Family Skills

Evaluation report and executive summary
May 2018

Independent evaluators:

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NatCen
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- 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.

The project was co-funded by The Bell Foundation, and Unbound Philanthropy, as part of a funding round focusing of children with English as an additional language.

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

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About the evaluator

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Executive summary

The project

Family Skills aims to improve the literacy and language of children learning English as an additional language (EAL). It focuses on supporting parents (or caregivers) of Reception-aged children (aged 4–5) and consists of 11 core weekly sessions for parents, each 2.5 hours in length, delivered at the child's school by external family learning tutors. Core sessions focus on topics such as reading to children, phonics, making the most of bilingualism, learning through play, and understanding primary education in England. Additional sessions include a visit to a local library and a tour of the school. Children attend for part of the sessions, and parents are encouraged to do follow-up activities at home. In this trial, the programme was open on a voluntary basis to all parents of Reception children with EAL in the Family Skills schools.

One hundred and fifteen primary schools participated in this efficacy trial from September 2016 until July 2017. The programme was evaluated using a randomised controlled trial, comparing the opportunity to attend Family Skills sessions to 'business as usual' in control schools. The headline finding, therefore, estimates the average impact of the intervention across all eligible children rather than the average for the children whose parents actually attended. Attainment was measured using a literacy test at the end of the Reception year. 1,985 pupils in 102 schools were included in the final analysis. Surveys and interviews were conducted to explore other aspects of the intervention, such as challenges to implementation and control group activity, as well as to get feedback from participants. The programme was developed and delivered by Learning Unlimited working in partnership with Campaign for Learning and UCL Institute for Education. The project was funded by the EEF, The Bell Foundation, and Unbound Philanthropy.

Key conclusions
1. EAL children in Family Skills schools did not make additional progress in literacy compared to EAL children in control schools when assessed at the end of Reception. This result assesses the *opportunity* for parents to attend Family Skills, rather than the impact for those who attended. This finding has high security.
2. Exploratory analysis suggests that EAL children whose parents did attend at least one Family Skills session made around one month's additional progress in literacy compared to EAL children in control schools at the end of Reception. However, the evaluator believes that this exploratory finding should be treated with caution.
3. The vast majority of schools receiving Family Skills said that they would recommend it to other schools, highlighting that it provided a good opportunity to build home–school links and engage parents in their children's learning.
4. On average, eight families attended per school, which represents around one third of those who had the opportunity. The level of take-up was lower than expected and may have been due to the limited time available for parent recruitment in this trial.
5. To ensure higher levels of attendance, schools would benefit from more time to engage parents before the programme begins; tutors recommended five weeks for engagement. Face-to-face activities, with ongoing reminders, were reported to be most effective for recruiting and retaining parents to the programme.

EEF security rating

The primary finding has high security. This was an efficacy trial, which tested whether the intervention can work under developer-led conditions. It was a randomised controlled trial conducted at a reasonably large scale. Thirteen schools (11%) dropped out of the trial, and 20% of pupils randomised had missing

data. This was partly due to delays in randomisation and challenges with the baseline testing, which resulted in less time to plan delivery with schools, and discouraged some schools from participating. This missing data reduces the security of the findings. Despite imbalance on the randomised sample, there was good balance at baseline for the analysed sample.

A limitation of the study is that it is not possible to estimate which parents in the control schools would have attended the Family Skills session if they had had the opportunity. The most robust estimate therefore compares all EAL pupils across treatment and control irrespective of parents' attendance levels in treatment schools. This risks 'diluting' the treatment effect as only around 30% of families given the opportunity to attend Family Skills attended at least one session. For this reason, a secondary analysis estimated the impact only for the children of those parents that were known to attend. However, this estimate has less security than the overall finding.

Additional findings

Findings from the implementation study suggest that parents who attended, and even some who dropped out, enjoyed attending sessions with their children.

Parents who attended Family Skills sessions believed there had been a change in their knowledge and understanding and an improvement in their skills and confidence as a result of taking part. They liked learning about strategies for supporting their children's literacy at home, and the sessions on phonics were particularly valued. Improvements in confidence were related specifically to interactions with school staff and, in some cases, with maintaining bilingualism in the home literacy environment. This provides some support for the intervention theory of change, which has intermediate outcomes related to parental confidence.

A majority of schools in the study offered some form of family-based learning programme other than Family Skills. More than half (56%) of the control schools offered some form of family-based learning programmes for the parents and caregivers of Reception-year pupils. In a minority of control schools (13%), these had a specific focus on children learning English as an additional language. This could have made it more difficult to see the impact of the Family Skills programme in the intervention schools.

Cost

Delivering Family Skills costs £3,154 per school, on average, or £143.37 per eligible pupil per year.

Table 1: Summary of impact of the intervention

Outcome	Effect size (95% confidence Interval)	Estimated months' progress	EEF security rating	No. of pupils	P value	EEF cost rating
CEM BASE	0.01 (-0.03, 0.05)	0	🔒🔒🔒🔒🔒	1,985	0.21	**££**£££
CEM BASE Pupil Premium	0.01 (-0.04, 0.05)	0	n/a	252	0.92	**££**£££

Introduction

Intervention

The Family Skills programme was led by Learning Unlimited working in partnership with Campaign for Learning and UCL Institute for Education. The intervention was designed to support families for whom English is an additional language (EAL) with Reception-aged children (aged 4–5). Family Skills aimed to improve children's English language and literacy skills by developing parents' or caregivers' knowledge of how their children are taught to read as well as their own English language skills.[1] Additionally, it intended to familiarise parents with the English primary education system.

The overarching hypothesis was that parents who attended Family Skills sessions would acquire strategies, confidence, and knowledge that would enhance the home literacy environment, thereby supporting their children at home in meaningful ways and ultimately improving their children's literacy.

The intervention

The Family Skills intervention is manualised and comprises 30 hours of contact time with a trained tutor. Eligible parents attended 11 sessions, each 2.5 hours in length and delivered at the child's school. In all but one session, parents were expected to attend without their children for the majority of the session (while children remained in their usual classes), with 30–45 minutes dedicated to parents and children learning together. Most courses were delivered during the normal school day (though at least one course was delivered at the end of the afternoon with parents attending from 2.30 p.m. and children joining after the end of the school day). Each session was attended by an average of 4.5 parents.[2] Three additional sessions (comprising a total of 2.5 hours) were organised at the discretion of the tutor and included a session on phonics and a visit to a local library. Parents were expected to engage in follow-up activities at home with their children and discuss their experiences of these activities during sessions.

Tutors, selected by local delivery organisations and trained by Learning Unlimited, were required to use the 'Family Skills Toolkit' which included:

- an overview of the background and key concepts;
- full session plans;
- printable handouts, activities and resources for each session;
- parent recruitment materials for the course, including a poster advertising an information event; and
- an invitation for children to personalise and take home.

The PDF version of the Toolkit included editable pages for tutors to use, including a certificate of achievement and an invitation letter to parents.

Although the intervention is manualised, tailoring the content for varying levels of confidence and ability among both children and adults was intended as part of the design of the programme. The Toolkit included extension activities and guidance on adapting session content in order to support participation and learning, and accommodate participants with different levels of skills and knowledge.

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[1] Throughout this report, the term 'parents' is used to refer to parents and caregivers. The Family Skills programme was offered to parents, primary caregivers, and other caregivers with responsibility for eligible children.

[2] Average across all schools where register was completed (n = 55).

Content of sessions

Each session was designed to be interactive, with parents and children working on crafts and game-based activities, and parents completing worksheets. The sessions covered a range of topics such as education in England, the culture of schools, reading strategies and phonics, home literacy practices, oral traditions, learning through play, and a focus on how to make the most of bilingualism. The topics that were covered in each session were:

Session 1: Welcome and introductions

Session 2: Benefits of bilingualism

Session 3: Oral traditions

Session 4: Reading and phonics - 1

Session 5: Reading to children

Session 6: Reading and phonics - 2

Session 7: Home literacy

Session 8: Learning through play

Session 9: Reading and phonics - 3

Session 10: Primary education (children did not attend)

Session 11: Review, evaluation and celebration

Visits and talks: a library visit, school tour, and a talk on phonics.

An important identified aim of the Family Skills course was to support parents in understanding the range of benefits of bilingualism or multilingualism and the value that home languages bring to their children. Sessions covering these topics were included towards the beginning of the course.

Family Skills delivery during the trial

For the efficacy trial, the Family Skills programme was delivered in school settings during one school term—from January to April 2017.

The intervention was delivered locally by 16 delivery partner organisations across England. These organisations included local authority Adult Learning services, and independent skills and training providers. These organisations had contributed ideas and content for the Family Skills Toolkit during its development. These organisations used existing tutors—family learning and adult education practitioners—to deliver Family Skills during the trial. There was variation in the number of schools and classes each tutor worked with. Of the total of 33 tutors, 18 taught one class only, and 15 taught two or more, with the maximum being two tutors who each taught five classes.

Before the start of the intervention, tutors and/or senior staff from each delivery partner organisation were required to attend a training or 'train the trainer' day led by the Family Skills development team. It included an introduction to the key delivery principles, the manual, topic coverage and the resources available to delivery partners. Following the training day, an online group was set up on the slack.com file sharing platform to support shared learning and included 'top tips' on how to adapt the intervention to accommodate varying levels of confidence and ability.

Primary schools recruited to the trial identified Reception year pupils with English as an additional language (EAL) as eligible for the Family Skills programme, and distributed letters informing eligible families about the evaluation, explaining how information about their child would be used and giving parents the chance to opt out of participation in the research. Schools were asked to identify EAL pupils according to their usual practice, for example, for use in the school census. The definition of 'EAL' was binary, not categorical—schools only identified pupils as having EAL or not. (A new categorical system for assessing children's proficiency in English was introduced during the course of the trial.)[3]

Different members of school staff including EAL coordinators, reception staff and teaching assistants supported recruitment in addition to Delivery Partners and Family Skills tutors.

It is important to note that the binary definition of EAL used by schools captures whether the child speaks another language at home with their parents, not the level of a child's or parent's English proficiency. This meant that parents recruited to the intervention were a diverse group with a range of proficiency levels in English, from beginners to those who were fluent in English and communicated in an additional language at home.

The binary definition was used for two reasons:

- identification took place prior to schools becoming familiar with the new categorical system of assessing the fluency of pupils with EAL that was piloted in September 2016; and
- the intervention was intended to be appropriate for any families with EAL wishing to take up the support on offer.

The intervention delivery format was a weekly, face-to-face group session with parents, delivered in school. Children attended for part of the sessions to engage in learning activities with their parents. Courses were delivered during the normal school day; the exception was one course out of the 54 which was delivered at the end of the afternoon (with parents attending from 2.30 p.m. and children joining after the end of the school day). Around one third of schools offered a crèche for parents' younger children. The course was manualised and sessions were typically expected to take the following structure:

- a recap on the previous session and how home activities went;
- an introduction to the session using a visual plan;
- a warm up activity (such as a 'find someone who…' activity where parents found out more about one another, including the languages they spoke);
- one or more parent-only activities linked to the main topic (for example, 'true or false' facts about bilingualism);
- an introduction to the joint activity;
- a joint activity with parents and children (for example, making a 'days of the week wheel' labelled with English and parents' home languages);
- an introduction to the home activity for parents and children to do together (for example, playing with the wheel, singing a song about the days of the week); and
- a short recap of the session including Q&A and feedback.

The Family Skills development team visited each tutor at least once during the course of the programme to monitor delivery quality and consistency, and to provide support. Although templates for activities

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[3] Since 2017, the Department for Education (DfE) has required all schools to include details of their EAL pupils' English language proficiency as part of school census data; an EAL assessment framework to support schools with this was introduced by The Bell Foundation in (2017): https://www.bell-foundation.org.uk/eal-programme/teaching-resources/eal-assessment-framework/

were included in the Family Skills manual, tutors did need to provide some of their own resources, such as printed images and maps, craft materials, and a laminator.

Participating schools were asked to identify a main contact within the school for communication about the project set-up and roll-out. In some cases this was a senior staff member such as the headteacher, deputy headteacher, or the EAL co-ordinator. Intervention schools also supported the timetabling of the Family Skills courses and the recruitment of parents.

Early Years Foundation Stage (EYFS) and Reception class teachers and support staff were also involved in supporting Family Skills sessions. This included escorting participating children to and from sessions, supporting parent-child activities, and, in a few pre-planned instances, demonstrating specific identified elements of the course, such as reading strategies to engage children and phonics or related actions.

Background evidence

The Family Skills intervention was based on a family literacy model originally funded by the Skills Funding Agency. The family literacy model has been delivered by teams in local authorities throughout the country to around 50,000 families a year. The Family Skills intervention itself was developed through a process of compiling current 'best practice' from family learning practitioners engaged as development partners.

Swain *et al.* (2015) suggest that 30-hour family literacy programmes can benefit children's literacy development and enhance the home learning environment (HLE) thereby improving academic attainment.

An experimental study of family literacy programmes using propensity score matching found that such programmes have a positive effect on the reading scores of Key Stage 1 children (ages five to seven): children who attended the programmes made greater gains in their reading than children who did not. Also, extensive changes in the home literacy environment were self-reported by the families participating in the programmes (Swain *et al.*, 2015).

There are numerous conceptualisations of the home learning environment but, taken at its broadest, it refers to the extent to which learning opportunities are provided within the home, and the activities that parents carry out with their children in order to encourage learning.[4]

There is an extensive body of research literature examining the role that the home environment plays in childhood learning. Weigel, Martin and Bennett (2010), for example, used a developmental assets framework to explore the impact of family routine, resources, and stresses on the development of literacy among preschool children. Their research findings suggest that interventions aimed at improving childhood literacy should also promote supportive family contexts. Weigel (2006) conducted a study that examined both the concurrent and longitudinal connections between the home environment and indicators of preschool-aged children's literacy and language development. This study found that parent-child literacy and language activities were positively associated with children's print knowledge and reading interest. An investigation by Sammons *et al.* (2014) of HLE at ages 3, 6, 11, and 14 found that HLE has a long term, positive impact on children's academic attainment, progress, and self-regulation up to age 16.

Carpentieri *et al.* (2012) summarised a number of meta-analyses of family literacy programmes in different countries across Europe and concluded that family literacy programmes produced positive effects on quantitative measures of child literacy.

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[4] http://www.betterevidence.org/issue-15/the-home-learning-environment-and-childrens-attainment-and-progress/

In contrast, there have been few high quality evaluations regarding the potential benefits of family learning programmes focused on families for whom English is an additional language (Murphy, 2015). A Canadian RCT did find that a general family literacy programme aimed at families with and without English as an additional language had a positive impact on EAL children's literacy skills (Harper *et al.*, 2011).

Evaluation objectives

The evaluation investigated impact and the implementation of the intervention. The impact evaluation sought to establish whether and to what extent Family Skills improved average levels of literacy among children whose parents were invited to take part. It tested the following hypotheses:

- Eligible Reception-year pupils whose families have been assigned to receive an offer to participate in the Family Skills programme will have better literacy outcomes, on average, than eligible pupils that have been assigned to the control group and who have been offered business-as-usual support for their literacy skills development.
- Pupils whose families participate in Family Skills will have a better literacy outcome than pupils of non-participating eligible families.
- The number of Family Skills sessions attended by the parent will be positively correlated with participating pupils' literacy outcomes, controlling for other factors.
- Family Skills will have a different (higher or lower) impact on pupils participating in the intervention and eligible for pupil premium.
- Family Skills will have a different (higher or lower) impact on female and male pupils participating in the intervention.
- Family Skills will have a different (higher or lower) impact on pupils with different baseline English language skills.

The process study gathered the views and experiences of those delivering and receiving the intervention to assess how Family Skills was delivered in practice, the extent to which delivery was true to the intended design, and its perceived benefits. During the course of the intervention, the process evaluation was adapted to focus in particular on the recruitment of parents to the intervention, ongoing attendance, and perceived barriers to taking part (explained further in the method section).

This evaluation was funded by the EEF in partnership with The Bell Foundation and Unbound Philanthropy as part of a broader round looking at strategies to boost attainment for EAL pupils.

Ethical review

Ethical approval for the evaluation was obtained from NatCen's Research Ethics Committee for the opt-out process, communications and interviews with parents, tutors, and school staff as well as for pupil testing. Approval was granted in April 2016. See Appendix F for consent letters at the school and parent level.

Project team

Intervention delivery was led by Learning Unlimited working in partnership with Campaign for Learning and UCL Institute for Education. 16 local partnership organisations managed delivery across a number of schools in 11 areas across England.

The team at NatCen Social Research carrying out the independent evaluation consisted of:

Fatima Husain, Research Director;

Lydia Marshall and Sarah Frankenberg, Senior Researchers;

Loraine Bussard, Sandy Chidley, and Ruth Hudson, Researchers; and

Robert Wishart, Senior Researcher, carried out the impact analysis supported by Karl Ashworth, Interim Head of Evaluation, and Professor Stephen Morris, Manchester Metropolitan University.

The evaluation was designed and initially led by Martina Vojtkova, Head of Evaluation.

Trial registration

The trial was registered on 29 September 2016 on the International Standard Randomised Controlled Trial Number (ISRCTN) registry at ISRCTN90043546.

Methods

Intervention theory of change

The Family Skills theory of change (presented later in this report) was developed in collaboration with the intervention development team. The Kellogg Foundation guidance was used to set out programme components and to identify short, medium, and long-term outcomes that are associated with the desired impacts. Figure 1 describes the five core programme components that were identified to develop the Family Skills theory of change.

Figure 1: The five components of programme theory (Kellogg Foundation, 2004)
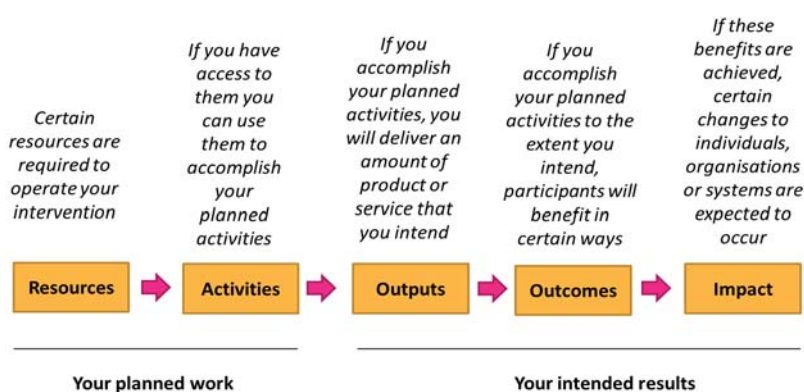
Trial design

The evaluation was designed as a two-armed, four level, multisite cluster randomised controlled efficacy trial. The highest level of clustering was the delivery partner (fixed effect). Nested within delivery partners were three levels; school, class, and pupil (random effects). Treatment was randomised at school level to avoid spillover effects which can bias effect estimates. The treatment is primarily evaluated on an intention-to-treat (ITT) basis, assessing the impact of offering parents the opportunity to attend Family Skills sessions. The sample is therefore made up of all pupils eligible to receive Family Skills. This approach was taken because it is not possible to accurately estimate which parents in the control group would have taken up the Family Skills sessions if they had been given the opportunity, so estimating effect sizes based solely on those who attended could bias the results (for example, if those attending had greater motivation to participate in their children's education). As a result, evaluating Family Skills on an intention-to-treat basis was considered most appropriate for the primary analysis. A secondary analysis considers the effect on the children of parents who did attend.

In schools with more than one Reception class, classes were randomly sampled to be assessed as part of the evaluation.[5] This approach was taken to minimise the risk of selection bias arising if schools selected which classes they wanted to participate in the trial. The randomisation conditions are as follows:

- Group 1: intervention schools that received the Family Skills programme; and
- Group 2: control schools receiving 'business as usual'.

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[5] In these instances, the evaluation team determined a random ordering of forms and agreed with the relevant school that they would test as many forms as possible with the available time and resources according to the order provided by the evaluation team.

Using 'business as usual' as a control meant that pupils in control schools were able to continue to receive whatever support they would normally receive in the absence of the Family Skills programme, avoiding pupils being denied support. The trial was designed, conducted, and reported to CONSORT standards (Schulz *et al.*, 2010).

