



Education
Endowment
Foundation

Rochdale Research into Practice

Evaluation report and executive summary

May 2016

Independent evaluators:

Svetlana Speight, Meg Callanan, Julia Griggs and Javiera Cartagena Farias



The Education Endowment Foundation (EEF) is an independent grant-making charity dedicated to breaking the link between family income and educational achievement, ensuring that children from all backgrounds can fulfil their potential and make the most of their talents.

The EEF aims to raise the attainment of children facing disadvantage by:

- identifying promising educational innovations that address the needs of disadvantaged children in primary and secondary schools in England;
- evaluating these innovations to extend and secure the evidence on what works and can be made to work at scale; and
- encouraging schools, government, charities, and others to apply evidence and adopt innovations found to be effective.

The EEF was established in 2011 by the Sutton Trust as lead charity in partnership with Impetus Trust (now part of Impetus – Private Equity Foundation) and received a founding £125m grant from the Department for Education.

Together, the EEF and Sutton Trust are the government-designated What Works Centre for improving education outcomes for school-aged children.

This project was jointly funded by the EEF, the Department for Education and the Mayor's London Schools Excellence Fund.



MAYOR OF LONDON

For more information about the EEF or this report please contact:

Danielle Mason

Head of Research and Publications
Education Endowment Foundation
9th Floor, Millbank Tower
21–24 Millbank
SW1P 4QP

p: 020 7802 1679

e: danielle.mason@eefoundation.org.uk

w: www.educationendowmentfoundation.org.uk

About the evaluator

The independent evaluation team was led by Dr Svetlana Speight at NatCen Social Research who was supported by Meg Callanan, Dr Julia Griggs, Dr Javiera Cartagena Farias and Alexandra Fry. The evaluation team was responsible for the design and delivery of the evaluation, including a logic model workshop, baseline and outcomes surveys of teachers, interviews with staff, observations of training events, analysis and reporting. Questionnaires for the surveys were developed by the National Foundation for Educational Research (NFER) (Poet *et al.*, unpublished). The same questionnaires were used across all projects funded in the EEF's Research Use in Schools round.

Contact Details

Dr Svetlana Speight
Research Director
NatCen Social Research
35 Northampton Square
London EC1V 0AX
t. 020 7250 1866
e. Svetlana.Speight@natcen.ac.uk
Tel.: 020 7549 8546

Acknowledgements

We would like to thank all the teachers and senior leaders at the schools participating in the study for their time and sincere answers, with particular thanks to the senior CPD consultant who delivered the intervention. Many colleagues at NatCen Social Research were involved in implementing the baseline and follow-up surveys and the process evaluation. We are grateful to Alexandra Fry, Cheryl Lloyd and Alessio Fiacco for their contributions. We are also grateful to the team at the Education Endowment Foundation and to Elena Rosa Brown in particular, for their support throughout this project and their valuable feedback on the report.

Contents

About the evaluator	2
Acknowledgements	2
Contents	3
Executive Summary	4
Introduction.....	6
Methods.....	11
Findings.....	14
Conclusion	38
References	40
Appendix A: IPLCN partnership agreement outlining schools’ responsibilities in relation to the Research into Practice programme	41
Appendix B: Communications with school staff	44
Appendix C: The Outcomes Survey.....	49
Appendix D: Outcome measures	65

Executive Summary

The project

Research into Practice – Evidence-informed Continuing Professional Development in Rochdale was a pilot intervention aimed at supporting teachers to use evidence-based teaching and learning strategies to improve pupil progress. The project ran for one year (2014/2015) in ten primary schools in the Rochdale area, all of which are members of the Inspirational Professional Learning Community Network (IPLCN), and was delivered by a senior Continuing Professional Development (CPD) consultant based at one of the schools. It involved CPD sessions and direct consultant support designed to help teachers to:

- have more positive views about the use of research for improving teaching and learning;
- apply educational research findings in the classroom and at a strategic development level; and
- establish a stronger culture of evidence-based enquiry and practice.

In total, about 280 pupils were taught by participating teachers. The project aimed to improve pupil attainment as a longer-term outcome by improving pupils' attitudes to learning, and by using evidence-based teaching and learning strategies such as metacognition, self-regulation and feedback.

The principle objective of this study was to explore whether, and to what extent, research communication and engagement strategies had the potential to improve teachers' use of, and attitudes towards, academic research to support pupils' progress. The project was funded through the Education Endowment Foundation (EEF) Research Use in Schools grants round. It was jointly funded by the EEF, the Department for Education, and the Mayor's London Schools Excellence Fund.

Key conclusions

1. There were some positive changes in teachers' attitudes towards research during the course of the pilot.
2. There was no evidence that teachers were more likely to use research to inform their teaching practice after being involved in the pilot.
3. The project was very well received by teachers suggesting that this model may be a promising way of engaging teachers in evidence-based practice.
4. Finding time for working collaboratively on implementing research evidence in practice was considered a challenge, but overall the requirements of the programme were feasible.
5. Before a trial is considered, further thought should be given as to which elements of the project are essential for its efficacy, and whether a trial should test the project *structure* as a model for research dissemination or both the *structure* and *content* of the project as piloted.

What are the findings?

There were some positive changes in teachers' attitudes to research during the course of the pilot as measured using a survey developed specifically for the EEF's Research Use grants. These included an increase in the proportion of teachers positively disposed to academic research informing teaching practice, and a decline in teachers' perceptions that academic research is not useful to teaching. Although these changes cannot be attributed confidently to the intervention without a comparison group, there was some indication that teachers with direct involvement in the programme may have experienced greater positive changes. This provides some evidence that the changes observed were related to the intervention.

Findings from qualitative interviews suggested that the intervention’s structure provided scope to embed the use of research evidence in practice because it overcomes barriers related to time and practical implementation. They also suggest that this structure will need to remain in place after the pilot ends if teachers are to continue to engage with research evidence in the long term.

The programme largely ran as intended and was perceived very positively by participating staff. There was substantial buy-in from schools’ senior leadership teams facilitated by the project team’s effective engagement with senior leaders, helped by the fact that the schools were members of a pre-existing network of schools. For the programme to be successful without such an existing network, careful thinking will be needed about how to replicate the level of school engagement achieved in the pilot. Finding time for working collaboratively on implementing research evidence was also perceived to be a challenge in the pilot, but overall the requirements of the programme were feasible.

We believe that the intervention is not yet ready to be evaluated in a trial. Further thought should be given to which elements of the project are essential for its efficacy and whether a trial should test the project *structure* as a model for research dissemination or both the *structure* and *content* of the project as piloted. Feasibility in schools without a pre-existing network would also need to be considered, alongside further clarification of the treatment group, outcome measures, and trial length.

How was the evaluation of the pilot conducted?

The pilot study included elements of formative evaluation, process evaluation, and quantitative data collection and analysis. Findings were shared with the delivery team as they became available in order to enable collaborative working and facilitate ongoing development of the intervention.

A model describing how the intervention would work in practice was drafted by NatCen researchers in consultation with the CPD consultant following a workshop to identify the resources, activities, outputs, and intended outcomes of the programme. This was shared with participating teachers during training events. Teachers at participating schools were surveyed at the beginning and end of the academic year, and quantitative data from this survey was analysed to identify any changes. The process evaluation was based on depth interviews, observations of training events, case studies, and survey data. Interviews and observations took place throughout the academic year in order to capture experiences of participants as the intervention was being implemented. All schools took part in some process evaluation activities.

The cost of the intervention was estimated at £74,759 per year, or at £267 per pupil. This is based on 280 pupils being affected by the intervention activities across the ten participating schools. We estimate that as the number of pupils benefiting from the intervention increases in the programme’s subsequent years, the cost per pupil in its third year would reduce to an estimated £172.

Question	Finding	Comment
Is there evidence of promise?	Yes	There were improvements in teachers’ attitudes towards research between baseline and follow-up.
Was the approach feasible?	Yes	The programme ran as intended and was perceived positively by participating teachers.
Is the approach ready to be evaluated in a trial?	No	The programme needs to be developed further before being evaluated in a full trial.

Introduction

The aim of this pilot study was to evaluate the Research into Practice – Evidence-informed CPD in Rochdale programme (‘the programme’ or ‘the intervention’). The programme was delivered in ten primary schools in the Rochdale area, located in the North of England. It was funded by the Education Endowment Foundation as part of the Research Use in Schools round of projects¹ and was delivered during the 2014/2015 academic year.

Intervention

The programme was an intervention in ten primary schools in the Rochdale area, all of which were part of the Inspirational Professional Learning Community Network (IPLCN). The intervention aimed to develop teaching expertise and practice and ultimately improve educational outcomes by:

- implementing a model of high quality CPD within participating schools by using research evidence to embed a collaborative learning culture and develop professional practice; and by
- using research evidence on effective teaching and learning strategies—such as metacognition, learning cultures, self-regulated learning and feedback—to equip teachers with effective learning strategies, and pupils with the tools they need to achieve and progress.

To achieve these aims, the CPD lead, with support from an external expert advisor, was responsible for developing and running the following components:

- developing and leading CPD sessions;
- undertaking termly school visits to each participating school; and
- providing email and phone advice and guidance on request.

The CPD lead was based at one of the participating schools and was funded by the project for 40 days across the pilot year. The CPD lead was a qualified teacher and had been a professional development consultant for ten years previously, working across the schools in the Rochdale IPLCN, so she was already well known to the schools involved.

2014/2015	Intervention activities
Autumn term	<ul style="list-style-type: none"> • CPD sessions, 2 full-day and 1 half-day • 2 school visits from CPD lead • On-going classroom implementation
Spring term	<ul style="list-style-type: none"> • CPD sessions: 1 full-day and 1 half-day • Third school visit from CPD lead • On-going classroom implementation
Summer term	<ul style="list-style-type: none"> • 2 half-day CPD sessions • School peer visits to share practice • On-going classroom implementation

There were six strands to the intervention:

¹ <https://educationendowmentfoundation.org.uk/news/eef-launches-15-million-fund-to-improve-use-of-research-in-schools/>

- CPD sessions

A series of CPD events were delivered targeted at the Maths Subject Lead, the Literacy Subject Lead, and a classroom teacher from each participating primary school. The attendance of all three staff from each school was considered essential to the success of the model because of the importance placed on collaborative CPD, and on embedding a learning culture within the school.

In total, three full days and four half-day CPD sessions were delivered over the course of the year. The purpose of these was to provide participants with an introduction to research evidence on metacognition, self-regulated learning, and feedback (chosen because of existing research evidence on their classroom efficacy²), and to support teachers to work collaboratively to plan and implement these approaches in the classroom. Expert speakers presented at these events, and participants took part in structured discussions about their experiences as they implemented the strategies during the year.

Within the programme there was scope for each participating school to tailor its approach to its own context. The expectation was that participating schools would be at different stages of development and have different priorities, and therefore the facility to tailor their use of the research evidence to their context was considered essential.

- School visits by CPD Lead

Termly visits were made by the CPD Lead to each of the ten participating schools. The aim of these visits was to:

- provide support to the three participating staff, offering advice and guidance, and helping to tailor support to individual school context; and
- observe a lesson putting CPD learning into practice, and offer advice and support through the process of Professional Learning Conversations.

- Ongoing email and phone advice and guidance by CPD Lead

In addition to CPD days, and visits from the CPD Lead, participating schools were encouraged to contact the CPD Lead by email or phone for advice and guidance as the project progressed.

- Classroom implementation

The project supported participating schools to implement techniques learnt in the CPD sessions (such as metacognition and self-regulation, learning culture and feedback) in the classroom. Schools were free to select the focus for their school according to the school context and school development plan priorities.

- Collaborative CPD and professional learning conversations

The pilot also aimed to foster a professional learning culture within participating schools by encouraging professional collaboration and learning conversations. The expectation was that all three members of staff—the Literacy Subject Lead, the Numeracy Subject Lead and the classroom teacher—would attend the CPD events and support classroom implementation through regular meetings and lesson observations.

- Engagement with senior leadership

² <https://educationendowmentfoundation.org.uk/toolkit/toolkit-a-z/>

To facilitate pilot delivery, the project team put in place a number of measures to maintain the engagement of senior leaders within participating schools. Measures included inviting headteachers to a launch event, providing guidance on how they could support pilot implementation, inviting headteachers to the final CPD session to share learning from the pilot, and convening a steering group that included two headteachers from participating schools.

Background evidence

The gap between research evidence on one hand and policy-making and professional practice on the other has increasingly become the focus of attention in the UK as well as across the world (Cooper *et al.*, 2009; Nutley *et al.*, 2007). A number of studies have sought to define (*research*) *knowledge mobilisation* and propose ways for improving its effectiveness in education and overcoming the existing barriers (Cooper *et al.*, 2009; Levin, 2011).

