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***Results From a Phase-2 Exploratory
Trial of Fluency and Comprehension
Instruction in English Elementary
Schools***

Dr Maria Cockerill, Prof Allen Thurston,
& Dr Joanne O'Keeffe
Queen's University Belfast



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UK and England context

- Reading is a global issue: 23% of children fail baseline levels of proficiency restricting their life chances ([OECD, 2019](#))
- UK was ranked 10th out of 38 countries in PISA 2018 assessments of international reading (OECD, 2018). (504/487)
- England context: national tests for 11-year-olds (DfE, 2019).
 - 27% fall below age expected standards
 - ... and 51% of socio-economically disadvantaged.

Reading Fluency & Reading Comprehension

Fluency instruction

Evidence based, to improve reading in schools for students with low literacy levels - widely used in US (Rasinski & Nageldinger, 2016; Wanzek 2016).

Meta-analysis Grade 4-12 students, positive effect sizes of +0.16 for reading fluency and word-reading fluency outcomes (Wanzek et al., 2013; Stevens et al., 2016)

- Reading comprehension interventions are associated with higher effect sizes than fluency interventions on their own (Scammaca et al, 2015)

Comprehension instruction

Evidence based: Developed in NZ Inference training (Kispaal, 2008) & Reciprocal Reading (Palincsar, 1982) widely used.

RCT trial evidence shows RR also successful in England, with positive effect sizes of +0.13-+0.25) (*O'Hare et al, 2019; Thurston et al, 2020*).

Objectives of the *FliC* Intervention, Phase II Randomised Control Trial

- To establish a Phase 2 exploratory trial to test a Fluency into Comprehension program (FliC):
 - Can it be implemented in English elementary schools?
 - What is the impact on children's reading ability?
 - Is the program scalable
- This presentation reports the results of the *FliC* program in 12 schools, across four district areas in a high poverty region of North-East England.



Fluency into Comprehension program (*FliC*)

- Fluency into Comprehension program (FliC) designed to provide instruction for children able to decode but who require additional fluency instruction to participate in a standalone comprehension programme.
- Developed by Fischer Family Trust (Literacy) for use in elementary schools
 - Includes training staff in groups (Lead and delivery staff)
 - Supporting schools through implementation (online)
 - Resources to support implementation
- Dosage: Three 20-minutes sessions weekly over 12 weeks (Session 1 and 2 focus on Fluency and Session 3 on Reciprocal Reading)

Theoretical Framework

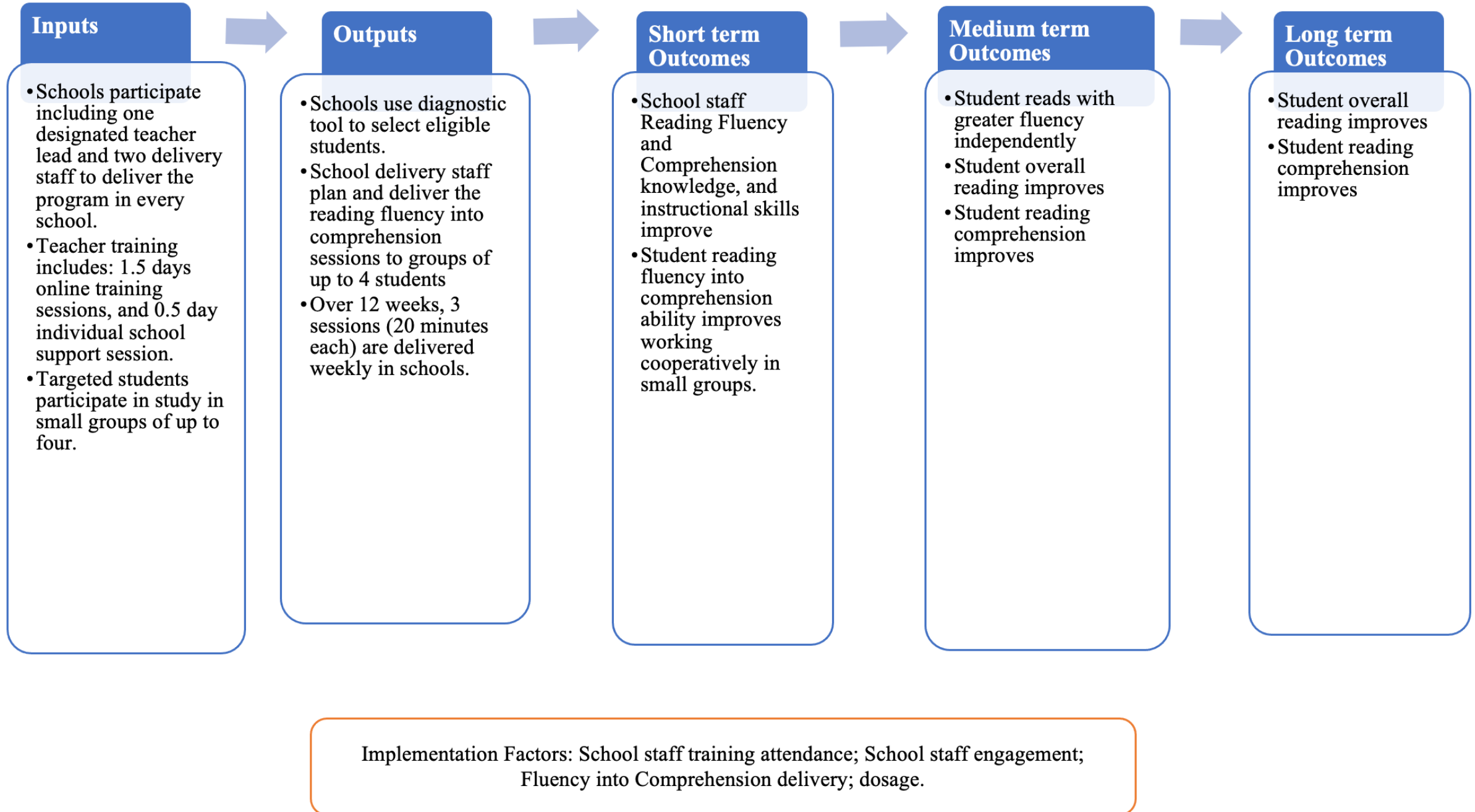
For co-operative learning to be present during *FliC* then social interdependence must be present in the form of:

