a small minority of schools, untrained TAs were delivering Catch Up® Literacy.

### Did the pupils receive two sessions a week?

Each term we asked TAs whether their Catch Up® Literacy sessions happened twice a week. In the first term, around eight out of ten TAs who responded to the question stated that they usually or always happened twice a week. In the second term the situation was similar, with around eight out of ten TAs stating that the sessions happened twice a week per pupil, and two out of every ten stating they happened less than twice a week. However, by Term 3, only six out of ten respondents stated that the sessions happened twice a week. Just over one third of respondents stated that in Term 3 the pupils

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<sup>&</sup>lt;sup>17</sup> Review and Refresh sessions offer opportunities for trainees to share and feedback about how their practice is going and get further guidance from their Catch Up® trainer and each other. Deliverers can attend as many of these sessions as they would like.

received less than two sessions per week. This suggests that not all schools were able to provide the two sessions per week of Catch Up® Literacy support.

Our interviews with schools were less positive than the survey results. In just three of the eight schools, the TAs reported that they always delivered two sessions per week. Of the remaining five, three stated that they didn't always manage to provide two sessions a week (despite their best efforts). One TA reported that they did not manage to provide the two sessions very often and another stated that their pupils were provided with two sessions a week, but only for rotating blocks or six to eight weeks (so they received the intervention for six to eight weeks, then stopped receiving it until six to eight weeks later). This suggests that twice weekly sessions were not consistent over the trial period. Reasons given by interviewed TAs for not managing to deliver two sessions centred around children missing their Catch Up® Literacy sessions due to other activities or opportunities in schools (such as one-off workshops, school visits or plays), or because the TA's time was too stretched, or was diverted to support other pupils. Not delivering the intended two sessions per week threatens the intervention fidelity.

#### Did the sessions last 15 minutes?

Each term, we also asked TAs whether their Catch Up® Literacy sessions lasted 15 minutes. In Term 1, of those who responded, six out of every ten TAs stated that their sessions always lasted 15 minutes, and an additional three out of every ten stated that they usually did. In terms two and three the pattern was very similar with seven out of every ten TAs stating that the sessions lasted 15 minutes per pupil, and around three out of every ten stating that they lasted more than 15 minutes per pupil. Our interviews with TAs reflected a similar pattern. Half of the eight TAs stated that their sessions typically lasted 15 minutes. The other half reported that they sometimes went one or two minutes over (largely due to not wanting to interrupt the pupils when they were writing follow up sentences or discussing the book). This suggests that there is some deviation from the 15-minute time limit, but that it is probably only minor.

### Were the sessions delivered on a one-to-one basis?

In each survey, we asked TAs if they were delivering the sessions on a one-to-one basis. Across all three terms, in the vast majority of cases (around nine out of every ten of the TAs who responded to the question) stated that their sessions were always delivered one-to-one. As time progressed, more TAs stated that they 'always' delivered their sessions one-to-one. This suggest that this element of the intervention was delivered as intended.

### What elements of the intervention were perceived to be adaptable?

Responses to our TA survey across all three terms suggest that TAs were adapting how they deliver Catch Up® Literacy from how they were taught in the training. In the termly survey of TAs we asked about the extent to which (not at all; to some extent; completely) they were adapting four key elements of Catch Up® Literacy from how they were taught in the training: assessment for learning; selecting an appropriate book; the individual session; and ongoing monitoring. In Term 1, around four out of every ten TAs who responded to the question stated that they were not making any adaptations in any of these areas. However, a similar number of TAs stated they were 'completely' adapting all of these elements to how they were taught in the training. In Term 2 we asked TAs if they were making any adaptions (with response options: yes, for some pupils; yes, for all pupils; no). Between five and six out of every ten TAs stated that they were adapting each of those elements of the sessions for all of the pupils they support. In Term 3 we repeated the question asked in Term 1 about the extent of adaptations, and received very similar responses. This suggests that the TAs were adapting how they delivered Catch Up® Literacy from how they were taught in the training.

Interestingly however, in our interviews with TAs, they all stated that they did not adapt or change how they deliver Catch Up® Literacy to how they were taught in the training. Our interviews with coordinators revealed a similar picture. All but one coordinator stated that there had been no change or adaptations

made to how TAs were taught to deliver their sessions. The adaption they referred to involved changes that had been made in response to emotional and behavioural needs (e.g. opting to lengthen the prepared reading session<sup>18</sup> when it had been a particularly difficult day for a child). In the interviews, we also asked coordinators and TAs if there were any differences in the ways that TAs in their school were delivering Catch Up® Literacy. Only one coordinator and one TA from the same school identified any difference in delivery, related again to one of their TAs opting to ask the questions about the book at the end of the session.

When we asked TAs in our interviews if they *tailored* the support that they provided to individual pupils, all but two TAs stated that they did. Their examples included: breaking up the assessment session into a series of smaller sessions; lengthening the prepared reading session; delaying progression into a new Catch Up® Literacy level (to focus on comprehension); or offering more time to complete the writing element for slower writers. Whilst some of this tailoring includes adaptations recommended in the supporting file, others constitute adaptations of the Catch Up® Literacy model (e.g. changing the timings associated with the individual session). These adaptions are logistical, pro-active and positive (inkeeping with the goals and theory of the intervention) (Humphrey *et al.*, 2015), but given that Catch Up® Literacy stresses the importance of adhering strictly to the model that is taught in the training and set out clearly in the file, the extent of adaptions are a threat to the fidelity of the intervention. However, the contradictions in the data might also highlight the limitations of this self-reported data; or, despite the interviewers' objectivity, reflect a social desirability response bias.

### How was 'stopping' managed?

By the end of Term 2, around one third of TAs stated that one or more of the pupils they support had stopped receiving Catch Up® Literacy. By the end of Term 3, this had increased to over one-third. This is also reflected in the session log data that we received from Catch Up®. The logs revealed that 36 per cent of the pupils (for whom we had session log data and were included in the impact analysis models), stopped receiving Catch Up® Literacy sessions.

TAs most often stated that pupils stopped receiving Catch Up® Literacy because they had 'caught up' and reached their target reading age (reported by 16 out of 27 TAs at the end of Term 3). To a lesser extent, it was because: they required a different literacy intervention to meet their needs; because pupils did not engage in the intervention or had left the school; or because other pupils had a greater need for Catch Up® Literacy and so were provided with the intervention instead.

At the time of our interviews with coordinators (at the end of Term 2 and into Term 3) only two schools reported that they had 'stopped' any of their intervention pupils from receiving Catch Up® Literacy. In one case this was because the pupil had caught up to age expected levels in reading, and in the other, it was because the intervention was 'not working' for one child who displayed challenging behaviour. Half of the coordinators stated that they regularly assess the pupils (either through the Catch Up® Literacy assessments, the schools own measures or the Salford Reading Test) and that they would stop the intervention for any pupils that did 'catch up'. Note that these schools stressed the importance of monitoring progress after stopping to ensure that reading levels did not dip in the absence of support.

### **Implementation**

### Did schools feel that the 'right' pupils had been selected for the intervention?

Coordinators were asked whether they agreed with the statement 'Prior to randomisation, we nominated the pupils most likely to benefit from Catch Up® Literacy'. They were asked to rate their responses on

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<sup>&</sup>lt;sup>18</sup> The prepared reading session is the first 3 minutes of the 15 minute sessions. During this session, the TA gives the learner an overview of the story or chapter so they can concentrate on reading for meaning. They introduce tricky or unfamiliar vocabulary to encourage fluency. This is intended to give the learner more confidence to tackle the text.

a scale of 1 to 5, with 1 being 'completely disagree' and 5 being 'completely agree'. Just over one half of coordinators agreed that they had nominated the pupils most likely to benefit (with the majority of these completely agreeing). Just under one-quarter of coordinators disagreed. The remainder of respondents rated their agreement as '3' on a five point scale, perhaps suggesting that they were not sure, or that it was variable amongst their nominated pupils if they were the 'right' pupils or not. This suggests that only around one-half of the schools felt that the right pupils had been selected. This is potentially a reflection of an issue of any targeted intervention where the pupils are pre-specified prior to randomisation.

The qualitative data suggested a more positive picture and insight into the survey responses. In the interviews with coordinators and TAs, we also asked whether they felt they had identified the pupils most likely to benefit when they nominated them prior to their randomisation to the intervention group. Coordinators from six of the eight schools felt that they had chosen the pupils that would benefit the most, although two thought that whilst their nominated pupils would benefit, they would pick slightly different children with different needs if they were to do it again, now they are more familiar with the intervention and how it works. One school delivered the intervention to one-third of the selected pupils and selected a new set of pupils for the intervention (who were not part of the trial) after the training. The other school felt that they could not pick the pupils most likely to benefit as, knowing their families well, they assumed that these parents would not agree to the trial and/or intervention. The coordinator from this school did state, however, that the pupils who they did nominate would benefit, but maybe not as much as others they would have liked to nominate. The interviews with TAs reflected a similar response, with all but two TAs feeling that the right pupils had been selected for the programme. In once school, it was felt that other pupils in the school struggled more with reading than the nominated pupils (who really only needed to focus on comprehension); in the other, they had picked 'mid-range' ability children as that was the school's focus, but would pick 'lower-range' children if they had known more about the programme.

### How much did pupils engage with Catch Up® Literacy?

Across the three terms that TAs were delivering Catch Up® Literacy, the majority of TAs (at least three-quarters) reported that their pupils were 'completely' engaged in their sessions. The remainder of TAs stated that their pupils were engaged 'to some extent'. Term 1 was the only term in which just three TAs stated that their pupils were 'not at all' engaged in the sessions. This suggests that pupils engaged well with the intervention.

### Did Catch Up® Literacy sessions take place at the same time as pupils' normal literacy lessons?

Across the three terms, in the majority of cases, the Catch Up® Literacy sessions did not take place at the same time as pupils' normal literacy lessons. Each term, between one half and two-thirds of TAs stated that it never happened at the same time as literacy, and an additional quarter of TAs stated that it 'rarely' took place during literacy lessons. This was reflected in the interviews with schools. In five out of the eight schools, pupils did not miss literacy lessons for their Catch Up® sessions. In one school, half of the pupils missed guided reading sessions. In the other two schools, pupils were taken out of class during whole school reading time, or sometimes missed the start of their literacy lesson. This suggests that Catch Up® Literacy was typically provided in addition to pupils' normal literacy lessons. Our interviews with coordinators suggest that in the main, Catch Up® Literacy had not replaced any other intervention in their school, and was an additional form of support.

