Evaluation Summary	
Age range	Reception
Number of pupils	1250 pupils
Number of schools	50 schools
Design	Whole school randomised controlled trial
Primary Outcome	Reading

1. Proposed project team

The project team will be drawn from senior and experienced staff within the Centre for Effective Education (CEE) within the School of Education at Queen's University Belfast. The CEE have considerable experience in the conduct and analysis of randomised control trials and cluster randomised control trials in educational and community settings. They will draw on their expertise in relation to trials of literacy interventions having conducted 6 randomised control trials in the area of literacy over the past 5 years. The Centre has developed particular expertise in working closely with programme developers in the design, analysis and reporting of trials, while providing a thorough and robust independent evaluation of programme impacts. The team has also experience in accounting for the nested nature of the data when schools are randomised at the school level through the use of multi-level modelling.

Project Team:
Professor Paul Connolly – Project Director, is Professor of Education and Head of the School of Education at Queen's University Belfast. He is founding Director of the Centre for Effective Education, a research centre specialising in evaluating the effectiveness of educational programmes and interventions. Through the Centre, he has led a number of large-scale randomised trials in Northern Ireland, the Republic of Ireland and England. Professor Connolly also has a strong interest in systematic reviews and meta-analysis and is Co-Chair of the Education Coordinating Group of the international Campbell Collaboration. He is also founding Editor of the international journal Effective Education (Routledge Journals).

Dr Andy Biggart: Principal Investigator: and is Deputy Director of the CEE. He is an experienced research project manager on large scale mixed methods studies. He has recently been Principal Investigator for a number of large scale randomized trial evaluations in Ireland and the U.K., including a three year study of the Doodle Den balanced literacy after-school program. He is also a UK partner on a major comparative European Union funded study into educational disadvantage in Europe. He has over 20 year's research experience primarily in the conduct of evaluation and policy relevant educational research on children and young people.

Dr Sarah Miller: Co-investigator is a Deputy Director of the CEE and a psychologist with a strong quantitative and statistical background. Her experience of supervising and conducting research projects spans randomised controlled trials, systematic reviews and large scale surveys. She is Principal Investigator of an RCT of the Lifestart Parenting Programme as well as an RCT evaluation of the Business in the Community Pupil Mentoring Scheme. Dr Miller is experienced in the measurement of developmental outcomes in young children including cognitive development, and literacy outcomes.

Dr Liam O'Hare is Senior Research Fellow within the Centre for Effective Education, and he has been Principal Investigator on a range of RCT evaluations and has particular expertise in psychometric measurement and testing.

Advisors:
Professor Carol McGuinness: is Professor of Psychology at Queen's University Belfast, and is an expert in early years curriculum and literacy. She is author of the influential report, *From Thinking Skills to Thinking Classrooms,* which was commissioned by the UK Department of Education (1999) and recent research funded through ESRC TLRP programme evaluated the impact of a methodology to enhance children thinking skills in primary school classrooms.

Examples of relevant projects conducted by the team:

Literacy Randomised Trials:

- A three year randomised control trial evaluation of the Doodle Den Balanced Literacy After-school Programme with 5 and 6 year old children in Dublin (Biggart, Connolly, O'Hare & Kerr).

- A Cluster Randomised Controlled Trial Evaluation of Booktime England: A Book Gifting Intervention for Reception-Aged Children (Biggart, O'Hare & Connolly)

- A Cluster Randomised Controlled Trial Evaluation of Booktime Northern Ireland: A Book Gifting Intervention for Reception-Aged Children. (Connolly & O'Hare).

- Business in The community Time to Read Progamme (Miller and Connolly)

- A Randomised Controlled Trial Evaluation of Bookstart+: A Book Gifting Intervention for Two-Year-Old Children. (Connolly & O'Hare).

Other cluster randomised trials:

- A cluster randomised controlled trial evaluation and cost-effectiveness analysis of the Roots of Empathy schools-based programme for improving social and emotional wellbeing outcomes among 8-9 year olds in Northern Ireland (Miller & Connolly).

- Cluster Randomised Controlled Trial Evaluation of the Effects of Sesame Tree on 5-6 Year Old Children's Attitudes and Awareness (Connolly)

- Cluster Randomised Controlled Trial Evaluation of the Effects of the Sesame Tree Outreach Pack on 5-6 Year Old Children's Attitudes and Awareness (Connolly).