- Group accountability-we all need to work as a group if we are to succeed
- Individual accountability-We each need to undertake our own roles well
- Social Interdependence-between individuals and the group
- Developed in the United States for schools in high poverty areas

(Johnson & Johnson, 2012; Johnson, Johnson & Roseth, 2010)

- *FliC*: The group works together to succeed as they read & understand text. All members have responsibilities for their performance and clear patterns of interaction are defined during *FliC*.

Figure 1 The Fluency into Comprehension program logic model



Sample

- 12 state funded elementary schools in North-East England took part with up to 16 students (8 from Grade 2 and 8 from Grade 3)
- 186 children aged 7-9 participated of which:
 - 103 Grade 2 students
 - 83 Grade 3 students

Allocation to condition

- Individual randomization to condition was undertaken for 186 students by listing students alphabetically within their year group (Grade 2 or Grade 3) and school (n=12).
- Once the first class of four students from a year group was assigned to condition the other four students were randomized sequentially to condition in Grades 2 and 3 respectively. This methodology was used to ensure even numbers of treatment and control students in each arm of the trial.
- True randomization and no minimization was used

Methodology

- 12 schools participated each with 16 students (8 Grade 2 and 8 Grade 3)
- Treatment group: Four Grade 2 and Grade 3 students in each school received *Fluency into Reading Comprehension intervention*.
 - Implementation was led by trained staff, in timetabled 30 minute sessions over 12 weeks.
- Control group: Four Grade 2 and Grade 3 students in each school continued with business as usual.

Outcome measures

- Used New Group Reading Test (GL Assessment)
 - Standardized, independent measure of reading attainment to measure pre/post test reading attainment
 - Chronbach alpha 0.9 (GL Assessment, 2018)
- Primary Outcome Measure - Overall Reading
- Secondary Outcome Measures - Reading Comprehension
 - Passage Comprehension
 - Sentence Completion

Results: Reading attainment

- Overall Reading: Positive Effect Sizes of +0.26 based on 12-week intervention
- 13% missing data in line with other education trials
- Very positive evaluations from teachers and leaders
- The technique is ready to be tested at greater scale

Scholarly significance of the research

- This is the first study to show that the fluency into comprehension/cooperative learning technique used in *FLiC* can work with positive effects in a randomised trial
- A further significant finding is that this could be a low cost and effective technique for schools from high poverty areas to improve the reading skills of children with low literacy skills.

Conclusion

- The pedagogy should now be researched in a Phase 3 trial
- Further work is now required to explore the use of the pedagogy in more detail, and to determine whether they can be generalised to a larger population of students.

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For further information:

Maria Cockerill maria.cockerill@qub.ac.uk