The barriers to research engagement include skill issues (for example, an inability to interpret research findings), resource issues (such as lack of time or access to academic publications), and insufficient rewards in the system (Bransford *et al.*, 2009; Nutley *et al.*, 2007; Sharples, 2013; Hemsley-Brown and Sharp, 2003). It has also been noted that research evidence needs to be *transformed* before it can be used in teaching practice: this involves more than simply summarising it and requires effective collaboration between teachers and researchers and/or 'mediation' (Nelson and O'Beirne, 2014).

Even when schools believe that there is merit in using research to support school improvement, teachers can find it difficult to implement general approaches that are evidence-based, such as effective feedback and metacognition. The focus of this programme on professional development may help teachers to understand and apply specific evidence-informed techniques and interventions in the classroom. The Rochdale intervention aimed to communicate research evidence to teachers in a form that could be more easily used in their practice (via presentation and workshops at the intervention events), as well as building capacity among the teachers to try new approaches with support from the CPD Lead.

Central to model is the idea of a small cluster of schools collaborating with a single research lead. The emerging lessons would be applicable across similar formal and informal school networks, including teaching school alliances.

This project is one of the EEF's Research Use in Schools funded projects. These projects were funded to explore knowledge mobilisation in the teaching profession and how research evidence is integrated into teachers' practice and school processes. The projects funded under this round were designed to explore three key questions:

- How can research organisations and others effectively communicate their findings and engage with schools?
- How can schools overcome the barriers to using research well?
- How can brokers and mediators help schools find and use evidence-based approaches?

Four other projects were funded as part of the Research Use in Schools funding stream, in addition to Research into Practice – Evidence-informed CPD in Rochdale.³

³ More detail on these projects can be found at <https://educationendowmentfoundation.org.uk/projects/projects-a-z/research-use-in-schools/>

1. Research Champions: a pilot project run by the Ashford Teaching Alliance, testing whether a 'research champion' working across six schools to improve the awareness and use of evidence in the classroom is a feasible model.
2. Research Learning Communities: an efficacy trial of a project developed by the Institute of Education to examine whether evidence champions are effective at promoting research use in their school when supported by a research community of peers from local schools and an academic facilitator.
3. The Literacy Octopus – Communicating and Engaging with Research: a large multi-arm randomised controlled trial investigating a range of different methods of communicating research to schools and engaging them in research evidence.
4. The RISE Project – Evidence-informed school improvement: an efficacy trial of a project led by Huntington School that aims to test whether a research-based school improvement model makes a significant difference to classroom practice and student outcomes.

This report presents findings of the first evaluation of the Rochdale Research into Practice programme. This is a pilot study, and in the conclusions of the report we comment on whether this programme is ready to be evaluated in a trial.

Evaluation objectives

The evaluation (like other projects in the EEF's Research Use in Schools round) had the following key objective:

To explore whether, and to what extent, research communication and engagement strategies have the potential to improve teachers' use of, and attitudes towards, academic research to support pupils' progress.

Other evaluations in the EEF's Research Use in Schools round looked at the impact of different research communication and engagement strategies on pupil attainment. (One of the EEF's key objectives is to improve pupil attainment.) The original design for the Rochdale evaluation also included analysis of pupil attainment data from the National Pupil Database. The intention was to measure pupil progress using Key Stage 2 attainment data and to compare pupils in the schools participating in the intervention with a matched comparison group from schools that did not take part. However, both the EEF and the evaluation team decided that assessing pupil progress at KS2 would not be an appropriate measure of the programme's success, or potential, at this stage in its development. In particular, it was felt that pupil progress was a longer-term goal for this particular project, rather than a short or medium term one (as set out in the logic model), with one year being insufficient to detect impacts on pupils. Also, the process evaluation revealed that the pupils who were directly affected by the intervention belonged to year groups that would not be captured in the Key Stage 2 attainment data. These two factors meant that any change in pupil attainment identified, positive or negative, could not be linked in any way to the programme. Consequently, analysis of pupil attainment data was not undertaken and is not reported on in this report.

Project team

The intervention was delivered by the CPD Lead, a senior professional development consultant based at one of the ten participating primary schools in the Rochdale area. The CPD Lead was supported by a steering group and an expert advisor.

The independent evaluation team was led by Dr Svetlana Speight at NatCen Social Research who was supported by Meg Callanan, Dr Julia Griggs, Dr Javiera Cartagena Farias and Alexandra Fry. The evaluation team was responsible for the design and delivery of the evaluation, including a logic model workshop, baseline and outcomes surveys of teachers, interviews with staff, observations of training events, analysis and reporting. Questionnaires for the surveys were developed by the National Foundation for Educational Research (NFER) (Poet *et al.*, unpublished). The same questionnaires were used across all projects funded in the EEF's Research Use in Schools round.

Ethics

The project was reviewed by NatCen's Research Ethics Committee and received approval in September 2014, prior to data collection.

Headteachers from participating schools signed an annex to the IPLCN partnership agreement that included consent to provide the CPD Lead with names and email addresses (and phone numbers where appropriate) of all teachers at their school for passing on to the evaluation team (see Appendix A). In addition, written information about the study was sent to the headteachers by post prior to the baseline survey taking place (see Appendix B), and information for teachers about the surveys was sent to them by email (separately for the baseline and outcomes surveys—see Appendix B). Information about process evaluation activities was provided to participants by researchers undertaking interviews and observations via email and again face-to-face or on the telephone at the time of data collection, and consent was sought prior to interviews and observations taking place. Information about the study was also available on the study webpage of the NatCen website, a link to which was included in communications with research participants.

Methods

Recruitment

The ten primary schools participating in the intervention were part of the Inspirational Professional Learning Community Network (IPLCN). The network consists of eleven primary schools in the Rochdale area, and was established to foster support and partnership across all areas of the school curriculum. All the schools in the network participated in the Research into Practice project except one that was going through a period of change. The CPD Lead, based at one of the schools in the network, was well connected with headteachers at the schools in the network and was able to build on that while delivering the Research into Practice programme.

Each participating school identified three members of staff to participate in the project. These were:

- the Literacy Subject Lead;
- the Numeracy Subject Lead; and
- a classroom teacher who took the lead role in implementing the project with their class.

Three members of staff were chosen because the project has a strong collaborative element to its approach to professional development. The Literacy and Numeracy Subject Leads were selected because it was felt their roles provided the greatest scope for disseminating the learning from the project to the wider school. The project also specified that the professional practice of the classroom teacher taking the lead on implementation should be judged by the school to be 'good' or 'outstanding' to ensure classroom implementation was as effective as possible.

The pupils who participated in the intervention were in the classes of the teachers who had been selected to lead implementation. There were approximately 30 pupils directly participating in the intervention in eight of the schools, and eight to ten children in the other two schools. The age of pupils directly involved in the intervention was determined by the year group taught by the nominated classroom teacher: in three schools, the focus was on classes in KS1, while the other seven focused on children in KS2.

Data collection

The evaluation of the Rochdale Research into Practice pilot study included elements of formative evaluation, process evaluation, and quantitative data collection and analysis. Findings from the pilot evaluation were shared with the delivery team as they became available in order to enable collaborative working and facilitate ongoing development of the intervention.

As part of this evaluation, several methods were used, including:

- the development of a logic model;
- a pre- and post-intervention survey of teachers; and
- process evaluation elements, including interviews, observations and case studies.

Logic model

A logic model workshop was held with the CPD Lead and another teacher participating in the pilot in October 2014 to identify the resources, activities, outputs, and intended outcomes of the programme. The logic model was then drafted by NatCen researchers and finalised in consultation with the CPD Lead. A copy of the logic model was provided to the project delivery team for sharing with participants at the training events (see Logic model section).

Surveys

A key objective of the evaluation was to explore whether the programme demonstrated the potential to improve teachers' use of, and attitudes towards, academic research. This was assessed using baseline and outcomes surveys developed by the NFER for the EEF specifically to use in the Research Use in Schools round evaluations (Poet *et al.*, unpublished).

Surveys of participating teachers were administered online by NatCen Social Research at two time points: during the start-up period (baseline) and in the intervention's final school term (outcomes). All teachers at the participating schools were invited to take part in the baseline survey, and those who completed the baseline survey were invited to take part in the outcomes survey.

A letter was initially sent to the headteacher of each participating school in September 2014 to inform them of the upcoming survey and to ask for their support in encouraging teachers to complete it. Individual teachers were then sent an email, which included a weblink to the survey, followed by a maximum of three email reminders. The baseline survey launched during the week commencing the 15 September 2014 and closed in late October 2014. This meant that the teachers attended the first two CPD days during the baseline survey fieldwork period. The outcomes survey launched during the first week in June 2015 and closed in late July at the end of the summer term. All teachers who had participated in the baseline survey were invited to take part in the outcomes survey via a unique weblink sent by email. This was followed by up to four reminder emails. The outcomes survey closed at the end of the summer term 2015.

The survey analysis focused on change over time between the two surveys. There was no comparison group, so it was not possible to compare the changes to what would have happened in the absence of the intervention. The main outcomes of the intervention were estimated using descriptive analysis (frequencies and cross-tabulations) and paired sample t-tests.⁴ Cronbach's alpha was used to assess the internal consistency of the outcome measures, and McNemar's test to explore whether differences between responses at baseline and follow-up were statistically significant for individual questions. All analysis was conducted in IBM SPSS Statistics for Windows, Version 21.0.

Process evaluation

The process evaluation was based on depth interviews, observations of CPD events, and data collection in the outcomes survey. Interviews and observations took place throughout the academic year in order to capture experiences of participants as the intervention was being implemented. All schools took part in at least some process evaluation activities to enable the evaluation to capture a full range of perspectives.

To explore the implementation of the project, nine telephone interviews with the participating classroom teachers were carried out in the autumn term of 2014 to gather early feedback. Five of the ten participating schools were selected for case study visits in the Summer term 2015. The case study schools were selected to reflect the diversity of classroom implementation and included schools focusing on implementing strategies in different areas of the curriculum including literacy, numeracy, and speaking and listening. These visits involved interviews with the classroom teacher, the Literacy Lead and the Numeracy Lead. Observations of a professional learning conversation were also carried out in three of the five case study schools.

Further process evaluation involved three interviews with the CPD lead in the autumn, spring and summer terms, two observations of CPD training days, and five follow-up telephone interviews with classroom teachers at the five schools that did not participate as case studies.

⁴ Measures of effect size were not considered appropriate given the absence of treatment and control groups.

2014/2015	Overview of fieldwork carried out
Autumn term	<ul style="list-style-type: none"> • Observation of launch event • Logic model workshop • 9 telephone interviews with classroom leads • 1 telephone interview with CPD lead
Spring term	<ul style="list-style-type: none"> • 2 case study visits
Summer term	<ul style="list-style-type: none"> • 3 case study visits • 2 telephone interviews with CPD lead (April and July) • 5 telephone interviews with non-case study classroom teachers • Observation of CPD session

Interviews were based on a topic guide to ensure systematic coverage of key issues, but were also intended to be flexible and interactive, allowing issues of relevance for individual respondents to be covered through detailed follow-up questioning. The interviews were digitally recorded and subsequently analysed using Framework in NVivo, a systematic approach to qualitative data management developed by NatCen Social Research. All collection and analysis of data was conducted by the independent NatCen process evaluation team.

In addition to the qualitative interviews, the outcomes survey included a series of process questions which asked those teachers directly engaged with the project to provide feedback on the effectiveness of the programme and its different components. Answers to these questions were analysed using IBM SPSS Statistics for Windows, Version 21.0.

Timeline

Date	Activity
Summer 2014	Schools recruited to the intervention
September-October 2014	Programme delivery started Baseline survey of teachers, logic model workshop, first observation of a training day, and first process evaluation interviews
December 2015	First phase of process evaluation interviews is completed
April 2015	Second interview with the CPD Lead (out of three)
May-July 2015	Final stage of process evaluation interviews and observations
June-July 2015	Outcomes survey of teachers
August-December 2015	Analysis and reporting

Costs

Information on the costs of the intervention was collected from the CPD Lead of the project. Our estimate of the cost of a school participating in the Research into Practice programme includes the costs of providing the training and the costs for teachers attending the intervention events (there were no associated up-front costs). Costs per pupil were calculated using the number of pupils receiving the intervention, which is estimated to be around 280 pupils in total across the ten participating schools.

Findings

Participants

The ten primary schools participating in the intervention are part of the Inspirational Professional Learning Community Network. Nine of these were in Rochdale and one in a neighbouring area. The size of schools was 368 pupils on average—higher than the national average for primary schools (263 pupils). Three of the participating schools were smaller than average, and seven were larger. The percentage of pupils eligible for free school meals (FSM) was 26.2% on average, about the same as the national average of 26.6%.⁵ FSM eligibility varied between the schools from 21% to 31%.