Participant selection

Selection and recruitment of schools

The Family Skills development team identified 16 local delivery partners across 11 local authority areas in England; these were responsible for recruiting schools into the trial.

Delivery partners set out to recruit 140 schools between them (an average of 10 each, though numbers varied according to the capacity of each partner). They aimed to recruit schools that had a higher than average proportion (> 18%) of EAL pupils and a minimum of two Reception classes (leading to a minimum of approximately ten EAL pupils). As there were some delays in schools signing up, the eligibility criteria were revised to include all schools with a minimum of six EAL pupils (as defined by the school; see section on Family Skills delivery during the trial) and to include schools with just one Reception class. All recruited schools were provided with information about the trial and the intervention, and a memorandum of understanding that set out the requirements of participation (see Appendix F). Control schools were offered a financial incentive upon completion of the trial to compensate them for the time and effort involved in participation.

Selection and recruitment of pupils/families

The Family Skills eligibility criteria specified that families with English as an additional language with Reception-aged children (aged 4–5) could participate in the programme. Recruited schools were asked to identify all Reception EAL pupils according to their usual practice—for example, as identified for the school census—as eligible for the trial. The definition of EAL was therefore binary, not categorical; schools only identified pupils as having EAL or not, and were not instructed to make this decision on the basis of pupils' fluency in English, for example (see earlier discussion).

Opt-out parental consent was gained by distributing (via schools, for example in book bags) information letters to all eligible families (see Appendix F). The letter provided information about the trial and gave parents the opportunity to remove their child from data collection activities. Families in intervention schools that did not consent to participation in the research were still invited to participate in the programme. Schools were provided with hard copies of the opt-out letter in English, and electronic versions in 14 alternative languages. It was estimated that, on average, 22 families per school would be eligible for the intervention, although not all eligible pupils were tested at baseline. In fact, the median number of eligible families per school—those completing baseline testing—was 15. An average of eight families participated in the Family Skills sessions (that is, attended at least once) in the schools allocated to the intervention. The sample for the trial included all eligible families that did not opt out of the research and whose literacy skills were assessed at baseline (see Outcome measures section), regardless of whether the families participated in the Family Skills programme.

Issues with baseline testing and parent recruitment (described in more detail below) resulted in a smaller sample size than planned for in the protocol.[6] Some attrition (19.6%) from the sample at post-intervention testing also contributed to the smaller analytical sample. The final sample is therefore much smaller in the final analysis than was proposed in the trial protocol.

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[6] Four pupils were identified as having EAL but were not tested due to special education or behavioural needs.

Outcome measures

The primary outcome measure was the raw scores of the literacy attainment test from the CEM BASE Reception Baseline Assessment standardised assessment, obtained at baseline and follow-up among the pupil sample. The test is an online literacy, numeracy, and communication skills assessment administered by teaching assistants or another member of staff within schools.[7] The literacy component of the CEM BASE was chosen as the outcome for a number of reasons:[8]

- it most comprehensively captures all of the key dimensions of literacy and English language skills that the programme was aiming to affect;[9]
- it measures literacy in an objective way, minimising measurement error;
- it is an adaptive measure and so minimises the risk of ceiling effects, making it particularly suitable to Reception year pupil;
- as it uses the same measure at baseline and follow-up, it reduces the burden on schools and is more cost-effective; and
- the scoring is automatic, avoiding error or bias at the marking stage.

Schools administered the tests themselves at baseline and post intervention as a key element of the assessment requires an adult who is familiar to the child, making the use of independent administrators unfeasible. The adult involved was typically a teaching assistant, and the automatic scoring in the online test minimised the risk of administrator bias.

Ninety-three schools responded to the NatCen survey requesting feedback on the baseline assessment. A majority (n = 50) reported that they had struggled with the administration of the online CEM assessment and had contacted the CEM helpline for support with completing assessments; of these, only five gave positive feedback on the support received. Problems included:

- the assessment taking longer than expected (30–45 minutes as opposed to 15–20 minutes per child);
- connectivity issues leading to data being saved offline rather than uploading into the central CEM online system; and
- the incorrect link to the assessments being circulated by CEM, leading to delays in registration and a reduced window for testing.

As a result, 15 schools were not randomised due to not having completed baseline assessments (see Figure 3). In addition, not all eligible pupils were tested in every participating school (see later discussion around Randomisation). This may have introduced bias if a higher number of able pupils were able to complete the test and therefore be randomised. However, as this is a pragmatic cluster randomised trial with randomisation at the school then this bias (if it exists) should be balanced across treatment and control.

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[7] The adult is in control of the computer at all times and uses the mouse and the on-screen buttons to mark the answers the child gives to the online questions. The literacy measure does not include any subjective or observational feedback from teachers.

[8] Other outcome measures considered were Early Excellence, NFER Baseline assessment, GL Progress Test in English, Hodder Progress in Reading Assessment (PIRA), Hodder Phonics and Early Literacy Assessment (PERA), Language Link Infant Language Link assessment and the Early Years Foundation Stage Profile

[9] CEM BASE Reception Baseline Assessment assesses vocabulary acquisition, letter and word recognition, comprehension, and understanding of reading fundamentals: https://www.cem.org/our-solution-base

Sample size

Initially, sample size calculations were based on assumptions of clustering at the school and class level, with intra-cluster correlations of 0.11 and 0.05 respectively (EEF, 2015a). Bloom *et al.* (2007) suggest that baseline attainment data can explain 0.18 to 0.73 of the school-level variance. For the purposes of this study, a conservative but realistic estimate of 0.20 was assumed and 0.54 for individual level covariates (Swain *et al.*, 2015). No covariates were included at the class level. At protocol stage, the required sample was 6,020 individuals from 140 schools, resulting in a minimum detectable effect size (MDES) of 0.17.[10]

Recruitment issues, lower number of eligible pupils than anticipated, and measurement attrition (primarily literacy scores at baseline and follow-up) meant that the final analytical sample was reduced to 1,985 individuals from 102 schools (see Figure 3 for the full CONSORT diagram). The smaller sample size increased the minimum detectable effect size to 0.23. Sample size calculations were conducted to detect effects on the primary outcome.

The structure of the trial—a four-level model with randomisation at level 3 (schools) and level 4 representing the 16 blocks (delivery partners)—was accounted for in MDES calculations. The calculations also assume:

- 80% statistical power;
- a statistical significance level of 95% for a two-tailed test;
- intra-cluster correlation coefficients (ICC) of 0.11 and 0.05 (EEF, 2015a) at the school and class level respectively; and
- 100% compliance with treatment assignment at the school and class level.

Including baseline attainment as a covariate can substantially reduce the individual-level variance. The assumption for the power calculations came from a recent meta-analysis of 27 impact studies of school-based family literacy programmes on young children's progress in reading and writing by the UCL Institute of Education (Swain *et al.*, 2015). Based on this research, the proportion of individual-level variance explained by baseline attainment data was assumed to be 0.54 at the protocol and randomisation stages.

Randomisation

Randomisation was carried out by an independent analyst within the evaluation team at NatCen Social Research, blind to the identity of schools. There were four waves of randomisation necessitated by delays in schools completing baseline testing. Randomisation was completed between 22 November and 7 December 2016. In wave one, 105 schools were randomised; a further seven were randomised in wave two; a single school was randomised in wave three; two schools were then randomised in the fourth and final wave of randomisation. The issues with baseline testing resulted in a number of schools not being randomised.

Each wave of randomisation followed the same procedure. The sample was stratified by delivery partner to ensure equal numbers of treatment and control schools and to maximise balance on delivery partner characteristics across trial arms at randomisation. Randomisation was conducted in Stata 14.1 as follows:

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[10] The MDES calculations reported in the protocol and SAP assumed a two-tailed test, however the primary hypothesis is one-tailed. As such, the MDES of 0.17 at protocol stage, and 0.20 at the SAP stage (for a one tailed test) differs from the range of estimates presented in the SAP.

- schools were stratified by a variable indicating the delivery partner that recruited the school;
- each school was allocated a random number using the random number generator in Stata;[11]
- within stratum, schools were arranged in descending order on the basis of their allotted random number;
- two groups of schools were formed within each stratum through assigning the first half of the schools into treatment and the second half to control; and
- where Stata had an odd number of schools, the last school was allocated to treatment or control using the last replication correction procedure to minimise imbalance in treatment allocation.

This process was repeated across all strata. The Stata syntax for each wave of randomisation can be found in Appendix C.

Randomisation follows a block (delivery partner) randomised design, with 16 blocks, the sizes for which can be seen in Table 2. As a result of randomisation, 59 schools were allocated to treatment and 56 schools to control. Table 2 shows the distribution of schools to treatment and control by delivery partner.

Table 2 Results of randomisation

Delivery Partner	Control	Treatment	Total
Delivery Partner 1	6	6	12
Delivery Partner 2	2	3	5
Delivery Partner 3	4	4	8
Delivery Partner 4	1	1	2
Delivery Partner 5	2	3	5
Delivery Partner 6	5	4	9
Delivery Partner 7	4	4	8
Delivery Partner 8	5	4	9
Delivery Partner 9	6	6	12
Delivery Partner 10	2	3	5
Delivery Partner 11	3	3	6
Delivery Partner 12	4	5	9
Delivery Partner 13	2	2	4
Delivery Partner 14	3	4	7
Delivery Partner 15	2	3	5
Delivery Partner 16	5	4	9
Total	56	59	115

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[11] The seed was set using a random number from random.org

One school recruited by Delivery Partner 1 was allocated to control but reported receiving the treatment in the survey at the end of the project. Although contamination is accounted for in the CACE analysis, this school is included in the intention-to-treat analysis.

Impact Evaluation

Results are presented in terms of effect sizes. Effect sizes are normalised—a unit-free way of comparing results of different treatments widely used in research synthesis and meta-analyses. The analyses for this evaluation used *Hedges g* for a three-level,[12] cluster randomised controlled trial.

The calculation of effect sizes in three-level cluster randomised cluster trials with unequal sample sizes was explored by Hedges (2011), but this did not take into account the reduction in variance that can be achieved by including covariates in the model. As such, the formulae were adjusted using Borenstein (2009). The full derivations of the effect size formulae are included in Appendix D and the Stata syntax is available in Appendix E. Note that the formulae vary slightly from those proposed in the analysis plan, having been adjusted by the trial analysts.[13]

Primary intention-to-treat data analysis

The primary intention-to-treat data analysis compared the CEM literacy outcome scores for Reception-aged children with families identified by schools as EAL in treatment and control schools. Analysis was conducted using a multi-level model nesting pupils within classes and classes within schools, with delivery partner as a fixed effect at the school level of the model. In accordance with EEF guidance (EEF, 2015b), evidence of effectiveness and reported effect sizes were obtained from a baseline-adjusted analysis in which the dependent variable is the result of the CEM test at follow-up.

Descriptive analysis indicated that there were differences in baseline characteristics between the intervention group and the control group (please see Participant section for further details). To control for these imbalances, three model specifications were considered: an unadjusted analysis (controlling only for treatment status), an analysis controlling for a small number of covariates, and an analysis controlling for a wider range of covariates. In the interest of meta-analysis, the effect size estimates for the main analysis are based on a model controlling for treatment status, baseline attainment only, and a stratification variable indicating the delivery partner. However, these other model specifications are tested as part of a sensitivity analysis.

A further sensitivity test, not specified in the SAP, will also be conducted. There is some concern that using individual and aggregated covariates within multi-level models can have unexpected effects on the variance term. To test whether the model used in the main analysis is robust, an additional model without the school-level mean of baseline literacy covariate will be analysed. This model, therefore, has baseline literacy at the individual level, a treatment dummy variable, and the delivery partner stratification variable.

Secondary analysis

A secondary analysis of the complier average treatment effect (CACE) was proposed in the analysis plan. For the purposes of this evaluation, compliance was defined as a child's parent(s) attending one or more of the 11 core Family Skills sessions. Data concerning compliance was collected from registers

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[12] Fixed effects—in this case the delivery partner—are included as covariates within the model.

[13] An extra term, q, referring to the number of covariates, was accidentally included in the SAP; this should not have been included. This term has been removed (see Appendix E) although it is unlikely to have a substantive effect.

of parental attendance collected by tutors at each session and submitted to Family Skills developers. Prior to the start of the trial, the use of electronic registers was considered the most reliable way of capturing all the required information.[14] However, following conversations with the developers, it was thought that this would place too great a burden on schools and as a consequence paper registers were used to record attendance.

Each record contained some identifying information: forename, surname, school, gender, and attendance levels for the 11 core sessions as well for the three additional sessions. Records only existed where a parent or child was in attendance at any of these 14 sessions. Records for approximately 400 pupils and 400 parents were collected. However, this number included all attendees at the Family Skills session, whether they were part of the trial or not. There were several issues with the paper-based attendance data:

- Not all registers matched parents to children, as records for parents and pupils were on separate rows of the data.
- Not all courses ran according to the intended model; for example, some courses were compressed to seven or eight sessions instead of the intended 11. This made it difficult to calculate a meaningful proportion of sessions attended for the whole sample.
- In some cases, there were multiple records for a family, for example where more than one parent attended any of the sessions, or if records existed for both parents and children.
- In some cases, it is possible one parent may have attended with more than one child in their family participating in the trial. Without a clear link in the data between parents and children, these records could not be matched as it was not possible to ascertain whether these people were part of one family or multiple families with the same surname.

As a consequence of the data issues, matching attendance records with the test scores of trial participants was challenging. Within schools (using the school name) matching was attempted if the following conditions were met:

- the surname of a parental attendance record exactly and uniquely matched with a child in the corresponding school;
- the surname of a parental attendance record could be uniquely matched with the test data when the surname of the attendance record was corrected;
- a child could be matched based exactly and uniquely on their full name (first name and surname) and gender;
- a child could be matched uniquely on first name and surname (excluding gender) or when the spellings of first names and surnames in the attendance data were corrected;[15] or
- a child could be matched uniquely when the first name and surname on the child's attendance record were reversed.

In a few cases (n < 10), notes were included in registers that aided linkage (for example, indicating that a parent was participating on behalf of a particular pupil).

In cases where the data could correspond to more than one pupil (that is, the match was not unique) cases could not be linked. Additionally, pupils whose surname differs from their parents could not be matched, for instance, cases where parents were not married at the birth of the child, or married/remarried after the birth of their child and changed their name.

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[14] Parent and child attendance was recorded on a single line so that an automatic link was made between parent and child.

[15] Many names were misspelled when coded up from paper registers to an electronic record.

The significant challenges in linking attendance data resulted in registers being successfully linked to 210 out of 940 eligible pupils in the treatment schools (22.3%). Of the 210 who could be linked to attendance data, all attended at least one of the 11 core sessions. One of the major concerns about the attendance data is that pupils or parents would be marked as having attended on the basis of only one session[16]—this may have been one of the additional sessions such as a tour of the school or a visit to the local library. On this basis, only nine pupils who were matched to attendance data would have been considered to be non-compliant (in that their parents attended none of the core sessions). Based on the records that were matched to registers alone, compliance would have been estimated to be 95%. However, attendance was not, in most cases, recorded for families who never attended the course— only for those who attended at least one session. For this reason, using just the subsample for which the registers were matched was likely to overestimate compliance and therefore underestimate the effect size (as compliance is the denominator term in the CACE equation).

Consequently, the evaluation team explored different options to mitigate the missing data problem; multiple imputation was considered as a possible approach. Unfortunately, the available covariates were poor predictors of missing attendance data so this could not be attempted. Instead, it was assumed that where attendance data could not be linked to pupils, the pupil's parents attended no Family Skills sessions (in other words, they were non-compliant). This would suggest that compliance was 21.4%. This approach has its limitations; in particular, there were a large number of registers that were not linked to pupils, and it is possible that a larger number of pupils were actually compliant. Underestimating compliance could lead to an overestimate of the effect size, increasing the risk of a Type 1 error (false positive). The results of analyses using the attendance data should therefore be interpreted with caution (this includes both the CACE analysis and the additional analysis looking at the effect of dosage).

In the analysis plan, the CACE analysis assumed that compliance would be one-sided (that pupils assigned to control would not have access to the intervention). It was also assumed the exclusion criteria hold. This means that the random assignment to treatment or control does not affect the outcomes of those allocated to control. To estimate the effect size under these assumptions uses the following formula:

$$CACE = \frac{ITT_y}{\Pr(Compliers)}$$

Where these assumptions hold, the CACE formula above provides an unbiased estimate of the Average Treatment effect on the Treated (ATT). However, it was reported that one school allocated to control received the intervention and it was therefore assumed that all pupils in this school were non-compliant. This meant 16 pupils in the control group were considered non-compliant, making the rate of compliance in the control group 99.98%. As such, we have two-sided non-compliance, with the presence of 'defiers'.[17] As a consequence, the analysis must be adapted to use the Local Average Treatment Effect (LATE) estimator. This deviates from the statistical analysis plan as it was assumed pupils assigned to the control group would not receive the intervention. The LATE is estimated, following Bloom (2006), as:

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[16] A small number of parents or pupils were listed on the register but were not recorded as having any sessions. These were probably individuals who came to an introductory session but did not attend any of the formal sessions. In most cases, tutors only added names to the register when someone attended their first session.

[17] This technical language comes from Bloom (2006) and should not be interpreted as a criticism of pupils, families, or schools. Using alternative language risks adding further confusion to an already complex concept.

$$LATE = \frac{ITT_y}{\Pr(Compliers_T) - \Pr(Defiers_C)}$$

Here, the subscript T refers to those allocated to the intervention, and subscript C refers to those allocated to control. The interpretation of the Local Average Treatment Effect is different to that of the Complier Average Causal Effect that was previously presented. When the assumptions outlined for the CACE analysis hold, it can be interpreted as an unbiased effect of the average treatment effect on the treated. However, the LATE has a different interpretation; the average effect of treatment on compliers.

The issues with attendance data also affected the analysis exploring the correlation between attendance and pupils' literacy outcomes. As with the CACE analysis, this additional analysis will use the null imputation approach (that where records were not matched, parents attended no Family Skills sessions). Further details on the delivery of the intervention can be found in the Process Evaluation section.

Subgroup analyses

Finally, subgroup analyses were conducted to investigate if the Family Skills programme had a different impact dependent upon: pupils' eligibility for pupil premium, gender (collected from schools prior to randomisation), and baseline English language skills (assessed with CEM BASE Reception Baseline Assessment).[18] Subgroup analysis was conducted using an interaction term between an identifier for intervention or control and the appropriate subgroup identifier. The use of an interaction term enables us to explore whether the intervention had a different effect on particular subgroups within the sample while controlling for other factors. Note that the subgroup analysis investigating whether the programme had a different effect on pupils eligible for Pupil Premium has a slightly smaller sample, due to missing information about Pupil Premium eligibility.

Implementation and process evaluation

The implementation and process study was originally designed to capture a range of early and intermediate outcomes as set out in the theory of change. Interim qualitative analysis conducted part-way through the process evaluation suggested that attendance at Family Skills sessions was lower than expected. Subsequently, the developers leading the project estimated parental take-up of the intervention to be around 30%. The response rate for the initial parent survey was also relatively low, at 35%. Consequently, it was not possible to conduct a robust assessment of change in relation to some of the early and intermediate outcomes for parents. For these reasons, the process study was redesigned to focus on issues related to attendance and retention in the intervention.

This was approved by the EEF. The original approach and the redesign are set out below.

The process study element of the Family Skills evaluation intended to answer the following research questions:

- How is the Family Skills intervention delivered?
- What were the key success factors and barriers to successful implementation (including take-up)?
- What are the direct and indirect costs of the programme?

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[18] An error in the Statistical Analysis Plan indicated that this analysis would be performed using Proficiency in English unless 'this data was missing' for 80% or more of pupils; this should have read 'non-missing'. As such, CEM BASE Reception Baseline Assessment is used as a measure of baseline literacy.

The majority of the research activities were retained in the redesign, though the content of each was adjusted to better address additional process study research questions arising as a result of low take-up for the intervention:

- What engagement activities have been carried out?
- How were schools involved in supporting engagement?
- What were the perceived reasons for low attendance?
- How can some of the engagement barriers be addressed?