The majority of intervention pupils also received some form of additional literacy support as well as Catch Up® Literacy. In our termly surveys we asked the TAs if the pupils they support access any other targeted interventions beyond their usual classroom teaching. Across the three terms slightly different responses were given, but they consistently suggest that the majority of pupils received some form of additional literacy support alongside Catch Up® Literacy. For example, each term, around four-fifths of TAs (who responded and who knew if their pupils received any additional support) stated that at least

some of their pupils received additional support. This reinforces the finding that Catch Up® Literacy did not tend to replace anything in the intervention schools, as intervention pupils received Catch Up® Literacy in addition to the 'business as usual' type support provided in both control and intervention settings (further detail is provided in the section 'Control Group Activity').

### How do schools ensure high quality delivery of Catch Up® Literacy?

Our interviews with coordinators revealed that the majority of schools ensured high quality delivery through regular (formal and informal) meetings with TAs, and observations of their delivery sessions. Accessing ongoing training, support and resources from Catch Up® Literacy (including the opportunity to meet and discuss with coordinators from other schools) were also mechanisms though which coordinators were able to ensure quality. Other less common approaches included: asking pupils informally for feedback on their sessions; providing TAs with additional resources to support questioning to check comprehension; reviewing TAs' Catch Up® Literacy files; choosing experienced TAs to deliver the intervention; and dedicating time and space to Catch Up® Literacy.

### How distinct is the programme from existing support?

In our survey, we asked coordinators how different Catch Up® Literacy is from existing support for pupils who are below age expected reading levels in their school. They were asked to rate their response on a scale of 1 to 5 with 1 being 'not at all different', and 5 being 'very different'. Over half of the respondents (31 out of 56) rated Catch Up® Literacy as different from existing support (by responding with a 4 or 5). One third of respondents rated it as '3'.

In the interviews with TAs and coordinators we also explored how different Catch Up® Literacy is from usual practice, and how distinct it is from existing support for pupils who are below age expected levels in reading. Interestingly, we got similar responses to these questions as we did when we asked interviewees to identify the key effective elements of the intervention (discussed in the following section). This suggests that the elements of Catch Up® Literacy that differentiate it from usual practice, are the same elements that are considered key to its success.

### What are the key differences and effective elements?

A key difference identified by interviewees was the one-to-one nature of the support. This was considered a really positive difference as it enabled a greater focus on the individual child and offered a more targeted and individualised approach that helped to build pupils' confidence. The structure associated with Catch Up® Literacy was also highlighted as a positive difference. For pupils, Catch Up® Literacy offers consistent, regular, and structured sessions, while for TAs, it provides a straightforward structure to follow, with accessible and clear supporting documents. It is considered particularly manageable in terms of the time required for preparation and delivery, and the 15 minute duration of the sessions was felt to work well in engaging pupils. Interviewees noted that Catch Up® Literacy is broader than other forms of support, in that it covers writing and spelling as well as reading. The prepared reading element was also flagged as being different to other types of literacy support, and was considered really helpful in building pupils' confidence and in supporting pupils at the start of the session, before they need to read independently. One coordinator also pointed to the very wide range of books that can be used in the intervention, which means that pupils can follow their interests and enjoy selecting books to read. Another coordinator noted the value of pupils being able to track their own progress.

### Are there any barriers and difficulties in implementing Catch Up® Literacy?

In our interviews, we asked TAs and coordinators if they had experienced any barriers or challenges to delivery. The main barrier, highlighted by the majority of schools, was a lack of time to deliver Catch Up® Literacy. Some TAs reported having limited capacity to deliver sessions to pupils twice a week, and some schools had to delay the start-up of Catch Up® Literacy (too late in the first term)

because TAs were unavailable. In two schools, TAs were asked to temporarily stop delivering Catch Up® Literacy for certain periods. In one case, this was to prioritise the delivery of other support in the lead up to SATs examinations, and in the other, it was because of the school's OFSTED inspection visit. It is worth noting that the intervention TAs struggled to fit in two sessions per week but if they accommodated the two sessions in, it would be better if they could be longer.

Timetabling the delivery of Catch Up® Literacy sessions was also a key challenge for schools. Some pupils were already receiving a number of other interventions, which made it difficult to find a suitable time to also deliver Catch Up® Literacy. Some class teachers were reluctant to release pupils, particularly during literacy lessons, and did not want to prioritise the delivery of Catch Up® Literacy. In other schools, there were timetabling restrictions which resulted in pupils regularly missing activities they enjoyed such as art or PE. A small number of TAs and coordinators also found it difficult to find a quiet and/or private space in school to deliver Catch Up® Literacy.

Other challenges faced by individual TAs included: accessing and selecting appropriate books; low pupil confidence in one-to-one situations; and a perception that the wrong pupils were selected for the intervention (see earlier section on whether the right pupils were selected for the programme). Challenges faced by individual coordinators included: uncertainty around the process for stopping early (i.e. before the pupil had caught up, in response to a perception that the intervention was not right for that pupil); workload and time required to set up the intervention in school; pupil absences; and access to books. One school also faced the issue of a TA trained in the delivery of Catch Up® Literacy leaving the school. This meant that they used an 'untrained' TA to deliver the intervention in her absence (the trained TA had cascaded her learning to another TA, who had not attended the training. Catch Up® Literacy clearly state that learning should not be cascaded in schools, and that all deliverers should attend the Catch Up® Literacy training programme).

#### **Outcomes**

This section explores the perceived outcomes of the intervention. It addresses perceived outcomes on pupils, TAs and the wider school.

# What are the perceived outcomes on pupils?

In the Term 3 TA survey, we asked respondents to rate the extent to which Catch Up® Literacy had impacted on pupils in six key areas. We asked them to indicate the extent of impact on a scale of one to five, with one being 'not at all', and five being 'to a great extent'. Table 15 sets out TAs' responses.

Table 15: TA's perceptions of impacts on pupils

To what extent has Catch Up® Literacy improved pupils':	Not at all (n)	2 (n)	3 (n)	4 (n)	To a great extent (n)	l don't know (n)
Enjoyment of literacy	0	1	17	29	22	4
Confidence in literacy	0	1	8	37	23	4
Attainment in literacy	0	2	17	33	9	12
Attitude towards school	2	5	19	26	7	14
Motivation in class	1	6	17	30	7	12
Self esteem	0	4	18	24	24	3

A total of 73 respondents gave at least one response to these questions. Source: NFER Catch Up® Literacy Teaching Assistant Questionnaire, 2017.

Overall, around half or more of TAs reported that pupils had improved (to some, or a great extent) in each of the six key areas. Improvements in pupils' confidence in literacy was most common, with around eight out of every ten TAs responding with a four or five on the scale. TAs were least likely to perceive

that Catch Up® Literacy had led to impacts on pupils' motivation in class and their attitude to school, although this should be seen in the context of their overall positive views.

We asked coordinators the same question. Table 16 sets out their responses.

Table 16: Coordinators' perceptions of impacts on pupils

To what extent has Catch Up® Literacy improved pupils':	Not at all (n)	2 (n)	3 (n)	4 (n)	To a great extent (n)	l don't know (n)
Enjoyment of literacy	1	1	17	21	13	4
Confidence in literacy	1	0	12	22	19	3
Attainment in literacy	1	2	18	22	12	2
Attitude towards school	3	1	28	14	4	7
Motivation in class	1	3	21	21	6	5
Self esteem	1	2	9	27	15	3

A total of 57 respondents gave at least one response to these questions. Source: NFER Catch Up® Literacy Coordinator Questionnaire, 2017.

The responses of coordinators followed a fairly similar pattern to those of TAs. Coordinators reported that the main benefits for pupils were increased self-esteem and increased confidence in literacy with around seven out of every ten responding with a four or five. Coordinators were also least likely to perceive that Catch Up® Literacy had led to impacts on pupils' attitude to school, although one third of coordinators reported improvements for pupils in this area.

In the interviews with TAs and coordinators, we also explored perceived impacts of Catch Up® Literacy on pupils. Interviewees from all eight schools reported positive benefits for pupils. Interviews with TAs reflected a similar pattern to the TA survey responses; all but one of the TAs reported increases in pupil confidence in literacy. It is notable that attainment in literacy did not come out as one of the most highly rated impacts, and neither did any of the TAs or coordinators refer specifically to direct impacts on attainment in literacy. This could be because those impacts were yet to be realised or evidenced, particularly as the pupils accessing the intervention were in Years 4 and 5 and therefore were not subject to any national testing over the course of the trial (and our respondents may have associated the term 'attainment' with national tests). However, in our interviews, all of the TAs and coordinators reported that pupils had improved reading skills and abilities; this was evidenced though a combination of their own pupil observations, class teacher feedback and progress made in reading assessments (Catch Up® Literacy assessments as well as standardised reading assessments). TAs and coordinators particularly highlighted pupils' improved fluency, including their ability to read with expression. Other impacts on pupils noted by both TAs and coordinators involved a greater motivation to read and more positive attitudes towards literacy. This was demonstrated through pupils' increased enthusiasm for, and enjoyment of, reading (e.g. reading a wider range of books, taking books home, and reading aloud in class). A small number of schools also reported improvements in pupils' handwriting, spelling and punctuation as a result of the intervention.

We asked TAs why they thought Catch Up® Literacy was having these impacts. TAs spoke about improvements to the format and structure of the intervention (e.g. it is made up of small steps/blocks and 'is fun'). In schools that provided new reading resources, TAs also reported improvements which they believed were supported by the new reading books that pupils could access.

### Who does Catch Up® Literacy work best for?

We asked Catch Up® coordinators and TAs which pupils Catch Up® Literacy works best for. Around half of all interviewees reported that Catch Up® Literacy has a largely universal application and can be beneficial for most, if not all, pupils. Some TAs felt that younger pupils benefited more from the

programme. Reasons for this relate to perceptions of a better fit between the intervention and the KS1 curriculum with its focus on phonics, and younger pupils being more responsive to certain aspects of the approach (such as the use of a timer). A small number of interviewees supposed that the intervention worked less well for more fluent readers and those with specific behavioural needs and characteristics (such as a strong dislike to being withdrawn from class or of receiving one-to-one support).