There were no school drop-outs from the programme over the course of the evaluation, although in four of the ten schools there were changes to participating staff because of staff leaving, going on secondment, or taking maternity leave. In one case this meant only two teachers participated in the project (rather than the three specified by the logic model). In other cases, replacement staff were found.

For the survey element of the evaluation, *all* teachers at the participating schools were invited to take part, at baseline and at the end of the academic year, as the programme aimed to achieve change at the whole-school level rather than only for teachers and pupils directly involved in the programme. When reporting the findings of these surveys, we present estimates both for all teachers, and for different subgroups depending on their level of involvement.

The overall response rate for the survey was 95% at baseline (169 of an eligible 177 respondents) and 73% for the outcomes survey (124 of an eligible 169 respondents).

Approximately half of those responding to the survey were classroom teachers, a further quarter middle leaders, 20% senior leaders, and 5% headteachers. There was considerable variation in teaching experience, ranging from NQTs (9%) to those with more than 30 years' experience (10%). More than half of the teachers surveyed had some involvement in the programme, be it first-hand (20%) or via colleagues (36%).

Logic model

A logic model workshop was held with the CPD Lead and another teacher participating in the pilot who participated in the workshop because of their good understanding of the project and its aims. The workshop was conducted at the beginning of the evaluation to identify the resources, activities, outputs, and intended outcomes of the programme. The logic model was then drafted by NatCen researchers and finalised in consultation with the CPD Lead (see Figure 2). A copy of the logic model was provided to the project delivery team. The project delivery team shared the model with participants at the training events to help clarify the aims and objectives of the project.

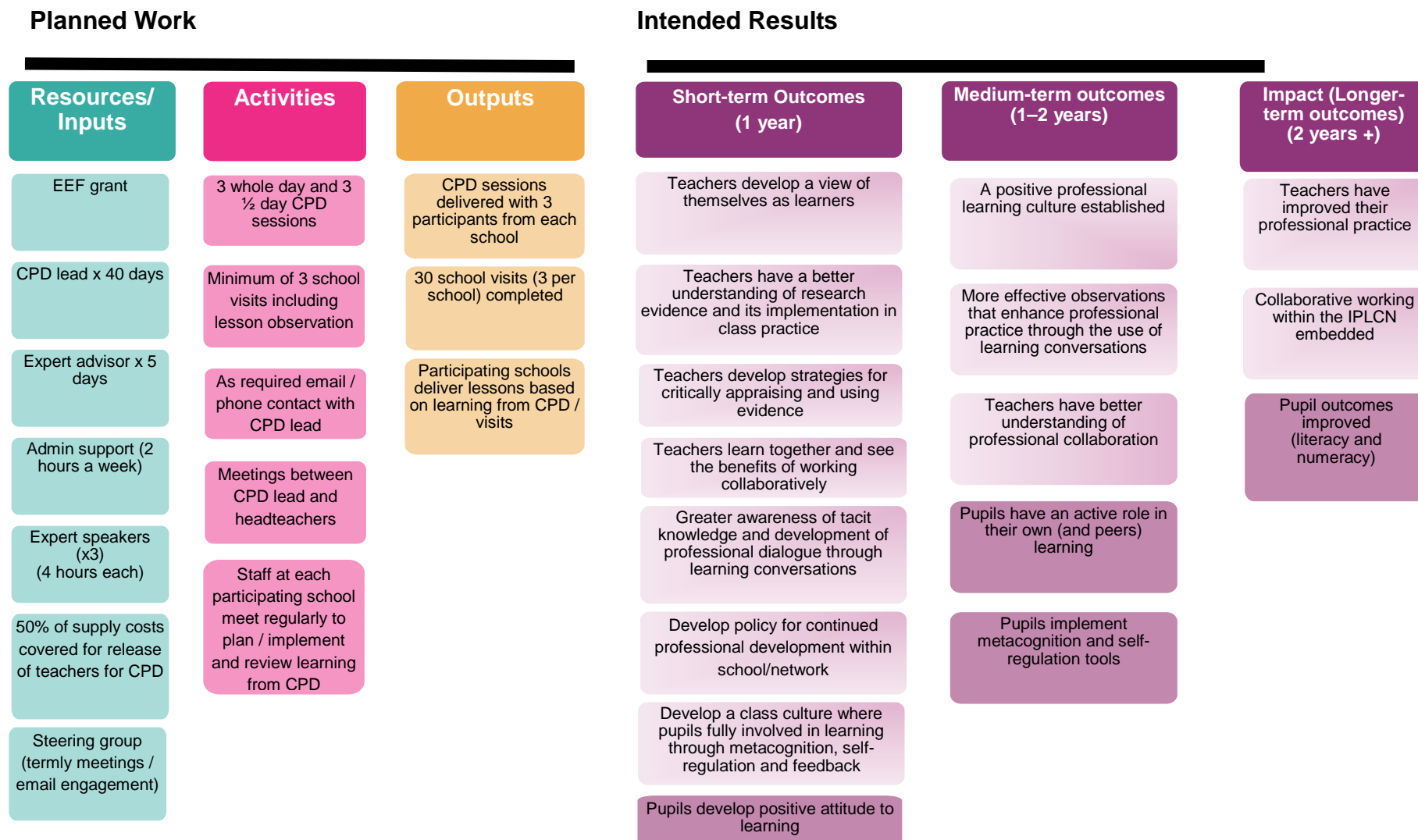
The logic model informed the development of topic guides for the process evaluation, however it was not used for construction of data collection instruments for the quantitative element of the evaluation (the survey). This is because the survey questionnaires were developed by the NFER to be the same for *all* projects in the Research Use in Schools round. As a result, the outcomes at the teacher and school level that were measured in the baseline and outcomes surveys of teachers do not precisely match the logic model of this programme.

Findings from the process evaluation (see section on Process Evaluation Results) indicate that the activities set out in the logic model were largely delivered as intended, with good levels of attendance

⁵ For national statistics, see <https://www.gov.uk/government/organisations/ofsted>

at the seven CPD events, and good engagement with the CPD Lead school visits. In a change to the planned activities outlined in the model, participating schools were paired up in the summer term and visits to partner schools were carried out to share practice and observe each other's classroom implementation. The activities and outcomes outlined in the logic model (Figure 2) are discussed in further detail in the findings from the process evaluation.

Figure 2: Rochdale Research into Practice programme: Logic Model



Pupils talk about their learning
Pupils more aware of what they
know and what they need to do
next

Pupils begin to acquire tools to
help them plan, monitor and
review their (and peer) learning

Evidence to support theory of change

Survey findings – outcome measures

NFER guidance (Poet *et al.*, unpublished) recommends using six outcome measures:

1. positive disposition to academic research informing teaching practice;
2. use of academic research to inform selection of teaching approaches;
3. perception that academic research is not useful to teaching;
4. perception that own school does not encourage use of academic research;
5. active engagement with online evidence platforms; and
6. research knowledge.

We could not use outcome measure 6 as the questions were not asked at baseline. The other five outcome measures were constructed using relevant survey variables following the NFER guidance (see Appendix D for details of the measures). The Cronbach's alpha score, and therefore the reliability of the measure, varied considerably between the five scales. The results are displayed in Table 1 below:

Table 1: Cronbach's alpha scores for the five composite measures

Outcome measure	Cronbach's alpha in baseline survey	Cronbach's alpha in outcomes survey	Reliability of the measure
Measure 1: positive disposition to academic research informing teaching practice	0.80	0.85	High
Measure 2: use of academic research to inform selection of teaching approaches	0.49	0.68	Low at baseline, moderate at outcomes
Measure 3: perception that academic research is not useful to teaching	0.55	0.65	Low/moderate
Measure 4: perception that own school does not encourage use of academic research	0.34	0.35	Very low
Measure 5: active engagement with online evidence platforms	0.60	0.56	Low/moderate

The Cronbach's alpha scores for measure 4 were considerably lower than for the others, with scores so low as to suggest the internal consistency was very poor and the measure was not reliable. For this reason measure 4 has not been used in this report. Instead, we analysed the two separate questions it was supposed to be based on.

Each section below looks first at the overall score for each outcome measure (with the exception of measure 4) including any change between the baseline and the outcomes surveys. It then considers differences between groups of teachers according to their level of involvement in the programme (based on the teachers' own responses to the outcome survey rather than on any pre-allocation to one

of the three groups). Finally, this section explores the individual questions that make up each composite indicator.

All analysis has been conducted on data collected from teachers taking part in both the baseline and outcomes survey. Where teachers took part in the baseline survey only, their data was not analysed.

Positive disposition to academic research in informing teaching practice

Results of the first composite measure showed a statistically significant increase in teachers' 'positive disposition to academic research in informing teaching practice', with total mean values increasing from 20.6 (SD = 3.3) at baseline to 21.5 (SD = 3.6) in the outcomes survey ($t = -2.94$, $p = 0.004$).

Looking separately at groups of teachers according to their involvement in the project (those involved directly, those involved indirectly through colleagues, and those not involved) the survey shows the most pronounced change for those with first-hand involvement, the only group for whom results were statistically significant (see Table 2).⁶

Table 2: Positive disposition to academic research in informing teaching practice by level of involvement

	Baseline – mean score	Outcome – mean score	Observations (N)
First-hand involvement	20.8	22.9*	24
Colleague/s were involved and shared learning	20.9	21.6	43
No involvement⁷	20.4	20.8	54
All teachers	20.6	21.5*	124

* Difference is statistically significant ($p \leq 0.05$).

Note: 'All teachers' (N = 124) includes those who did not answer the question about their involvement in the programme.

Looking at each of the individual questions across the baseline and outcomes surveys revealed some interesting trends in terms of teachers' attitudes towards research informing teaching practice. For example, 66% of teachers who reported using 'articles, reports, books or summaries based on academic research' indicated that they found them 'easy' or 'very easy' to understand at baseline; this showed a significant increase to 73% in the outcomes survey.⁸ Likewise, the proportion of teachers who 'agreed or strongly agreed that that they knew where to find relevant research, were able to relate research to their own context, and to use information from research to help implement new approaches in the classroom' also increased significantly between the baseline and outcomes surveys (see Table 3).

⁶ When the same variables were included in an OLS regression model, with the baseline score as a control variable and outcome score at the dependent variable, there was a statistically significant difference by level of involvement in the programme.

⁷ The group 'no involvement' includes those who answered question 13 about the level of involvement with 'yes, my colleagues were involved, but I don't know any more about it' or 'I am not sure'.

⁸ Frequencies exclude the missing cases and the respondents who said that they 'did not use this source' (19 cases at baseline and 15 at follow-up). All have been included in the composite outcome variable.

Proportions also increased for those reporting that research ‘plays an important role in my/our teaching practice’, although this change was not statistically significant. In contrast, the proportion of teachers who reported feeling confident about analysing information from research fell from 62% at baseline to 59% in the outcomes survey. Again, this result was not statistically significant.

Table 3: Response to individual items included in the question about how much research is used at work

	Baseline – strongly agree / agree (%)	Outcome – strongly agree / agree (%)	Observations (N)
Plays an important role in my/our teaching practice	70	73	122
Know where to find relevant research	56	72*	122
Able to relate research to own context	71	82*	121
Use information from research to help implement new approaches in the classroom	60	71*	122
Feels confident about analysing information from research	62	59	122

* Difference is statistically significant ($p \leq 0.05$).

Use of academic research to inform selection of teaching approaches

Results of the paired sample t-test for the second outcome measure showed a rise in the total score from 4.3 at baseline to 4.6 at follow-up ($t = -1.80$), but it was not statistically significant ($p = 0.07$).

The change in score was largest for those with first hand involvement in the programme, the only group for whom results were statistically significant (see Table 4).⁹

Table 4: Use of academic research to inform selection of teaching approaches

	Baseline – mean score	Outcome – mean score	Observations (N)
First-hand involvement	4.3	5.0*	24
Colleague/s were involved and shared learning	4.3	4.4	42
No involvement	4.4	4.5	54
All teachers	4.3	4.6	120

* Difference is statistically significant ($p \leq 0.05$).

Exploration of the individual items that comprised the composite measure across the baseline and outcomes surveys showed mixed results. While there was a large significant increase in the proportion

⁹ When this association was explored using OLS regression (as with measure 1), no statistically significant difference was found in the outcome score by level of involvement in the programme.

of teachers who found ‘articles, reports, books or summaries based on academic research’ important in shaping their approach (a rise from 3% to 12%), differences in the other questions were not statistically significant. One of the items included in the measure, ‘online evidence platforms or databases are important in informing choice of approach’, increased (non-significantly) from 5% to 12%. Likewise, the proportion of teachers saying that they consulted academic articles, reports, books or summaries ‘a lot’ increased (non-significantly) from 12% to 17%. In contrast, the proportion of teachers who said that their decision to adopt a specific approach was ‘strongly influenced’ by its backing by academic research fell somewhat from 44% to 43% (this difference was not statistically significant).