In addition, the sampling strategy was reviewed to select areas, and schools within areas, which the Family Skills developers identified as having low attendance or high attendance. Table 3 sets out the methods used in our original design and changes made to adapt the study. Table 4 below provides the number of achieved data collection encounters.

Table 3: Summary of the methods and re-design of the study

Method	Original coverage (started in January 2017)	Redesign (in March and implemented in May 2017)
Online school surveys	All schools were asked to complete a survey pre-randomisation and post-intervention. This baseline survey captured pupil data and information about existing or planned interventions to support parents with EAL. The post-intervention survey captured support available to parents with EAL during the intervention delivery period, of school experiences of delivery, and parent engagement.	This component was retained and more questions on parent engagement activities were included in the post-intervention survey.
Parent surveys	Pre- and post-intervention surveys administered to parents (in all schools) were designed to capture changes in attitudes, motivations, and the home learning environment. The post-intervention survey would have included questions on parents' experiences of attending Family Skills. Paper based questionnaires were translated into 15 additional languages.	The pre-intervention parent survey achieved a lower response rate than expected (35%), as well as high item non-response (up to 13%) and some misunderstanding of scale questions. The expectation was that response would be similarly low for the post-intervention survey, and that combined with low attendance at Family Skills sessions, this would result in sample sizes too small for viable data analysis, to assess change over time among attending parents and to compare outcomes among parents who had and had not attended the programme. For this reason the survey was not run post-intervention.
Observations	Ten sessions were observed using a standardised template to capture session delivery as intended and any adaptations made.	This aspect was retained.
Tutor interviews	Ten in-depth telephone interviews were planned with tutors. These aimed to capture perspectives on delivery, parent and pupil attitudes and motivations, and challenges to delivering sessions as intended.	This method was retained and topic coverage expanded to explore reasons for low attendance.
Parent interviews	Twenty interviews were planned with parents in intervention schools, purposively selected across a range of pupil and parent characteristics. Themes covered included parents' experiences of the programme, its perceived benefits and challenges, perceptions of behaviour change, and suggestions for improving the programme. All respondents were offered £20 as recompense for their time.	This component was retained but the selection criteria were changed (a) to include schools with poor attendance, and (b) to include parents who had dropped out of the programme.
Class teacher interviews	Ten interviews were planned with teachers in intervention schools to understand parent engagement and perceived benefits to pupils.	This aspect of the study was expanded to include school staff involved in parent engagement activities and interviews focused on engagement and retention activities.

Table 4: Total number of qualitative data collection encounters

Type	Planned qualitative data collection encounters	Achieved qualitative data collection encounters
Interviews with Family Skills tutors	10	7
Interviews with parents	20	21 (includes 2 who were recruited to the intervention but did not attend any sessions, 6 who attended all sessions, and 13 who had attended some but not all sessions)
Interviews with school staff	10	18
Session observations	10	10
Total	**50**	**56**

Conduct of interviews

The content of each interview was based on a topic guide to ensure systematic coverage of key issues that addressed the process evaluation research objectives. It was intended to be flexible and interactive, allowing issues of relevance to be covered through detailed follow-up questioning. Separate topic guides were produced for each type of respondent.

To minimise the burden on participants, the majority of interviews were conducted by telephone. In some instances, if tutors and parents were available, interviews were conducted face-to-face immediately following a session observation. Interviews lasted approximately 45 minutes. All fieldwork was conducted by NatCen staff, including two parent interviews conducted in Urdu. Parents who participated in the interviews were offered a £20 high street voucher as recompense for their time.

The interviews were digitally recorded and then analysed using Framework, a systematic approach to qualitative data management developed by NatCen Social Research and now widely used in social policy research. All participants were assured that everything discussed in the interview would remain confidential and would be treated in accordance with the Data Protection Act.

Costs

Information on direct and indirect costs was collected from the Family Skills development team based on their original budget for the trial and any changes made during delivery. This included setup costs, and staff and material costs for delivery of the intervention. This is based on EEF guidance.[19]

Estimates of time spent by school staff and lists of additional activities were collected from intervention schools via the online survey, which achieved a 97% response rate.

Timeline

Planning for the intervention began in March 2016. The intervention was delivered during the spring term of the 2016/2017 school year (January 2016–April 2017). Baseline pupil testing was conducted in

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[19] https://v1.educationendowmentfoundation.org.uk/uploads/pdf/EEF_guidance_to_evaluators_on_cost_evaluation_1.pdf

October–November 2016 and the baseline school survey and parent survey were administered at the same time. Qualitative research for the process study was carried out between February and June 2017 and research activities concluded with post-intervention pupil testing and a school survey in June–July 2017. Table 5 sets out the key evaluation milestones.

Table 5: Timeline

Date	Activity
May–September 2016	Recruitment of schools
September–October 2016	Opt-out parental consent
October–November 2016	Pre-intervention (baseline) data collection (testing)
November–December 2016	Randomisation
January–April 2017	Intervention delivery
June–July 2017	Post-intervention data collection (testing)
October 2017	Analysis

Family Skills theory of change

The theory of change developed at the start of the trial is depicted in Figure 2. It sets out the intended early, intermediate, and longer-term outcomes of participation in the intervention and how parental outcomes are expected to lead to the ultimate impact of improved language and literacy among their children.

Figure 2: Theory of change for the Family Skills Intervention
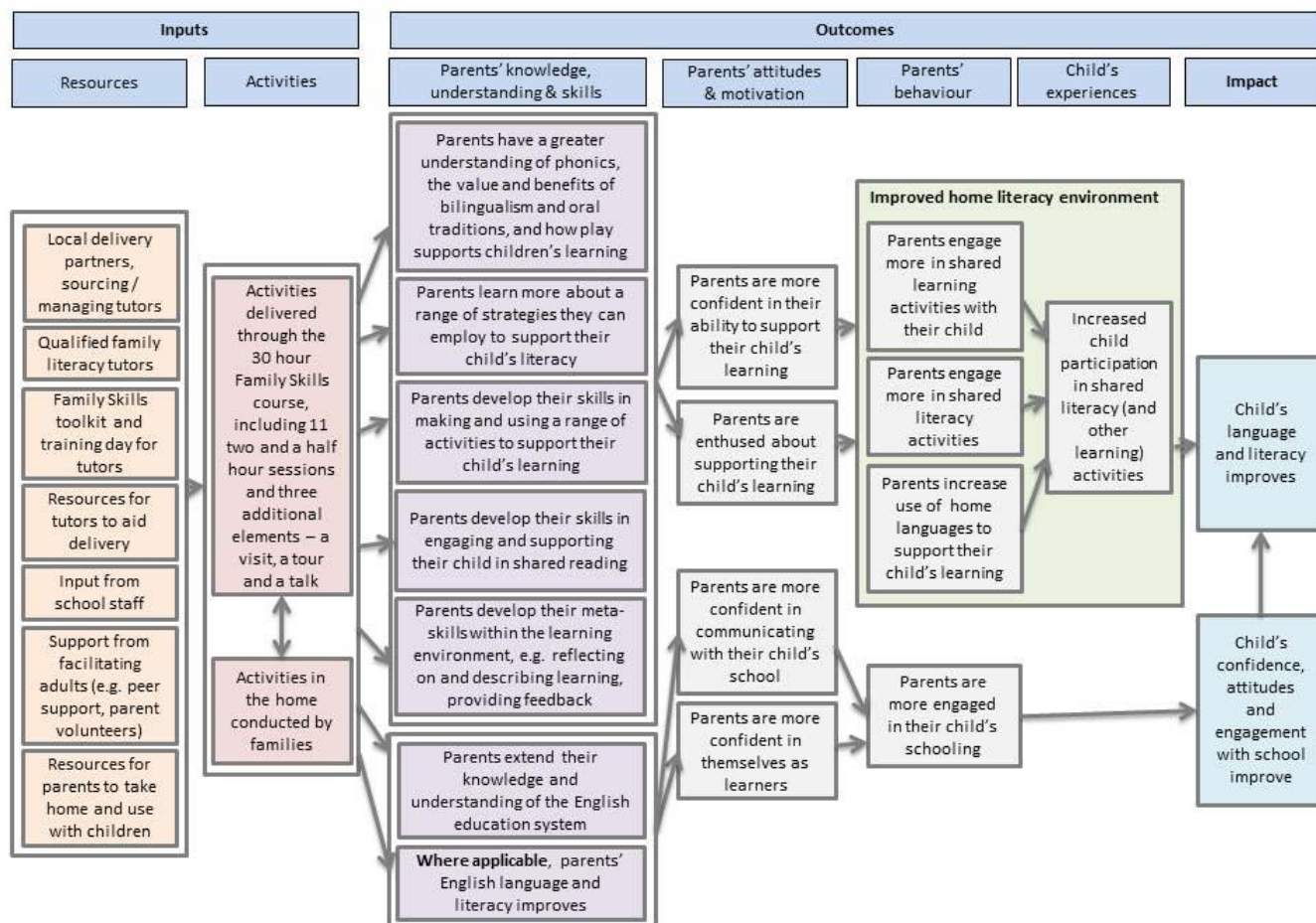
Using the intervention theory of change as a framework underpinning the evaluation, the qualitative and quantitative components of the process study were set out to explore school-based activities, perspectives on knowledge and skills acquisition, views on attitudinal change, and whether learning was being applied in the home environment. The impact evaluation assessed improvements in English language and literacy outcomes.

Impact evaluation

Participant flow including losses and exclusions

Recruitment of schools began in May 2016 and ended in September 2016; 155 schools were approached and 132 agreed to participate in the trial.

Two schools did not meet the inclusion criteria relating to the minimum numbers of EAL pupils and 15 schools did not complete baseline testing. This meant that 115 schools were randomised. Only eligible pupils—those identified by the school as having EAL, and who NatCen believed had successfully been tested at baseline and who provided consent—were considered for randomisation.

No baseline data was received for five schools (three randomised to the intervention and two to business as usual) that had been randomised on the basis of having completed baseline testing. This was due to these schools experiencing problems with the online testing system or not delivering the data to NatCen. Six more schools were lost between baseline and follow up testing. A further two schools only provided adjusted CEM Base scores at baseline and follow-up, rather than raw scores. These schools were subsequently not included in analysis.

The final analytical sample (1,985 participants) contains only pupils who completed testing at baseline and follow-up. The biggest loss to follow up resulted from pupils not having either baseline or follow-up CEM BASE Reception Baseline Assessment scores (268).[20] There was approximately 19.6% attrition of pupils (11.3% of schools) between randomisation and the final analytical sample. This is detailed in the full CONSORT flow diagram for recruitment, losses, and exclusions, displayed in Figure 3.

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[20] This is either because the child did not sit the test, or, because the test was completed offline, the score did not upload to the central CEM system, or because the school did not send the scores to NatCen for analysis.

Figure 3: CONSORT flow diagram
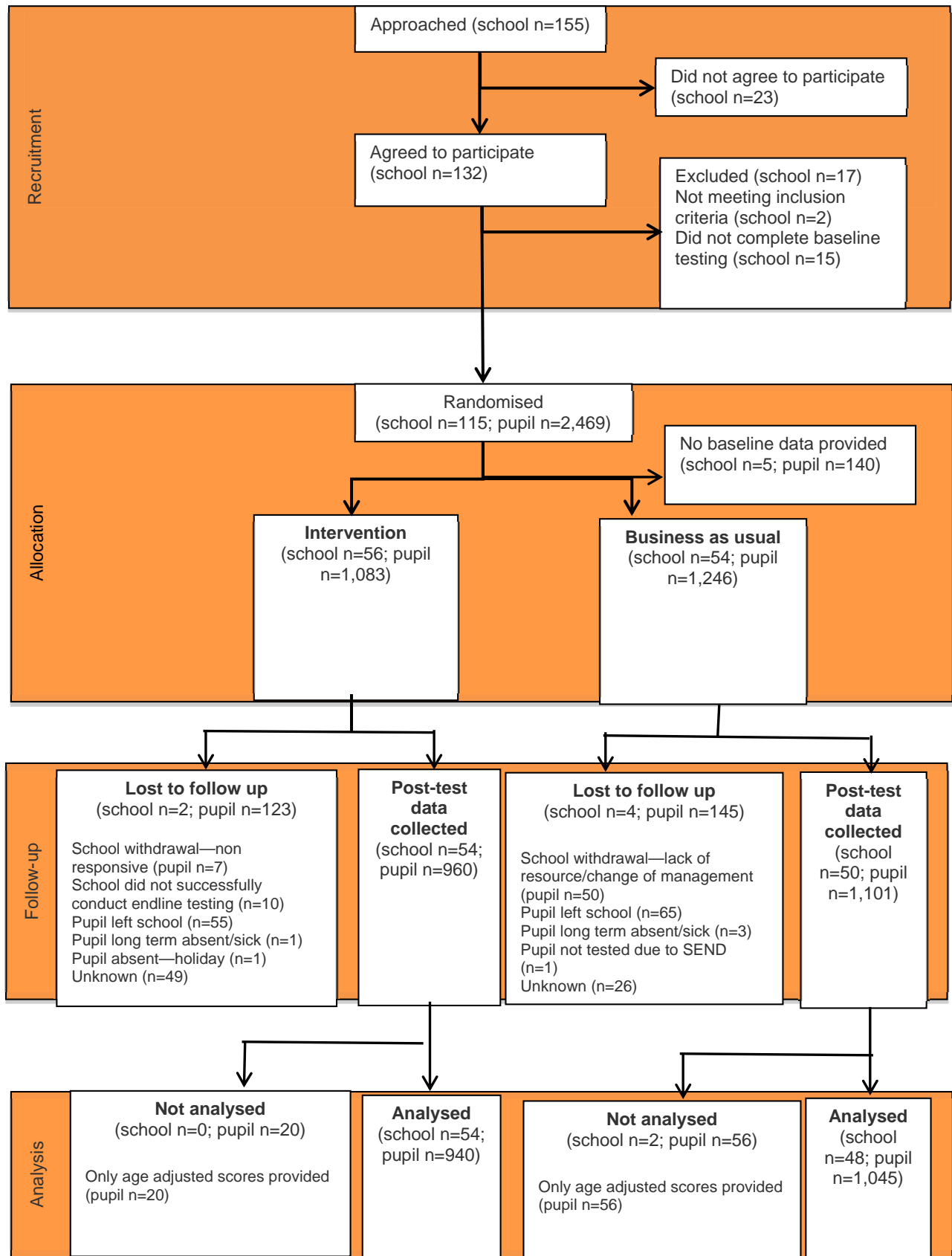
It is also worth noting that one school allocated to the control group reported that it received Family Skills. This school has not been removed from the analysis of the primary outcome (ITT) but is considered to be non-compliant for the CACE analysis.

The analysis plan proposed running a drop-out model and creating propensity scores to assess any patterns in loss to follow up using existing covariates (that is, identifying any groups that are more likely to drop out of the trial that could cause bias in our results). Data concerning pupils' eligibility for Pupil Premium, date of birth, and gender was missing for a high proportion of those lost at follow-up, preventing this analysis from being conducted. However, it was possible to assess the differences in baseline testing. There were no significant differences between the baseline literacy scores of those lost to follow-up and those in the final analytical sample (an effect size of 0.07 in favour of those not lost to follow-up).

Due to recruitment and data collection problems, the final sample was much smaller than originally planned. Although the assumptions were broadly accurate, the smaller sample reduces the capacity of this analysis to detect effects. At the protocol stage, we had estimated an MDES of 0.20; however, in the final analysis the MDES was 0.23.

The assumptions used in sample size calculations at the protocol and randomisation stages, along with the actual values used in the final analysis, are presented in Table 6. The MDES calculations assume equal proportions of pupils were allocated to intervention and control and a one-tailed test (based on the primary hypothesis). The calculations assume 80% statistical power and alpha of 0.05. The intra-cluster correlation coefficients were assumed to be 0.11 at the school level and 0.05 at the class level. The actual intra-cluster correlations at analysis stage were 0.02 and 0.15 respectively. However, there is criticism in the literature about the validity of using post-estimation information to calculate the MDES, and for this reason the assumed ICC's are used at each stage the MDES was estimated.

Table 6: MDES calculations at the protocol, randomisation, and analysis stages

	Protocol	**Randomisation**	**Analysis**
Schools, N (harmonic mean per delivery partner)[21]	140 (7.72)	115 (5.88)	102 (5.01)
Classes—harmonic mean per school	2.6	1.84	1.73
Pupils, N (harmonic mean per class)	6,020 (11.33)	2,469 (6.39)	1,985 (3.54)
No. of blocks	14	16	16
ICC School Class	0.11 0.05	0.11 0.05	0.02 0.15
Pre-post test correlation	0.54	0.54	0.54
MDES	0.17	0.20	0.23

Pupil and school characteristics

Randomised cluster trials should theoretically control for differences in characteristics at baseline, however it is important to ascertain whether the trial design has been successful in preventing imbalances in important characteristics. Table 7 presents the results of a descriptive analysis for the 115 schools and 2,469 pupils that were randomised. To determine if there were significant differences between the intervention group and the control group, Welch's T tests were conducted for continuous variables, and Fischer's exact test for categorical variables.

Table 7: Baseline characteristics of schools and pupils assigned to intervention and control

Variable	Intervention group		Control group			
School level (categorical)	**n/N (missing)**	**Percentage**	**n/N (missing)**	**Percentage**	**Effect Size**	**P Value**
School Type LA Maintained Academy	852/1,167 (0) 315/1,167 (0)	73.0% 27.0%	1,065/1,302 (0) 237/1,302 (0)	81.8% 18.2%	0.21 0.21	0.000 0.000
School level (continuous)	**n (missing)**	**Mean**	**n (missing)**	**Mean**		
Proportion FSM (%)	1,167/1,167 (0)	17.8	1,302/1,302 (0)	19.3	0.16	0.000
Proportion EAL (%)	1,167/1,167 (0)	57.1	1,302/1,302 (0)	57.2	0.01	0.888

[21] The harmonic mean is a type of average and is recommended for use in power calculations to estimate minimum detectable effects when cluster sizes vary as it is more robust to extremely large outlier and therefore more conservative than other types of means (Dong and Maynard, 2013).

Proportion SEN (%)	1,167/1,167 (0)	12.5	1,302/1,302 (0)	11.3	0.23	0.000
CEM BASE at baseline (school average)	1,167/1,167 (0)	100.9	1,302/1,302 (0)	98.1	0.15	0.001
Pupil level (categorical)	**n/N (missing)**	**Percentage**	**n/N (missing)**	**Percentage**		
Eligible for Pupil Premium	1,048/1,167 (119)	11.7%	1,174/1,302 (128)	13.7%	0.06	0.181

Gender
  Male
  Female
	608/1,167 (0)
	559/1,167 (0)
		52.1%
		47.9%
			640/1,302 (0)
			662/1,302 (0)
				49.2%
				51.8%
					0.06
					0.06
						0.147
						0.147

Birth Term
  Autumn
  Spring
  Summer
	369/1,146 (21)
	358/1,146 (21)
	419/1,146 (21)
		32.2%
		31.2%
		36.6%
			410/1,242 (60)
			431/1,242 (60)
			401/1,242 (60)
				33.0%
				34.7%
				32.3%
					0.02
					0.07
					0.09
						0.694
						0.074
						0.031

Proficiency in English
  A
  B
  C
  D
  E
	144/621 (546)
	188/621 (546)
	177/621 (546)
	76/621 (546)
	36/621 (546)
		23.2%
		30.3%
		28.5%
		12.2%
		5.8%
			230/613 (689)
			180/613 (689)
			142/613 (689)
			32/613 (689)
			29/613 (689)
				37.5%
				29.4%
				23.2%
				5.2%
				4.7%
					0.32
					0.02
					0.12
					0.25
					0.05
						0.000
						0.756
						0.037
						0.000
						0.445

Pupil level (continuous)	**n (missing)**	**Mean**	**n (missing)**	**Mean**		
CEM BASE Inspection Ready at baseline	1,167/1,167 (0)	100.9	1,302/1,302 (0)	98.1	0.15	0.001

The descriptive analysis indicates that the intervention and control groups are different across a range of key characteristics. In particular, differences in baseline literacy, school proportions of special educational needs, and school type were significantly different. On average, pupils in the treated group have higher levels of baseline literacy that those allocated to control, however this difference is not significant in the final analytical sample (effect size of 0.02). To explore the effects of including additional covariates in the model, sensitivity analyses were conducted. The results of the sensitivity analyses are presented immediately after the analysis of the primary hypothesis.