### What are the perceived impacts on TAs?

In Term 3, we asked TAs to rate the extent that Catch Up® Literacy had impacted on them, in five key areas. We asked them to rate their response on a scale of 1 to 5, with 1 being 'not at all', and 5 being 'to a great extent'. Table 17 sets out their responses.

Table 17: TAs perceptions of impact on themselves

To what extent has Catch Up® Literacy improved TAs':	Not at all (n)	2 (n)	3 (n)	4 (n)	To a great extent (n)
Confidence in supporting pupils who are struggling with literacy	5	3	11	32	22
Knowledge and skills in delivering literacy support	3	4	12	27	27
Job satisfaction	4	7	9	28	25
Relationship with pupils	2	1	9	24	37
Understanding of pupils' strengths and weaknesses	1	1	8	27	36

A total of 73 respondents gave at least one response to these questions. Source: NFER Catch Up® Literacy Teaching Assistant Questionnaire, 2017.

Generally, TAs were very positive about the extent to which Catch Up® Literacy had led to improvements for them. The most frequently cited impacts for TAs were increased understanding of pupils' strengths and weaknesses in literacy and improved relationships with pupils, with around three quarters of respondents selecting a 4 or 5 on the scale. TAs were least likely to perceive that delivering Catch Up® Literacy had led to improved job satisfaction, although this should be seen in the context of their overall positive views.

In the coordinator survey, we also asked respondents to rate the impact of Catch Up® Literacy on TAs in the same five key areas. Coordinators were also generally very positive; around half or more reported Catch Up® Literacy had led to improvements for TAs (to some, or a great extent) in each of the five key areas. The pattern of their responses matched to those of TAs: increased understanding of pupils' strengths and weaknesses in literacy was the most frequently cited impact, and improved job satisfaction the least.

Our interviews with TAs and coordinators confirmed that delivering Catch Up® Literacy had been beneficial to TAs. They particularly valued their improved literacy support skills and the opportunity for dedicated time to work with pupils on a one-to-one basis. Other perceived impacts included improved pupil relationships, job satisfaction/enjoyment and increased confidence. Coordinators noted the increased enjoyment and job satisfaction of their TAs, followed by improved skills for delivering literacy support and increased TA confidence and self-esteem. Like TAs, they also highlighted improved relationships with pupils.

### What impact is Catch Up® Literacy having on the wider school?

We asked coordinators to rate the extent to which Catch Up® Literacy had an impact on six areas of wider school life. Again, we asked them to respond on a scale of 1 to 5, with 1 being 'not at all', and 5 being 'to a great extent'. Table 18 sets out their responses.

Table 18: Coordinators' perceptions of impact on the wider school

To what extent has Catch Up® Literacy had a positive impact on:	Not at all (n)	2 (n)	3 (n)	4 (n)	To a great extent (n)	l don't know (n)
Communication between TAs and teachers	4	5	20	18	10	0
How TAs are deployed (or used)	6	7	19	17	7	1
The use of one-to-one support strategies	3	7	14	20	13	0
Resources for literacy teaching or interventions	2	4	16	17	18	0
Other pupils in Year 4/5 classes	16	13	10	11	4	3
Parental engagement	19	15	18	3	0	2

A total of 57 respondents gave at least one response to these questions. Source: NFER Catch Up® Literacy Coordinator Questionnaire, 2017

Coordinators were generally less positive about the extent to which Catch Up® Literacy had led to improvements for their schools compared to the impacts they reported for their TAs. The main benefit reported was the access to resources for literacy teaching or interventions (with around six out of every ten coordinators responding with a four or five). Relatively few coordinators perceived a positive impact on parental engagement or other pupils in Year four or five classes. Further, in our interviews, very few coordinators mentioned wider school impacts (only one mentioned improved communication between the TA and teachers). This suggests that the impact of Catch Up® Literacy was perceived as being mostly on pupils and the TAs who delivered it.

### Unintended consequences or negative impacts

In the interviews with coordinators, we also asked about any unintended consequences of implementing Catch Up® Literacy. Half of the coordinators reported that there had not been any unintended consequences, positive or negative. Two coordinators identified positive benefits that had not been anticipated at the outset. The first of these related the extent to which TAs themselves could benefit from implementing Catch Up® Literacy, taking ownership for the delivery of a new intervention in school and making a difference to the progress of individual pupils. The second was that knowledge gained from delivering Catch Up® Literacy had led to changes in the way the school allocates books to all pupils; giving them greater opportunities to access books they are able to read fluently (rather than always allocating books to stretch their reading), in order to enhance comprehension. This second coordinator also noted that there was now greater awareness of the need to invest in dedicating sufficient TA time to the delivery of interventions.

Two different coordinators reported having not anticipated certain challenges that arose in the delivery of Catch Up® Literacy (rather than any negative impact, per se). This included challenges related to the limited availability of books to use for the intervention, and difficulties timetabling and delivering the intervention due to the busy and unpredictable nature of school life.

As highlighted in the preceding sections, interviews with coordinators and TAs revealed their positive view of Catch Up® Literacy. Just two interviewees reported negative impacts. One TA believed that the pupils most likely to benefit had not been selected for the trial and felt that being out of the class to deliver Catch Up® Literacy was having a detrimental effect on the other, more needy, pupils. One coordinator reported negative impacts on TAs due to the limited time they had to plan and prepare for Catch Up® Literacy.

# Formative findings

# What improvements could be made to the Catch Up® Literacy intervention?

In the interviews with coordinators, we asked what improvements could be made to the Catch Up® Literacy intervention. Half of the coordinators said they felt that the programme was effective and no improvements were necessary. One coordinator suggested that it would be beneficial if the programme could be delivered to small groups of pupils, rather than one-to-one, to reduce TA delivery time and enable more pupils to benefit.

#### Advice to others

In the interviews with coordinators, we asked what advice they would give to other schools thinking of delivering Catch Up® Literacy. Half of the coordinators recommended that schools implement Catch Up® Literacy due to their perceptions of its positive impact on pupils, the cost effectiveness of the intervention (see section on cost analysis) and the wider benefits it can have on the quality of literacy support delivered more generally by TAs. Other advice from individual coordinators included: appropriate timetabling so that the intervention can be delivered as intended; TAs dedicating the necessary time to prepare and deliver Catch Up® Literacy sessions; selecting TAs with both the skills and commitment to deliver the intervention; ensuring good communication between TAs and coordinators; commencing the intervention at the start of an academic year; choosing the most appropriate pupils; allocating a budget for new books and; ensuring there is dedicated private space for delivery.

# Control group activity

Prior to randomisation, all schools were asked to nominate up to 12 pupils to receive the intervention if their school was allocated to the intervention group. Schools were asked to provide some basic information about any additional support they planned to offer these pupils in the forthcoming term, namely: details on the nature of support; how frequently it would be provided; and by whom. Following randomisation, schools that were allocated to the BaU control group were issued with termly 'activity logs' (see the *Methods* section for further detail). These asked the coordinators to provide pupil-level information about any additional literacy support that was actually provided to their nominated pupils each term. We received activity logs from between 64 and 78 per cent of control group schools across the three terms in which the trial operated.

### Did the control group pupils receive additional literacy support during the trial?

Thirteen per cent of pupils, whose coordinators returned an activity log (school n=61 out of 78) and provided a response to the question, received no additional support beyond usual classroom teaching in Term 1. This increased to 26 per cent in Term 2 (school n=52 out of 78), and to 38 per cent of pupils in Term 3 (school n=50 out of 78). This suggests that at the start of the trial the majority of pupils in the control group received some form of additional literacy support, but that this decreased during the trial period. Further, in Term 1, at least 29 per cent of control group pupils received more than one type of support. In Term 2 this dipped to under 20 per cent, and further to 19 per cent in Term 3.

### What additional literacy support was received?

The activity logs showed that:

- the main form of additional literacy support received by control group pupils across all three terms was small group support following the class lesson being taught by the teacher (received by between 21 and 28 per cent of pupils)
- the second most frequently cited form of support was small group support following a school developed programme (received by between 8 and 15 per cent)

the third most frequently cited form of additional support was small group support following a
purchased programme (received by between 7 and 14 per cent of control group pupils). The
most frequently identified purchased programmes included Lexia Reading, Accelerated
Reader, and Read Write Inc Phonics.

It is notable that only a small number of control group pupils received one-to-one literacy support (peaking at 8 per cent of the control group pupils in Term 2 receiving one-to-one support as part of a purchased programme).

### How often did they receive support?

The support provided to control group pupils was mostly provided two to three times a week. This was reported as the case for between 48 and 53 per cent of control group pupils (for whom data was provided) across the three terms. Between 21 and 27 per cent of pupils received support daily; and between 16 and 22 per cent received the additional support on a weekly basis.

# Who provided the support?

In the majority of cases, the support for control group pupils was provided by TAs (ranging from between 64 and 73 per cent of pupils across the three terms). Teachers provided the support in 11 to 19 per cent of cases.

#### What were the costs and time associated with BaU activities?

Based on the information provided in the termly BaU logs, schools spent, on an average, £42 per pupil per academic term. This includes the cost of all the resources used to provide support for the pupils (excluding the cost of purchasing the programme). For Term 1, this cost was £41.02 (school n=54), for Term 2 it was £45.18 (school n=40) and for Term 3 it was £40.47 (school n=37). In addition to this cost, schools also provided us with time taken to provide the pupils with additional support each term. Note that this was mainly in the form of a small group support (for further details, see the section on control group activity). BaU schools spent, on an average, 16 hours to provide support to each nominated pupil. This was 20 hours in Term 1 (school n=54), 15 hours in each Term 2 (school n=43) and Term 3 (school n=44).

### What did it cost to provide any programmes purchased for BaU activity?

Due to different models implemented by schools, we cannot ascertain an average cost borne by schools to purchase a programme. Instead, these costs provide an important contextual information for the evaluation. Six literacy programmes were being used by the control schools. The initial cost for purchasing these programmes, i.e. the initial training costs ranged from £1,100 to £2,900. This cost included training a number of school staff. In some cases, additional resources are provided for teachers to use, which, on average, cost £175 per teacher. Programme providers also supplied us with the additional resources for each pupil. The range for this cost was £15-£225.