- Cluster Randomised Controlled Trial Evaluation of the Effects of the 'Eager and Able to Learn' Programme on 2-3 Year Old Children's Early Dispositions Towards Education. (Connolly & Miller).

- Cluster Randomised Controlled Trial Evaluation of the Effects of the Media Initiative for Children on 3-4 Year Old Children's Attitudes Towards Diversity and the Republic of Ireland. (Connolly & Miller).

Roles and responsibilities:
Professor Connolly will have overall responsibility for the direction and delivery of the project. He will also provide appropriate support and advice on the analysis.

Dr Andy Biggart is the Principal Investigator and will have responsibility for overseeing all aspects of the design, randomisation and the analysis and write up of the data. He will be supported by Dr Sarah Miller who has extensive experience in the conduct of CRCT's and multi-level modelling in relation to CRCT's. Dr Liam O'Hare will provide support in relation to psychometric measurement and the conduct of the process evaluation surveys through Questback.

2. Impact evaluation summary main study

2.1 Context and design rationale

The great emphasis that has been placed on the development of children's early literacy skills is very much related to its role as a gateway subject. Literacy skills are widely recognised as an important precursor to general academic achievement as well as in relation to broader participation in society. Longitudinal studies have also shown that children who fail to gain adequate basic literacy skills at an early stage are unlikely to catch-up later (Brooks, 2007; Francis, Shaywitz, Stuebing, Shaywitx & Fletcher 1996; Juel, 1988).

There has, however, been considerable debate and controversy over the best approaches for the teaching of literacy, especially among struggling beginning readers. This has been exemplified by what has been termed the 'literacy wars' between whole-language approaches and those that advocate the teaching of phonics. A systematic review limited to evidence from randomized trials concluded there was evidence that systematic phonics instruction was more effective than whole language or word approaches (Torgerson, Brooks & Hall, 2003). Although the importance of the teaching of phonics has a strong evidence base, many reviews have concluded that it is insufficient on its own. Cowen (2003) for example, synthesized six major research studies which considered the early stages of learning to read and concluded that direct phonics teaching should not be taught on its own, in isolation from meaning and understanding. A number of national reviews, including the Rose Report, support this increasing consensus that a variety of approaches are required, including the use of systematic phonics, to support the literacy needs of all children (Rose, 2006; NICHD, 2000; Rowe, 2005).

This more balanced approach is reflected in the Success for All programme which is a multi-component programme that includes the teaching of synthetic phonics with other evidenced based components, but also includes a major focus professional staff development and school-wide structures. These have been identified as important components of successful literacy programmes (Slavin et al, 2007). The main impact evaluation will focus upon providing an independent assessment of the effectiveness of the main Successful for All programme in improving struggling readers literacy skills in English schools. The Success for All programme has good evidence of effectiveness within the United States where a large number of evaluations have recorded positive improvements in children's literacy with pooled average effect sizes of around +0.5. However, many of these studies have involved quasi-experimental matched non-randomised designs, which have a tendency to inflate effect sizes (Wilson & Lipsey, 2007). There has been one major cluster randomised trial of Success for All in 41 schools in the US (Borman et al, 2007), the results of which were also positive but with more modest effect sizes (0.2-0.33). A number of smaller scale studies have been conducted in the UK of the programme which have shown positive effects in the Englsh context (Slavin, Wordworth & Jones-Hill, 2005: Harris, Hopkins & Wordworth, 2001) although another evaluation found mixed effects (Tymms & Merrell, 2001).

While there is a substantial body of existing evidence of the effectiveness of Success for All both in the US and the UK, it has only been evaluated through one large scale RCT in the US. There is therefore a need for the conduct of a high quality rigorous independent randomised control trial to strengthen the evidence behind the programme and its implementation in the UK context.

2.2. RCT: Impact of Main Success for All Programme

The Institute of Effective Education have been provided with funding from the EEF to undertake the fieldwork for the evaluations and this proposal outlines the independent oversight of the work and the respective roles of CEE and IEE.

2.2.1 Pre trial support and design

- **Sampling of Schools**: The schools samples will be geographically dispersed throughout England although will be concentrated in the North and the Midlands.

- **Random allocation of schools to intervention groups.** 50 schools will be required for the random allocation. Schools will have agreed to take part in the evaluation for all 3 years in advance and consent sought prior to randomisation.