There are missing values concerning Pupil Premium eligibility and the birth date of pupils.[22] Sensitivity analysis indicated that this data was missing completely at random. While multiple imputation was considered for Pupil Premium eligibility, the available covariates were poor predictors of missing values so this was not undertaken. There is also a high proportion of missing values for Proficiency in English, and as a consequence CEM BASE Reception Baseline Assessment at baseline was used as an alternative measure of literacy at baseline.[23]

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[22] A very low proportion of pupils in the sample were identified as being eligible for Pupil Premium. It is likely that more of these Reception year pupils would be identified as eligible later in their school careers, particularly as Pupil Premium eligibility cannot be directly linked to individual pupils (as was the case with Free School Meal eligibility).

[23] An error in the Statistical Analysis Plan indicated that this analysis would be performed using Proficiency in English unless this data was missing for 80 per cent or more of pupils. This should have read 'non-missing'. As such CEM BASE is used as a measure of baseline literacy.

As set out in the analysis plan, three models were constructed as part of a sensitivity analysis: an unadjusted analysis (no covariates other than treatment status), the main model (controlling for some characteristics), and a model with extra covariates. The details of which covariates are included in each model are presented in Table 8. Note that the CEM Scores at baseline for individuals and schools are centred using the mean of all individuals.

Table 8: Differences in covariates used for each model

Covariates included	Unadjusted Model	Main Model	Model with extra covariates
Treatment status	✓	✓	✓
CEM BASE score at baseline (individual)	X	✓	✓
CEM BASE score at baseline (school average)	X	✓	✓
Delivery partner	X	✓	✓
Gender	X	X	✓
Date of birth	X	X	✓
Pupil Premium status	X	X	✓
Proportion FSM (%)	X	X	✓
Proportion EAL (%)	X	X	✓
Proportion SEN (%)	X	X	✓
School type	X	X	✓

The imbalance in characteristics at baseline, combined with the results of the model testing, suggested that the best model to use would control for all of the covariates in the full model. However, in accordance with EEF guidance, the main model (controlling only for treatment status, baseline attainment, and a stratification variable indicating the delivery partner) is used to estimate effect sizes.

Analysis of the primary hypothesis

The primary hypothesis was that Reception-aged children from families with EAL assigned to participate in the Family Skills programme (the intervention group) will have better CEM literacy scores than those assigned to the control group. This analysis does not control for attendance at the Family Skills sessions and is therefore an intention-to-treat analysis. The results of the intention-to-treat analysis are presented in Table 9.

Table 9: Results of the ITT analysis

| | Raw means | | | | Effect size | | |
| | Intervention group | | Control group | | | | |
Outcome	n (missing)	Mean (95% CI)	n (missing)	Mean (95% CI)	n in model (intervention; control)	Hedges g (95% CI)	p-value
CEM BASE	940 (0)	137.5 (135.9, 139.1)	1,045 (0)	133.4 (131.8, 134.9)	1,985 (940; 1045)	0.01 (-0.03, 0.05)	0.210

The difference in raw means indicates that, on average, pupils in the intervention group scored higher than those assigned to the control group. However, the results of the analysis indicate that the Family Skills programme did not have a positive impact on those assigned to treatment, relative to those assigned to control. The effect size calculation, unlike the raw means, takes account of covariates. In particular, differences in literacy at baseline (as assessed by CEM BASE) were significantly associated with differences in literacy at follow up. Consequently, the difference in scores is likely to be attributable to these baseline differences, rather than allocation to the intervention.

The adjusted effect size is very small and findings are judged not inconsistent with a null hypothesis of zero difference in means between intervention and control groups (the p-value for the adjusted effect size falls comfortably outside the rejection region).

Sensitivity analysis

In addition to analysis of the primary hypothesis, sensitivity analysis was conducted. Effect sizes were estimated for both the unadjusted model and the model with extra covariates, as described in Table 8. The results of the sensitivity analysis are presented in Table 10. Note that to aid comparison with the model using additional covariates, the main model is presented here again using just the cases that are non-missing in the model with extra covariates. This was not included in the SAP, but is included so that the effect of the change in sample can be isolated from the change in the model specification.

Table 10: Results of the sensitivity analysis

Outcome	Raw means				Effect size		
	Intervention group		Control group				
	n (missing)	Mean (95% CI)	n (missing)	Mean (95% CI)	n in model (intervention; control)	Hedges g (95% CI)	p-value
CEM BASE (unadjusted)	940 (0)	137.5 (135.9, 139.1)	1,045 (0)	133.4 (131.8, 134.9)	1,985 (940; 1045)	0.14 (-0.11, 0.18)	0.031
CEM BASE (model with extra covariates)	865 (75)	136.8 (135.2, 138.5)	996 (49)	133.1 (131.5, 134.7)	1,862 (866; 996)	0.01 (-0.02, 0.03)	0.590
CEM BASE (main model, using reduced sample)	865 (75)	136.8 (135.2, 138.5)	996 (49)	133.1 (131.5, 134.7)	1,862 (866, 996)	0.01 (-0.03, 0.05)	0.543
CEM BASE (no school aggregate baseline literacy covariate)	940 (0)	137.5 (135.9, 139.1)	1,045 (0)	133.4 (131.8, 134.9)	1,985 (940, 1,045)	0.01 (-0.04, 0.06)	0.293

Neither of the effect size estimates exceeds the MDES of 0.23. This is consistent with the findings of the effect size estimates used in the main model of the analysis.

The additional sensitivity analysis—not specified in the SAP, that does not include a school level aggregate (mean) of the baseline literacy score as a covariate—was also conducted. These results are very similar to the model used for the primary hypothesis, indicating that the model is robust regardless of how baseline literacy has been modelled.

Compliance analysis

The analysis plan also set out a compliance hypothesis; that Reception-aged children with families with EAL who participated in the Family Skills programme would score higher than those assigned to control. This is known as complier average causal effect (CACE) analysis. This requires a meaningful definition and data relating to compliance for those allocated to the intervention group. For the purposes of the evaluation, pupils are considered 'compliant' if a parent has attended at least one Family Skills session. In our final sample, 21.38% of pupils allocated to the intervention were deemed to be compliant. As discussed in the parent recruitment section, on average, 22 families per school were invited to participate in Family Skills, but of these, only eight families did so.

There are a number of caveats to consider for the CACE analysis. Using electronic registers was considered the most suitable method to collect attendance data that would enable linkage between parents and pupils. However after consulting the developers, it was decided that this would place too much of a burden on schools.

There were drawbacks as a result of using paper registers:

- not all registers matched parents to children; and
- not all courses ran according to the intended model, making it difficult to calculate a meaningful proportion of sessions attended for the whole sample.

In the latter situation, so as to provide consistency in measurement across schools, we have calculated attendance as a proportion of the intended 11 core sessions rather than as a proportion of the number of sessions that the school actually ended up running.

Matching pupils to parents' attendance records was therefore difficult. The concerns about the quality of the attendance data are discussed in detail in the Methods section. The matching rate to the final analytical sample was 22.34%. For the purposes of the CACE analysis, we assumed that where attendance data could not be matched, pupils' parents attended no sessions. Alternative approaches, such as multiple imputation, were considered but deemed to be not possible with the data available. This approach has limitations which should be considered when interpreting the results. There were a large number of unmatched records from the attendance data, and the estimated rate of compliance of 21.38% is lower than the rate of compliance expected (approximately 30%). This would suggest that the estimated rate of compliance is an underestimate. Underestimating compliance will yield a larger effect size, and therefore increases the risk of Type 1 error (false positive).

Additionally, one school in the control group reported receiving the Family Skills intervention. As it affected a very small number of cases, it is unlikely that this will have a substantive impact, but it is accounted for in the analysis.

In the presence of two-sided noncompliance, the assumptions for CACE no longer hold. Instead, the Local Average Treatment Effect (LATE) is estimated (for more detail, see the Methods section). The estimates of compliance are 21.38% for the intervention group and 99.85% for the control group. The effect size yielded is shown in Table 7.

Table 11: Results of the compliance analysis

| Outcome | Raw means | | | | Effect size | | |
| | Intervention group | | Control group | | | | |
	n (missing)	Mean (95% CI)	n (missing)	Mean (95% CI)	n in model (intervention; control)	Hedges g (95% CI)	p-value
CEM BASE	940 (0)	137.5 (135.9, 139.1)	1,045 (0)	133.4 (131.8, 134.9)	1,985 (940; 1,045)	0.06 (-0.02, 0.10)	0.210

The results of the LATE analysis indicate that the Family Skills intervention did not have a significant effect on compliers. The effect size, while larger than that of the intention-to-treat analysis, is 0.06, approximately equivalent to a single month's progress in literacy. However, the confidence intervals indicate that there is a large degree of uncertainty, and that the programme could have had between zero and two months progress.[24] In addition, the challenges of linking attendance data to pupils and the assumptions set out in the methods chapter mean that these results should be interpreted with caution.

Additional analysis

An additional hypothesis was proposed: that the number of Family Skills sessions attended by the parent will be positively associated with participating pupils' literacy outcomes, controlling for other factors. This requires the attendance data and, as such, is subject to the same caveats as the CACE analysis above. As with the compliance analysis, we assume that where registers do not match, pupils'

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[24] Confidence intervals were created using variance from the intention-to-treat estimate; as the effect size for the CACE analysis is estimated using the proportions of compliers in both the treatment and control groups on the ITT estimate, it is most appropriate to use the ITT variance.

parents attended no Family Skills sessions. As previously stated, this could lead to an underestimate of overall attendance.

The estimate of the effect of attendance at Family Skills sessions are estimated using multilevel linear regression conducted purely on the treated subgroup of individuals. In line with the analysis proposed in the SAP, the model controls for a wider range of covariates than are included in the rest of the analysis conducted for the impact evaluation. In addition to pupil and school-level average CEM Base scores at baseline, the model controls for school-level proportions of SEN and disability, school type, individual level Pupil Premium eligibility, gender, and date of birth.[25] Furthermore, this analysis is only conducted for the pupils assigned to receive the intervention.

Table 12: Association between attendance at Family Skills with CEM BASE Reception Baseline Assessment at follow-up

Outcome	n in model (intervention)	Dosage Coefficient	p-value
CEM BASE	865	0.15	0.363

The association between attendance and literacy of 0.15 is very small and not significant, suggesting that greater attendance at Family Skills was not associated with improved literacy. However, this analysis does not follow the experimental design as the analysis is based solely on those assigned to the intervention; as such, this result should be interpreted as an inference only.

Subgroup analysis

The analysis plan set out three possible subgroup analyses. The first was that the treatment would have a different impact on the subgroup of pupils also eligible for Pupil Premium. The results of this analysis are displayed in Table 13. The subgroup analysis suggests that Family Skills did not have a different impact on pupils eligible for Pupil Premium.

Table 13: Results of the Pupil Premium subgroup analysis

	Raw means				Effect size		
	Intervention group		Control group				
Outcome	n (missing)	Mean (95% CI)	n (missing)	Mean (95% CI)	n in model (intervention; control)	Hedges g (95% CI)	p-value
CEM BASE	865 (75)	136.8 (135.2, 138.5)	996 (49)	133.1 (131.5, 134.7)	1,861 (865, 996)	0.01 (-0.04, 0.05)	0.919

The second subgroup analysis has a hypothesis that the Family Skills programme would have a different impact on female and male pupils participating in the intervention. For this analysis, an interaction term for gender and treatment status was added to the model. The results of the gender subgroup analysis are presented in Table 13.

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[25] This protocol proposed using the same model as used in the analysis of the primary (ITT) outcome. However, the SAP deviates from the protocol, suggesting that these additional covariates should be included for this analysis

Table 13: Results of the gender subgroup analysis

	Raw means				Effect size		
	Intervention group		Control group				
Outcome	n (missing)	Mean (95% CI)	n (missing)	Mean (95% CI)	n in model (intervention; control)	Hedges g (95% CI)	p-value
CEM BASE	940 (0)	137.5 (135.9, 139.1)	1045 (0)	133.4 (131.8, 134.9)	1,985 (940; 1045)	0.01 (-0.03, 0.05)	0.591

The results indicate that the Family Skills intervention did not affect girls and boys differently, and nor does the inclusion of this additional variable alter the effect size for the treatment effect, which remains well below the MDES threshold.

The third and final subgroup analysis looked to establish whether the Family Skills intervention had a different impact on pupils with different English language skills at baseline, as defined by CEM BASE scores at baseline. The results, displayed in Table 14, suggest that the Family Skills intervention had the same impact on pupils, regardless of their baseline English language skills. The effect size is small, indicating that the Family Skills intervention had no impact on children's progress in literacy when taking into account their baseline literacy scores.

Table 14: Results of the baseline attainment subgroup analysis

	Raw means				Effect size		
	Intervention group		Control group				
Outcome	n (missing)	Mean (95% CI)	n (missing)	Mean (95% CI)	n in model (intervention; control)	Hedges g (95% CI)	p-value
CEM BASE	940 (0)	137.5 (135.9, 139.1)	1,045 (0)	133.4 (131.8, 134.9)	1,985 (940; 1045)	0.01 (-0.03, 0.05)	0.208

Cost

This section estimates the cost of the programme to schools of implementing the intervention assuming it had been delivered without external funding. Our estimate of the cost of a school participating includes:

- staff costs for a Family Skills tutor and crèche staff;
- administration costs;
- the costs of training Family Skills tutors; and
- the costs of materials needed for delivery.

Average costs were provided by the Family Skills developers. As Family Skills is an intervention delivered by external staff, the largest costs to schools would come from staff wages—wages for the Family Skills tutor delivering the course (£1,476 per course), for crèche staff so that parents with

younger children are able to attend (£1,232), and a small number of hours for management (£32.50) and administration (£90).[26]

The developers provided indicative costs for training, displayed in Table 15. It was estimated that up to 18 tutors could attend one training course—delivered in a local delivery partner's offices so that there would be no costs associated with the venue or with travel for attendees. The total cost, including the cost of the staff time taken to deliver the training, travel costs for those trainers, and refreshments and resources for attendees, was estimated at £780 (£43.33 per trainer).

Table 15: Breakdown of training costs for the Family Skills programme

Cost category	Cost per training (£)	Cost per tutor (£)
Training: cost of Family Skills staff time to deliver training	400.00	22.22
Training: travel costs for Family Skills trainers	80.00	4.44
Training: refreshments and resources	300.00	16.67
Total	780.00	43.33

Family Skills is expected to run on-site at schools, and so there are no associated venue costs. The developers allocated a small budget to refreshments (£80) for attending parents and children, and £200 to cover the printing of the Family Skills Toolkit and other resources used in the sessions.

As displayed in Table 16, the total cost of the Family Skills course for one school is approximately £3,154 per school. With an average of around 22 eligible families across participating schools, this comes to a per-pupil cost of around £143.[27]

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[26] These costs were provided by the Family Skills development team, based on typical hourly rates paid during the trial. Crèche facilities were deemed to be sufficient as not all families had younger children requiring a crèche and in some cases families had alternative support available (such as a family member).

[27] On average, eight families per school attended the course. If 100% attendance were to be reached, the per-pupil cost might be higher than estimated here due to the need for multiple sessions and/or tutors in order to deliver to 22 families.

Table 16: Costs of delivering the Family Skills programme in one school

Cost category	Time (hours)	Cost per course (£)	Cost per pupil (£)
Family Skills Toolkit and resources		200.00	9.09
Tutor wages (30 hours for delivering course, 11 hours for preparation, 4 hours for module review meetings, 7 hours for liaising with schools and Family Skills team)		1,476.28	67.10
Training costs		43.33	1.97
Delivery Partner management costs (1 hour at manager rate)		32.50	1.48
Administration (4 hours at administrator rate)		90.00	4.09
Crèche costs (2 workers per 3.5 hour session x 11)		1,232.00	56.00
Refreshments		80.00	3.64
Total		3,154.11	143.37
Input from school staff	18+		

Costs over time

Since the above costs are all 'running costs' rather than 'upfront costs', it is expected that the cost of the Family Skills course would remain the same over time as shown in Table 17. There might be a small reduction in costs where tutors running the course repeatedly would use the same Toolkit, or only attend training in the first year, but it cannot be assumed that the same tutors would continue to deliver the course over time. Moreover, the developers were unable to extricate the cost of the Toolkit from other resources which would need to be purchased anew for each course.[28]

Table 17: Approximate average cost per pupil over three years

	Year 1	Year 2	Year 3
Approximate average cost per pupil per year	£143.37	£143.37	£143.37

School staff time spent on recruitment and delivery

Table 18 presents time spent on Family Skills by school staff.[29] The developers anticipated that running Family Skills in a school would require three hours of strategic input from Reception class teacher(s)

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[28] The cost of Toolkits is included because it could not be guaranteed that the same tutor would deliver the course year after year. New tutors would need new copies of the Toolkit.

[29] The survey findings include three schools who were randomised to the intervention group but whose baseline test data was not received (n = 59).

and 11 hours from one or more teaching assistants, to include four hours for preparation and around seven hours for delivery.

The post-intervention school survey found that staff were involved in the recruitment of parents in almost all (98%) treatment schools, and in delivery in around two thirds (68%) of treatment schools. On average, recruitment for, and delivery of, the Family Skills programme required approximately 18 hours of school staff time. This included input from:

- class teachers (in 88% of schools);
- teaching assistants (63%);
- family or EAL liaison officers (39%); and
- other staff (33%), including headteachers and other senior leaders, office staff, and SENCOs.

Table 18: Staff time spent on Family Skills

		Proportion of schools where this/these person/people was involved	Average (mean) time in hours per school spent in schools where this/these person/people was involved	Average (mean) time in hours per school spent across all schools delivering Family Skills
Class teacher(s)	Recruitment	84%	2.56	2.16
	Delivery	25%	5.36	1.32
	Total	88%	3.96	3.47
Teaching assistant(s)	Recruitment	44%	2.76	1.21
	Delivery	46%	12.81	5.84
	Total	63%	11.17	7.05
Family or EAL liaison officer(s)	Recruitment	39%	6.68	2.58
	Delivery	18%	15.5	2.72
	Total	39%	13.73	5.30
Other school staff	Recruitment	33%	4.21	1.40
	Delivery	9%	7.40	0.65
	Total	33%	6.16	2.05
Any staff	Recruitment	96%	7.62	7.35
	Delivery	68%	15.38	10.53
	Total	100%	17.88	17.88

Other demands on school staff time

Most (67%) schools reported additional demands on staff time in addition to that reported spent on recruiting for or delivering the programme (see above). Examples included:

- collecting children from their classrooms to attend sessions;
- preparing resources and refreshments for the weekly sessions;
- setting up and tidying away the room where sessions were held;
- sharing school policies, for example on phonics or handwriting, so that tutors could tailor course content;
- writing risk assessments; and
- reminding parents about homework tasks for the course.

Schools' estimates of the time spent on these additional tasks (on top of the average 18 hours described above) ranged from one hour in total to one hour per session of the course (11 to 13 hours in total).[30]

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[30] This was an open response question and not all schools specified the time spent.

Process evaluation

This section synthesises the findings on the implementation of Family Skills by bringing together the perspectives and experiences of individuals who participated in the evaluation research. This includes Family Skills tutors who delivered the sessions, school staff such as class teachers, teaching assistants (TAs), special educational needs co-ordinators (SENCOs) who were responsible for intervention delivery in their school, and parents who took part in the intervention and those who did not. It sets out what worked well, the main challenges to implementation, and identifies areas of improvement that could strengthen parental engagement, fidelity, and replication.

Implementation

The section on implementation is structured around the key elements that were found to be related to successful delivery of Family Skills.

Perceptions of the intervention

The intervention was attractive to school stakeholders and aligned with the ambition of most schools to engage parents, especially parents with EAL, and involve them with their children's learning. The vast majority (91%, n = 51) of treatment schools who ran the programme indicated that they would recommend Family Skills to another school. Reasons given for recommending the programme included:

- children and parents reporting positive experiences of the programme; and
- the programme offering a good opportunity to build home–school links and engage parents in their children's schooling.