### How did this compare to what was intended?

Analysis of the pre-randomisation logs offers insight into how what happened in the control group compares to what was intended. The main form of additional literacy support planned prior to randomisation for nominated pupils was small group support following the class lesson being taught by the teacher (planned for 31 per cent of all pupils in the BaU group). This was followed by small group support following a school-developed programme (for 18 per cent) and small group support following a purchased programme (planned for 15 per cent). This pattern of planned support reflects what was actually provided to pupils, which suggests that the control group did not change 'business as usual' as a result of the trial.

# Conclusion

## **Key conclusions**

- 1. The project found no evidence that Catch Up® Literacy improves reading comprehension for children in Years 4 and 5.
- 2. Pupils that have ever been eligible for free school meals made two months additional progress compared to similar pupils in control schools. This result is not statistically significant. This means that the statistical evidence does not meet the threshold set by the evaluator to conclude that the true impact was not zero.
- The intervention was not always delivered as intended. Some schools struggled to resource two one-to-one sessions per week, while in other schools TAs adapted how they delivered individual sessions from what they were taught in the training.

### Interpretation

There was no evidence that Catch Up® Literacy had an overall impact on pupils' attainment in reading comprehension or reading skills. This was also the case when considering pupils who were eligible for free school meals (FSM). There was also no evidence that the intervention had an effect on pupils' self-reported pupil attitudes. The evaluation found that the intervention worked better for boys than for girls (the intervention boys scored, on average, 0.98 points higher on the HGRT when compared to the BaU control group boys and the intervention girls scored, on average, 1.05 points less on the HGRT when compared to the BaU control group girls). The negative gender effect for girls within intervention schools was found to be statistically significant meaning this difference was not due to chance.

Analysis from the session logs suggested that the pupils who stopped receiving the intervention (because they had 'caught up') were performing better, on average, on the HGRT. At the same time, those who had received more than the average number of sessions (but had not 'caught up') were performing worse on the HGRT. Given the stopping rule within the evaluation it is to be expected that those who did not stop would receive more sessions and ultimately lower attainment. The 'stopping strategy' was working as intended where the intervention helped TAs to identify pupils who had 'caught up' and were reading according to their chronological age. These pupils are approximately one-third of the intervention group.

Evidence from the implementation and process evaluation showed that the intervention schools were largely very positive about Catch Up® Literacy. The schools were well placed to begin delivery, and mainly used trained TAs who felt well prepared by the Catch Up® Literacy training and supported by their schools. TAs reported that pupils have engaged well in the sessions, and TAs identified improvements in reading, confidence and enjoyment of literacy in the pupils they supported. However, evidence from the implementation and process evaluation also showed that Catch Up® Literacy was not always implemented as intended, and that there were some threats to its fidelity. It is possible that the threats to the programme's fidelity may have lessened the likelihood of detecting an impact. Due to the resourcing challenges of providing one-to-one support, not all schools managed to deliver the intended two sessions per week (one-third of intervention TAs in Term 3 stated that their pupils did not receive two sessions per week). The challenge of resourcing one-to-one sessions was also identified in the earlier EEF-funded evaluation of Catch Up® Literacy. As such, stressing the importance of appropriate resourcing and timetabling to deliver Catch Up® Literacy must be more strongly integrated into any further scale up of the intervention. Further, evidence also showed that considerable numbers of TAs were adapting how they deliver Catch Up® Literacy from how they were taught in the training. By Term 3, five or six out of every ten TAs stated that they were 'completely' adapting the four different elements of the intervention.

As previously highlighted, this trial was not simply a larger replication of the previous EEF-funded evaluation of Catch Up® Literacy as there were substantial changes, including: focusing on younger pupils; not using specifically hired TAs; and having no transition element (from primary to secondary school). There are also differences in the assessments and marking methods that were used; the level of randomisation and the 'stopping' element. This should be borne in mind when considering the results of this current effectiveness trial.

However, despite these changes, the findings from this evaluation potentially are consistent with the findings from the earlier efficacy trial of Catch Up® Literacy: there is no evidence of impact of the intervention on pupils' attainment. The earlier efficacy trial found that the pupils who received Catch Up® Literacy sessions improved their reading by two additional months' when compared with the control group pupils, but that this difference was not statistically significant, suggesting that the difference could have occurred by chance. Studies carried out prior to the efficacy trial also reported positive results, but similarly, these were not statistically significant (e.g. Holmes, Reid and Dowker, 2012). There is a consistent message that there are perceived benefits of Catch Up® Literacy for pupils (as well as for TAs). However, while the earlier efficacy trial found that Catch Up® Literacy had a statistically significant impact on pupils' attitudes to school, self-assessed ability in reading, and their confidence in and enjoyment of writing, this evaluation did not find evidence that the intervention had an impact on any of these pupil attitudes (albeit, this evaluation focused on a younger age group so the results are not directly comparable).

In the light of the extensive evidence of the impact of one-to-one tuition presented in the EEF toolkit (EEF, 2018a), the lack of evidence from this trial is concerning. The evidence in the EEF toolkit suggests that one-to-one tuition can be effective, delivering approximately five months' of additional progress on average. This assessment is based on extensive and consistent evidence, particularly for younger learners who are behind their peers in primary schools, and for subjects like reading. The evidence in the toolkit does suggest that programmes involving TAs tend to be less effective than those using experienced and specifically trained teachers, but that when tuition is delivered by TAs, there is evidence that training and delivery of a structured programme is advisable. Catch Up® Literacy offers extensive training and a very structured programme. The lack of evidence of impact from this evaluation does not support the existing evidence on one-to-one support. This contradiction could be due to the length of the Catch Up® Literacy sessions, which are intended to be two 15-minute one-to-one sessions per week. In contrast, the EEF toolkit evidence suggests optimal impact can be achieved by sessions lasting about 30 minutes and being delivered three to five times a week over a period of six to twelve weeks. This could be quite challenging practically, as our findings suggest that the schools struggled to deliver two 15-minute sessions, with lack of time being one of the biggest barriers to implementation.

### Limitations

ITT analysis included 83% pupils out of those who were meant to be followed up. More than half of this pupil attrition was due to absence or illness. Since the extent of school dropout was unequal between the randomised groups, imputation and sensitivity analysis were required. Although this revealed inconsistency in the result, it never passed the threshold of being statistically significant and we can therefore be reasonably confident in the null result.

As suggested in the coordinator survey and in the interviews with the TAs and the coordinators, some intervention schools felt that they had not selected the 'right' pupils. This was also perhaps evidenced by the fact that 10 per cent of intervention pupils did not receive any intervention session. The suggestion seems to be that a different set of pupils would have benefitted more than the ones nominated at the outset. As the pupil selection took place prior to group allocation, it cannot have introduced bias as control schools would also have selected similar pupils and would also have reconsidered the selection criteria had they been randomised to intervention. This is a reflection of the

inherent challenges of RCTs where pupils are pre-specified for interventions before fully understanding what the intervention might involve.

Further, control group schools could have targeted the additional literacy interventions that they provided to their pupils after randomisation, thus creating a more effective match between pupil and the additional literacy support. Conversely, another notable difference is that the vast majority of additional literacy support in control schools was small group support (as opposed to one-to-one). Although studies comparing one-to-one support with small group support show mixed results (EEF, 2018a), it also suggests that in some cases one-to-one tuition lead to great improvements, while in other cases groups of two or three are equally or even more effective where the quality and the type of teaching are more important than the group size itself.

# **Future research and publications**

Despite the perceived benefits evidenced by the implementation and process evaluation findings, this evaluation is consistent with one interpretation of the previous efficacy trial that there is no evidence that Catch Up® Literacy has an overall effect on pupil attainment. There are also a range of questions that remain unanswered: only one in three intervention pupils had 'caught up' to their chronological reading age. What else can be done so that the remaining two-thirds of pupils also benefit from the intervention? How much more time would be needed for more pupils to meet the stopping criterion? Why did the intervention work better for boys than for girls? It is not felt necessary that future research needs to look at one-to-one teaching in control schools as this was investigated in an earlier efficacy trial. The biggest barriers of implementation were the challenge of resourcing the sessions and the extent to which TAs had to adapt the intervention delivery. These must be integrated into any further scale up of the intervention.

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# **Appendix A: EEF cost rating**

Cost ratings are based on the approximate cost per pupil per year of implementing the intervention over three years. More information about the EEF's approach to cost evaluation can be found **here**. Cost ratings are awarded as follows:

Cost rating	Description
3333	Very low: less than £80 per pupil per year.
3333	Low: up to about £200 per pupil per year.
£££££	Moderate: up to about £700 per pupil per year.
£££££	High: up to £1,200 per pupil per year.
£££££	Very high: over £1,200 per pupil per year.

# **Appendix B: Security classification of trial findings**

Rating	Criteria for	Criteria for rating				<u>Adjust</u>	 Final score
	Design	Power	Attrition <sup>19</sup>				
5 🗎	Well conducted experimental design with appropriate analysis	MDES < 0.2	0-10%				
4 🛍	Fair and clear quasi- experimental design for comparison (e.g. RDD) with appropriate analysis, or experimental design with minor concerns about validity	MDES < 0.3	11-20%	4 🗎		Adjustment for Balance	4 🗎
3 🛍	Well-matched comparison (using propensity score matching, or similar) or experimental design with moderate concerns about validity	MDES < 0.4	21-30%	[		Adjustment	
2 🛍	Weakly matched comparison or experimental design with major flaws	MDES < 0.5	31-40%			for threats to internal validity	
1 🖺	Comparison group with poor or no matching (E.g. volunteer versus others)	MDES < 0.6	41-50%				
0 🖴	No comparator	MDES > 0.6	over 50%				

- Initial padlock score: lowest of the three ratings for design, power and attrition: This was a well conducted randomised controlled trial with MDES at randomisation of 0.16 and pupil level attrition of 17% = 4 padlocks
- Reason for adjustment for balance (if made): balance at randomisation was good, with a difference in pre-test of -0.02 SD
- Reason for adjustment for threats to validity (if made): There were some problems with the
  fidelity to the intervention, particularly the selection of pupils that did not belong to the lowest
  attainers in each group. However, as it is argued in the report, targeted interventions usually
  face difficulties to identify eligible pupils so this was not considered a reason to drop one
  padlock.
- Final padlock score: initial score adjusted for balance and internal validity = 4 padlocks

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<sup>&</sup>lt;sup>19</sup> Attrition should be measured at the pupil level (even for clustered trials) and from the point of randomisation to the point of analysis.