  As a clustered trial in order reduce the amount of variation between schools in the intervention and control groups a blocked or minimisation process will be developed as part of the randomisation process. This will take account of school level factors, such as geographical location, proportion of children receiving Free School Meals, Key Stage results.

- It is important that all schools are aware in advance and during recruitment of the random allocation process and that they will have a 50% chance of receiving Success for All. They will then be randomly assigned to the two experimental groups (with 25 schools in each group). The randomisation process will be conducted by the CEE team and an independent observer. Schools that form part of the control group will be compensated £2,000/year for their participation in the evaluation.

- **Measures used in the impact assessment.** These have currently been pre-specified by the IEE for the main evaluation (outlined below), these seem appropriate and there are advantages of using similar measures for the purposes of synthesis. IEE should seek joint agreement with the CEE over the final format of measures to be assessed providing full details of the final testing materials, format of collection and the details of the way in which any additional demographic data on the children will be obtained.

2.2.2 Measures

The pre-specified measures are age appropriate instruments that have been used widely in evaluations of literacy abilities in younger children, have been normed on large samples and all display satisfactory reliability.

The British Picture Vocabulary Scale (BPVS) will provide a standardised pre-test score and as no reading or verbal response is required it is deemed suitable for children for whom English is an Additional Language. This will provide a baseline measure in the analysis of post-test outcomes.

Post-test measures

Pupils will be post-tested using a variety of measures at several time points. The first outcome measure is the Woodcock Reading Mastery Test sub-scales: Letter Identification, Word Identification and Word Attack that would assess basic literacy skills at the end of Reception class. This is an age appropriate measure although it has not been normed on a UK based sample but the 3rd edition has been approved for use in the UK by the SpLD Assessment Standards Committee with the caution that it may require revision for Americanisms and other cultural features.

Woodcock Reading Mastery Sub-scales III

Letter Identification (End of Reception Class)
Word Identification (End of Reception Class)
Word Attack (End of Reception Class)
Word Identification (End of Year 1)
Word Attack (End of Year 1)
Passage Comprehension (End of Year 1)

Key Stage 1 assessments (Phonics check Year 1)

2.2.3 Test administration

Test administration has already been funded to be collected by the IEE. In particular, it will be important that the test administrators are blinded to treatment group. Following test-administration the raw test questionnaires should be sent to the CEE for data entry. For quality control purposes we feel it is important for the main study that the data entry is conducted by the independent evaluation team, but protocols would be put in place for the early sharing of data at the conclusion of the study.

2.2.4 Data Analysis

There will be a number of parts to the data analysis:

The initial effects of the programme will be analysed at the end of Year 1, although the results will not be disclosed until the end of the programme and final analysis. Analyses of the data will be conducted using multi-level modelling to take account of the fact that pupils are nested within schools. Failure to take account of the nested nature of the data would likely lead to an over-estimation of programme effects.

Pre-test Measure: British Picture Vocabulary Scale
The following demographic data will also be collected (gender, ethnicity, FSM percentage and EAL percentage)

Primary Outcome Measures at Post-test:

Woodcock Reading Mastery subscales:
- Letter Identification
- Word Identification
- Word Attack
- Passage Comprehension

Secondary Outcomes:
- Key Stage 1 assessments (Phonics Check)
- ADHD related behaviours (Teacher assessed)

As stated above the BPVS measure will act a pre-test score for all statistical models.

The second part of the analysis will involve a pre-specified exploratory analysis. The impact data can be used in an exploratory analysis to examine the differential response to the intervention (For example, does it only work for some groups – boys/girls, ethnicity, children of different abilities at baseline, high/low implementation schools).

2.2.5 Sample Size

Assuming an average class size of 25 and 50 schools the main evaluation of the SfA should have an overall sample size of around 1250. Power calculations suggest that with 50 schools we should be able detect effect sizes of around 0.2. Using Optimal Design software with the parameters outlined below the current study design has a power of 80% to detect an effect size of 0.22.

The following parameters were used in the power calculation:

- Significance level (α) = 0.05
- Power (P) = 80%
- Cell size (n) = 25
- ICC (ρ) = 0.10
- Proportion of variation at level 2 (R^2_{l2}) = 0.60

3. Process evaluation summary

CEE will undertake a detailed process evaluation of the main programme to include a survey of key stake-holders, observation of the programme in a sample of schools and in-depth interviews to examine implementation and fidelity to inform scale-up and wider roll-out.