Perception that academic research is not useful to teaching

For measure 3 focusing on perceptions of academic research, the total mean score fell from 4.7 (SD = 1.5) at baseline to 4.3 (SD = 1.4) in the outcomes survey ($t = 2.88$, $p = 0.005$), indicating that teachers were less likely to report a negative perception of research at the end of the programme (see Table 5).

All groups of teachers saw the same drop in the score regardless of their level of involvement. However, teachers with first-hand involvement began with a lower baseline score (4.2), suggesting that teachers selected for the programme had a more positive attitude to research evidence on this particular measure.¹⁰

Table 5: Perception that academic research is not useful to teaching by level of involvement

	Baseline – mean score	Outcome – mean score	Observations (N)
First-hand involvement	4.2	3.8	24
Colleague/s were involved and shared learning	4.8	4.4	43
No involvement	4.8	4.4*	54
All teachers	4.7	4.3*	124

* Difference is statistically significant ($p \leq 0.05$).

Note: ‘All teachers’ ($N = 124$) includes those who did not answer the question about their involvement in the programme.

Each of the two component questions showed a change between the baseline and outcomes survey, but neither difference was statistically significant. The proportion of teachers who ‘disagreed’ or ‘strongly disagreed’ that they ‘do not believe using information from research will improve pupil outcomes’ increased from 71% to 79%. The change was smaller in the second item ‘research conducted elsewhere is of limited value to school’, where the proportion of teachers who ‘disagreed’ or ‘strongly disagreed’ rose from 61% to 65%.

Perception that own school does not encourage use of academic research

Composite measure 4 ‘perception that own school does not encourage use of academic research’ has been excluded from this report on the basis of its poor internal consistency (as discussed above). Instead, the evaluation included analysis of the individual questions brought together under this measure in the NFER guidance.

¹⁰ As with measures 1 and 2, the association was tested using OLS regression analysis. Results showed no statistically significant relationship between the outcome measures and level of involvement in the programme.

Comparing baseline and outcome survey responses to each of the component questions shows mixed results. The proportion of teachers who ‘disagreed’ or ‘strongly disagreed’ that ‘other staff in my school rarely use information from research to inform their teaching practice’ showed a large and statistically significant increase (from 31% to 45%), which suggests a positive change. In contrast, the proportion of teachers who ‘agreed’ or ‘strongly agreed’ that ‘school leaders do not encourage use of research to improve practice’ showed a non-significant increase from 8% to 16% between the baseline and outcomes survey. However, the proportion of teachers who ‘disagreed’ or ‘strongly disagreed’ with the statement also increased slightly (from 63% to 66%). Results are displayed in Table 6.

Table 6: Perception that own school does not encourage use of academic research

Other staff in my school rarely use information from research to inform their teaching practice	Baseline %	Outcome %
Strongly agree	3	2
Agree	12	11
Neither agree nor disagree	55	43
Disagree	27	39
Strongly disagree	4	6
Observations (N)	122	122
My school leaders/governors do not encourage me to use information from research to improve my practice		
Strongly agree	2	4
Agree	7	12
Neither agree nor disagree	29	18
Disagree	47	36
Strongly disagree	16	30
Observations (N)	122	123

Note: Percentages may not sum to 100 due to rounding.

Active engagement with online evidence platforms

The average mean score for all teachers showed very little change over the course of the programme, from 4.5 (SD = 1.1) at baseline to 4.6 (SD = 1.0) at follow-up ($t = -1.13$) (see Table 7). This difference was not statistically significant ($p = 0.261$).

Exploration of the results by level of involvement in the programme shows little difference between the three groups of teachers. None of the differences over time were statistically significant.¹¹

Table 7. Active engagement with online evidence platforms by level of involvement

¹¹ As with the other measures, the association between the outcome measure and level of involvement in the programme was explored using OLS regression analysis. Results showed no statistically significant association.

	Baseline – mean score	Outcome – mean score	Observations (N)
First-hand involvement	4.8	5.0	24
Colleague/s were involved and shared learning	4.6	4.6	43
No involvement	4.3	4.4	54
All teachers	4.5	4.6	124

Note: 'All teachers' (N = 124) includes those who did not answer the question about their involvement in the programme.

When considered separately, the two component questions showed generally positive trends, but differences did not reach conventional levels of statistical significance. While the number of teachers who consulted online evidence platforms and databases 'a lot' remained stable between the two surveys, fewer teachers said that they didn't consult them at all (a drop from 34% to 29%). As well as increased use, teachers were more likely to report finding it 'very easy' to understand online evidence platforms (an increase from 14% to 17%). However, the proportion of teachers who found online platforms difficult to use remained stable across the two surveys at around 28%.¹²

¹² Frequencies exclude missing cases and the respondents who said that they 'did not use this source' (34 cases at baseline and 30 at follow-up). All have been included in the composite outcome variable (see previous footnote).

Feasibility

The Rochdale Research into Practice programme was well received by staff with first-hand involvement in the project, with 96% reporting that they would recommend the programme to another school.

This section reports on the feasibility of the project, describing its core elements, summarising feedback on each component from the perspective of participants, identifying facilitators and barriers to delivery, and reporting formative findings on how the project could be developed in the future.

Table 8: Overview of participating staffs' views of Rochdale Research into Practice project activities

	Very good (%)	Quite good (%)	Average (%)
Research into Practice events	67	33	0
Research into Practice lead visits	71	29	0
Collaborative planning and feedback	83	13	4
Individual support/advice from the Research into Practice lead via phone/email	40	55	5

Base = 24.

Note: The four respondents who did not use individual support/advice from the CPD lead have been excluded from percentages reported in the final row.

Research into Practice CPD events

Throughout the year, teachers attended three full-day and four half-day CPD events led by the Research into Practice lead (detailed in the table below). The events were designed to combine taught sessions (sometimes with expert guest speakers) that introduced the research evidence on metacognition, self-regulation, feedback and professional learning conversations; with sessions that focused on practical implementation in the classroom. Overall the CPD Lead reported good levels of attendance and engagement at events.

Timeline of CPD events

CPD session	Content
Session 1, September 2014 (whole-day event)	<ul style="list-style-type: none"> • Overview of Rochdale Research into Practice intervention and its aims • Keynote speaker on metacognition and self-regulation and research evidence on their effectiveness • How to implement metacognitive and self-regulation teaching and learning strategies in the classroom in maths and literacy, including 'talk for learning' and handouts on how to encourage productive 'group talk'
Session 2, September 2014 (whole-day event)	<ul style="list-style-type: none"> • Keynote speakers on developing metacognition in maths and literacy from Every Child Counts¹³ and Reading Support • Tools and resources for classroom implementation including approaches to use to support metacognition in reading and writing • Time for schools to plan implementation
Session 3, November 2014 (half-day event)	<ul style="list-style-type: none"> • Review and discussion of classroom implementation to date • Focus on developing metacognition and self-regulation in guided work
Session 4, January 2015 (whole-day event)	<ul style="list-style-type: none"> • Presentation on feedback and the work of Shirley Clarke on Outstanding Formative Assessment • Tools and resources for practical implementation of feedback strategies in the classroom, including resources from <i>Enriching feedback in the primary classroom</i> by Shirley Clarke (2003), and <i>Visible Learning for Teachers: Maximizing impact on learning</i> by John Hattie (2012) • Time for schools to plan implementation
Session 5, March 2015 (half-day event)	<ul style="list-style-type: none"> • Presentation on 'Developing Learning Conversations' • Keynote speaker from Every Child Counts on 'Professional Learning Conversations' • Planning for sustainability in individual schools
Session 6 – April 2015 (half-day event)	<ul style="list-style-type: none"> • Review and discussion of classroom implementation to date • Time for schools to plan implementation
Session 7 - July 2015 (half-day event)	<ul style="list-style-type: none"> • School presentations on classroom implementation

The survey found the CPD events were very well received by participating teachers, with two thirds (67%) describing the sessions as 'very good' and a further third (33%) as 'quite good' (see Table 8). Particular strengths of the CPD events highlighted in qualitative interviews with participating teachers were:

¹³ Further information on Every Child Counts can be found at <https://everychildcounts.edgehill.ac.uk/>

- Research dissemination and expert speakers
Teachers reflected that a key barrier to the use of research evidence in the classroom was the time required to source, read, and absorb the latest evidence. Providing this evidence during CPD sessions was felt to be a time-efficient way for teachers to access this evidence, while also providing an opportunity to discuss practical implementation and ask questions of expert academics and teachers. Teachers valued the mix of academic speakers who introduced the research evidence, alongside experienced teachers who had applied the techniques in the classroom and could provide examples of implementation:

'I've really enjoyed them, and I've enjoyed the speakers when they came... it makes you want to research and learn yourself to really take your teaching forward, take your learning forward to help the children. That's how I found it anyway, I found it really interesting to listen to what they were talking about and how important research is.. and of course research is really good, but you just forget it because you kind of get stagnant in your role.. and very busy.. so it's been nice to relight my enthusiastic fire!' (classroom teacher).

- Practical implementation focus
Teachers appreciated the focus on practical implementation in the classroom. They reported that this helped them apply the theoretical learning about metacognition to their classroom practice. Videos of techniques being used in the classroom and practical examples of materials (for example, sentence stems to promote metacognitive talk) were particularly praised, and teachers described using these materials in their own practice.
- Time for planning
The CPD events were designed to support participating teachers to apply their learning on metacognition, self-regulation and feedback in the classroom. Time was set aside during the CPD events to give teachers an opportunity to discuss and plan how they would use the techniques. Teachers appreciated this time for collaborative planning with their colleagues as finding sufficient time for this during the working week was a challenge for many.
- Networking opportunities
The CPD events provided opportunities for teachers from the ten participating schools to share their experiences and classroom practice with one another. Teachers found this useful and described how they had drawn on the experiences of other schools within the network to inform their own practice.

CPD Lead visits to schools

To support the practical implementation of metacognition, self-regulation and feedback in the classroom, the CPD Lead visited each participating school three times during the course of the year. These visits took a 'Lesson Study' approach and involved a lesson observation followed by a professional learning conversation with the three participating teachers. The aim was to support classroom implementation as well as foster a professional learning culture through collaborative practice and professional learning conversations.

The survey found a high level of satisfaction with the CPD Lead visits, with 71% of teachers describing the visits as 'very good' and 29% as 'quite good' (see Table 8). Teachers reported finding the CPD Lead visits helpful because they:

- provided an external fresh perspective on their classroom implementation;
- helped maintain the focus of the pilot and the momentum of implementation;

- provided reassurance that they were 'on the right track', increasing their confidence in their approach;
- provided suggestions and a steer for how to develop their practice further; and
- supported the use of professional learning conversations by modelling the approach and encouraging teachers to reflect on their practice.

School visits to share practice

In an addition to the planned components of the programme (as set out in the logic model activities), the CPD Lead also arranged for participating schools to be paired up, arranging exchange visits in the summer term. This change was made because the CPD Lead felt schools would benefit from an opportunity to see how other teachers had implemented strategies in the classroom. This opportunity was viewed very positively by participating teachers who appreciated the opportunity to observe and learn from practice in other schools. In one case, for example, a teacher described finding it valuable to observe practice in a school which was further ahead than their own because it helped them see how they could take their practice forward. In another case, a teacher described how they intended to get in touch with their partner school to share their resources after observing a lesson tackling metacognition in numeracy.

Ad-hoc support from CPD Lead

The CPD lead was also available by phone or email to respond to queries and provide additional support. Teachers described the CPD Lead as accessible and helpful and this was appreciated. The survey found that 40% of teachers found this individual support 'very good', a further 55% described it as 'quite good', and 5% as 'average'.