# **Appendix C: Randomisation syntax**

```
Title 'Randomisation for first block of the EETL trial - 130916_R'.
subtitle 'Block one'.
GET DATA /TYPE=XLSX
 /FILE='K:\EETL\CfS\Randomisation\Cumbria and G. H & I - Schools Randomisation List to NFER
 /SHEET=name 'Sheet1'
 /CELLRANGE=range 'A1:F44'
 /READNAMES=on
 /ASSUMEDSTRWIDTH=32767.
***Region names haven't been consistent so will need to do some recoding.
***All region names will be recoded so that they are the name linked officially with their LA code and
those LAs that belong to the North East will
***have their region recoded to North East.
string LA(a3).
compute LA = char.substr(LAEstab,1,3).
if LA = '909' Region = 'Cumbria'.
if any(LA,'810','811','812','813') Region = 'Grimsby, Hull and Immingham'.
if LA = '846' Region = 'Brighton and Hove'.
if LA = '837' Region = 'Bournemouth'.
if LA = '879' Region = 'Plymouth'.
if any(LA,'390','391','392','393','394','805','806','807','808','840','841','929') Region = 'North East'.
freq Region.
***Excel file has a blank row separating Cumbrian schools from others in the data. This doesn't
represent any data just been used to indicate
***how the schools should be partitioned so will now remove from the dataset.
do repeat variable = SchoolName Address Postcode LAEstab Region
         /variablelen = varlen1 to varlen5.
compute
                                                variablelen
char.index(variable, 'ABCDEFGHIJKLMNOPQRSTUVWXYZabcdefghijklmnopgrstuvwxyz0123456789'
,1).
end repeat.
***Only entry that should have zero length for all string variables is the blank row and this will equate to
a pattern of zero.
compute varlenpat = 10000*varlen1+1000*varlen2+100*varlen3+10*varlen4+varlen5.
desc varlenpat.
***That is the case.
select if varlenpat = 0.
list all.
select if varlenpat gt 0.
exe.
*Check for duplicates.
sort cases by URN(a).
match files file=*/first=f/last=l/by URN.
cross f by I.
delete vars f I varlen1 to varlen5 varlenpat.
```

```
***Strata are five coastal areas & North East.
if Region = 'Cumbria' Strata = 1.
if Region = 'Grimsby, Hull and Immingham' Strata = 2.
if Region = 'Brighton and Hove' Strata = 3.
if Region = 'Bournemouth' Strata = 4.
if Region = 'Plymouth' Strata = 5.
if Region = 'North East' Strata = 6.
value labels Strata 1 'Cumbria' 2 'Grimsby, Hull and Immingham' 3 'Brighton and Hove'
                  4 'Bournemouth' 5 'Plymouth' 6 'North East'.
freq Strata.
sort cases by Strata(a).
dataset copy schools.
***Stratified randomisation of schools.
*If we ensure regions are in random order.
*And within regions schools are in random order.
*We can allocate group in sequence.
aggregate outfile=*/break=Strata/nschools=n(URN).
list vars=Strata nschools.
set rng=mt, mtindex=40001.
compute regrand=rv.uniform(0,1).
dataset copy regions.
match files file=schools/table=regions/in=inreg/by Strata.
freq inreg.
set rng=mt, mtindex=40002.
compute schrand=rv.uniform(0,1).
*Randomise.
sort cases by regrand schrand.
compute twos=2*trunc(($casenum-1)/2).
compute group=$casenum-twos.
list vars=Strata URN group.
freq group.
cross Strata by group.
add value labels group 1 'EETL' 2 'Control'.
sort cases by Strata URN.
save outfile='K:\EETL\CfS\Randomisation\Block1.sav'/drop=nschools
                                                                       regrand inreg
                                                                                       schrand
       twos.
SAVE TRANSLATE OUTFILE='K:\EETL\CfS\Randomisation\Randomisation for first block of the EETL
trial - 130916 R.xlsx'
/TYPE=XLS
/VERSION=12
/MAP
/REPLACE
/FIELDNAMES
/CELLS=LABELS
/drop=nschools
                       regrand inreg
                                       schrandtwos.
output save outfile = 'K:\EETL\CfS\Randomisation\Randomisation for first block of the EETL trial -
130916 R.spv'.
dataset close all.
```

# **Appendix D: Memorandum of Understanding (MoU)**

The School Information Sheet will be sent to all schools that sign up their Expression of Interest. There will be a courtesy email:

# EEF funded Catch Up® Literacy Project

Thank you very much for expressing your interest in the above project. We have attached a School Information Sheet which now sets out the full information about the project.

Hopefully, this will contain most of the key information. It is important, though, that schools that take part in the project do so on a fully informed basis so please do contact us – **projects@catchup.org** or telephone the Catch Up® office – 01842 752297 if you have any queries.

If you do then decide to apply to take part in the project, please clink on **this link** which will take you through to an online Memorandum of Understanding.

After we have received your completed Memorandum of Understanding we will send you the proformas for collecting the information about participating staff and pupils, along with the summary of 'business as usual' and opt-out parental consent forms.

On clicking the above **link** in the email that goes with the School Information Sheet, the landing page will be:

### **Memorandum of Understanding**

# Agreement to participate in the Evaluation of Catch Up® Literacy

Although you have already had a copy of the 'Evaluation of Catch Up<sup>®</sup> Literacy School Information Sheet' please read this summary of the project before clicking through to complete the Memorandum of Understanding.

### Aims of the Evaluation

The purpose of this study is to run a randomised controlled trial (RCT) to evaluate the impact of Catch Up® Literacy on pupils' reading ability as measured by the Hodder Group Reading Tests and the Salford Sentence Reading Test. It will also explore the effect of the intervention on pupils' attitudes to school, and their confidence in and enjoyment of literacy.

We hope that pupils in schools across the country will benefit from this research. It will strengthen the already existing evidence on one-to-one literacy support given to pupils.

### The Project

To test and evaluate, within a rigorous and high quality research framework, the impact on a group of up to 12 underperforming Year 4 and Year 5 pupils per school, of the Catch Up® Literacy intervention, when it is delivered by trained teaching assistants for a period of up to 3 terms from September 2016 to June 2017; and to compare with 'business as usual' approaches' to supporting similar pupils over the same time-frame.

#### The Structure of the Evaluation

The evaluation is being conducted by a team of external evaluators led by Simon Rutt from the National Foundation for Educational Research (NFER).

Each participating school will be randomly assigned by NFER, the external evaluator, to the Catch Up® Literacy group or to the 'business as usual' group, with 75 schools in each group. N.B. All pupils in both groups of schools will be pre- and post-tested using a standardised test and each participating pupil will undertake an attitudinal assessment. Following completion of the project in 2017, the schools that have not had any staff trained to use Catch Up® Literacy will receive a grant of £790 to enable them to purchase intervention support of their choice.

The schools in the intervention group receive Catch Up® Literacy training for 2 TAs over a period of three half days, to provide one-to-one support for the pupils for two 15-minute sessions per week for up to 3 terms. A third member of staff, who will undertake the role of Catch Up® Coordinator, will also receive Catch Up® Literacy training.

The schools in the business as usual group will monitor and provide 3 termly reports on the literacy support that their pupils receive.

All pupils in the evaluation will be tested using standardised tests and an attitudinal assessment. The external evaluators will undertake a process evaluation, which will include questionnaires and interviews with participating Teaching Assistants and Project Coordinators.

Random allocation is essential to the evaluation as it is the best way of outlining what effect Catch Up® Literacy has on children's attainment. It is important that schools understand and consent to this process.

### **Use of Data**

The information collected during the trial will be held in accordance with the Data Protection Act, and will be treated in the strictest confidence by NFER and Catch Up®. All those involved in the project will treat all personal data in the strictest confidence and no individual school, student or teacher will be identified in any report arising from the trial. All members of the evaluation team who visit schools will have current DBS checks. Named data will be matched with the National Pupil Database and shared with Catch Up® and the EEF. No individual school or pupil will be identified in any report arising from the research.

# **CLICK THROUGH**

### Responsibilities

### Catch Up® will:

Deliver the Catch Up® Literacy integrated training, resource and support package to three members of staff in the Catch Up® Literacy intervention group, including providing ongoing support in delivering Catch Up® Literacy.

Organise and undertake the administration of the Salford Sentence Reading Test on a pre- and postintervention basis, providing the resulting data to NFER for analysis, ensuring all staff carrying out assessments are trained and have received CRB clearance.

Be the first point of contact for any questions about the research project

Provide ongoing support to the school

Send out regular updates on the progress of the project through a newsletter

Click to select - I have read and understood

# The National Foundation for Educational Research (NFER) evaluation team will:

Conduct the random allocation

Collect the data for the Hodder Group Reading Test and analyse all the data from the project

Ensure all staff carrying out assessments are trained and have received CRB clearance

Provide headteachers with all attainment data after the tests have been completed

Disseminate research findings

Click to select - I have read and understood

#### The School will:

Consent to random allocation and commit to the outcome (whether allocated to the intervention group or the active control group of schools).

Allow time for each testing phase and liaise with Catch Up® the evaluation team to find appropriate dates and times for testing to take place

Release two Teaching Assistants and a third member of staff, who will be the school's Project Coordinator, so that they can attend the Catch Up® Literacy training sessions.

Enable the TAs to support pupils in accordance with the training provided

Ensure the shared understanding and support of all school staff regarding the project and personnel involved.

Provide NFER with monitoring and evaluation data by way questionnaires and interviews as requested

Be a point of contact for parents/carers, including providing them with full information about the project including opt out opportunities.

Click to select - I have read and understood

We commit to the	Evaluation of	Catch Up® Numera	cv as detailed above

School name:
School postcode:
Headteacher name:
Lead contact name:
Lead contact email:
Alternative contact email:

End and submit

School phone number:

# **Appendix E: Information Sheet for Parents / Carers**







### INFORMATION SHEET FOR PARENTS/CARERS

# Catch Up®, Literacy evaluation

#### Invitation

We would like your child to participate in this research study. The study is being led by Catch Up®, independently evaluated by the National Foundation for Educational Research (NFER), and funded by the Education Endowment Foundation (EEF).