Nine percent (n = 5) of schools said that they would not recommend Family Skills; there were two areas of concern:

- format: the course and sessions were reported to be too long and 'unrealistic' for working parents; and
- content: not all of the sessions were viewed as relevant to all parents.

These issues are discussed further below with regard to reasons for low attendance.

Parents' positive perceptions of the Family Skills programme centred on the benefits of gaining strategies to support their children's literacy at home and learning more about how children are taught and learn. The sessions on phonics were particularly valued, and parents with wide-ranging levels of fluency in, and familiarity with, English wanted to learn more about this topic.

Because of the broad definition of EAL used to recruit families to the programme, parents attending Family Skills sessions had a wide range of proficiency in English and experience of the English education system. While some parents who were more proficient in English valued the course and found it helpful, others felt that it was more appropriate for parents who had recently moved to the U.K. or those with low English literacy skills. Those sessions focused on information about primary school education in England were thought to be beneficial only for parents with little awareness of the education system.

Quality of the training and resources

The one-day Family Skills training session helped tutors to understand delivery requirements. Aspects perceived to be particularly helpful were:

- familiarisation with Family Skills resources, including the manual (toolkit);

- opportunities to share good practice—continued through use of the online Slack group;
- clarification of what was expected of tutors; and
- reported increase in confidence to deliver the intervention.

The modular structure of the Family Skills programme and the comprehensiveness of resources reduced preparation time and the more experienced tutors felt that the printed information alone would have sufficed to enable them to deliver the intervention. Although tutors were instructed to keep to the established lesson plans (with a certain degree of flexibility), tutors who said that they were less experienced at teaching parents with EAL reported that they would have preferred clearer instructions on how to run sessions as expected.

Recruitment

Recruitment was split between delivery partners, tutors and schools. The tutors asked schools to arrange a coffee morning or a taster session and to send out pre-prepared information leaflets and letters to parents. Schools put together lists of potential attendees and publicised the intervention by distributing flyers and personalised invitations from children, putting up posters, and speaking to parents (see Table 19). The involvement of tutors in recruitment varied across schools.

Table 19: Recruitment activities

Recruitment activity	Proportion of schools reporting that this activity took place
Flyers (e.g. sent home in book bags)	97%
Face-to-face recruitment (e.g. at the school gate)	86%
Posters	77%
Personalised invitations from children	69%
Family Skills introduction event or presentation	58%
Something else	25%

Face-to-face recruitment was reported to be the most useful approach to recruitment, and was used in the majority (86%) of schools. This face-to-face recruitment included speaking to parents on an individual basis as well as inviting them to attend a Family Skills introductory event and presentation.

> *'But it's not the same in a letter as hearing somebody talk to you, is it?', coordinator (S148CO1).*

Taster sessions, including coffee mornings, worked best when delivered by the Family Skills tutor who could immediately respond to parents' queries. These sessions helped tutors working in schools with a smaller number of eligible families to engage parents individually. They were less successful in schools where a large number of parents with EAL made it challenging for tutors to build one-to-one relationships.

The timing of recruitment for the programme was important and sufficient lead-in time was required to organise multiple points of contact with eligible parents. As a result of delays in school recruitment and baseline data collection, the period for recruiting parents to the intervention during the trial was compressed and coincided with a busy period in primary schools when staff were involved in planning for Christmas-related activities. Parental recruitment was able to commence following randomisation

and took place from 22 November to 7 December 2016, with the intervention starting in January 2017. Tutors suggested that an additional three weeks might have facilitated more successful recruitment, and also recommended avoiding recruitment during times when schools are exceptionally busy.

> '[Be]cause the idea was it was sort of almost straight after half-term, you'd have… you would be able to do a couple of drop-in visits, but in the end it was one rushed half hour where the school could fit you in', tutor (TUT03).

In addition to encouraging parents to take part by text and over the telephone, schools used social media platforms (such as Facebook and Twitter) and school–parent communications apps (such as Dojo). School staff reported being mindful of how and where parents were recruited in order to minimise any sensitivities in relation to parents with EAL feeling they were being singled out.

> 'I think in the beginning they're a little bit reluctant to be, I don't want to say segregated but it, I think it feels like that to them in the beginning', coordinator (S148CO1).

Despite the range of communication methods used to recruit parents to the programme, parents found that the benefits of participation were not clear and the time commitment required was not made explicit. These issues were particularly noted in the context of a lack of translated recruitment materials.

> 'There wasn't a clear outline of what was actually gonna happen in the workshop or what it was gonna, how I was gonna benefit from it and how my children were gonna benefit from it', parent (S249P2).

Gaps in communication led to misunderstandings about the nature of the intervention, including leading a group of parents to believe that the intervention comprised only one session or workshop.

> 'I think I slightly misunderstood what it was about. I think I thought it was a kind of, just a one-off meeting at that point for people who had bilingual families. And when I got there I realised it was actually going to be this, you know, much bigger session,' parent (S134P1).

Reach and responsiveness

The Family Skills programme ran in 57 of the 59 schools allocated to treatment.[31] It did not run in two schools due to low take-up by parents. An average of one in three (34%) eligible parents is estimated to have attended at least one session across the 53 participating schools where registers were completed and a baseline number of Reception year pupils with EAL was provided, as displayed in Table 20.

Table 20: Take-up of Family Skills

Take-up rate (proportion of eligible parents attending at least one session)	% of schools with take-up rate in this bracket
1–20%	32
21–40%	34
41–60%	25
> 60%	9
Base: All schools where register was completed and baseline number of children with EAL recorded (n = 53).	

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[31] This includes three schools that reported having completed baseline testing and so were randomised to treatment, but whose baseline test data was never delivered and so are not included in the impact analysis.

However, this number should be treated with some caution since:

- in some families, more than one parent attended; and
- it is not always possible to observe from the registers whether parents are from the same family.

These factors would mean that the take-up rate is lower than estimated. In addition, registers were missing for two schools where the Family Skills programme ran, and two schools where registers were completed had missing data with regard to the number of EAL pupils in their cohort. Finally, this average take-up rate of 34% does not include the two schools where the programme did not run due to lack of take-up.

Among parents who did attend the Family Skills course, the average (mean) number of sessions attended was seven (6.54) out of a possible 11.[32] A third (34%) of parents only attended one or two sessions, and just over a quarter (27%) attended all or all but one of the sessions. These figures are for individual parents. In some families, parents alternated, meaning the family as a whole attended more than the number of sessions recorded here.

Figure 4 shows that parents typically attended just one or two sessions and then stopped attending, or attended almost all sessions. This echoes findings from the qualitative research, which indicated that attempts to re-engage parents who had stopped attending were often unsuccessful and the ones who attended the first few sessions were more likely to continue attending.

Figure 4: Number of sessions attended by parents attending Family Skills
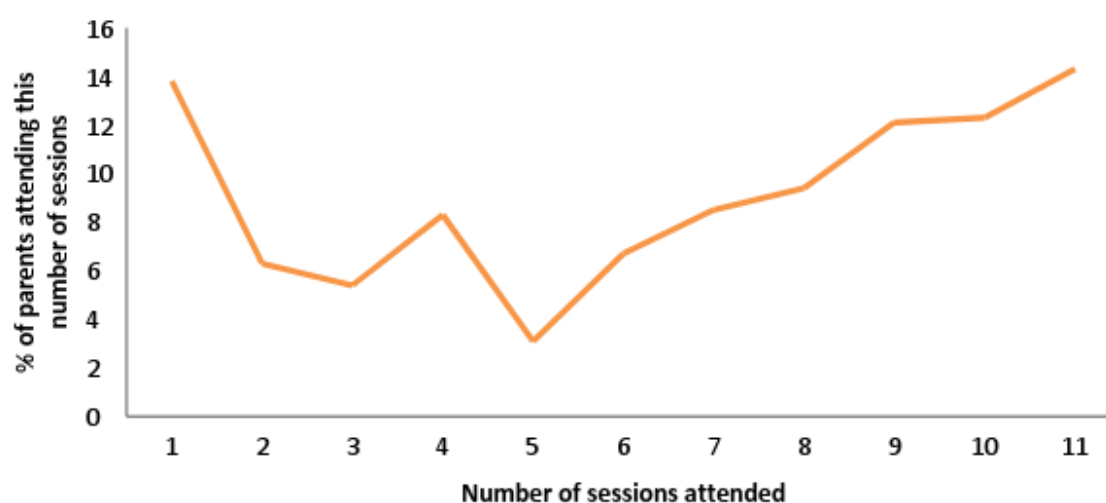
Base: parents attending at least one session (n = 448).
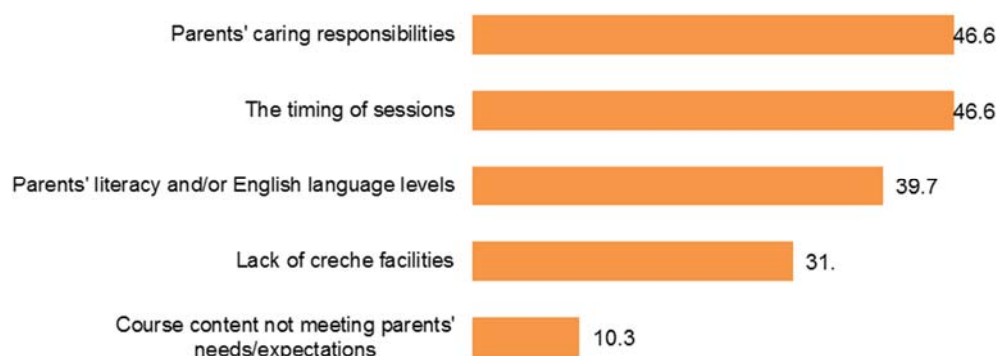
Reasons for low attendance

Irrespective of how well recruitment and engagement activities were conducted, the majority of schools (70%) where the Family Skills programme ran observed that attendance was lower than expected.[33] Both intervention-specific and personal factors were given to explain low attendance. Figure 5 shows the proportion of intervention schools reporting specified barriers to attendance in the school survey.

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[32] These calculations do not include the three discretionary sessions that were suggested to include a school tour, visit to a library and a talk from the school, as these were implemented in varying ways.

[33] These figures were calculated using all available registers. The secondary CACE analysis was conducted using only those registers that were successfully matched to the test score data.

The discussion below explores these quantitative findings and qualitative findings from interviews with tutors, school staff, and parents.

Figure 5: Barriers to attendance reported by intervention schools (%)

Barrier	%
Parents' caring responsibilities	46.6
The timing of sessions	46.6
Parents' literacy and/or English language levels	39.7
Lack of creche facilities	31.
Course content not meeting parents' needs/expectations	10.3

Base: All intervention schools completing the survey (n = 58).

Intervention-specific factors

Intervention-specific factors are those that relate specifically to how and where Family Skills was delivered. Although weekly sessions at a fixed time helped some parents to manage attendance with other commitments, the scheduling of sessions during the school day made it difficult for those in work to attend. Overall, almost half (47%) of schools where the programme ran reported that the timing of the sessions was a barrier to attendance, particularly for those working during the day as well as for those working irregular shifts. The length of sessions was also seen to hinder attendance.

> *'Some of these sessions that we've done, I have found really difficult to deliver, because they've been quite long and drawn out. And some of them have been a bit boring actually', tutor (TUT03).*

As well as the length of sessions, the duration of the course was identified as a barrier to attendance.

> *'We found it difficult to sustain parents' interest and commitment over the 11 weeks. I think we may have had more success if the course had been shorter', school survey response (252).*

More than a third (39%) of schools reported that parents' literacy or English language levels were a barrier to attendance. The wide variation in proficiency made it difficult to adapt content, which meant that some sessions were less interesting for those with better English, or too challenging for those with lower levels of proficiency. In some instances, parents chose to only attend sessions they were more interested in (such as phonics).

A minority (18%) of schools reported difficulties in finding a suitable room for the sessions, and this was particularly linked to the long duration of the course. An extreme example resulting from the lack of dedicated space in primary schools was the delivery of Family Skills in a school corridor. This example particularly highlighted the importance of early co-ordination between schools and the delivery partner and tutors.

> *'So I think the school didn't have a clear idea or, you know, a space in mind where it was, you know, just a space for this course', parent (S155P1).*

The provision of a crèche facilitated attendance but this was not available across all schools, making it difficult for parents with young children to attend. A third (32%) of schools receiving the programme reported a lack of crèche provision as a barrier to attendance.

Another identified issue was low attendance, which meant that tutors reduced the number of courses being offered in a school so that, for example, there was just one weekly session open to parents rather than a choice of two. This timetable change meant that parents who attended on a specific day and time had to adapt their schedule, and parents with less flexible time dropped out:

> *'I preferred Monday … more parents went on Wednesday so he [tutor] decided to have the session only on Wednesdays … I couldn't go on Wednesday' [translated from Urdu], parent (S117P4).*

A minority (9%) of schools reported that the content of the Family Skills course was a barrier to attendance. Examples included content not being set at an appropriate level for all parents, irrelevant content (for example information about the primary education system for parents who were educated in the UK), and parents indicating they did not need this additional help.

Perceptions of the appropriateness of the course also posed a barrier to attendance. For instance, one parent who was born in London and spoke both English and Urdu at home did not attend the programme when invited because she thought it was aimed at people whose dominant home language was not English:

> *'I think it was, I don't know if I'm right, but it was something to do with helping families in how to deal with stuff if they're not primarily English spoken or something like that. Or Asian families? I don't know if I'm right or not', parent (S249P2).*

Personal factors

Personal reasons for missing classes included parents' caring commitments, such as children being ill, or work commitments. Work commitments, especially shift work and irregular working hours, were identified as key attendance barriers.

> *'It didn't make sense that you are asking these parents to come to do a day-time course, when all of them worked', co-ordinator (S233CO1).*

Tutors also identified parents' lack of confidence about attending group sessions, or a fear of the school setting, as barriers to attendance. A lack of confidence was thought to be linked to low English proficiency and the view that the course would be too difficult and therefore not worth attending. Reassurance from experienced tutors helped to address this barrier, and tutors made use of coffee mornings and early sessions to demonstrate the level of the course and their interest in working with families with EAL.

> *'By me being there and taking the toolkit, they were able to see that one, they were dealing with somebody who understood their needs as well. That was the main thing', tutor (TUT02).*

Attendance facilitators

Intervention content and delivery mode

Parent engagement and retention were helped by the content of the Family Skills course where parents were keen to understand what their children were learning and how they were taught. The sessions covering phonics and those showing methods used by teachers to enhance learning were particularly attractive.

> *'The phonics… understanding the phonics caught my eye. I just wanted to understand more better how it works, and how I can help my child', parent (S143P2).*

Aspects of the mode of delivery which helped attendance were:

- children attending sessions with parents;
- children's enthusiasm for the intervention;
- a supportive environment with parents learning together and helping each other; and
- the use of interpreters during sessions to support learning.

Ongoing retention activities

School staff and tutors working together on an ongoing basis was perceived to be the best approach to retaining parents in the intervention. Regular reminders about activities were given, either face-to-face, by text message, or by telephone. School staff also assisted with face-to face conversations with parents to discuss their views on the sessions attended and their intention to continue attending.

> *'I caught up with them and just asked them how it had gone, what they'd enjoyed, was there anything that they weren't happy with or if there was anything that they wanted to share with me and then we'd have a conversation around the case of what you're doing next week, is there anything that's going to crop up that will prevent you from coming, is there anything that we can help with', co-ordinator (S255CO1).*

Interestingly, it was noted that reminders were needed for the first few sessions, after which those already engaged continued to attend while those less enthusiastic were put-off by the regular reminders. Parents who had attended some, but not all, sessions said that the key things that would have enabled them to attend more sessions would have been having a say in when the sessions would take place, having alternative times and dates to choose from, or having a say in what the sessions would cover. However, others wanted to be able to pick and choose which sessions they attended, and did not wish to have been able to attend all sessions.

Relationship with schools and the role of school staff

The involvement of school staff in helping with the logistics of delivery and with communications was instrumental for successful implementation. In some cases, tutors relied on the designated co-ordinator for Family Skills to prepare the room and to distribute resources, whereas teaching assistants brought children to sessions and supported activities.

While school staff were willing to help, they felt that tutors could have communicated more with schools, and in a timely way. Generally, a lack of clarity about the level of time and resources that would be required from schools was felt to undermine closer collaboration on delivery.

> *'I had other people complaining to me because they'd been asked to do things and, you know, the secretaries in the office who were being asked to photocopy bits and stuff like that. So, that didn't work amazingly well', co-ordinator (S148CO1).*

Senior leadership involvement

Designating a member of the school's senior leadership team as Family Skills co-ordinator was believed to be important because a senior member of staff would have more authority and decision-making power to:

- manage resources (staff and materials);
- delegate responsibilities to staff; and

- have oversight of room availability.

> '*I have to say it probably would have had greater implications if I didn't have a head teacher who was really, really good … It was a bigger commitment of my time than I'd anticipated', co-ordinator (S148CO1).*

Fidelity

Although Family Skills is manualised, and despite the commitment to deliver Family Skills as intended, there were a range of issues that affected implementation. These are set out below.

Adherence

Tutors reported that, for the most part, all sessions were delivered in the prescribed way. Where sessions were cancelled due to poor attendance, an alternative session was made available. However, there were examples of sessions cancelled without an alternative in place. Tutors also filled time with their own activities when the course content was not considered substantial enough to cover a session. These would be additional activities that they had developed for previous adult or family learning interventions.

The register data suggested that there was some deviation from the intended model of delivery. In two schools, the sessions were delivered in a slot lasting for one hour and 50 minutes or two hours instead of the intended two and a half hours. In seven schools, fewer than 11 core sessions were delivered (with actual delivery ranging from seven to ten sessions).

Quality of delivery

There were instances when tutors, particularly those trained to teach adults, found it difficult to lead sessions and keep both parents' and children's attention. In such cases, tutors had to rely more than expected on school staff, usually a classroom teaching assistant. Quality may also have been hampered by the lack of suitable delivery space in some schools and by the reported compression of the programme into a smaller number of sessions (7 or 8 sessions instead of 11).

Methods and activities

Tutors adapted how sessions were delivered, and the activities used, based on the number of parents attending. For example, when sessions were poorly attended, group activities could not be delivered. Other examples included spending more time than planned on games, and sharing stories and unstructured social conversations unrelated to the topic.

Dosage

Where there was a reasonable level of attendance, tutors were able to deliver sessions as intended, that is, all sessions were delivered and group activities organised. To achieve this, support from school staff was needed, both to provide logistical support to organise sessions and to organise and manage attendance of children.

Variation and adaptation

Delivery varied across areas and was dependent on the approach undertaken by the local delivery partners. Thirty-three tutors delivered the intervention during the trial and the number of groups taught by any one tutor each week ranged from one to five. Tutors teaching more than one group of parents were either delivering more than one weekly lesson in one school (because of the number of parents with EAL recruited to the intervention) or delivering across multiple schools. The maximum number of parents attending one session was left to the discretion of the local delivery partner and schools. They

were asked to make decisions about the parent cohort size based on the size of the room available, and parents' proficiency in English and literacy levels.

Perceived outcomes and benefits

Parents who felt that the Family Skills programme was pitched at the right level for them and who were logistically able to attend viewed Family Skills positively and expressed general enthusiasm for any intervention which would help them support their children's learning. In some cases, parents who attended only a few sessions and dropped out due to practical reasons felt that the sessions they attended were useful and indicated a desire to engage with the same, or similar, intervention in the future.

Increased confidence in children

Specific benefits reported by tutors included increased confidence and improved social skills in children, identified as a change in how they spoke English:

> 'From speaking with some of the teachers in schools […] they've noticed a difference in the children, either in the playground wanting to be involved more, asking more questions in English and speaking more clearly in English', tutor (TUT27).

Parents also described a change in their children:

> 'Now they are so confident, they talk to everybody and anybody, just in these 11 weeks. That has helped them a lot', parent (S143P2).