Classroom implementation

The ten participating schools each identified one teacher (the 'class lead') and practical implementation was focused on this class. Schools were free to select the focus for their school according to the school context and school development plan priorities. Typically over the course of the year, schools implemented a number of changes in classroom practice related to the following:

- **Metacognition and self-regulation**
Schools adopted a number of teaching techniques to encourage metacognitive thinking. Schools chose to focus on either literacy or numeracy, and examples of techniques used included:
 - encouraging metacognitive talk through the use of 'talk partners', 'talk groups' and modelling of metacognitive talk;
 - providing 'sentence starters' and 'question prompts' to foster metacognitive thinking and talking;
 - using a 'reading salad'¹⁴ (McGregor, 2007) to develop literal and inferential reading skills; and
 - using 'thinking out loud' and 'thinking time' techniques.
- **Learning culture**
To improve attitudes to learning and promote a positive learning culture, teachers implemented techniques to foster a growth mindset. Approaches included:

¹⁴ This technique involves reading a text aloud and using a series of cards to indicate what the reader is doing. Red cards are marked 'text' and are used when reading the text. Green cards are marked 'thinking' and are used when the reader thinks out loud about the text. The aim is to create a 'reading salad' of green and red cards to illustrate that comprehension is about reading and thinking.

- using the concepts of 'learning powers' to encourage and foster positive approaches to learning—these were promoted through the creation of characters that embodied these concepts and through assemblies and classroom displays; and
 - creating 'growth mindset' classroom displays and changing the ways in which children were given feedback to value effort rather than results.
- Feedback

Drawing on the work of Shirley Clarke on formative assessment (Clarke, 2014), schools used a number of techniques to improve feedback, including:

 - developing peer to peer verbal feedback;
 - adapting written feedback using the 'two stars and a wish' approach to include a metacognitive wish; and
 - using feedback stickers to encourage pupils to assess their own learning.

Teachers were positive about their experiences of implementing learning from the project in the classroom. The facilitators to effective classroom implementation were:

- The facility to tailor implementation to individual context

Teachers observed that the Rochdale Research into Practice model gave them the freedom and flexibility to choose which techniques related to metacognition, learning culture and feedback they would implement. This flexibility was highlighted as vital for the success of the model because schools were able to tailor their approach to the context of their school and the specific needs of their pupils:

'We [developed our approach] from what we'd been given to suit our children and suit our school's needs. Having that freedom aspect to it worked very well because no one school's setting or needs is the same as another' (classroom teacher).

In one school, for example, participating teachers were able to focus on improving metacognitive talk, feeding in to a whole-school objective to improve speaking and listening. In other schools, the focus initially was on developing a 'learning culture' before moving on to metacognition and feedback.
- Sustained support for implementation

The combination of CPD events and CPD Lead visits to support classroom implementation over the course of the year were viewed positively because they provided sustained support. Teachers appreciated being able to trial approaches in the classroom, review their success, and make changes accordingly. They also valued having the opportunity to meet and discuss implementation at the CPD events and share practice. The sustained nature of the support over the course of a year was highlighted as a strength of the programme.

Collaborative CPD and professional learning conversations

The pilot also aimed to foster a professional learning culture within participating schools by encouraging professional collaboration and learning conversations. The expectation (set out in the pilot logic model) was that this approach to professional development would improve professional collaboration in the short to medium term, ultimately improving professional practice in the long term.

To facilitate this collaborative approach to CPD, three teachers in each school (the classroom teacher, the Literacy Subject Lead, and the Numeracy Subject Lead) took part in the project. The expectation was that all three members of staff would attend the CPD events and support classroom implementation through regular meetings and lesson observations. This collaborative model was viewed by the CPD Lead as essential to effective classroom implementation because learning could be shared. This approach was broadly based on 'Lesson Study', a form of classroom action research

developed in Japan that involves teachers collaboratively planning, teaching, observing, and analysing teaching and learning in a series of 'research lessons'. This collaborative approach to CPD is intended to help teachers see aspects of pupil learning through the eyes of others and share their practice knowledge (Dudley, 2011).

Feedback on this collaborative approach from teachers involved in the programme was very positive, with 83% describing the collaborative planning and feedback component of the programme as 'very good', 13% as 'quite good, and 4% as 'average' (see Table 8). The collaborative approach was felt to:

- support the generation of ideas because staff could reflect on implementation and share views in a non-judgmental way;
- provide opportunities for staff to observe each other's lessons and learn from each other's teaching techniques and approaches;
- support implementation by sharing the workload;
- increase the likelihood that learning from the pilot would be sustained long-term because the project was less vulnerable to staff changes; and
- increase the likelihood that learning from the pilot would be sustained long term because the Literacy and Numeracy Subject Leads would be in a position to implement strategies at a whole-school level if they were found to be successful.

However, some participating schools found it challenging to fully implement this collaborative approach and there was variation in the extent to which staff met regularly to plan, implement, and review the changes they were making in the classroom. In some instances, this meant collaboration was limited to the occasions when the CPD Lead visited the school (or during attendance at CPD events), with implementation largely the responsibility of the classroom teacher at other times. The barriers to effective collaboration were:

- a lack of time to meet regularly because of teaching timetables and other responsibilities (particularly in the case of senior staff);
- staff not accustomed or comfortable with this form of collaborative working; and
- staff changes (such as staff leaving or taking on new responsibilities) leading to disruption within project teams (this occurred in four of the ten participating schools).

In contrast, where this form of collaborative CPD worked well, teachers identified the following facilitators that supported implementation:

- time provided 'off-timetable' to meet regularly to plan, implement, and review; and
- a school culture that already supported collaborative approaches to lesson planning and teaching improvement.

Engagement with senior leadership

To facilitate pilot delivery, the project team put in place a number of measures to maintain the engagement of senior leaders within participating schools. This was viewed as critical to the success of the pilot to maintain momentum (for example, by providing time 'off timetable' for participating staff to meet regularly) and to increase the likelihood that learning from the pilot would be sustained in the longer term. Measures taken to encourage this engagement included:

- inviting headteachers to the launch event so they were clear on the aims and objectives of the pilot (a guidance document was produced outlining how senior leaders could support pilot implementation and this was discussed at the launch);

- inviting headteachers to the final CPD session to share how the pilot had been put into practice, to encourage wider learning from the pilot; and
- convening a steering group that included an expert external advisor and two headteachers from participating schools: this was viewed by the CPD lead as instrumental in supporting delivery and maintaining senior level engagement with the pilot across the participating schools.

Formative findings

This section summarises the learning from the individual components of the project to support future development of the programme. It draws on suggestions made by the participating teachers and the reflections of the CPD Lead.

CPD events

- It was suggested that all CPD events should be whole-day events. Some schools felt that whole-day events would allow for more networking and sharing of practice, making it easier for teaching staff to focus on the training.
- Consider re-ordering the CPD events so that the session on Professional Learning Conversations is earlier in the programme.

CPD Lead school visits

- For schools that found it difficult to maintain a collaborative approach to implementation, the visits from the CPD Lead were a catalyst to moving the project forward. In these circumstances, the suggestion was made to increase the number of visits to one each half-term. Where schools were finding it easier to work collaboratively and drive the project forward independently, the termly visits were felt to be sufficient.

Collaborative approach to CPD

- Explore ways to ensure participating staff are given regular dedicated time to meet to collaboratively plan, implement, and review changes in classroom practice: limited time for this was viewed as a barrier to successful implementation. Suggestions included:
 - reducing the number of participating staff from three to two, to make the collaborative approach easier to implement;
 - selecting staff teaching the same year group (if two-form entry), or within the same Key Stage, to capitalise on existing collaboration and shared practice

Although not in all cases, some schools found it harder to work effectively if staff participating in the project worked across different key stage groups. However, schools and the CPD Lead also reflected that it was of value to have a member of the Senior Leadership Team participating in the project as this was felt to increase the likelihood that learning from the project would be shared and taken forward across the school.

Classroom implementation

- Continue to provide practical examples and materials that can be used in the classroom to facilitate classroom implementation. Videos of good practice were particularly appreciated.

- Continue to allow flexibility for schools to tailor the strategies they use to their school context as this was viewed as key to ensuring engagement and buy-in from teachers and senior leadership teams.

Perceived outcomes

This section reports on the perceived impacts of the pilot. It draws on findings from the survey and qualitative interviews with participating staff.

Ninety-one percent of staff with direct or indirect involvement in the project (n = 67) felt that the programme provided them with the right amount of information, and that as a result they were able to enhance their practice in a variety of ways (as shown in Table 9).

Table 9: The extent to which the information provided by the Rochdale Research into Practice model helped participating staff

Rochdale RiP model helped me to:	A lot (%)	A little (%)	Not at all (%)
Discuss best practice with colleagues in my school	70	30	0
Share the learning with people or organisations outside my school	39	40	21
Reflect on my own practice	60	37	3
Change classroom practice	48	48	4
Reinforce existing practices	49	49	2
Conduct my own research or enquiry	18	36	46
Influence colleagues in my school to change their classroom practice	39	40	21
Improve my knowledge of a topic or subject	39	46	15

Base = 67.

Use of research evidence

Participating teachers reflected on the challenges they face in making use of research evidence in their professional practice. Time pressures, challenges in identifying relevant research evidence, and taking theoretical research evidence and adapting it for practical implementation in the classroom were all issues raised as barriers to effective use of research evidence. Teachers also observed that it was critical to have Senior Leadership engagement with research evidence, particularly at the point of moving beyond individual teacher implementation to wider school roll-out and whole-school change.

As set out in the logic model, by the end of the pilot year, a key aim of the project was to have improved the use of research evidence by increasing teacher understanding of research evidence and its implementation in the classroom, and by helping teachers to develop strategies to critically appraise evidence. Participating teachers felt the project had achieved this by providing the time and

support to engage with the research evidence in an accessible way and trial putting it into practice in the classroom:

'I think it's given us the opportunity to actually go and listen to the research and be able to take the time and look into the research. Teachers are busy all the time and they've already got a big work load and if they get an email about some new research it's very unlikely that they would download it and read it because there are that many other things to do. Whereas if you get given time at a CPD day and you get this research given to you, and you get people explaining it, you're going to take it on board because you've heard it, you understand it, you've seen it in action...so that's been important' (Numeracy Lead).

As discussed earlier in the survey findings, the composite measure indicating a positive disposition to academic research informing teaching practice showed a statistically significant improvement for teachers directly involved in the project (see Table 1), indicating that the programme has achieved the aim of increasing teacher understanding of research and its use in the classroom.

Beyond the research evidence disseminated as part of the programme, 63% of teachers with direct or indirect involvement in the project (n = 67) reported seeking out further evidence, research, or information about a topic relevant to their practice, and 45% had sought information on other topics or approaches. Examples of greater use of research evidence included teachers using the EEF toolkit and carrying out their own independent investigations of research evidence. However, this was not consistently the case, and other teachers acknowledged that their engagement with research evidence was limited to that presented as part of the project, citing lack of time and the challenge of taking evidence and implementing it in practice as the primary barriers. These findings suggest that a structured programme like that offered provides the greatest scope to embed the use of research evidence into practice because it overcomes such barriers. They also suggest that continued use of research evidence will require such structures to remain in place so that teachers are supported to engage with research evidence in the long-term.

Teaching practice

As set out in the logic model, the project aimed to improve teaching practice by helping teachers implement metacognition, self-regulation and feedback in the classroom, as well as by supporting teachers to establish a professional learning culture through collaboration and professional learning conversations. Findings from the survey indicate that the project did have a perceived positive impact on teaching practice: 60% of teachers (with direct or indirect involvement in the project, n = 67) felt that the project had enabled them to reflect on their own practice 'a lot', while a further 37% felt it had helped 'a little'. The survey also found that 70% felt the project had enabled them to discuss best practice with their colleagues 'a lot', while 48% felt it had helped them change their classroom practice 'a lot' (Table 8).

Participating teachers expanded on these findings during interviews reflecting on a range of impacts on their teaching practice, including:

- Increased awareness of their teaching approach
Teachers spoke of having an increased awareness of how they were teaching, and reported thinking more explicitly about their approach and its impact on pupils.
- Increased confidence in teaching techniques to support metacognition
Teachers described feeling more confident in techniques and strategies they could use to support metacognition. They also particularly valued the licence and freedom the project gave them to experiment and trial new approaches in the classroom:

'It's certainly given me a lot of inspiration... I think it's allowed me to be experimental and try things... really having the freedom to go forward and try out some new ideas which have been a great success, that has been inspiring. I've really enjoyed doing it... It's almost like I've got extra wheels in the machine which make lessons run much better for me, with better outcomes' (classroom teacher).

Pupil impacts

As set out in the logic model, by the end of the year the project aimed to achieve four short-term outcomes: (1) a positive attitude to learning, (2) pupils better able to talk about their learning, (3) pupils more aware of what they know and what they need to do next, and (4) pupils beginning to acquire the tools to help them plan, monitor and review their (and peer) learning. In the medium term (one to two years from the start of the intervention) the expectation was that these outcomes would lead to pupils being more active learners, implementing metacognition and self-regulation tools, with the ultimate aim of improving literacy and numeracy outcomes in the longer term.