Participation is voluntary. Choosing not to take part will not disadvantage your child in any way. Before you decide whether you want them to take part, it is important for you to understand why the research is being done and what their participation will involve. Please take time to read the following information carefully and discuss it with others if you wish. If there is anything that is not clear or if you would like more information, please use the contact details below.

### What is Catch Up® Literacy?

Catch Up® Literacy is a structured one-to-one intervention, developed by Catch Up® (a not-for-profit UK registered charity), for learners from the age of six to fourteen who are struggling with literacy, delivered by trained Teaching Assistants. It involves 15-minute individual sessions delivered twice a week, and addresses word recognition processes and language comprehension processes.

### What is the purpose of the study?

The purpose of this study is to evaluate the impact of Catch Up® Literacy on pupils' reading ability as measured by the **Hodder Group Reading Tests** and the **Salford Sentence Reading Test**. It will also explore the effect of the intervention on pupils' attitudes to school, and their confidence in and enjoyment of literacy.

### Why is my child taking part?

The study requires a large sample of schools and pupils so that the various types of school in England are represented in the research. This will make it possible for us to generalise from the results for the schools in the sample to all of the schools in England. The headteacher from your child's school has given consent to take part in this study. All participating schools are randomly assigned to receive Catch Up® Literacy which helps ensure there is no selection bias in the research study. Depending on the outcome of the randomisation, your child may or may not receive Catch Up® Literacy but they will still be part of the research study. All nominated year 4 and year 5 pupils in your child's school and the other schools participating in the study are being invited to take part in the data collection.

### Does my child have to take part

Your child does not have to take part. The headteacher of your child's school has given consent for them to take part in this research study. If you are happy for your child to take part, please keep this information sheet. If you decide that you do not want your child to take part, please complete the enclosed form and ask your child to return it to their teacher. If the teacher does not receive a completed form from you, we will assume that you are happy for your child to take part.

### What will happen to my child if they take part?

The following information will be shared between Catch Up®, University of Oxford, NFER, EEF, their data contractor FFT Education and in, an anonymised form, to the UK Data Archive.

- Information provided by your child's school (including your child's name, date of birth and unique pupil number) will be linked with information about your child from the National Pupil Database (held by the Department for Education).
- Catch Up®, in partnership with University of Oxford, will administer Salford Sentence Reading Test in the beginning and end of academic year 2016/17.
- NFER will administer Hodder Group Reading Tests to your child towards the end of the academic year 2016/17. NFER will also ask your child to complete a short questionnaire about their classroom and school experiences.

### Possible benefits

The study is intended to inform education policies and practices in England – and ultimately to benefit students in schools across the country.

### What are the possible risks of taking part?

There are no foreseeable risks of taking part in the study.

# Will taking part be kept confidential?

Data from the tests and questionnaires are regarded as strictly confidential and will be held securely until the research is finished, at which point it will be deleted. All data for analysis will be anonymised. In reporting on the research findings, we will not reveal the names of any participants or your school. The UK Data Protection Act 1998 will apply to all data gathered from the tests and questionnaire. This data will be held securely within the organisations listed above. No data will be accessed by anyone other than the research team or the evaluation team. It will not be possible to link any data back to any individual participating in the research.

### How is the study being funded?

The EEF is funding this study. For further information about the organisation, visit: http://educationendowmentfoundation.org.uk.

### What will happen to the results of the study?

We plan to make our research findings publicly available through events such as seminars, conferences and meetings, and through publications such as reports, articles and books.

### Who should I contact for further information?

Please contact Ann Fletcher, Donna Clarke, or Graham Sigley.

Email address: projects@catchup.org
Telephone number: 01842 752297.
Thank you for reading this information sheet and for considering taking part in this research.
OPT-OUT FORM FOR PARENTS/CARERS
Catch Up® Literacy evaluation
Please note that you need only return this form to your child's school if you do not want your child to participate in the research project.
I do <u>not</u> want my child to take part in this research project:
Your Name
Name of child
Signed(parent/guardian)
Date

# Appendix F: Evaluation of Catch Up® Literacy: School Information Sheet

# What is Catch Up® Literacy?

Catch Up® Literacy is a structured one-to-one intervention, developed by Catch Up® (a not-for-profit UK registered charity), for learners from the age of six to fourteen who are struggling with literacy, delivered by trained Teaching Assistants. It involves 15-minute individual sessions delivered twice a week, and addresses word recognition processes and language comprehension processes.

Catch Up® Literacy teaches pupils to blend phonemes (combine letter sounds into words), segment phonemes (separate words into letter sounds), and memorise particular words so they can be understood without needing to use phonics strategies to decode them. The intervention matches books to pupils according to their reading ability, which pupils then read to a Teaching Assistant, supporting the development of their comprehension skills.

### What are the evaluation aims?

A previous evaluation of Catch Up® Literacy suggested that pupils who received the intervention made more progress with their literacy skills (which were estimated using the New Group Reading Test) than pupils that did not. This evaluation focused on support that was delivered over the transition period between Year 6 and Year 7. Catch Up® pupils, on average, improved their literacy outcomes by two months compared with the control group. However, the results did not reach statistical significance. This current evaluation aims to explore the impact of Catch Up® Literacy in a larger number of schools with pupils in Key Stage 2.

The purpose of this study is to run a randomised controlled trial (RCT) to evaluate the impact of Catch Up® Literacy on pupil's reading ability as measured by the **Hodder Group Reading Tests** and the **Salford Sentence Reading Test**. It will also explore the effect of the intervention on pupils' attitudes to school, and their confidence in and enjoyment of literacy.

# Who is conducting the evaluation?

The National Foundation for Educational Research (NFER) is carrying out the independent evaluation. The Education Endowment Foundation (EEF) has commissioned and funded the evaluation.

# What is a randomised controlled trial (RCT)?

A randomised controlled trial is a type of evaluation in which the people/institutions being studied are allocated randomly either to receive an intervention or to be in a control group that does not receive the intervention. This means that any effect of the intervention can be assessed by comparing outcomes for the two groups.

# Can I choose whether I am in the intervention or control group?

No. In a randomised controlled trial, participants are allocated at random to the intervention or control group.

### What will the research involve for all schools?

All schools will have made an initial expression of interest. They will then have received this information sheet and been given the chance to ask questions about the evaluation. After this stage, schools who wish to participate in the evaluation will be asked to:

- complete an online Memorandum of Understanding which will specify the roles and responsibilities of Catch Up®, NFER and the school.
- complete a short pro-forma. This will ask for: the name(s) of up to two Teaching Assistants (TAs) who will deliver Catch Up® Literacy to the pupils (if the school is randomly assigned to receive the intervention); the name and contact details of a member of staff to be the project coordinator; the names, Unique Pupil Numbers (UPNs) and dates of birth of 6 to 8 eligible pupils from Year 4 and Year 5 who are nominated to receive support<sup>20</sup>. The pro-forma will also include a section to outline what support these pupils will get if they are not allocated to receive Catch Up® Literacy support or 'business as usual'.
- distribute an opt-out parental consent form to parents (which we will supply) which gives them the opportunity to withdraw their child's data from the research.
- allow Research Assistants from the University of Oxford to visit their school, in early September 2016 to administer the Salford Sentence Reading Test (SSRT) individually with each participating pupil.

Schools will then be randomly allocated to either the 'business as usual control group' or the Catch Up® Literacy intervention group.

The intervention and monitoring period will finish on Friday 16th June 2017. After this, all schools will be asked to:

- allow NFER test administrators to visit their school on a pre-agreed date to administer the Hodder Group Reading Test and a short attitudinal survey for all participating pupils.
- allow Research Assistants from the University of Oxford to re-visit and administer the individual Salford Sentence Reading Test.

This testing period will run from Monday 19<sup>th</sup> June into July 2017. Schools will receive results from these tests at the end of the evaluation.

# What will happen with schools in the control group?

Schools allocated to the **control group** will not do Catch Up® Literacy. They will be asked to continue as usual, delivering any other programmes they would normally run. Control schools will also take part in the research activities for **all** schools described above. They will also need to return a short end of term monitoring log to NFER to set out what their literacy delivery (or 'business as usual') has comprised for each of their nominated pupils.

### What will the project involve for the Catch Up® Literacy schools?

Schools allocated to the **intervention group** will take part in Catch Up® Literacy. The two TAs and the project coordinator in the schools which are allocated to the Catch Up® Literacy group will attend and undertake Catch Up® Literacy training. This will take place in late September 2016 and early October over three consecutive half-days (mornings or afternoons) and the dates and venues will be based on the locations of participating schools. The Catch Up® Literacy trained TAs will then work with the participating pupils delivering two 15 minute, one-to-one Catch Up® Literacy support sessions per week

2

<sup>&</sup>lt;sup>20</sup> A school may nominate up to 12 pupils in total if the school feels it has the capacity to support the pupils on a one-to-one basis for two 15 minute sessions per week if it is randomly assigned to the Catch Up<sup>®</sup> Literacy group

for up to three terms, with termly reviews. The sessions will continue until the pupil has caught up, or until 16th June 2017.

All Catch Up® Literacy schools will be asked to take part in the activities listed in the section on what the research will involve for all schools. They will also be asked to:

- complete the Progress Reporting Tool each term for all of their Catch Up<sup>®</sup> pupils
- · complete and return a short termly questionnaire administered by NFER
- complete and return an end of year paper-based coordinator survey administered by NFER.

NFER will also invite 8 Catch Up<sup>®</sup> schools to participate in mid-point telephone interviews (in February 2017). Thirty-minute telephone interviews will be carried out with a Catch Up<sup>®</sup> TA and coordinator in each of these eight schools.

NFER will invite a further eight Catch Up® schools to participate in a 'school journey'. Baseline, midpoint and end-point interviews will be carried out with the headteacher, project coordinators, literacy coordinators/teachers and TAs (up to four interviews in each school, at each time point). Baseline (October/November 2016) and end-point (June 2017) interviews will be telephone interviews; the midpoint interviews (February 2017) will take place face-to-face.

### What is the overall timetable?

The trial will start in September 2016. The deadline for committing to the project is the end of term, July 2016. To sign up, schools will submit an online Memorandum of Understanding and complete and return the proformas with data for participating staff and pupils. The Salford Sentence Reading Test will be administered in early September 2016. Schools will then be randomly allocated to the 'business as usual control' group or the Catch Up® Literacy group. Training for Catch Up® schools will take place in September/early October 2016 and the Catch Up® Literacy sessions will begin immediately following the training. The trial will end in June 2017 and the final report will be published on the EEF website in early 2018.