However, not all parents associated similar changes with intervention attendance; rather they felt that the changes could be a result of 'growing up' and having more time to spend with other children.

Increase in parental support

Parents described feeling more confident in speaking English and in their ability to support their child's learning. There was also an increase in parental engagement with schools and understanding of teaching approaches: school staff mentioned that parents with EAL were asking more specific questions about their child's learning and development, and about specific aspects such as phonics. Notably, those parents who cited an increased understanding of school activities mentioned understanding better the role of play in learning.

> 'Now that I've done it, it all makes sense, why the children are always playing games: it's the fine motor skills and all that. All of that adds up. So I'm more - I'm more comfortable', parent (S143P2).

There was also increased awareness of the role of a supportive home learning environment: teachers and tutors observed that parents who had attended the Family Skills programme had become more aware of the relationship between their children's academic attainment and the home learning environment. Parents reported that they felt better able to support their children's progress, in particular as a result of having an increased understanding of phonics and of the importance of play for children's learning.

Through increased engagement of parents with the school—and with their child's learning—school staff felt more confident that parents understood how their children were learning (in class) and that the children would get support with homework (at home).

Increased parental support also resulted from a better understanding of bilingualism in the home. As a result of participation in Family Skills, parents felt that they could continue to use their own language at home and still support their children's learning.

> 'We speak Pushto, the children speak English so it helped me to understand that I can explain things in Pushto. I explain in Pushto and if they don't understand then my husband explains in English' [translated from Urdu], parent (S117P4).

Strengthening parents' social networks

Parents enjoyed attending sessions with other parents, especially in instances where they knew each other already. Attending sessions was an opportunity to socialise, share ideas, and learn at the same time. In addition, tutors reported that parents developed new friendships, thus expanding their own social network and potentially that of their child.

Unintended consequences

A number of unexpected consequences arising from intervention delivery were identified. These include:

- a larger workload than anticipated for the designated Family Skills co-ordinators in schools resulted in increased pressure on existing workloads;
- an increase in tension between parents with and without EAL because, in some cases, schools had to postpone or cancel other parental interventions to focus on delivering Family Skills; and
- a fear of disruption to classroom learning—some parents felt that attending Family Skills sessions might result in their children falling behind with regular classroom learning.

Formative findings

The findings from the process evaluation suggest that, broadly, the content of Family Skills was appreciated and schools were a suitable venue for delivery. Children attending sessions with parents was an aspect of the intervention that was viewed positively and gave parents the opportunity to understand the importance of play and to try out 'learning through play' with their children.

Aspects of intervention delivery that could be reviewed

- Communicating programme requirements

Key barriers to attendance included the timing and duration of sessions. Parents were also reluctant to attend when the content of the programme did not match their expectations. Recruitment materials should make clear the content and format of the programme and set out the time commitment required of parents.

- A longer recruitment phase:

More time is needed for tutors to communicate clearly with schools and parents about the nature of the intervention, to build relationships with parents, and to avoid scheduling clashes with schools. For a programme delivered in the spring term, recruitment should begin as soon as possible in the second half of the autumn term.

- Ongoing parent engagement:

Intensive retention activities should focus on trying to make sure parents attend the first few sessions, after which it is unlikely that those who have dropped out will re-engage.

- A member of the school senior leadership team should be designated as the Family Skills coordinator:

A senior member of school staff is better able to allocate and manage resources, and reserve suitable rooms for the duration of the intervention. This may also help to prevent classroom teachers and teaching assistant feeling overworked.

- Early planning with schools:

In order to ensure that the right type of space or room is available to deliver the intervention, Family Skills tutors need to involve schools early in planning delivery and setting out their support needs. (This was planned, though challenges with recruitment and baseline testing resulting in late randomisation, made it difficult in practice.)

> *'I think, if we were just given a bit more notice of things like the trip that they needed and, you know, the resources if, you know, if we were given two weeks' notice that would have been better', co-ordinator (S249S).*

- Scheduling of sessions:

The timing of sessions should be reviewed. The weekly session schedule made it easy for parents to plan ahead and appreciate the level of commitment required. Timing, however, was an issue: daytime sessions during or after the school day made it easy for children to attend with their parents, but excluded working parents. Repeating sessions twice-weekly would help more parents to attend, but would, of course, increase the delivery cost.

- EAL eligibility criteria:

Levels of English proficiency and experience of the U.K. education system varied greatly. Bilingual parents born in the U.K. were eligible, as were parents who had recently arrived in England and knew little about the education system. Some parents had been in the U.K. for many years and understood English well but struggled to speak in English. Included also were parents educated abroad at English-speaking schools whose main language in the home was English. This diverse level of proficiency made it difficult for tutors to pitch sessions and meant the more proficient parents found the lessons less interesting. Targeting the programme to certain groups of parents and children based on levels of fluency in English could improve engagement rates and enable tutors to deliver the programme at a level appropriate to parents' needs. However, this would need to be done with care as school staff already expressed concerns about 'singling out' families with EAL for targeted provision. Moreover, while schools are likely to assess the fluency of their pupils, it is unlikely that they will have a pre-existing measure of parents' proficiency in English, or of their familiarity with the English primary education system. Consideration would therefore be needed to devise a more formalised yet sensitive process of determining eligibility.

- Shorter and more practical sessions:

Shorter sessions that focus on parents' core interests (such as phonics or the English school system) and over a *shorter timeframe* (6–8 weeks, thus reducing the time commitment required) may facilitate engagement.

> *'That's all they really basically wanted to know was the systems that we use and how they could use it at home to help their children', co-ordinator (S231CO1).*

General interest in family based programmes

Among treatment schools, a majority (81%) were offering some form of family-based learning programmes and a little over half (53%) offered family literacy programmes other than Family Skills.

Control group activity

The trial assumed a 'business as usual' approach whereby controls schools were not invited to deliver Family Skills. However, more than half (56%) of control schools offered some form of family-based learning programmes for parents of Reception year pupils. Almost a third (32%) offered family-based literacy programmes for this target group, and a significant minority (13%) offered family literacy programmes targeted at the parents of Reception-year EAL pupils. In addition, more than half (55%) of control schools offered other targeted literacy interventions, activities, or resources for EAL pupils, including, for example:

- one-off workshops for parents;
- bilingual teaching assistants;
- peer support;
- additional small group or one-to-one support focusing on phonics, vocabulary, reading and writing; and
- named language interventions including School Start and Language Land.

In addition, as discussed above, one control school reported receiving the Family Skills programme.

Conclusion

Key conclusions
1. EAL children in Family Skills schools did not make additional progress in literacy compared to EAL children in control schools when measured at the end of Reception. This result assesses the *opportunity* for parents to attend Family Skills, rather than the impact for those who attended. This finding has high security.
2. Exploratory analysis suggests that EAL children whose parents did attend at least one Family Skills session made around one month's additional progress in literacy compared to EAL children in control schools at the end of Reception. However, the evaluator believes that this finding should be treated with caution.
3. The vast majority of schools receiving Family Skills said that they would recommend it to other schools, highlighting that it provided a good opportunity to build home–school links and engage parents in their children's learning.
4. On average, eight families attended per school, which represents around one third of those who had the opportunity. The level of take-up was lower than expected and may have been due to the limited time available for parent recruitment in this trial.
5. To ensure higher levels of attendance, schools would benefit from more time to engage parents before the programme begins; tutors recommended five weeks for engagement. Face-to-face activities, with ongoing reminders, were reported to be most effective for recruiting and retaining parents to the programme.

Interpretation

Impact

This trial found that inviting parents to attend Family Skills sessions to better understand how their children learn through play and how to improve the child's home literacy environment did not have an observable impact on Reception year pupils' literacy in the short term. This finding may reflect the fact that the intervention does not have an impact on children's literacy. Alternative reasons for the null finding may include low levels of attendance at sessions, and the overall reduced power of the trial due to attrition and baseline data collection problems. The timing of the outcome measure may also be a factor in the results observed: measuring changes in children's literacy shortly after the conclusion of the intervention may have been too soon to observe an impact on children's literacy. Moreover, in the absence of a measure of home literacy, changes to proximal home environment related outcomes could not be measured and therefore an assessment of immediate impact of change observed in the home could not be made.

The background evidence suggests that family literacy interventions are positively associated with improving the home learning environment. However, many previous studies do not include comparison groups. Due to low take-up of the intervention and low response rates to parent surveys, this trial was unable to measure changes in the home literacy environment as intended.

Perceived benefits

Findings from the implementation study suggest that parents who attended, and even some who dropped out, found the sessions useful. One reason for this may be that the intervention gave parents 'time out' from their daily routine to interact with their children and to socialise with other parents. It is important to note that although no effect was observed on children's literacy, parents wanted to help their children learn and valued having opportunities to find out how they could do so.

Parents who attended Family Skills sessions believed there had been a change in their knowledge and understanding of how their children learn at school and an improvement in their skills and confidence as a result of taking part. Confidence related specifically to interactions with school staff and, in some cases, with maintaining bilingualism in the home literacy environment. This suggests that, in the short term, the intervention is making progress towards some of the intermediate parent-focused outcomes set out in the theory of change.

The intervention is relatively cheap to deliver at around £143 per pupil (assuming full take-up by eligible parents). As noted above, the majority of schools were delivering a range of family–based programmes, including family literacy interventions. It is within this context that Family Skills was viewed positively by school staff and could, with advance planning and adaptation, be delivered as an additional way to engage EAL parents.

Limitations

- Sample size: recruitment and baseline data collection problems reduced the size of the sample available for analysis. The initial proposed sample size was 6,020 individuals from 140 schools. Difficulties in recruitment and measurement attrition resulted in a final analysis sample size of 1,985 individuals from 102 schools. As a consequence, the MDES for the evaluation rose from 0.17 to 0.23.

- Parent surveys: the smaller than anticipated sample size and low response to the baseline parent survey meant that the process study was not able to quantify intermediary changes in the home literacy environment.

- Breadth and quality of delivery: regional variations and the number of schools recruited per area and the number of tutors involved (and their level of expertise) may have influenced fidelity and how well adaptations could be made to accommodate the range of parents with EAL recruited to the intervention. In some cases, scheduling changes, compression of the programme into a smaller number of sessions, or the lack of suitable space to deliver sessions may have affected quality of delivery.

- Post-intervention pupil testing: post-intervention testing was conducted around 10 to 12 weeks after the end of the intervention. Given that a change in the home literacy environment is expected to lead to improved pupil literacy, a longer follow-up period may have been more appropriate to detect any effects.

The null results of the trial do not necessarily indicate weaknesses in the intervention logic but may have resulted from other issues related to delivery and retention, or insufficient targeting of the programme to reach families most likely to be attracted to—or perceive the benefits of—the intervention. These differences may have influenced acceptability of, and responsiveness to, Family Skills and the ways in which learning was applied within the home environment.

Future research and publications

If Family Skills sessions were adapted in content (more focus on phonics, for example) and length of sessions (shorter sessions), the intervention would merit further evaluation. Any further research should consider:

- finding appropriate ways to conduct pre- and post-intervention surveys with parents to quantitatively measure changes in the home literacy environment;

- identifying measures to boost attendance by delivering sessions at different times of the day; and

- using a categorical definition of EAL and identifying which groups of parents or pupils are likely to benefit the most from these sessions.

Furthermore, an interesting aspect of future research may be to investigate the reasons why some parents find these types of family literacy interventions helpful. This could include a study of different types of recruitment messages—ones that promote the benefits of attendance and those that are more neutral—which might reveal more about parental attitudes to involvement.

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Appendix A: EEF cost rating

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

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

Appendix B: Security classification of trial findings

Rating	Criteria for rating			Initial score		Adjust		Final score
	Design	**Power**	**Attrition***					
5 🔒	Well conducted experimental design with appropriate analysis	MDES < 0.2	0-10%					
4 🔒	Fair and clear quasi-experimental design for comparison (e.g. RDD) with appropriate analysis, or experimental design with minor concerns about validity	MDES < 0.3	11-20%	4 🔒		Adjustment for Balance [ ]		4 🔒
3 🔒	Well-matched comparison (using propensity score matching, or similar) or experimental design with moderate concerns about validity	MDES < 0.4	21-30%					
2 🔒	Weakly matched comparison or experimental design with major flaws	MDES < 0.5	31-40%			Adjustment for threats to internal validity [ ]		
1 🔒	Comparison group with poor or no matching (E.g. volunteer versus others)	MDES < 0.6	51-50%					
0 🔒	No comparator	MDES > 0.6	>50%					

- **Initial padlock score:** lowest of the three ratings for design, power and attrition = 4 padlocks
- **Reason for adjustment for balance** (if made): there was imbalance on baseline tests scores, but there is no reason to believe this would effect the results (in a model that accounts for baseline imbalance)
- **Reason for adjustment for threats to validity** (if made): none made
- **Final padlock score:** initial score adjusted for balance and internal validity = 4 padlocks

*Attrition should be measured at the pupil level, even for cluster trials.

Appendix C: Randomisation Syntax

Wave 1:

FamilySkillsRandomisationWave 1 - Printed on 23/10/2017 10:00:15

```
1    // open data
2    cap log close
3    cd "I:\Workdocs\Children Families & Work\Current projects\P12016 EEF Family
     Skills\Secure\Data management\Randomisation\Wave 1 Randomisation 22.11.2016"
4    log using "FamilySkillsRandomisationWave1Log.txt", replace text
5    set more off
6    import excel using "SchoolIDs.xlsx", sheet ("School IDs") firstrow clear case(lower)
7
8    //set up
9    g sch = schoolid
10   egen dp=group(dpname),label missing
11   g _assignment = 0
12   label define _alb 0 "No assignment(error)" 1 "Treatment" 2 "Control"
13   label values _assignment _alb
14
15   //checks
16   *duplicate schools
17   duplicates list sch
18
19   *number of schools per delivery partner
20   ta dp, m
21
22   //randomisation
23   *set seed and random number generation
24   set seed 93039724 /*from random.org, generated on 22.11.16
25   random number between 10,000,000 and 99,999,999
26   */
27   display "seed" %10.0f c(seed)
28
29   generate double r = 0
30   replace r = runiform()
31
32   *assignment
33   sort dp r
34   by dp: replace _a = 1 if _n<=_N/2
35   by dp: replace _a = 2 if _n>_N/2
36
37   * last replication correction
38   /* for strata (delivery partners) with an odd number of schools
39   randomly allocate last school to either treatment and control condition
40   to minimise imbalance in treatment allocation across the sample
41   */
42
43   generate double lrc = 0
44   label define _lrclb 0 "No correction required" 1 "LRC"
45   label values lrc _lrclb
46
47   by dp: replace lrc = 1 if (_n==_N) & mod(_n,2)==1
48   replace _a=0 if lrc==1
49   generate lrcr = runiform() if lrc==1
50   replace _a = 1 if lrcr<=0.5
51   replace _a = 2 if lrcr>0.5 & lrcr<=1
52
53   // peek at treatment allocation balance
54   ta _a, m
55
56   // display the state of the random-number generator
57   /*allows continuation of randomisation from last place left off
58   following 1st wave of random number generation
59   */
60   display "seed" %10.0f c(seed)
61
62   //save output
63   sort dp _a sch
64   drop sch dp r lrc lrcr
65   export excel using "school-assignmentWave1.xlsx", firstrow(var) replace
66
67   log close _all
68
69
```

Page 1

Wave 2:

```
1    // open data
2    cap log close
3    cd "I:\Workdocs\Children Families & Work\Current projects\P12016 EEF Family
     Skills\Secure\Data management\Randomisation\Wave 2 Randomisation 29.11.2016"
4    log using "FamilySkillsRandomisationWave2Log.txt", replace text
5    set more off
6    import excel using "SchoolIDsW2.xlsx", sheet ("School IDs W2") firstrow clear case(
     lower)
7
8    //set up
9    g sch = schoolid
10   egen dp=group(dpname),label missing
11   g _assignment = 0
12   label define _alb 0 "No assignment(error)" 1 "Treatment" 2 "Control"
13   label values _assignment _alb
14
15   //checks
16   *duplicate schools
17   duplicates list sch
18
19   *number of schools per delivery partner
20   ta dp, m
21
22   //randomisation
23   *set seed and random number generation
24   set seed Xdf5ba9fe3e5738843c30f20647b3822f000437e2 /*state of the random-number
     generator
25   following completion of Wave 1 randomisation
26   */
27   display "seed" %10.0f c(seed)
28
29   generate double r = 0
30   replace r = runiform()
31
32   *assignment
33   sort dp r
34
35   by dp: replace _a = 1 if (_N==1) & r<=0.5
36   by dp: replace _a = 2 if (_N==1) & r>0.5 & r<=1
37
38
39   by dp: replace _a = 1 if (_N>1) & _n<=_N/2
40   by dp: replace _a = 2 if (_N>1) & _n>_N/2
41
42
43   * last replication correction
44   /* for strata (delivery partners) with an odd number of schools
45   randomly allocate last school to either treatment and control condition
46   to minimise imbalance in treatment allocation across the sample
47   */
48
49   generate double lrc = 0
50   label define _lrclb 0 "No correction required" 1 "LRC"
51   label values lrc _lrclb
52
53   by dp: replace lrc = 1 if (_N>1) & (_n==_N) & mod(_n,2)==1
54   replace _a=0 if lrc==1
55   generate lrcr = runiform() if lrc==1
56   replace _a = 1 if lrcr<=0.5
57   replace _a = 2 if lrcr>0.5 & lrcr<=1
58
59   // peek at treatment allocation balance
60   ta _a, m
61
62   // display the state of the random-number generator
63   /*allows continuation of randomisation from last place left off
64   following 2st wave of random number generation
65   */
66   display "seed" %10.0f c(seed)
67
68   //save output
69   sort dp _a sch
```

Wave 3:

FamilySkillsRandomisationWave 3 - Printed on 23/10/2017 10:02:48

```
1    // open data
2    cap log close
3    cd "I:\Workdocs\Children Families & Work\Current projects\P12016 EEF Family
     Skills\Secure\Data management\Randomisation\Wave 3 Randomisation 29.11.2016"
4    log using "FamilySkillsRandomisationWave3Log.txt", replace text
5    set more off
6    import excel using "SchoolIDsW3.xlsx", sheet ("School IDs W3") firstrow clear case(
     lower)
7
8    //set up
9    g sch = schoolid
10   egen dp=group(dpname),label missing
11   g _assignment = 0
12   label define _alb 0 "No assignment(error)" 1 "Treatment" 2 "Control"
13   label values _assignment _alb
14
15   *number of schools per delivery partner
16   ta dp, m
17
18   //randomisation
19   *set seed and random number generation
20   set seed X59d5622654a75427fbdaa73d33406cf900040e38 /*state of the random-number
     generator
21   following completion of Wave 2 randomisation
22   */
23   display "seed" %10.0f c(seed)
24
25   generate double r = 0
26   replace r = runiform()
27
28   *assignment
29   replace _a = 1 if r<=0.5
30   replace _a = 2 if r>0.5 & r<=1
31
32   // peek at treatment allocation
33   ta _a, m
34
35   // display the state of the random-number generator
36   /*allows continuation of randomisation from last place left off
37   following 3rd wave of random number generation
38   */
39   display "seed" %10.0f c(seed)
40
41   //save output
42   drop sch dp r
43   export excel using "school-assignmentWave3.xlsx", firstrow(var) replace
44
45   log close _all
46
47
```

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Wave 4:

FamilySkillsRandomisationWave 4 - Printed on 23/10/2017 10:03:30

```
1    // open data
2    cap log close
3    cd "I:\Workdocs\Children Families & Work\Current projects\P12016 EEF Family
     Skills\Secure\Data management\Randomisation\Wave 4 Randomisation 07.12.2016"
4    log using "FamilySkillsRandomisationWave4Log.txt", replace text
5    set more off
6    import excel using "SchoolIDsW4.xlsx", sheet ("School IDs W4") firstrow clear case(
     lower)
7
8    //set up
9    g sch = schoolid
10   egen dp=group(dpname),label missing
11   g _assignment = 0
12   label define _alb 0 "No assignment(error)" 1 "Treatment" 2 "Control"
13   label values _assignment _alb
14
15   *number of schools per delivery partner
16   ta dp, m
17
18   //randomisation
19   *set seed and random number generation
20   set seed X28145cf57a5e8df6a65807fa69dbe9770004103a /*state of the random-number
     generator
21   following completion of Wave 3 randomisation
22   */
23   display "seed" %10.0f c(seed)
24
25   generate double r = 0
26   replace r = runiform()
27
28   *assignment
29   replace _a = 1 if r<=0.5
30   replace _a = 2 if r>0.5 & r<=1
31
32   // peek at treatment allocation
33   ta _a, m
34
35   // display the state of the random-number generator
36   /*allows continuation of randomisation from last place left off
37   following 4th wave of random number generation
38   */
39   display "seed" %10.0f c(seed)
40
41   //save output
42   drop sch dp r
43   export excel using "school-assignmentWave4.xlsx", firstrow(var) replace
44
45   log close _all
46
47
```