- Metacognition

Schools that had focused on improving metacognitive talk reflected positively on the impacts on pupils, observing that they had seen an improvement in the quality of the talk children engaged in. Modelling productive talk, providing sentence stems to support metacognitive talk, working on using 'talk partners' and 'talk groups', and allocating specific roles within discussions to encourage both listening and speaking were all identified as strategies that had supported this:

'I think one of the biggest impacts is the way the children speak to each other... and the productiveness of that. A real positive impact is more productive talk and you can hear those conversations going on now with the children, and the children are now actually taking ownership and asking the other children "So what do you think? Do you have anything to add?" which has been really good in such a short space of time' (classroom teacher).

Schools that had focused on metacognition in literacy also reflected on positive impacts, describing improvements in comprehension through the use of tools such as the Reading Salad (McGregor, 2007). Where schools had focused on metacognition linked to problem-solving in maths, positive impacts included pupils increasingly being able to describe and explain *how* they solved problems.

Both participating teachers and the CPD Lead viewed these as positive improvements in metacognitive thinking, but it was also acknowledged that such improvements take time to develop and embed and consequently metacognitive teaching strategies need to be maintained and sustained over a long period before improvements in pupil attainment data are likely to be seen.

- Positive learning culture

Schools that had focused on encouraging a positive learning culture, using the concepts of 'growth mindset' and 'learning powers', were positive about the impacts of these approaches on the pupils' attitude to learning. In particular, the way in which these approaches encouraged a 'have a go' attitude, and took the emphasis away from getting the correct answers to making the most effort:

'The majority of the children will have a go at anything now and they will say "Oh I'm challenging my brain... my brain will grow if I challenge my brain", so I think that kind of ethos in the classroom has changed and if they do make mistakes, they say "It's ok though isn't it, to

make mistakes?”, so I think the ethos of the classroom—that safety net in the classroom that it is OK to make mistakes—is there’ (classroom teacher).

Establishing this culture was seen as an important step in creating an environment in which pupils could engage with metacognitive strategies and take these forward.

- Self-regulation and feedback
Linked to changes in learning culture, teachers described improvements in the ability of children to work independently and seek support from peers before asking for help from the teacher:

‘We had one or two children who would come up to you after every piece of work and ask “Is this right?”... whereas now we don’t. Now you can see them chatting to each other... “Is yours this? Is yours that?”, which is a big improvement because they’re not depending on me as much, they’re actually supporting each other on their tables... it’s definitely an improvement’ (classroom teacher).

Where schools had implemented strategies to improve feedback, teachers also spoke positively of improvements, with pupils more able to identify where they needed to improve and what their next steps were.

Readiness for trial

Before the project is ready to be evaluated in a trial, further consideration should be given to the following issues:

Trial focus

While this intervention was quite well specified, its structure and content need further prescription for it to be implemented in a trial in a consistent way. Consideration should be given to the following issues:

Refining project content

- Which elements of the programme are considered essential to its efficacy, and which elements have flexibility—such as the number of CPD events, the number of school visits by the CPD Lead, and the level of collaboration expected between participating teachers within each school.
- In its current form, the programme has been piloted as a model for disseminating research evidence and supporting the classroom implementation of teaching and learning strategies on metacognition, self-regulation and feedback. Further consideration should be given to whether the model would be equally effective if different research topics were covered. In other words, whether it is solely the *structure* for research dissemination developed by the Rochdale project that would be the focus of a trial, or whether it would be both *structure and content*. If it is the former, the project is reasonably well specified; if the latter, further prescription of project content would be required to ensure fidelity to the model and consistency across the trial.
- Formative findings from the process evaluation suggest that the programme might be more effective if a number of amendments were made to its activities, including, for example, making CPD training days whole-day events, and finding ways to ensure that staff have sufficient time to participate.

Replicating the pilot in different contexts

- This project was implemented within an existing network of schools. Alongside measures taken by the project team to engage senior leaders with the pilot, participating staff and the CPD lead felt the network facilitated project implementation because of pre-existing relationships and structures that fostered partnership working and encouraged buy-in for the project from headteachers. Further consideration should be given to the how to replicate this level of engagement in schools without a pre-existing network, and what implications this may have for trial recruitment and ongoing engagement with the project.

Defining the treatment group and outcome measures

- Given that a significant focus of the programme is on improving teachers' attitudes and behaviours as a first step towards improving pupil attainment, it would be important for a trial to collect outcome data at teacher level as well as at pupil level. Outcomes at teacher level should reflect the logic model: this was not the case in this evaluation since outcomes were developed by an external organisation (NFER) and were not tailored specifically to the Rochdale Research into Practice model.¹⁵
- For a trial, pupil-level outcome data would need to be collected: this was not part of this evaluation. This would require careful consideration of the year groups that should take part and what outcome measures would be appropriate (for example, attainment data only or attitudinal data as well). More conceptual thinking is also required to articulate how/if the programme intends to impact the whole school—or maybe only pupils in particular year groups—bearing in mind that only a certain number of teachers can attend training events and have direct involvement in the programme, as this will have a direct impact on how the treatment group is defined in a trial.

Trial length

- As the logic model indicates, the project team anticipated some short term outcomes at the end of the first year of implementation, but longer term impacts (particularly on pupil attainment) were not anticipated until two years post-implementation. A trial would need to factor in this timeframe and collect outcome data at appropriate time points.

Cost

Cost of implementing the intervention

The majority of the intervention's direct costs were associated with hiring the venue (including refreshments) and speaker fees. Venue costs for all events were £4,500, and speaker costs (including fees, accommodation and transportation) were £4,200.

The salary cost for the CPD Lead was estimated as £18,000 for 40 days of work over 12 months (this figure does not include any potential additional or unbudgeted time spent by the CPD lead) and the CPD Lead travelling costs were estimated as £54 for the whole intervention length. In addition, school administrative assistant work was required, estimated at £95 for the project. There were no financial costs associated with teachers using information from the training events, however we have included a time cost associated with the additional planning time needed for teachers to implement what they had learned. Time required varied from school to school, but on average most schools planned once every half-term for two hours.

¹⁵ The reason the outcomes survey was not tailored to the Rochdale model was in order to make the results comparable across all EEF projects in the 'Research Use in Schools' round.

Purchasing (or printing and photocopying) resources and materials associated with the seven events was estimated to cost £550 for the year (see Table 10 for more details).

Table 10: Cost of providing the intervention (financial marginal cost)

	Time (days, 1 day = 5 hrs)	Cost (£)	Cost (£) per pupil
Speaker fees (including accommodation and transport)		4,200	15
CPD Lead salary (12 months)	40	18,000	64.29
Travel costs CPD Lead		54	0.19
Dissemination meetings	72	0	0
Planning meetings	180	0	0
Conference & refreshments		4,500	16.07
Administration assistant		95	0.34
Delivery materials		550	1.96
Sub-total cost for providing the intervention	292	27,399	97.85

Base: 4,851 pupils are receiving the effect of the intervention.

Cost and time of attending the events

The seven events involved teachers travelling to the venue but as travel costs were not reimbursed they are not included in the calculations below.

The major cost associated with staff attending the CPD events related to the provision of staff cover for a total of five and a half days (four full-day events and three half-day events). During the pilot, 50% of these costs were met by the project while participating schools funded the remaining 50%. In addition, the school headteacher attended one full-day and one half-day meeting (1.5 days in total). In total, the cost was approximately £4,736 per school. Although only 50% of this was paid by schools, the full cost has been included here (see Table 11).

Table 11: Cost of attending the programme events

	Time (days, 1 day = 5 hrs.)	Cost (£)	Cost (£) per pupil
Sub-total cost of attending the training (staff cover)	180	47,360	164.14

Base: 4,851 pupils are receiving the effect of the intervention.

Total cost and cost per pupil

The number of pupils being directly taught by the Classroom Teacher participating in the intervention was one class of about 30 children in eight of the schools and from 8-10 children per school in the other two schools. Table 12 presents details of the total cost of the intervention and its respective cost

per pupil (assuming that 280 pupils in total were affected by the intervention in its first year). Overall, the cost per pupil is relatively low at £267 per pupil per year.¹⁶

Table 12. Total cost of the intervention and cost per pupil

	Cost (£)	Cost (£) per pupil
Running costs per year	74,759	267
Total cost in first year	74,759	267

There were no start-up costs (only one-off costs) associated with this intervention. Therefore, every year, independently of how many years the programme runs, the average cost per pupil will be equal to the running costs. However, we believe it is important to consider that every year more pupils will receive the direct effect of the intervention: we estimate that in the second year 60 pupils in each school will benefit (half of those will receive it from the teacher who participated in the intervention the previous year, and the other half will receive it from the teacher currently involved). A similar number of pupils would receive the intervention in the third year (600 in total). Table 13 shows how the average cost per pupil per year decreases as the length of the intervention increases, being around £172 per pupil in the third year.

Table 13. Total cost per pupil over three years of the programme

	Cumulative cost per pupil (£)	Average cost (£) per pupil per year
Year 1	267	267
Year 2	392	196
Year 3	516	172

The programme is associated with relatively high costs as the number of pupils receiving the intervention is not very large.

¹⁶ Assessed as low cost based on the Education Endowment Foundation's toolkit: <https://educationendowmentfoundation.org.uk/evidence/about-the-toolkits/>

Conclusion

This report presented findings of a mixed-method study evaluating the Research into Practice model in Rochdale as it was piloted in the academic year 2014/2015. This intervention consisted of a programme of CPD events and activities implemented within a pre-existing network of primary schools and was led by a CPD Lead. The focus of the programme in the short term was on teacher-level outcomes such as attitudes towards research and the use of research evidence in practice. Impact on pupil attainment was viewed as a longer term outcome and outside the timeline of this evaluation.

Evidence of promise

There were some improvements in teachers' attitudes towards research between baseline and follow-up. There were statistically significant changes in two of the four outcome measures:

- an increase relating to outcome measure 1: 'positive disposition to academic research in informing teaching practice'; and
- a reduction in outcome measure 3: 'perception that academic research is not useful to teaching'.

There were no statistically significant changes relating to:

- outcome measure 2: 'use of academic research to inform selection of academic approaches' (although there was a statistically significant positive change for teachers with direct involvement in the programme); or
- outcome measure 5: 'active engagement with online evidence platforms'.

Although our analysis showed improvements in teachers' perceptions and attitudes, these cannot be attributed confidently to the programme in the absence of a counterfactual, however there was some indication that teachers with first-hand involvement in the programme saw greater improvements. For example, teachers who were more involved in the programme showed a larger positive change in their disposition to academic research than those with lower levels of involvement. This suggests that the improvements observed were likely to be linked with the programme.

Findings from qualitative interviews with participating staff found that some were making use of research evidence independently of the project, while others reported that their engagement with research evidence was limited to that presented as part of the project, citing lack of time and the challenge of taking evidence and implementing it in practice as the primary barriers. These findings suggest that a structured programme like that offered by the Rochdale Research into Practice project provides scope to embed the use of research evidence into practice because it overcomes barriers related to time and practical implementation. The findings also suggest that continued use of research evidence will require such structures to remain in place to continue to support teachers to engage with research evidence in the long-term.

Was the approach feasible?

The programme largely ran as intended and documented in the logic model. It was perceived very positively by participating staff. There was a substantial degree of buy-in from senior leadership teams at the participating schools which was helpful to the intervention. This was facilitated by measures taken by the project team to engage with senior leaders, and helped by the fact that the schools were members of a pre-existing network.

For the programme to be implemented outside of an existing network of schools, careful thinking will be needed around how to replicate the level of school engagement achieved in the pilot, as well as ensuring that participating teachers feel supported by leadership teams at their respective schools.

Finding time for working collaboratively on trying to implement research evidence in practice was mentioned by participants as a challenge, but overall the requirements of the programme were feasible.

Is the approach ready to be evaluated in a trial?

We believe that the Rochdale Research into Practice model in its current state of development is not ready to be evaluated in a trial. Before a trial is considered, further thought should be given to (a) which elements of the project are considered essential for its efficacy, and (b) whether the focus of a trial would be to test the project *structure* as a model for research dissemination, or both the *structure* and *content* of the project as piloted. The feasibility of implementing the model in schools without a pre-existing network would also need to be considered, alongside further clarification of the treatment group, outcome measures, and trial length.

Limitations of the evaluation

There were a number of limitations to this evaluation of the Rochdale Research into Practice model:

- The outcomes collected in the teachers' survey were not wholly consistent with those outlined in the intervention's logic model because the survey was developed to be consistent across *all* projects in the Research Use in Schools round: it was not designed specifically for this pilot.
- There was no comparison group.
- Response rates to the teachers' surveys were exceptionally high at baseline (95%) but were lower at follow-up (73%). It is possible that teachers who took part in the follow-up survey were systematically different from those who did not take part (perhaps, for example, holding more positive attitudes towards research, or being less busy).
- The sample size available for analysis of outcomes ($n = 124$) was low, and the differences needed to be very large in order to be statistically significant.
- The evaluation was not able to include analysis of impact on pupil attainment.