### How will schools benefit from taking part?

We hope that pupils in schools across the country will benefit from this research. It will strengthen the already existing evidence on one-to-one literacy support given to pupils.

Schools allocated to the Catch Up® group will receive Catch Up® Literacy, which aims to improve children's literacy.

Once they have returned their end of year online log and when nominated pupils have been assessed, schools allocated to the control group will receive a grant of £790 in summer 2017. This is equivalent to the funding for two TAs to access training and ongoing support from Catch Up®, although schools can choose to purchase any intervention support.

### How will the data collected be used and protected?

The information collected during the trial will be held in accordance with the Data Protection Act, and will be treated in the strictest confidence by NFER and Catch Up<sup>®</sup>. All those involved in the project will treat all personal data in the strictest confidence and no individual school, student or teacher will be identified in any report arising from the trial. All members of the evaluation team who visit schools will have current DBS checks.

NFER will match school and pupil data with the DfE's National Pupil Database and share this data with the research team, EEF, EEF's data processor the Fischer Family Trust (FFT) and once anonymised, stored in the UK Data Archive for research purposes.

# Who needs to give consent for participation in this study?

The headteacher gives consent to take part in the trial on behalf of the school. In addition, parents/carers will be fully informed of the data that we will be collecting and may choose to withdraw their child's data from the study. They can do this by returning an opt-out consent form to their school. Schools will not share data for these pupils with the evaluation team.

# How will the findings be used?

The overall findings from this research will be included in a publicly available report used to influence practice nationally.

### Who can I contact for more information?

Graham Sigley, Deputy Director, Catch Up®, is very happy to answer any questions you might have. Please contact him on **graham.sigley@catchup.org** or telephone the Catch Up® office - 01842 752297

# Appendix G: Evaluation of Catch Up® Literacy: Coordinator Questionnaire

As you are aware, the National Foundation for Educational Research (NFER) is evaluating the Catch Up<sup>®</sup> Literacy programme. We would appreciate it if you could complete this short survey, which focuses on your school's experience of delivering Catch Up<sup>®</sup> Literacy.

It should take no more than 10 minutes to complete. Please complete the questionnaire in **BLACK INK** and return it directly to NFER in the pre-paid envelope provided.

Your answers will be treated in confidence by the NFER research team. Individual responses will **not** be shared with Catch Up<sup>®</sup> Literacy or your school. If you have any queries, please contact XXX on 01753 637338 or email literacyresearch@nfer.ac.uk

Thank you for your help.

# Involvement with Catch Up® Literacy

involvement with Catch op Literacy		
1 Has your school delivered Catch Up® Literacy to the pupils summer 2016?	s that were nominate	d in
Yes □ No □		
If you selected 'no' to question 1, you do not need to comple questionnaire. If you selected 'yes', please continue to ques	•	of this
Which of the following staff members delivered Catch Up® I nominated pupils in your school? (Please tick any responses the	•	
Teaching Assistants (TAs) who attended the Catch U	p <sup>®</sup> Literacy training	1
	Other TAs	2
Teachers who attended the Catch Up® Literacy training (this ma	ay include yourself)	3
Other teachers (this ma	ay include yourself)	4

# Catch Up® Literacy training and support

3 After the Catc coordinating Ca 1 to 5, with 1 b	atch Up® Litera	cy in your	school? (/	Please ra	te your i	response on	
Not at all prepared				Fully prepar		I did not atter training	
1	2	3	4	5		6	
4 How do you rat Literacy? (Plea and 5 being 'ex	ise rate your r	esponse on				-	Catch Up® oor quality'
		Very poor quality 1	2	3	4	Excellent quality 5	I haven't accessed this 6
Catch Up® Lite	eracy website						
Managem	ent resources						
Review and refr	esh meetings						
Coordinator netw	vork meetings						
Management	accreditation support						
Delivery of Ca	atch Up® L	iteracy					
5 How far do you we nominated a response on a agree')	the pupils mos	t likely to b	enefit fro	m Catch I	Up® Liter	acy. (Please	e rate your
Completely disagree						Compl agre	•
1	2		3		4	5	]
* 'Before randomisa	tion' means: be	fore you kne	w if your s	chool wou	 Id be deli	 ivering	_

Catch Up<sup>®</sup> Literacy or if it would be in the control group.

6 Do pupils receiving Catch Up® Literacy access any other literacy support (beyond their normal literacy classes)? (Please tick one box)									
None do	Some d	o Mos	t do	All of them do					
1	2	3	3	4					
7 How different expected readi	ng levels	in your scho	ool? ( <i>Pl</i>	lease rate you	ır response		_		
Not at all different					Very diffe	rent I don'	t know		
1	2	3		4	5		6		
8 How well does rate your response.  Not at all well	_	_				nd 5 being 'v	•		
1	2	3		4	5		6		
mpacts of Ca	tch Up	<sup>®</sup> Literac	У						
The following ques Please tick one bo		-	oupils v	vho were sup	ported by	Catch Up®	Literacy		
9 To what extent	do you fe	el Catch Up	® Litera	cy has improv	ed pupils':				
		Not at all				To a great extent	l don't know		
		1	2	3	4	5	6		
Enjoyment of li	teracy?								
Confidence in li	teracy?								
Attainment in li	teracy?								
Attitude towards	school?								
Motivation in	class?								
Self-e	steem?								

The following questions ask about the **TAs who delivered Catch Up**<sup>®</sup> **Literacy and any wider impacts on your school** (*Please tick one box on each row*)

#### 10 To what extent do you feel Catch Up® Literacy has improved TAs':

	Not at all				To a great extent	l don't know
	1	2	3	4	5	6
Knowledge and skills?						
Confidence?						
Relationships with pupils?						
Understanding of pupils' strengths/weaknesses?						
Job satisfaction?						
11 To what extent do you feel C	nt extent do you feel Catch Up <sup>®</sup> Literacy has had a positive impact on:  Not at  all  great  And  Records to the control of t					
						I don't know
	1	2	3	4	5	6
Communication between TAs and teachers?						
How TAs are deployed (or used) in your school?						
The use of one-to-one support strategies in your school?						
Resources for literacy teaching or interventions?						
Other pupils in Year 4/5 classes?						
Parental engagement?						

### Costs and cost effectiveness

12 Please provide an estimate of the total <u>cost</u> of each of the following:						
					Financial cost (£)	
Supply cover for all staff to attend the training and/or support sessions provided by Catch Up® Literacy						
provided by Catch Op Elleracy						
	Less than £50	£50- £100	£101- £150	£150- £200	More than £200	
	1	2	3	4	5	
Total travel and expenses for all staff to attend the training and/or support sessions provided by Catch Up® Literacy						
Purchasing books, resources or materials specifically for delivering Catch Up® Literacy						
Photocopying resources and materials specifically for Catch Up® Literacy						
Othe	er costs of de	elivering C	atch Up <sup>®</sup> Li	iteracy	Financial cost (£)	
Please specify what these other of	costs are in t	he box bel	ow:			

have spent on each of the following: (Please write the number of days, round nearest half day. If no time has been spent, please write '0'. Please do NOT time spent engaging in any evaluation activities, such as providing data surveys or interviews)	include any
	Days
Supply cover for all staff to attend the training and/or support sessions provided by Catch Up® Literacy	
Supply cover time associated with the actual delivery of Catch Up® Literacy	
Direct support you or the school have provided to the TA(s) delivering Catch Up® Literacy (e.g. observations, support sessions, responding to questions, team meetings)	
Liaising with Catch Up® Literacy staff	
General management and coordination of Catch Up® Literacy in school (e.g. timetabling, arranging space for sessions, liaising with Catch Up® Literacy staff)	
Any additional staff time (please specify what this time was for in the box below)	
14. It would usually cost £395 per TA for the full lifetime training and support pack by Catch Up <sup>®</sup> Literacy. How does the cost effectiveness of Catch Up <sup>®</sup> Literacy other literacy interventions used by the school?	-
It is more cost effective	) 1
It is less cost effective	2
It is about the same	3
I don't know	<i>I</i>
We don't use any other literacy interventions in schoo	I 5
15. Are you currently a member of your schools leadership team (or equivalent?) one box only)	(Please tick
Yes No No	
Thank you for completing this questionnaire.	

13. Since September 2016, please provide an estimate of the  $\underline{\text{time}}$  you and your colleagues

## **Appendix H: Evaluation of Catch Up® Literacy – Teaching Assistant Survey for Term 3**

Thank you for agreeing to complete this short survey, which should take you less than 5 minutes.

Please use the buttons at the bottom of the page to move through the survey. Do not use your browser's forward and back buttons.

If the survey is left inactive for over 20 minutes you will be timed out. Please use your personalised link in your e-mail to resume completion. If you exit the survey before the end, any answers that you have given may still be analysed.

When answering these questions, please consider your practice in the Summer term (Since returning after the Easter holidays until now).

1. Have you delivered any Catch Up® Literacy sessions this term?

Yes No

If respondent says 'no' to question 1, please route to Q1b and then to END. If respondents says 'yes' to Q1, please route straight to Q2.

**1b) Please tell us why you did not deliver any Catch Up® Literacy sessions this term** (Please tick **all that apply**)

My school decided not to deliver Catch Up® Literacy this term My school is not delivering Catch Up® Literacy yet
Other TAs delivered Catch Up® Literacy instead of me
My pupil(s) 'caught up' and stopped receiving Catch Up® Literacy
I no longer wanted to deliver Catch Up® Literacy
I have never delivered Catch Up® Literacy
Other (Please specify) (Insert open text box)

2. <u>Not</u> including any preparation time, on average, do your Catch Up<sup>®</sup> Literacy sessions usually last:

(Please tick **one** box)

15 minutes (per pupil)? More than 15 minutes (per pupil)? Less than 15 minutes (per pupil)?

3. Do your Catch Up® Literacy sessions happen:

(Please tick **one** box)

Twice a week (per pupil)? More than twice a week (per pupil)? Less than twice a week (per pupil)?

#### 4. To what extent have your Catch Up® Literacy sessions:

(Please tick **one** box on each row)

- a) Been delivered one-to-one?
- b) Taken place at the same time as the pupils' normal literacy lessons?