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Appendix D: Effect Size Formulae

Estimating the effect size of a three-level cluster randomised trial with covariate adjustment

According to Hedges (2011), the estimate d_{WT} of the *Cohen's d* effect size is:

$$d_{WT} = \left(\frac{\bar{Y}_{...}^T - \bar{Y}_{...}^C}{S_{WT}}\right)\sqrt{1 - \frac{2(\rho_U - 1)\rho_S + 2(n_U - 1)\rho_C}{N - 2}}$$

To add covariate adjustment, we adapt this equation using Borenstein (2009), who calculates covariate adjustment in two level cluster randomised designs:

$$d_{WT} = \left(\frac{\bar{Y}_{adj}^T - \bar{Y}_{adj}^C}{S_{WT}}\right)\sqrt{1 - \frac{2(\rho_U - 1)\rho_S + 2(n_U - 1)\rho_C}{N - 2}}$$

Hedges (2011) estimates the within group standard deviation (without covariates):

$$S_{WT} = \sqrt{\frac{\sum_{i=1}^{m^T}\sum_{j=1}^{p_i^T}\sum_{k=1}^{n_{ij}^T}(Y_{ijk}^T - \bar{Y}_{...}^T)^2 - \sum_{i=1}^{m^C}\sum_{j=1}^{p_i^C}\sum_{k=1}^{n_{ij}^C}(Y_{ijk}^C - \bar{Y}_{...}^C)^2}{N - 2}}$$

Borenstein suggests that the within group standard deviation is given by:

$$S_{WT} = \frac{S_{adj}}{\sqrt{1-R^2}} \text{ OR } S_{WT} = \sqrt{\frac{MSW_{adj}}{1-R^2}}$$

Where R^2 is the covariate outcome (multiple) correlation and S_{adj} is the standard deviation of the covariate adjusted standard deviation:

A simple conservative overestimate of the variance (without covariates) is estimated by Hedges (2011) as:

$$v_{d_{WT}} = \frac{1 + (\rho_U - 1)\rho_S + (n_U - 1)\rho_C}{\tilde{N}} + \frac{d_{WT}^2}{2(M - 2)}$$

Adapting this equation using Borenstein (2009) gives:

$$v_{d_{WT}} = \frac{(1 + (\rho_U - 1)\rho_S + (n_U - 1)\rho_C)(1 - R^2)}{\tilde{N}} + \frac{d_{WT}^2}{2(M - 2)}$$

So far we have calculated the *Cohen's d* effect size; we now need to adjust it to make it *Hedges g*. To do this, we use an adjustment factor, J:

$$J = 1 - \frac{3}{4df - 1}$$

So:

$$g_{WT} = J d_{WT}$$

$$v_{g_{WT}} = J^2 v_{d_{WT}}$$

Where the degrees of freedom for computing J are:

$$df = n_{ij}^T + n_{ij}^C - 2 - q$$

Where 2 is the number of groups and q the number of covariates.

Appendix E: Effect Size Syntax

```
1
2    *** Family Skills Analysis ****
3
4    clear
5    cap log close
6
7    log using "xxx.log", replace
8
9    cd "xxx"
10
11   ** Importing File **
12
13   use "EEF Family Skills Analysis File - FINAL v5.dta", clear
14
15   *Obtain final analytical sample
16
17   *Removing those with missing values on important covariates for model specification
18   keep if !missing(EoYLitAC)&!missing(SoYLitAC_final)&!missing(dv_school_SoYLitAC)&!missing(
     dv_delivery_partner)&!missing(School_ID)&!missing(dv_unique_class_ID)&!missing(uniqueID)&!
     missing(SoYNotAgeCorrectedLitDfE)&!missing(EoYNotAgeCorrectedLit)
19
20   *Centering the values of baseline literacy at pupil and individual level
21
22   sum SoYNotAgeCorrectedLitDfE
23   local centre pupil=r(mean)
24
25   gen dv_SoYLitAC_pupil=SoYNotAgeCorrectedLitDfE-`centre pupil'
26
27   sum dv_school_SoYLit_not
28   local centre school=r(mean)
29
30   gen dv_SoYLitAC_school=dv_school_SoYLit_not-`centre school'
31
32   *Primary Hypothesis (ITT)
33
34   ** 4-level models: 1 FE (developers) and 3 RE (school, class and pupil) **
35   xtmixed EoYLitAC treat i.dv_delivery_partner dv_SoYLitAC_pupil dv_SoYLitAC_school ||
     School_ID: || dv_unique_class_ID:, mle variance
36
37   ** 1. sample sizes: Extracting the sample size for T/Control making sure that all the
     variables are not missing. This will replicate the sample being used in the regression
     model.
38
39   *tab treat if
     !missing(EoYLitAC)&!missing(SoYLitAC final)&!missing(PPrem final)&!missing(percentFSM cenus
     )&!missing(percent EAL)&!missing(dv school SoYLitAC)&!missing(dv delivery partner)&!missing
     (School ID)&!missing(dv unique class ID)&!missing(uniqueID),  matcell(x)
40   tab treat if !missing(EoYLitAC)&!missing(SoYLitAC_final)&!missing(dv_school_SoYLitAC)&!
     missing(dv_delivery_partner)&!missing(School_ID)&!missing(dv_unique_class_ID)&!missing(
     uniqueID),  matcell(x)
41   matrix list x
42   local n1=x[1,1]   //Control
43   local n2=x[2,1]   // Treated
44   local N=x[1,1]+x[2,1] //Total
45
46   display   column(20)  `n1'  column(40) `n2'   column(60) `N'   //just to check that the
     numbers are correct
47
48   ** 2. J calculation
49
50   *The calculation J needs to take account the number of covariates q when calculating
     degrees of freedom
51   local q=17
52
53   local J=1-(3/(4*(`n1' +`n2'-2-`q')-1))
54
55   display  column(20) `J'
56
57   ** 3. Adjusted means to calculate ¯Y_adj^T-¯Y_adj^C
58
59   xtmixed EoYLitAC treat i.dv_delivery_partner dv_SoYLitAC_pupil dv_SoYLitAC_school ||
     School ID: || dv_unique_class_ID:, mle variance
60   matrix list r(table)
61   matrix define k=r(table)
62   local Yadj_treated=k[1,20]  + k[1,1]
```

```
 63    local Yadj_control=k[1,20]
 64
 65    display _column(20) `Yadj_treated' _column(40) `Yadj_control'
 66
 67    ** 4. Equation 5 - Pooled Standard Deviation (Conditional variance)
 68
 69    xtmixed EoYLitAC treat dv SoYLitAC pupil || School ID: || dv unique class ID:, mle variance
 70    matrix list r(table)
 71    matrix define x=r(table)
 72    local Y_t=x[1,2] + x[1,1]
 73    local Y_c=x[1,2]
 74
 75    display _column(20) `Y_t' _column(40) `Y_c'
 76
 77    gen rss_t=.
 78    replace rss_t=EoYLitAC-`Y_t' if treat==1
 79
 80    gen rss_c=.
 81    replace rss_c=EoYLitAC-`Y_c' if treat==0
 82
 83    gen rss_t_2=rss_t^2 if treat==1
 84
 85    gen rss_c_2=rss_c^2 if treat==0
 86
 87    preserve
 88    keep if treat==1
 89    gen rss_t_2_sum=rss_t_2
 90    replace rss_t_2_sum=rss_t_2_sum+rss_t_2_sum[_n-1] if rss_t_2_sum!=. & rss_t_2_sum[_n-1]!=.
 91    gsort -rss_t_2_sum
 92    replace rss_t_2_sum=rss_t_2_sum[_n-1] if rss_t_2_sum[_n-1]!=.
 93    sum rss_t_2_sum
 94    local Swt_term_1=r(mean)
 95    display _column(20) `Swt_term_1'
 96    restore
 97
 98    preserve
 99    keep if treat==0
100    gen rss_c_2_sum=rss_c_2
101    replace rss_c_2_sum=rss_c_2_sum+rss_c_2_sum[_n-1] if rss_c_2_sum!=. & rss_c_2_sum[_n-1]!=.
102    gsort -rss_c_2_sum
103    replace rss_c_2_sum=rss_c_2_sum[_n-1] if rss_c_2_sum[_n-1]!=.
104    sum rss_c_2_sum
105    local Swt_term_2=r(mean)
106    display _column(20) `Swt_term_2'
107    restore
108
109    display _column(20) `Swt_term_1' _column(40) `Swt_term_2'
110
111    local Swt=sqrt((`Swt_term_1'+`Swt_term_2')/(`N'-2))
112
113    display _column(20) `Swt'
114
115    ** 5. Inter class correlations (School and Class - Eq 6 and 7)
116
117    xtmixed EoYLitAC treat i.dv delivery partner dv SoYLitAC pupil dv SoYLitAC school ||
       School ID: || dv unique class ID:, mle variance
118
119    xtmrho
120
121    local ICC_school=e(rho1)
122    local ICC_class=e(rho2)
123
124    display _column(20) `ICC_school' _column(40) `ICC_class'
125
126    *Eq 8
127
128    codebook School ID if treat==1
129    local m_t=54
130
131    codebook School ID if treat==0
132    local m_c=48
133
134    display _column(20) `m_t' _column(40) `m_c'
135
136    *For number of treated individuals in each class
```

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```
137
138    bysort School ID dv unique class ID: gen pupilcount=  N
139    lab var pupilcount "Number of pupils in class"
140
141    bysort School ID: gen pupilcount school=  N
142    lab var pupilcount school "Number of pupils in each school"
143
144    gen pupilcount_2=pupilcount*pupilcount
145    lab var pupilcount_2 "Number of pupils in each school class"
146
147    gen pupilcount school 2=pupilcount school*pupilcount school
148    lab var pupilcount school 2 "Number of pupils in each school squared
149
150    *Deriving pu
151
152    preserve
153    keep if treat==1
154    keep School_ID dv_unique_class_ID pupilcount
155    duplicates drop
156    codebook dv unique class ID
157    gen pupilcounter total=pupilcount
158    replace pupilcounter total=pupilcounter total+pupilcounter total[ n-1] if pupilcount[ n-1
       ]!=.
159    gsort -pupilcounter_total
160    browse
161    replace pupilcounter total=pupilcounter total[ n-1] if pupilcounter total[ n-1]!=.
162    sum pupilcounter total
163    local n_i_j_treated=r(mean)
164    display _column(20) `n_i_j_treated'
165    restore
166
167    preserve
168    keep if treat==0
169    keep School_ID dv_unique_class_ID pupilcount
170    duplicates drop
171    codebook dv unique class ID
172    gen pupilcounter total=pupilcount
173    replace pupilcounter_total=pupilcounter_total+pupilcounter_total[_n-1] if
       pupilcounter_total[_n-1]!=.
174    gsort -pupilcounter total
175    browse
176    replace pupilcounter total=pupilcounter total[ n-1] if pupilcount[ n-1]!=.
177    sum pupilcounter_total
178    local n_i_j_control=r(mean)
179    display  column(20) `n i j control'
180    restore
181
182    display _column(20) `n_i_j_treated' _column(40) `n_i_j_control' _column(60) `n1' _column(
       80) `n2' _column(100) `N'
183
184    local p u=(`n1'*(`n i j treated'^2))/(`N'*`n2')+(`n2'*(`n i j control'^2))/(`N'*`n1')
185
186    display _column(20) `p_u'
187
188    *Deriving nu
189
190    preserve
191    keep if treat==1
192    keep School_ID dv_unique_class_ID pupilcount_2
193    duplicates drop
194    codebook dv unique class ID
195    gen pupilcounter 2 total=pupilcount 2
196    replace pupilcounter_2_total=pupilcounter_2_total+pupilcounter_2_total[_n-1] if
       pupilcounter_2_total[_n-1]!=.
197    gsort -pupilcounter 2 total
198    browse
199    replace pupilcounter 2 total=pupilcounter 2 total[ n-1] if pupilcounter 2 total[ n-1]!=.
200    sum pupilcounter_2_total
201    local n_i_j_treated_squared=r(mean)
202    display  column(20) `n i j treated squared'
203    restore
204
205    preserve
206    keep if treat==0
207    keep School_ID dv_unique_class_ID pupilcount_2
```

```
208    duplicates drop
209    codebook dv unique class ID
210    gen pupilcounter_2_total=pupilcount_2
211    replace pupilcounter_2_total=pupilcounter_2_total+pupilcounter_2_total[_n-1] if
       pupilcounter_2_total[_n-1]!=.
212    gsort -pupilcounter_2_total
213    browse
214    replace pupilcounter_2_total=pupilcounter_2_total[_n-1] if pupilcounter_2_total[_n-1]!=.
215    sum pupilcounter_2_total
216    local n i j control squared=r(mean)
217    display  _column(20) `n i j control squared'
218    restore
219
220    display _column(20) `n_i_j_treated_squared' _column(40) `n_i_j_control_squared' _column(60
       ) `n1'  column(80) `n2'  column(100) `N'
221
222    local n_u=(`n1'*`n i j treated squared')/(`N'*`n2')+(`n2'*`n i j control squared')/(`N'*
       `n1')
223
224    display  column(20) `n_u'
225
226    ** 7. Equation 10
227
228    *We already have N, NT (n2) and NC (n1)
229    display    column(20)  `n1'  column(40)  `n2'    column(60)  `N'
230
231    ** 8. gwt calculation
232
233    local gwt_term_1=(((`Yadj_treated')-(`Yadj_control'))/(`Swt'))
234
235    display  column(20) `Yadj treated'  column(40) `Yadj control'  column(60)  `Swt'
236
237    display _column(20) `gwt_term_1'
238
239    *Term 2 of gwt is more complicated and will be done in steps
240
241    local gwt term 2 1=2*(`p_u'-1)*`ICC school'
242
243    local gwt_term_2_2=2*(`n_u'-1)*`ICC_class'
244
245    local gwt term 2 squared=1-((`gwt term 2 1'+`gwt term 2 2')/(`N'-2))
246
247    local gwt_term_2=sqrt(`gwt_term_2_squared')
248
249    display  column(20)  `p_u'   column(40)  `ICC school'   column(60)  `n_u'   column(80)
       `ICC class'   column(100)  `N'
250
251    display _column(20) `gwt_term_2_1' _column(40)  `gwt_term_2_2' _column(60)
       `gwt_term_2_squared' _column(80) `gwt_term_2'
252
253    *Final gwt calculation
254
255    *Cohen's D
256
257    local dwt=(`gwt term 1'*`gwt term 2')
258
259    *Hedge's G
260
261    local gwt=(`J')*(`gwt_term_1'*`gwt_term_2')
262
263    display  column(20)  `J'  column(40)  `gwt term 1'  column(60)  `gwt term 2'  column(80)  `gwt'
264
265    ** 9. Confidence intervals (eq. 11,12 and 13) should be calculated after the gwt estimate
266
267    local N tilda=(`n1'*`n2')/(`n1'+`n2')
268
269    display  column(20)  `n1'  column(40)  `n2'  column(60)  `N tilda'
270
271    *Need to compute r^2
272
273    pwcorr EoYLitAC SoYLitAC final
274    local r=r(rho)
275    local r2=`r'^2
276    display _column(20)  `r' _column(40)  `r2'
277
```

EEF Family Skills Effect Size Syntax - Printed on 05/02/2018 09:54:28