Future research

Future research opportunities could include a synthesis of findings from projects funded as part of the EEF's Research Use in Schools round. This could help by identifying the most effective strategies for engaging teachers with research evidence. Such learning could be beneficial to the Rochdale Research into Practice model as it is developed further.

References

- Bransford, J., Stipek, D. J., Vye, N. J., Gomez, L. M. and Lam, D. eds. (2009), *The Role of Research in Educational Improvement*. Cambridge, MA: Harvard Education Press.
- Clarke, Shirley (2003), *Enriching feedback in the primary classroom*. London: Hodder Education.
- Clarke, Shirley (2014), *Outstanding Formative Assessment: Culture and Practice*. London, Hodder Education.
- Cooper, A. M., Levin, B. and Campbell, C. (2009), 'The growing (but still limited) importance of evidence in education policy and practice', *Journal of Educational Change*, 10, 2–3, 159–171.
- Dudley, Pete (2011) 'Lesson Study: A Handbook'. Available <http://lessonstudy.co.uk/lesson-study-a-handbook/> [accessed 25 February 2015].
- Hattie, John (2012), *Visible Learning for Teachers: Maximizing impact on learning*. London and New York: Routledge.
- Hemsley-Brown, J. and Sharp, C. (2003), 'The use of research to improve professional practice: a systematic review of the literature', *Oxford Review of Education*, 29, 4, 449–470.
- Levin, B. (2011), 'Mobilising research knowledge in education', *London Review of Education*, 9, 1, 15–26. Available from <http://www.ingentaconnect.com/content/ioep/clre/2011/00000009/00000001/art00003?crawler=true> [accessed 20 December 2015].
- McGregor, Tanny (2007), *Comprehension Connections: Bridges to Strategic Reading*. New Hampshire: Heinemann.
- Nelson, J. and O'Beirne, C. (2014), *Using Evidence in the Classroom: What Works and Why?* Slough: NFER. Available from: <http://www.nfer.ac.uk/publications/IMPA01/IMPA01.pdf> [accessed 20 December 2015].
- Nutley, S. M., Walter, I. and Davies, H.T.O. (2007), *Using Evidence: How Research Can Inform Public Services*. Bristol: The Policy Press.
- Poet, H., Mehta, P. and Nelson, J. (unpublished). *Research Use in Schools – Survey, Analysis and Guidance for Evaluators*. Slough: NFER.
- Sharples, J. (2013), *Evidence for the Frontline*. London: Alliance for Useful Evidence. Available from: <http://www.alliance4usefulevidence.org/assets/EVIDENCE-FOR-THE-FRONTLINE-FINAL-5-June-2013.pdf> [accessed 20 December 2015].

Appendix A: IPLCN partnership agreement outlining schools' responsibilities in relation to the Research into Practice programme

Inspirational Professional Learning Community Network

Research into Practice Programme

Supported by the Education Endowment Foundation

Partnership agreement September 2014 - July 2015

Schools will be supported to implement the Research into Practice Programme, which will be developed to focus on the application of the strategies for learning and teaching shown by research as having the most impact on children's progress. The work in schools will be undertaken by subject leaders for English and mathematics, working with a nominated class teacher.

School commitment	IPLCN commitment
<ul style="list-style-type: none"> • identify a member of the leadership team to take overall responsibility for the success of the initiative in school and to ensure the completion of all required reporting and dissemination • identify the relevant class teacher to undertake the incorporation of the research into practical teaching and learning strategies English and mathematics • arrange for the close involvement of the subject leaders for English and mathematics • ensure that all the participating teachers are released in order to attend CPD events provided by the IPLCN • ensure that all the participating teachers are released in order to undertake the observation and debriefing involved in the programme • use the core funding provided by the Education Endowment Foundation to support the implementation of the Research into Practice programme and not for any other purpose • contribute resources from within the school budget to support the release of participating 	<ul style="list-style-type: none"> • provide funding to support the implementation of the IPLCN Lesson Study programme in the school • provide access to leading researcher in the field of metacognition, self regulation and feedback on learning • provide expert professional development in the practical pedagogical strategies associated with research findings • fully fund the costs of the Research into Practice Lead • provide a dedicated source of programme support to and communication with participating schools through the Research into Practice Lead • provide school site visits and facilitate small group networks in order to : <ul style="list-style-type: none"> - support subject leaders and class teachers in the applying of research into practice in the classroom; - obtain a qualitative view of the project in practice in schools; - gather case study material to contribute

<p>teachers in order to supplement the core funding provided by the Education Endowment Foundation</p> <ul style="list-style-type: none"> • support school site visits by the Research Into Practice Lead assigned to the project and, where applicable, by members of the independent evaluation team • ensure participation in surveys, interviews etc as required by the independent evaluators • share teacher assessments and any other available assessments 	<p>to evidence of the impact of the programme on teacher learning and pupil progress.</p> <ul style="list-style-type: none"> • fully fund the costs of training venues • work with the independent evaluators to gather and analyse data and report on the impact of the project • liaise with relevant personnel in the Education Endowment Foundation , to keep them informed of the progress of the project, any issues arising and to invite them to relevant meetings • convene a steering group to manage the project and provide support and challenge for the implementation of the programme
---	---

Inspirational Professional Learning Community Network
 Research into Practice Programme

Supported by the Education Endowment Foundation

Partnership agreement September 2014 - July 2015

1. Having considered the respective commitments set out in the partnership agreement provided, I confirm that this school wishes to participate in the EEF funded Research into Practice programme 2013-15.

2. Having read the Project Delivery Plan and understood the commitment to releasing teachers for CPD events and school visits by the Research Into Practice Lead, I wish to register the following teachers for participation:

Subject **Leader** **1**
Role.....**Name**.....

Subject **Leader** **2**
Role.....**Name**.....

Class **Teacher**
Role.....**Name**.....

Signature	Job title	School/organisation	Date
	Headteacher		
	IPLCN Lead	IPLCN	

Appendix B: Communications with school staff

Letter to headteachers: Baseline survey

NatCen
Social Research that works for society



✚ Name
Address
(Rochdale
Lancashire)

11th September 2014

Dear Name,

Research-informed schools evaluation: Development of the Rochdale Research into Practice model

I am writing to you to let you know that over the next few weeks teachers in your school will be taking part in an online survey for the Research-informed schools evaluation: Development of the Rochdale Research into Practice model.

This survey will help us to understand teachers' views and experiences of using research in their teaching. The study is funded by the Education Endowment Foundation. All information collected in this survey will be confidential and individuals will not be identified in the published results.

We would appreciate your support in encouraging all teachers to complete the survey.

Further information about the study can be found at www.natcen.ac.uk/research-use. If you have any queries, please feel free to email researchuse@natcen.ac.uk or call us on 0800 652 0401.

Dr Svetlana Speight
Research Project Director
NatCen Social Research

Email invitation to teachers: Baseline survey

To [firstname lastname],

I am writing to invite you to take part in a short piece of research for Research-informed schools evaluation: Development of the Rochdale Research into Practice model.

As you may be aware, as part of this programme, teachers in your school will be involved in learning how they may be able to enhance your school's teaching using research-based evidence.

As part of this process we would like you to answer a few questions about your own teaching practice. The online questionnaire should take no longer than 15 minutes. We would be grateful if you could complete it by 13th October.

Take part now

The information you provide will help us to understand teachers' views and experiences of using research in their teaching. The study is funded by the Education Endowment Foundation. All information collected in this survey will be confidential and individuals will not be identified in the published results.

Further information about the study can be found at <http://www.natcen.ac.uk/research-use>. If you have any queries, please feel free to email researchuse@natcen.ac.uk or call us on 0800 652 0401.

Kind regards,



Dr Svetlana Speight

Research Project Director

NatCen Social Research

Email invitation to teachers: Outcomes survey

To [firstname lastname],

Last year you kindly completed a short survey as part of the Research-informed schools evaluation: Development of the Rochdale Research into Practice model.

As part of this programme, teachers in your school are involved in learning how they may be able to enhance your school's teaching using research-based evidence.

We would like you to answer a few questions about your own teaching practice. The online questionnaire should take no longer than 10-15 minutes. We would be grateful if you could complete the survey as soon as possible.

Take part now [unique link]

Your access code is : [access code]

The information you provide will help us to understand teachers' views and experiences of using research in their teaching. The study is funded by the Education Endowment Foundation. All information collected in this survey will be confidential and individuals will not be identified in the published results.

Further information about the study can be found at <http://www.natcen.ac.uk/research-use>. If you have any queries, please feel free to email researchuse@natcen.ac.uk or call us on 0800 652 9294.

Kind regards,

A handwritten signature in black ink, appearing to read 'S. Speight', with a stylized flourish at the end.

Dr Svetlana Speight

Research Project Director

NatCen Social Research

Appendix C: The Outcomes Survey

Supporting Pupil Progress

Thank you very much for taking part in this survey. Your responses will contribute to a study conducted by NatCen Social Research on behalf of the Education Endowment Foundation. It is exploring different approaches to improve pupil progress. The survey includes questions on how you/your school have decided to introduce new approaches and the types of information you use to inform decisions on teaching and learning.

The survey should take no more than 15 minutes to complete.

Your answers will be treated confidentially, which means that you and your school will not be identified in any reports produced from this research.

BLOCK A - Introduction

Job

1. What is your job role? (Please **tick one box** below that best describes your role)

Classroom teacher

Middle leader (e.g. head of department, subject or curriculum area leader, key stage leader, pastoral services leader)

Senior leader (e.g. deputy or assistant headteacher)

Headteacher, principal or director

Other role (please specify)

HowLong2

2. How long have you been in the teaching profession? *(Please tick the box that describes the length of your whole teaching career, including career breaks)*

30 years or more

5-9 years

20-29 years

1-4 years

10-19 years

First year of teaching (NQT)

BLOCK B - About a specific approach to supporting pupils' progress

3a. ApproachO

Please name in the box below a specific approach that you have used within the last two years to support pupils' progress. For example this could be a teaching method, or a resource, product or initiative.

Name/brief description *(please write in the box below)*

Identify3

**3b. Which, if any, of the following were important in identifying the approach you named?
Please select the three most important sources. (Please tick up to three)**

- Ideas generated by me or my school
- Ideas from other schools
- Advice from my local authority or academy chain
- Articles, reports, books or summaries based on academic research (paper or web based)
- Articles, reports, books or summaries based on teacher experience (paper or web based)
- The promotional materials of an external supplier
- Action research conducted by me or my colleagues
- Information gathered through training/CPD
- Online evidence platforms or databases (e.g. the Sutton Trust Teaching and Learning Toolkit)
- Guidance from official bodies such as DfE and Ofsted
- Guidance from exam boards
- Don't know
- Other (please specify)

{Select if Identify3 = 8 – Information gathered through training/CPD}

CPD

3c. Please indicate, from the list below, what the training/CPD was based on. (Please tick all that apply)

	Exam board information	<input type="checkbox"/>
	Academic research	<input type="checkbox"/>
	Ideas from my school (e.g. internal INSET)	<input type="checkbox"/>
	Ideas from other schools	<input type="checkbox"/>
	Expertise of an external consultant	<input type="checkbox"/>
	Expertise of a programme provider	<input type="checkbox"/>
	Local authority/academy chain guidance	<input type="checkbox"/>
	Other (please specify)	<input type="checkbox"/>

Influence

4. Please rate the level of influence that each of the following factors had on the decision to adopt your approach. (Please tick one box in each row)

	Strong influence 1	Some influence 2	No influence 3	Not applicable 4
We thought the approach...				
...would be straightforward to implement	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
...was likely to be popular with staff	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
...was likely to be popular with parents	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
...was likely to be popular with pupils	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
... was inexpensive	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
...was backed by academic research	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

...was a good fit with existing practices	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
...aligned with our professional experience	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

BLOCK C - Your general approach to teaching and learning to support pupils' progress

We would now like you to think more broadly about how you develop your teaching to support pupils' progress.