Not at all Rarely Usually Always Don't know (just for 4b)

5. Roughly, how long have you spent preparing resources/activities/ materials before each Catch Up® Literacy session, per pupil? (Please tick one box)

I don't do any preparation 1-5 minutes 6-10 minutes 11-15 minutes 16-30 minutes More than 30 minutes

6. To what extent have you adapted the following elements of Catch Up<sup>®</sup> Literacy from how you were taught in the training?

Options: Not at all, to some extent, completely.

- Assessment for learning (e.g. administering assessments for learning and setting Catch Up<sup>®</sup> Literacy targets)
- Selecting an appropriate book (e.g. using the assessments for learning to identify the correct Catch Up<sup>®</sup> Literacy level and selecting a book from the Catch Up<sup>®</sup> Literacy booklist)
- **Individual session** (e.g. the learner reads from the selected book, the text is discussed, the learner practices spelling key words)
- Ongoing monitoring (e.g. monitoring and reviewing the individual sessions, revisiting the Catch Up<sup>®</sup> Literacy assessments for learning, reviewing the Catch Up<sup>®</sup> Literacy targets)
- 7. Typically, to what extent do pupils engage in Catch Up® Literacy sessions? (Please tick one box)

Not at all To some extent Completely

## 8. This question explores the impact of the Catch Up® Literacy intervention on the pupils you supported as part of this project

To what extent do you feel Catch Up® Literacy has improved pupils':

enjoyment of literacy? confidence in literacy? attainment in literacy? attitude towards school? motivation in class? self esteem?

Please use a scale of 1 to 5 with 1 being 'not at all' and 5 being 'to a great extent'. Include an option for: 'I don't know'.

9. Do pupils receiving Catch Up<sup>®</sup> Literacy access any other targeted literacy interventions beyond their usual classroom lessons? (Please tick one box)

No Some do Most do All do I don't know

## 10. Did any of the pupils you support stop receiving Catch Up<sup>®</sup> Literacy before the 16<sup>th</sup> June 2017?

Yes No I don't know

If 'yes' to Q10, please route to Q10b. If 'no' to question 10, route to Q11.

## 9b) Why did the pupil(s) you support stop receiving Catch ${\sf Up}^{\sf @}$ Literacy support? (Please tick all that apply)

- Pupil(s) 'caught up' and reached their target reading age
- Other pupil(s) had a greater need for Catch Up® than the nominated pupil(s)
- Pupil(s) required a different literacy intervention to meet their needs
- Pupil(s) did not engage with the intervention
- Pupil(s) did not make sufficient progress
- Pupil(s) left the school
- I stopped delivering Catch Up® Literacy
- The school stopped delivering Catch Up® Literacy
- Other (please specify).

11. How do you rate the quality of the additional support elements offered by Catch Up® Literacy? (Please rate your response on a scale of 1 to 5, with 1 being 'very poor quality' and 5 being 'excellent quality'). Include a box to tick: 'I haven't accessed this'.

Catch Up<sup>®</sup> Literacy delivery handbook Catch Up<sup>®</sup> Literacy website Catch Up<sup>®</sup> Literacy Review and Refresh meetings Catch Up<sup>®</sup> Literacy accreditation support.

12. This question asks about the impact of your involvement in Catch Up® Literacy on your role as a TA (Please tick one box on each row)

To what extent has Catch Up® Literacy improved your:

confidence in supporting pupils who are struggling with literacy? knowledge and skills in delivering literacy support? job satisfaction? relationship with pupils? understanding of pupils' strengths and weaknesses?

Please use a scale of 1 to 5 with 1 being 'Not at all' to 5 being 'To a great extent'.

## **Appendix I: Pupil Questionnaire**

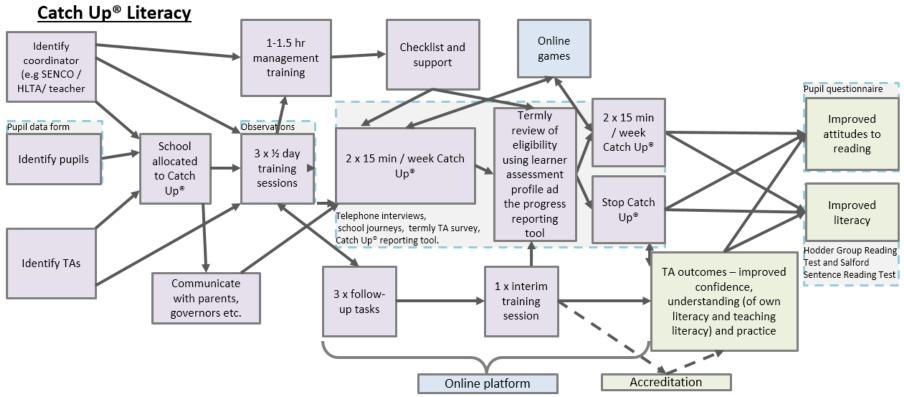
We would like you to answer some questions so we can find out what you think about yourself, and about reading, writing and school. The questions will take you about 15 minutes to answer.										
The questions will be read out loud to you. This is not a test. There are no right or wrong answers. Please answer honestly.										
All your answers to these questions will be kept private. Your teachers will not read your answers.										
Please use a BLACK PEN to fill in this questionnaire.										
First Name: Last Name:										
Edot Hamo:										
Practice questions (Please tick one box on each row)										
e lease work out out out out out out	Definitely	Sometimes	Not sure	Not really	Definitely not					
	<u> </u>	$\sim$	.,	**						
I enjoy playing football										
I like to eat ice cream										
1. About me (Please tick one box on each row)										
	Definitely	Sometimes	Not sure	Not really	Definitely not					
		5	1.	;(	***					
I feel happy most of the time										
I am confident										
I have people to talk to if I feel sad or worried										
I like who I am										
I enjoy making new friends										

2	2. About school (Please tick one box on each row)							
		Definitely	Sometimes	Not sure	Not really	Definitely not		
			$\sim$		**	¥		
	It is important to do well at school							
	I try hard at school							
	I feel confident about doing my work in lessons							
	I enjoy school							
	I behave well in lessons							
	I always do my homework							
2	. About reading and writir	nd (Please t	ick <b>one</b> boy or	ach row)				
	. About reading and writin	Definitely	Sometimes	Not sure	Not really	Definitely not		
			5	.1	;(			
	I enjoy reading							
	I feel confident reading out loud to the class							
	I can work out how to read words that are difficult							
	I enjoy reading in my own time							
	Reading is one of my favourite things to do							
	I enjoy talking to my friends and family about the books I have read							
	I enjoy writing							
	I find writing easy							
	I feel confident about writing in whole sentences							
	Writing is one of my favourite things to do							
	I am doing well in reading							
	I am doing well in writing							

Thank you very much for answering our questions.

Please put this questionnaire into the envelope before handing it in.

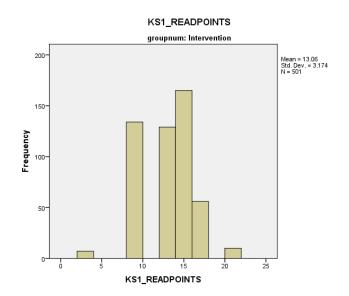
#### **Appendix J: Logic model**

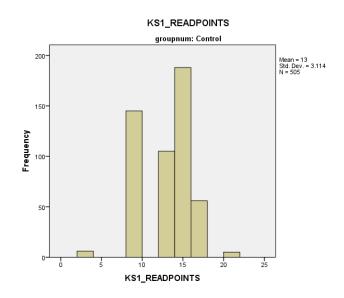


Moderators: pupil engagement, pupil selection, dosage, what it replaces, programme fidelity and adherence, TA and coordinator training and preparation, differentiation from BaU, school and TA level adaptations, implementation support systems and environment, pre-planning and foundations.

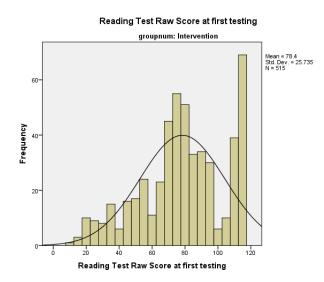
## **Appendix K: Histograms for the pre-test measures**

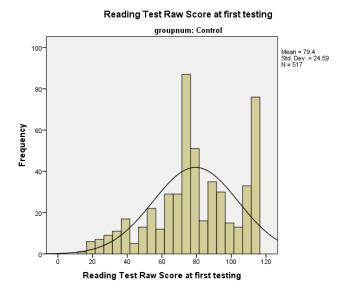
#### Histograms of the KS1 reading point score by randomised group



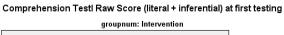


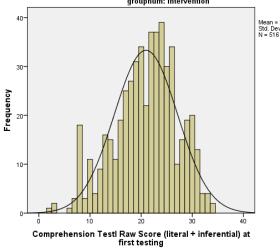
#### Histograms of the baseline SSRT reading score by randomised group



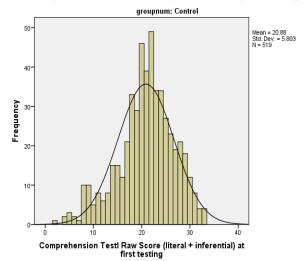


#### Histograms of the baseline SSRT comprehension score by randomised group





#### Comprehension Testl Raw Score (literal + inferential) at first testing



# Appendix L: Presence of non-compliance: Results from the multilevel model with SSRT Reading score as an outcome variable

Outcome variable: SSRT Reading score

	Fixed Effect	Standard Error	Degree of Freedom	t-value	p- value
Intercept	29.144	1.583	828	18.407	0.000
Bournemouth	-2.676	1.813	125	-1.476	0.143
Brighton and Hove	-1.010	2.632	125	-0.384	0.702
Cumbria	1.090	1.406	125	0.776	0.439
Grimsby, Hull and Immingham	-0.160	1.638	125	-0.098	0.922
Plymouth	0.992	1.867	125	0.531	0.596
Southend	-1.526	2.626	125	-0.581	0.562
SSRT reading test raw score at first testing	0.765	0.016	828	46.984	0.000
Number of Catch Up® Literacy sessions	-0.012	0.042	828	-0.285	0.776
Stopped as they caught up	-2.695	2.305	828	-1.169	0.243
Stopped interacted with number of Catch Up® Literacy sessions	0.214	0.104	828	2.053	0.040

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