```
278    *As this is a complicated formula, I will calculate it in stages
279
280    local v_dwt_term_1_1=((`p_u'-1)*`ICC_school')
281
282    local v_dwt_term_1_2=((`n_u'-1)*`ICC_class')
283
284    local v_dwt_term_1=((1+`v_dwt_term_1_1'+`v_dwt_term_1_2')*(1-`r2'))/`N_tilda'
285
286    display _column(20) `p_u' _column(30) `ICC_school' _column(40) `n_u' _column(50)
       `ICC_class'  column(60) `r2'  column(70) `N_tilda'
287
288    display  column(20) `v_dwt_term_1_1'  column (40) `v_dwt_term_1_2'  column(60)
       `v_dwt_term_1'
289
290    local v_dwt_term_2_1=`dwt'^2
291
292    local v_dwt_term_2_2=2*((`m_t'+`m_c')-2)
293
294    local v_dwt_term_2=`v_dwt_term_2_1'/`v_dwt_term_2_2'
295
296    display  column(20) `dwt'  column(40) `m_t'  column(60) `m_c'
297
298    display _column(20) `v_dwt_term_2_1' _column(40) `v_dwt_term_2_2' _column(60)
       `v_dwt_term_2'
299
300    local v_dwt=`v_dwt_term_1'+`v_dwt_term_2'
301
302    local v_gwt=(`J'^2)*`v_dwt'
303
304    display  column(20) `v_dwt_term_1'  column(40) `v_dwt_term_2'  column(60) `J'  column(80)
       `v_dwt'  column(100) `v_gwt'
305
306    **** Creating confidence intervals ****
307
308    *Cohen's D
309
310    local lowerbound_dwt=`dwt'-(1.96*`v_dwt')
311
312    local upperbound_dwt=`dwt'+(1.96*`v_dwt')
313
314    display  column(20) `dwt'  column(40) `v_dwt'  column(60) `lowerbound_dwt'  column(80)
       `upperbound_dwt'
315
316    *Hedges G
317
318    local lowerbound_gwt=`gwt'-(1.96*`v_gwt')
319
320    local upperbound_gwt=`gwt'+(1.96*`v_gwt')
321
322    display  column(20) `gwt'  column(40) `v_gwt'  column(60) `lowerbound_gwt'  column(80)
       `upperbound_gwt'
323
324    ****************************************************************
325    ****************************************************************
326    *** End of Do File *******************************************
327    ****************************************************************
328    ****************************************************************
329
330    log close
331
332
```

Appendix F: Consent materials

Memorandum of Understanding for schools

Memorandum of Understanding:
Independent Evaluation of Family SKILLS

We are very pleased that your school wishes to take part in the independent evaluation of Family SKILLS.

This document will help to clarify what is involved in the planned research and act as a memorandum of understanding between your school and the independent evaluators, NatCen Social Research[1]. It also details the roles and responsibilities of the Family SKILLS team and local delivery partners[2].

You will need to complete and sign this MOU by **Friday 17th June 2016** in order for your school to be part of the research.

1. Aims of the independent evaluation

The aim of the project is to test the efficacy of the Family SKILLS intervention in accelerating the literacy learning of pupils with EAL. The target group is Reception year pupils with English as an additional language (EAL) and their parents/caregivers. The intervention will be delivered from January to April 2017.

The evaluation will investigate:
1. The impact of the intervention on the literacy attainment of Reception year pupils with EAL
2. The impact of the intervention on the knowledge, skills and understanding of parents/caregivers of pupils with EAL related to their children's literacy skills development
3. The impact of the intervention on the home learning environment.

The research will also explore:
1. How the intervention is being delivered in practice
2. Key barriers, challenges and enabling factors to effective delivery
3. The mechanisms through which the intervention brings about change (or otherwise)
4. The per-pupil cost of the intervention.

---

[1] This Memorandum of Understanding details the activities expected to take place. All activities are contingent on agreement with the Education Endowment Foundation, who are funding the research. NatCen and local delivery partners will inform schools should there be any changes to these research activities. Any such changes would mean a reduction in research activities and not an increase.
[2] More information about these teams, and the funders of the independent evaluation (the Education Endowment Foundation) can be found at the end of this document.

1

2. Evaluation design

Participating schools will be randomly allocated to either:

i. **Group 1 -** to receive the Family SKILLS programme; or
ii. **Group 2 -** to continue business as usual with pupils with EAL and receive a financial incentive of £1000. These schools will form the 'control group' for the evaluation.

Random allocation of schools is the best way to study the impact Family SKILLS has on children's literacy attainment and the home learning environment. It is important to understand that even if you are allocated to Group 2 you will still need to remain part of the evaluation and undertake all relevant activities.

3. Evaluation process

i. Consent

In September 2016, schools will be asked to assist in distributing opt-out consent letters to parents and caregivers of all pupils with EAL in Reception year pupils. These letters will ask for consent to participate in the evaluation, including pupil testing. They will also gather the consents from parents/caregivers needed in order to allow CEM to lawfully handle and process the personal information of candidates, feedback all results to schools and to NatCen, and to use anonymised information for research purposes[3]. Electronic copies of the letters will be made available to your school in English and 15 additional languages.

ii. Background information

At the beginning of the project, schools will be asked to provide school and pupil level information via a short online 'background' information form. This will include:

- A list of all pupils with EAL in Reception year (except those who have opted out of the research), including names, home postcodes, gender, date of birth and pupil premium status
- An indicator of the proportion of pupils with EAL in Reception year identified as having SEN
- Any planned activities for pupils with EAL and/or their families

The Education Endowment Foundation will use this information and, with parental consent gathered by NatCen, access the National Pupil Database (NPD) to collect data on relevant pupils in order to assess any longer-term impact of the project on attainment.

iii. Parent surveys

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[3] CEM may use anonymised information and/or data which is gathered in the course of the research, including the results, for the purpose of internal research, and may publish or otherwise share such anonymised data with third parties for use in their own research, and the results of this research may be used in publicly available documents.

2

Parents and caregivers of pupils with EAL in Reception year will be asked to complete two paper-based questionnaires, which will explore things that they do to help their children to learn and, where relevant, experiences and impacts of the Family SKILLS intervention. This questionnaire will be translated into 15 languages, and written in simple language. The school will be responsible for distributing questionnaires (e.g. via children's book bags) in October 2016 and May 2017, and the school's dedicated EAL/family liaison officer may be required to assist Family SKILLS trainers in facilitating parents/caregivers in completing the questionnaire.

iv. Testing

All schools (in Groups 1 and 2) will need to administer tests assessing the literacy skills of every EAL pupil in Reception year (excluding those who have been opted out of the research) – once in October 2016 and once in June/July 2017. These tests will use the CEM BASE Progress assessment, an adaptive baseline measure (more information about this assessment is provided at the end of this document). The assessment is computer-based and administered on a one-to-one basis, e.g. by Teaching Assistants, and takes approximately 15 minutes per child to complete. Staff involved in administering the assessment will be fully trained and have dedicated support. The costs of the test will be covered by NatCen.

Schools will need to agree to testing dates and times with NatCen and ensure facilities for testing are set up in the June/July 2016 to ensure that the tests are completed consistently across all schools. Test data will be made available for schools' own use. Schools must test all of, and only, the pupils who have been named in the background information form[4].

v. Implementation survey

Following the trial, all schools (in Groups 1 and 2) will need to complete a second online questionnaire. This will include details about the literacy interventions going on in your school during this period, and costs incurred. It will also gather up-to-date information on the proportion of SEN pupils in Reception year.

vi. Process evaluation

As part of the evaluation, the NatCen team will be interviewing a small sample of class teachers whose pupils have received the Family SKILLS intervention, and parents who took part in the programme. These interviews will be entirely voluntary, and will explore experiences of the programme and perceived impacts on the home learning environment and pupils' literacy learning, and will take place in spring 2017. Some schools will be asked to support NatCen in recruiting parents and class teachers to be interviewed.

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[4] Due to the per pupil cost of the CEM BASE Progress assessment, only pupils recognised by NatCen as participating in the evaluation can be tested. Schools will be financially liable for any assessments conducted with pupils not named in the background information form, or conducted after the end of the 2016/17 academic year.

3

4. Responsibilities of all parties

By participating in this research, **the school** agrees to:

1. Identify a lead contact in the school to liaise with NatCen and ensure that all responsibilities have been fulfilled and all necessary arrangements are in place.
2. Identify an EAL or family liaison officer or similar, who can help with consent letters and parent questionnaires and be a point of contact for parents/caregivers seeking more information on the project.
3. Send out opt-out letters to parents/caregivers of all Reception year pupils with EAL asking for consent to participate in the evaluation. This letter will be emailed to the school in English and 15 additional languages.
4. Collect any opt-out slips that parents return to the school and send these to NatCen.
5. Send out two parent questionnaires to all parents/caregivers of pupils with EAL in Reception year. The questionnaires will be made available to the school in English and 15 additional languages.
6. Arrange for (a) member(s) of staff (e.g. TAs) to administer 15-minute CEM literacy tests with pupils with EAL in Reception year who are taking part in the research - once in October 2016 and again in June/July 2017.
7. Provide NatCen with background information about the school and pupils with EAL in Reception year.
8. Complete a questionnaire after the trial has finished, providing detail about any literacy/EAL interventions in the school during this period, information on the proportion of SEN pupils in Reception year, and, for Group 1 Schools, information about how Family SKILLS has been delivered and the costs incurred.
9. Ensure the shared understanding and support of all school staff to the project and personnel involved

If allocated to **Group 1**, the school also agrees to:

10. Assist local Family SKILLS delivery partners in making practical arrangements for the delivery of sessions.
11. Identify one class teacher to help plan for the delivery of Family SKILLS sessions[5].
12. Help to ensure that Reception class children and Teaching Assistants or Parent Support staff can participate in Family Literacy sessions as appropriate.
13. Support the recruitment of parents and class teachers to be interviewed by NatCen.

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[5] This would entail a maximum of three hours' work, and all staff input will be compensated. Please contact jcollier@cflearning.org.uk for more information.

4

NatCen agrees to:

1. Obtain consent from parents for participation in the research, and for data matching so that NPD data can be collated from the DfE to examine longer-term impacts of the programme.
2. Conduct the random allocation and inform schools.
3. Collate school- and pupil- level data provided by schools.
4. Collate pupil test data from CEM.
5. Work closely with the school lead contact to schedule testing.
6. Provide staff administering the CEM literacy tests with training and support.
7. Analyse data from the project in order to produce impact estimates.
8. Conduct the process evaluation, including analysis and reporting from this.
9. Produce an end of project evaluation report and share this with all participating schools.
10. Store all data safely and securely.

The **local delivery partners** agree to:

1. Deliver the Family SKILLS programme in Group 1 intervention schools.
2. Ensure that all families who wish to participate in the programme are able to do so.
3. Assist schools in enabling parents to complete questionnaires and consent forms.
4. Remunerate staff input for Group 1 schools[6].

The **Family SKILLS team** agrees to:

1. Support the local delivery partners in delivering the above commitments.
2. Pay Group 2 control schools £1000 on completion of all responsibilities detailed above.

5. Data security

All information gathered about individual pupils, teachers and schools will be anonymised and kept completely confidential in accordance with Section 5 of the Data Protection Act. No information about individual children will be made available to anyone outside of the research teams at Family SKILLS, NatCen and the Education Endowment Foundation. Pupils, teacher and school names will not be used in the final report. Accounts of the efficacy of Family SKILLS will be presented in the form of aggregated or averaged data.

The Fischer Family Trust will collate and anonymise the data for upload to the UK Data Archive. The archived data will be available in an anonymised form with restricted access for research purposes only.

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[6] The Delivery Partners will use Family SKILLS project funding to remunerate schools for time spent by Group 1 class teachers (planning and support) and support staff (helping with planning and/or delivering the intervention). Please contact jcollier@cflearning.org.uk for more information.

5

6. School information and consent to participate in the research

School name	
School's Unique Reference Number (URN)	
Schools' LAESTAB code	
School address and postcode	
School telephone number	
Name of school-based lead contact for Family SKILLS	
School-based lead role/position at school	
School-based lead email address	
School-based lead telephone number	

As a school, we commit to remaining a part of the independent evaluation of Family SKILLS as detailed above for the period of June 2016 - July 2017.

Head teacher name	
Head teacher email address	
Head teacher signature	
Date	

Please complete and sign two copies of this Memorandum of Understanding, retaining one and returning the second copy to your Family SKILLS delivery partner by 17th June 2016.

If you have any questions about the research or concerns about your role and responsibilities, please contact **Michael Lumpkin** at familyskills@natcen.ac.uk or on 0207 549 8522.

Once again, we would like to express our thanks to you for joining in this research. We believe that it will be a thoroughly worthwhile project and that it will produce valuable evidence.

6

7. About the teams

The NatCen Team

NatCen Social Research is an independent social research organisation that carries out research on a wide range of social issues. The NatCen evaluation team are independent of the Family SKILLS team and have been funded by the Education Endowment Foundation (EEF) to conduct this independent evaluation of the programme. You can find out more about NatCen and this independent evaluation at www.natcen.ac.uk/familyskills.

If you have any questions about the independent evaluation, please contact Michael Lumpkin at familyskills@natcen.ac.uk or on 0207 549 8522.

The Family SKILLS team

Family SKILLS is managed by Learning Unlimited (www.learningunlimited.co), working in partnership with the Campaign for Learning (www.campaign-for-learning.org.uk) and the UCL Institute of Education (http://www.ucl.ac.uk/ioe). The programme has been developed with and will be delivered by 14 expert local Family Literacy delivery partners across England.

If you have any questions about the Family SKILLS programme, please contact Juliette Collier at jcollier@cflearning.org.uk.

The Education Endowment Foundation Team

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 have provided the funding for both the Family SKILLS project and for the independent evaluation.

You can find out more about the EEF and the work that they do at www.educationendowmentfoundation.org.uk.

8. About the literacy assessments

The CEM BASE Progress assessment has been chosen to assess literacy in this evaluation as it is an easy-to use computer-based assessment administered on a one-to-one basis by identified support staff, e.g. Teaching Assistants (TAs). The assessment measures pupils' literacy ability through a lively and engaging game where Milly the Bug guides each child through the questions. The assessment adapts to the individual pupil's ability to complete the tasks, moving them on if questions are too difficult, or showing more challenging questions if they are answering correctly. The assessment takes approximately 15 minutes to complete and does not require any teacher marking or data to input. Staff involved will be fully trained and supported in administering the assessment, and the costs of the test will be covered by NatCen.

You can find out more about the CEM BASE Progress assessment at http://www.cem.org/reception-baseline-assessment.

7

Opt out consent letter for parents

NatCen
Social Research that works for society

Dear parent,

Your child's school is taking part in a project called Family SKILLS. The project is for families with children in Reception <u>and</u> with English as an additional language (EAL).

Some schools in the project will run a free Family SKILLS course. This course will help parents to support their children's reading and writing at school and at home. Your child's school may invite you to join a Family SKILLS course.

All schools in the Family SKILLS project will help with some research. Your child's school is happy for this to happen. For the research:

- We would like your child to take two short reading tests. The test results are for research about the Family SKILLS project only.

- We may visit a Family SKILLS session in your school. This will help us to understand more about the course.

- We will ask you to fill in two short questionnaires.

- The school will send us some information about your child and we will get some more information from the National Pupil Database (see the next page for more details).

If you are happy for your child to be part of the Family SKILLS project, you do not need to do anything.

If you do not want your child to take part, please sign and return the slip below to your child's school. The school will not send us any information about your child and your child will not take the reading tests.

We hope you will agree to join the Family SKILLS project.

Yours sincerely,

Lydia Marshall
Senior Researcher, NatCen Social Research

If you would like a version of this letter in another language, please ask your child's school.

● ●

OPT-OUT SLIP

I do not want my child to take part in the Family SKILLS research:

Child's name: ……………………………………………………………

Your name: ……………………………………………………………

Your signature: …………………………………………….   Date: ……………………………….....

Please return this slip to your school within **ONE WEEK** if you wish to **opt-out** of the Family SKILLS research.

In detail

Your child's school is taking part in the Family SKILLS project. The project includes a 30 hour Family SKILLS course and some research.

The Family SKILLS course is for parents, and their Reception children will join them for some sessions. Some schools will run the Family SKILLS course, and some schools will not.

The research will find out if the Family SKILLS course is helpful for parents and their children. For the research, all schools in the project will send us data about pupils in Reception who speak English as an additional language. These children will take two short reading tests. One test will be before the Family SKILLS course and one test will be after the course. Then we will compare the results to see if the course helps to improve children's reading and writing.

We will publish the results of the research. All information will be confidential and stored in line with the Data Protection Act 1998. No names of schools, children or families will ever be in the reports.

Your child's school has agreed to:

• Invite you and your child in Reception to take part in the Family SKILLS project

• Ask you to fill in two questionnaires

• Allow researchers to watch a Family SKILLS session at the school

• Send us your child's name, date of birth, Unique Pupil Number, whether they have any special educational needs, whether they are eligible for pupil premium. We will hold this data securely. We will only use it for research purposes. Nobody outside of the project team will have access to the data. The data will be securely deleted after the Family SKILLS project ends.

• Allow your child to take part in two reading tests. One test will be in autumn 2016 and one in summer 2017. Both tests will be in school time.

• Let the Education Endowment Foundation link your child's data to the National Pupil Database (NPD). To learn more about linking data visit **www.natcen.ac.uk/datalinkage**.

• The Education Endowment Foundation will use the data from the NPD. Then the Education Endowment Foundation will store anonymised data in the UK Data Archive. No one will be able to identify your child from the information held in the archive.

If you have any questions please contact your child's school or **Michael Lumpkin** at NatCen social research on:

Tel: **0207 549 8522**

Email: **familySKILLS@natcen.ac.uk**

Web: **wwww.natcen.ac.uk/familySKILLS**

Appendix G: Example of a Topic Guide

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Social Research that works for society

P12016: Evaluation of Family Skills

Impact and Process evaluation

TOPIC GUIDE FOR TUTORS

Aim of the phone interview:

The aim of the interview with tutors is to explore how they were trained and how they delivered the intervention. The interviews will explore how well the schools and families engaged with the programme, the facilitators and barriers to successful implementation and views on the impacts of the programme on pupils and schools.

The topic guide:

This guide sets out a number of topics and questions that will be covered during interviews. The guide does not contain follow-up probes and questions like 'why', 'when', and 'how', etc. as participants' contributions will be explored in this way, as far as is feasible, during the 45 minute interview. Researchers will use prompts and probes in order to understand how and why views, behaviours and experiences have arisen. Some sections might be covered more or less extensively depending on the point in the course delivery at which the interview is conducted.

The interview will last for **approximately 45 minutes**.

1. **Introductions**
   - Introduce yourself and NatCen Social Research
   - Introduce the study:
     - Evaluation of Family Skills
     - Commissioned by the Education Endowment Foundation
   - Overall project aims:
     - To understand experiences of delivering Family Skills and in particular to understand barriers to delivery and what enables delivery
     - To understand the benefits of the programme for pupils.

   - Digital recording – check OK, and reassure re: confidentiality
   - Data kept securely in accordance with Data Protection Act
   - How we'll report findings – anonymity of all participants
   - Any questions/concerns?

1

2. Background
Aim: To gather background information including previous experiences of delivering training, and of working on literacy interventions
- Current occupation – where based, job(s),
- Professional background
- Experience in primary/early years education, literacy interventions, and delivering training
  - Experience working with families with EAL
  - Experience working with schools
  - Own experience of EAL
- How they became involved with Family Skills
  - How they heard about Family Skills
  - What they knew about the course ahead of the training
  - The extent to which they were involved in contributing content, if at all
- What stage of the Family Skills course have they reached?
  - How many sessions have they delivered?

3. Training received from Family Skills
Aim: To briefly explore their thoughts on the effectiveness of the training day in November, what their expectations were, and whether they felt prepared to deliver the intervention. If they did not attend the day, how they were trained to deliver the course and their thoughts on this process.

- Training day delivered by Family Skills

If they attended the training day:
  - What were their expectations for the day?
  - What were the main things they took away from the day
  - How effective did they find the day?
  - What was the most useful / what was the least useful element of the day?
  - Extent to which they felt knowledgeable about the theory of the course after the training
  - Extent to which they felt knowledgeable about the content of the course training
  - How prepared they felt to implement the programme following the training

If they didn't attend:
  - how the course content was communicated to them
  - The extent to which they felt prepared to deliver the course

- Bilingualism seminar
  - Did they attend?
  - What were the main things they took from the seminar?
  - The extent to which it was useful?
  - What was most useful / what was least useful element?
- Slack group
  - Did they make use of this?
  - If so, what for?
  - How useful was it?
  - What was most useful / what was least useful element?

2

4. Programme delivery
Aim: To establish how the programme was delivered, what were the different levels of need, engagement and communication with the participating schools.

- Engagement with schools
  - At how many schools did the tutor deliver the programme?
  - How did tutors engage with schools
    - How easy/difficult tutors found this process
    - Anything that helped, or made this more difficult?
    - If relevant, were the any characteristics of easy/ more difficult schools to engage with?
- Recruitment
  - How they went about recruiting parents to take part
  - How easy or difficult this process was
  - What was most successful in recruiting families?
  - Did they use the Family Skills recruitment resources?
    - If not, why not?
    - How helpful were these?
- Overview of the course
  - Number of families they delivered to
  - Language profile of families
    - Language ability profile of parents, including in their home language
    - Any implications of this for delivery or engagement?
  - Were there any families who weren't able to take part?
    - Why were they unable to take part?
- Resources
  - Did the tutor receive any support to deliver the intervention?
    - E.g. TA time
  - Were there any additional resources needed to implement the course?
  - How much time overall did they spend on delivering the course
    - Time spent before and after sessions?
    - How did this compare to their expectations?
    - Did the school provide a crèche?
      - If so, how many families used this?
      - If not, why not?
    - Did they use any materials in addition to the toolkit?
      - If so, what were these?
      - where did they get these from?
      - Was there a cost involved?
      - How was this cost covered?
- Engagement with families
  - How parents engaged with sessions
  - How children engaged with sessions
  - Any support the tutors offered to families
  - Any barriers to families engaging with the programme
- Retention
  - Did parents come along for the whole course/every session so far?
  - If not, which sessions didn't they come to?
  - Why do they think this was? (course content/engagement, implementation of the program, timetabling etc. or other commitments, other children, work?)
  - What sort of thing, if any, might help parents to engage with more sessions?

3

- Differentiation: how did tutors adapt the course for different levels of literacy and English?
  - In what way? Be specific
  - Why?
  - How successful was this?
- Programme adaptation: did tutors adapt the programme, or deviate from the toolkit?
  - In what way? Be specific
  - Why?
  - How successful was this?
- Three additional course sessions (library visit, talk, school tour)
  - Did/will they run the three additional sessions?
  - How many families attended these sessions?
  - How were these organised with the schools?
    - How easy/difficult was this process?
  - Extent to which families engaged with these sessions?
  - Extent to which they feel they added to the value of the course

5. Facilitators and barriers to implementation
Aim: To provide an understanding of experiences of delivering Family Skills and lessons learnt from these experiences

- Main challenges and barriers to implementation
  - Working with schools and staff
  - Working with Family Skills developers
  - The extent to which these challenges are particular to Family Skills

- What worked well
  - Working with schools and staff
  - Working with Family Skills developers
  - Extent to which this particular to Family Skills

- Examples of schools that engaged well and delivered Family Skills effectively
  - Characteristics of the school and staff involved
  - What made a difference
  - Is it replicable?
- The extent to which these barriers and facilitators are particular to Family Skills or general to family learning/EAL.

4

6. Overall views and suggested improvements
Aim: To gather views on the programme as a whole, whether they would recommend it and how it can be improved.

- Does the programme meet its aims
  - How/ Why not?
  - Views on extent of benefits for pupils
  - Views on extent of benefits for parents
  - Views on extent of benefits for schools
  - Any unexpected or negative consequences?

- Any additional support they would have liked from schools or developers
  - At what stage?
  - In what form?

- Any improvements?
  - Materials
  - Support structures
  - Programme itself
- Recommend roll-out to other schools
  - Why/ why not?
  - What kind of school might benefit?

5