ConsultPP

5. **To what extent do you consult the following sources when deciding on your approaches to support pupils' progress?** *(Please tick one box in each row)*

	A lot	A little	Not at all
	1	2	3
Pupil performance data	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
External organisations (e.g. local authority, academy chain, DfE or Ofsted)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Articles, reports, books or summaries based on academic research (paper or web based)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Articles, reports, books or summaries based on teacher experience (paper or web based)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Information gathered through training/CPD	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Online evidence platforms or databases (e.g. the Sutton Trust Teaching and Learning Toolkit)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Guidance from exam boards	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Colleagues within my own school	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Colleagues in other schools	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

UnderstandPP

6. How easy do you find it to understand the information that these sources provide about how to support pupils' progress? *(Please tick one box in each row)*

	Very easy	Quite easy	Not very easy	Not at all easy	I don't use this source
	1	2	3	4	5
Pupil performance data	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
External organisations (e.g. local authority, academy chain, DfE or Ofsted)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Articles, reports, books or summaries based on academic research (paper or web based)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Articles, reports, books or summaries based on teacher experience (paper or web based)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Information gathered through training/CPD	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Online evidence platforms or databases (e.g. the Sutton Trust Teaching and Learning Toolkit)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Guidance from exam boards	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Colleagues within my own school	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Colleagues in other schools	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

BLOCK D Evidence-based teaching and using evidence from research

Evidence3

7. What does the term ‘evidence-based teaching’ mean to you?

Please select up to three boxes that best describe your understanding of the term.

Conducting action research and applying the learning

Learning from colleagues and applying the learning

Applying Ofsted or DfE guidance

Using an online evidence platform/database (e.g. Sutton Trust Toolkit) and applying the learning

Applying exam board guidance

Combining academic research evidence with my professional expertise

Using pupil performance data to track pupil progress and plan ahead

Applying the recommendations of an external supplier

Reading and applying information from academic research or from working with researchers

Learning from external consultants, trainers or advisors

I don't know

Research

8. **This question aims to find out how (if at all) you use research information in your work. By ‘research’ we mean information from books, reports, articles, summaries, training or events that is based on academic studies.**

Please indicate the extent to which you agree or disagree with the following statements. (Please tick one box in each row).

	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree
	1	2	3	4	5
Information from research plays an important role in informing my/our teaching practice	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I do not believe that using information from research will help to improve pupil outcomes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I know where to find relevant research that may help to inform teaching methods/practice	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
My school leaders/governors do not encourage me to use information from research to improve my practice	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I am able to relate information from research to my context	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other staff in my school rarely use information from research to inform their teaching practice	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I feel confident about analysing information from research	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Information from research conducted elsewhere is of limited value to our school	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I use information from research to help me to decide how to implement new approaches in the classroom	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

ResUsed

9. In the last year, how (if at all) have you used information from academic research to inform your practice? (Please tick all that apply)

Respondents can either tick 'I have not used information from research...' OR as many responses as they like from items 2 to 7.

Respondents are routed as follows:

- *'I have not used information from research' (item 1) – go to Q11.*
- *EITHER or BOTH 'change classroom practice' (item 4) /influenced colleagues to change their practice (item 6), regardless of whether they have ticked any other options – go to Q10*
- *Any combination of the remaining items BUT NOT INCLUDING EITHER OR BOTH OF items 4 and 6 – go to Q11.*

I have not used information from academic research in the last year

Or, in the last year I have used information from academic research to:

discuss best practice with colleagues

reflect on my own practice

change classroom practice (this could be starting, developing or discontinuing an approach)

contribute to my own research/enquiry

influence colleagues to change their classroom practice (this could be starting, developing or discontinuing an approach)

improve my knowledge of a topic or subject

{Select if ResUse = 4 and/or 6}

Change

10. What was it about the research information that enabled you to change classroom practice? (Please tick all that apply)

Question filtered from Q9 for respondents answering either or both of 'changed classroom practice' (item 4) / 'influenced colleagues to change classroom practice (item 6).

Multiple response item: respondents can select as many answers as they wish (no minimum). Online survey: statements to be randomised where technology allows, 'other' should always appear last.

It was clear (e.g. language, style, presentation)

It was convincing

I was able to discuss the research with a researcher or someone else who understood it

I could see clearly how the research related to our context

There was coaching and training available based on the research

It contained practical guidance about how to apply the research in the classroom

I was able to see the research being applied in another school

It encouraged collaborative enquiry

It was supported by resources (e.g. funding, materials)

Other (please specify)

BLOCK E - Your knowledge about research

In this section we would like to gather some information about your knowledge of research. Please answer the questions without referring to other sources.

Knowledge

11. Current understanding from academic research suggests that each of the following statements is 'true' or 'false'. (Please tick the answer that you know to be correct in each row.)

If you are not sure, please tick 'don't know'.

The research says that:	True 1	False 2	Don't know 3
Drinking six to eight glasses of water per day improves pupil learning outcomes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Reducing class size is one of the most cost-effective ways to improve pupil learning outcomes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Extending the school day is more likely to improve learning outcomes for pupils on Free School Meals than pupils not on Free School Meals	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Interventions that focus solely on raising pupil aspirations have little impact on learning outcomes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Setting pupils by ability improves learning outcomes for all pupils	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Individual pupils learn best when they receive information in their preferred learning style (e.g. auditory, visual, kinaesthetic)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Peer tutoring (students supporting other students with their learning) usually benefits the pupil being tutored more than the pupil doing the tutoring	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Homework has a greater impact on pupils' learning outcomes at secondary school than at primary school	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Methods

12. Below are descriptions of three reasons why someone would want to carry out research. Along the top of the table are five different research methods.

Please match the research purpose with the best research method for achieving it by selecting the relevant option. Please select one box in each row. There are only three matches – two methods are incorrect (please do not use the same answer more than once).

	Randomised Controlled Trial 1	Longitudinal study 2	Interviews and/or questionnaires 3	Literature review 4	Correlational study 5
To provide an overview of the evidence base	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

To determine whether an intervention or approach has a direct impact on pupil learning outcomes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
To understand how an intervention or approach works in practice	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

BLOCK F - About the intervention

The next questions relate to your schools participation in **the Rochdale IPLCN: Research into Practice Project**.

You/your school has been invited to take part in **the Rochdale IPLCN: Research into Practice Project**. The following set of questions asks about your views on this initiative.

Participation

13. Did your school take part in the Rochdale IPLCN: Research into Practice Project? *(Please tick one box only)*

Yes, and I had first-hand involvement

Yes, my colleague/s were involved, and they shared the learning with me

Yes, my colleague/s were involved, but I don't know any more about it

No, my school did not take part

I'm not sure

The following questions ask you to comment on your involvement in **the Rochdale IPLCN: Research into Practice Project**. In these questions we would like you to think about your experiences of the **whole project** rather than its specific components.

{Select if Participation = 1&2}

Information1

14. How did you feel about the amount of information that was provided through the project? *(Please tick one box only)*

There was too much information

The amount of information was about right

There was too little information

{Select if Participation = 1&2}

Information2

15. To what extent did the information from the project enable you to... *(Please tick one box in each row)*

	A lot	A little	Not at all
discuss best practice with colleagues in my school	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
share the learning with people or organisations outside my school	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
reflect on my own practice	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
change classroom practice (this could be starting, developing or discontinuing an approach)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
reinforce existing practices	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
conduct my own research or enquiry	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
influence colleagues in my school to change their classroom practice (this could be starting, developing or discontinuing an approach)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
improve my knowledge of a topic or subject	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

{Select if Participation = 1&2}

ResultQ

16. To what extent do you agree or disagree with the following statements? (Please tick one box in each row)

As a result of the project I have: Strongly agree Agree Neither agree nor disagree Disagree Strongly disagree

Sought out further evidence, research or information about a topic relevant to my practice.

Sought out further evidence, research or information on other topics/approaches.

In the following question we would like you to think about the **individual elements** of the **Rochdale IPLCN: Research into Practice Project** rather than the project as a whole.

{Select if Participation = 1&2}

Elements

17. How would you rate the following elements of the Rochdale IPLCN: Research into Practice Project? (please tick one box in each row)

Very good Quite good Average Quite poor Very poor Did not use/did not attend

The Research into Practice events with presentations and interactive sessions

The Research into Practice lead visiting your school

Collaborative planning and feedback

Individual support/advice from the Research into Practice lead via phone/email

{Select if Participation = 1&2}

Recommend

18a. Overall, would you recommend the Rochdale IPLCN: Research into Practice Project to another school? *(Please tick one box only)*

	Yes, definitely	<input type="checkbox"/>
	Yes, probably	<input type="checkbox"/>
	Probably not	<input type="checkbox"/>
	Definitely not	<input type="checkbox"/>

{Select if Participation = 1&2}

Reason

18b. Please explain your reasons:

Thank you very much for completing the survey.

Appendix D: Outcome measures

The five outcomes measures used in the analysis were developed by Poet et al. (unpublished).

Positive disposition to academic research in informing teaching practice

Composite scale measures constructed using components of different survey questions were used to compare before and after measures. The first of these measures combined responses to six items:

1. Ease of understanding reports, books, or summaries based on academic research (see Appendix C, Q6, item 1);¹⁷
2. Information from research plays an important role in informing my/ our teaching practice (Q8, item 1);
3. I know where to find relevant research that may help to inform teaching methods/ practice (Q8, item 3);
4. I am able to relate information from research to my context (Q8, item 5);
5. I feel confident about analysing information from research (Q8, item 7);
6. I use information from research to help me decide how to implement new approaches in the classroom (Q8, item 9).

The Cronbach's alpha for outcome measure one was 0.80 at baseline and 0.85 at follow-up, indicating that the questions were highly correlated.

Use of academic research to inform selection of teaching approaches

The second composite measure was constructed by combining four questions:

1. Articles, reports, books or summaries based on academic research (paper or web based) were important when identifying the approach (Q3b, item 4);
2. Online evidence platforms or databases (e.g. the Sutton Trust Teaching and Learning Toolkit) were important when identifying the approach (Q3b, item 9);
3. Influence the fact approach was backed by academic research had on decision to adopt it (Q4, item 6);
4. The extent to which articles, reports, books or summaries based on academic research (paper or web based) are consulted when deciding on approaches to support pupil's progress (Q5, item 3).

This deviates from the NFER guidelines, which suggest the outcome measure is constructed with the questions above and, 'CPD based on academic research was important when identifying approach in Q3a', which is only included in the outcomes survey. By excluding this particular question it was

¹⁷ Teachers who responded 'I don't use this source' to question 6, item 3, have been assigned a score of 2.5 on this measure, as have those with missing values. This coding follows the evaluation guidelines set out in Poet et al. (unpublished).

possible to compare results across the two time points. The Cronbach's alpha for the measure was 0.49 at baseline and 0.68 in the outcomes survey, therefore weakly correlated at baseline and moderately at follow-up.

Perception that academic research is not useful to teaching

Measure three captured teachers' 'perception that academic research is not useful to teaching' combining responses to two survey questions:

1. I do not believe that using information from research will help to improve pupil outcomes (Q8, item 2);
2. Information from research conducted elsewhere is of limited value of our school (Q8, item 8).

The Cronbach's alpha for this measure was 0.55 at baseline and 0.65 in the outcomes survey, indicating a low to moderate correlation between indicators.

Perception that own school does not encourage use of academic research

The fourth outcome measure aimed to capture the 'perception that the teachers' own school does not encourage use of academic research', combining responses to two items on question 8:

1. My school leaders/ governors do not encourage me to use information from research to improve my practice (item 4);
2. Other staff in my school rarely use information from research to inform their teaching practice (item 6).

The Cronbach's alpha for this outcome measure was lower than others, 0.34 at baseline and 0.35 in the outcomes survey, suggesting a weak correlation between measures, and lower reliability. Indeed the measure was not considered robust enough to be included in the analysis, and was therefore excluded from the report.

Active engagement with online evidence platforms

The measure constructed to explore 'active engagement with online evidence platforms' combined questions exploring the extent to which teachers used online evidence platforms, such as the Sutton Trust Teaching and Learning Toolkit (Q5, item 6) and how easily they understood them (Q6, item 6).¹⁸ The Cronbach's alpha for the measure was 0.60 at baseline and 0.56 in the outcomes survey, showing a low to moderate correlation between the two measures.

¹⁸ Teachers who responded 'I don't use this source' to question 6, item 6, have been assigned a score of 2.5 on this measure, as have those with missing data. This coding follows the evaluation guidelines set out in Poet et al. (unpublished).

You may re-use this document/publication (not including logos) free of charge in any format or medium, under the terms of the Open Government Licence v2.0.

To view this licence, visit www.nationalarchives.gov.uk/doc/open-government-licence/version/2 or email: psi@nationalarchives.gsi.gov.uk

Where we have identified any third party copyright information you will need to obtain permission from the copyright holders concerned. The views expressed in this report are the authors' and do not necessarily reflect those of the Department for Education.

This document is available for download at www.educationendowmentfoundation.org.uk



Education
Endowment
Foundation

The Education Endowment Foundation
9th Floor, Millbank Tower
21–24 Millbank
London
SW1P 4QP
www.educationendowmentfoundation.org.uk