3.1 Questionnaire survey

CEE will conduct an online questionnaire survey of the member of teaching staff in each participating school responsible for leading the intervention (n=50) at two separate time points. The surveys would cover a number of stages of the intervention: initial implementation and after the programme had bedded down (towards the end of the first year).

The first survey will focus on implementation with key issues likely to include: training, teacher resistance, initial views on Success for All approach including whether they feel the programme is too prescriptive, early implementation issues, and the timing of activities.

The second survey at the end the year will focus on any issues that arose over the course of the intervention year: how well the approach worked overall, support, views of what worked well and what did not work so well.

All responses to on-line surveys will be hosted by the on-line questionnaire provider Questback, which Queen's University has an account and technical support for. Questback has been used by the CEE to conduct on-line evaluations of this kind through other research projects. Response rates would be maximised by follow-up telephone calls to any non-respondents, who would be encouraged to complete the questionnaire by phone. Using this method in previous studies we have achieved up to 100% response rates. Closed questions will be analysed using descriptive statistics and open questions will be thematically coded.

3.2 Observations and in-depth interviews

A small number of schools will be selected for observation and in-depth interviews by CEE (maximum 10) with the lead member of staff in selected schools, or other appropriate stakeholders. This will gather in-depth information on the extent to which the scheme was implemented as envisaged, what issues were encountered, and for whom, and how these were addressed. In addition observations will be conducted in these schools during the delivery of the programme in order to examine fidelity and any problems encountered such as problems with the timing of activities or issues with differentiation according to ability.

SFA trainers will also collect data on implementation which will feed into the main impact assessment.

4. Main issues or risks to the evaluation and how they would be addressed.

Risk	Assessment	Countermeasures and contingency plan
Schools decide they no longer want to be part of evaluation following randomisation	***Likelihood:*** Low ***Impact:*** Low	Control schools are being provided with £2,000 compensation
IEE and CEE have differences of opinion on trial design, measures or approach to analysis	***Likelihood:*** Medium ***Impact:*** Medium	Early project initiation meeting with IEE and EEF to finalise project design and agree measures. CEE staff have experience of working closely with programme developers in a flexible way while maintaining the robustness of the study design and independence of evaluation.
Differential Pupil Attrition from control and intervention groups	***Likelihood: Low*** ***Impact: Low***	With a well-designed trial of this size we would expect some attrition but with this sample size this should be evenly matched between control and intervention schools. Imputation methods used if required
Lack of study power	***Likelihood: Low*** ***Impact: Low***	Some smaller observed effect sizes may not be significant. This will be dealt with in the interpretation of the impact results.

Risk	Assessment	Countermeasures and contingency plan
OTHER	***Likelihood:*** ***Impact:***	
Data protection and ethics	***Likelihood:*** Low. ***Impact:*** High.	Robust data protection and ethical procedures are in place at CEE. York have already obtained ethical approval for the study testing and data sharing protocols will be established.
Staffing issues: staff leaving/unavailable over extended duration of project	***Likelihood*:** Medium(turnover low) ***Impact:*** High.	Succession planning has been built into team roles. Large team can absorb problems in the short-term. Sufficient numbers of experienced staff in senior roles to cover others in the team.

6. Timeline (See below)

References

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	Jan-Feb 2013	March-April 2013	May-June-2013	July-Aug 2013	Sept-Oct-2013	Nov-Dec 2013	Jan-Feb 2014	March-April 2014	May-June-2014	July-Aug 2014	Sept-Oct-2014	Nov-Dec 2014	Jan-Feb 2015	March-April 2015	May-June-2015	July-Aug 2015	Sept-Oct-2015	Nov-Dec 2015
1.EvaluationPlanning																		
Evaluation Design (CEE/IEE)																		
Recruitment of Schools (IEE)																		
Ethical Approval (IEE & QUB)																		
Randomisation of Schools (CEE)																		
2.Impact Evaluation																		
Administration of pre-test (IEE)																		
Administration of post-test (IEE)																		
Collection of KS results (IEE)																		
Administration of post-test (IEE)																		
Data Entry (CEE)																		
Interim Analysis (CEE Blind)																		
Final Analysis (CEE) and Report																		
3.Process Evaluation																		
Process Design (CEE)																		
Survey administration (CEE)																		
Telephone Follow-up (CEE)																		
Survey Analysis (CEE)																		
In-depth Interviews and observation (CEE)																		