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Using a vocabulary intervention to improve reading in English elementary schools

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Registration date 13/06/2024	**Overall study status** Completed	
Last Edited 13/06/2024	**Condition category** Other	

Plain English summary of protocol

Background and study aims
Reading is a key skill for success and it is important to help children improve their reading in primary schools, given that in England, 27% of English children and 49% of disadvantaged pupils fail to reach expected reading standards aged 11. Lower vocabulary expertise adds to children's reading attainment failure and evidence shows that vocabulary instruction improves children's reading. However, only 27% of primary schools have a programme for pupils with limited vocabulary. This study aims to up-skill school staff to deliver a targeted intervention aimed at improving children's vocabulary thereby enabling them to improve their reading.

Who can participate?
Children who are struggling readers aged 7-9 years in English primary schools

What does the study involve?
The study involves testing a targeted vocabulary instruction program, including a cooperative learning approach to learning new words (Tier-2 words of general significance selected from classroom texts). The intervention sessions include a lesson structure (Revise, Teach, Practise, Apply) and are delivered in small groups of four children by trained teaching assistants supported by teacher leads, three times per week (20 minutes) over 20 weeks (12 weeks minimum).

What are the possible benefits and risks of participating?
The intervention program has been tested before in a smaller study which showed schools found the program valuable and implementable in their setting, with the outcome of improved reading ability of approximately 4-5 additional months, for the children involved, compared to a control group who continued with usual practice. The study will test this program with a larger number of schools and children, to understand if the results are replicable at a greater scale. There are no anticipated risks to participating in this study.

Where is the study run from?
Queen's University Belfast

When is the study starting and how long is it expected to run for?
July 2023 to June 2026

Who is funding the study?
The Nuffield Foundation

Who is the main contact?
Maria Cockerill, maria.cockerill@qub.ac.uk

Contact information

Type(s)
Public, Scientific, Principal investigator

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Additional identifiers

Study information

Scientific Title
A phase III definitive RCT of vocabulary for reading in elementary schools in England

Acronym
VfR

Study objectives
The study will provide a structured vocabulary instruction program and appropriate training to teachers and teaching assistants. It is proposed that the processes underpinning the effective use of the Vocabulary for Reading technique can be improved. This assumes that the training will impact on the professional action of teachers and teaching assistants, resulting in the use of these alternative pedagogies. As a result it is projected that students who are systematically exposed to using the new vocabulary working collaboratively in the designed format through a structured lesson including four elements (Revise, Teach, Practice, Apply), will develop their vocabulary and ability to read comprehension resulting in improved reading outcomes.

Ethics approval required
Ethics approval required

Ethics approval(s)

Approved 25/10/2023, Queen's University Belfast, School of Social Sciences, Education and Social Work Ethics Committee (69/71 University Street, Belfast, BT71HL, United Kingdom; +44 (0) 28 9097 5941; ssseswethics@qub.ac.uk), ref: 198_2223

Primary study design
Interventional

Study design
Phase III definitive randomized controlled trial

Study type(s)
Treatment

Health condition(s) or problem(s) studied
Improve reading in English elementary schools

Interventions
The Vocabulary for Reading program study will be a Phase III definitive RCT. Students will be randomized to conditions at the school level (including up to 8 students from each school), complemented by a process evaluation. The study will primarily look at the effect of the Vocabulary for Reading program on the reading ability of students in elementary schools (Primary outcome) and the improvement in vocabulary development. Pre and post-test measures of up to 512 students in Years 3 and 4 in up to 64 schools in England will assess the effectiveness of the Vocabulary for Reading program in optimal conditions on a larger scale than previously used in elementary schools in England.

The trial will include up to 8 students from each school, selected by the school as eligible to take part in this trial. Schools will select students using the carefully developed selection criteria included in the guidance provided to them by the trainers to identify students who can read with relative accuracy but who struggle with vocabulary and comprehension. The sample will be drawn from schools with higher than average numbers of pupils from socio-economic disadvantages with the overall sample of schools being above the national average of 22% of students who are eligible for Free School Meals (FSM Ever), an indicator of poverty used in England (DfE, 2019a). The sample will be composed of state-funded schools, that identify as comprehensive or elementary schools.

Eligible children learn in small groups of four during sessions. In each session, they learn new words (mostly Tier-2 words of general significance) aligned with curriculum texts. A multi-strategy approach to session delivery includes dictionary use, and group activities (eg games and role play), with exposure to morphology, grammatical function, and idiomatic and metaphorical language. Every session includes a fixed lesson structure with four elements: Revise, Teach, Practice, and Apply. The study duration comprises three weekly 20-minute sessions over 20 weeks (12 weeks minimum).

The study will primarily use the New Group Reading Test (NGRT digital version) from GL-Assessment. This is an adaptive test which has high reliability (Alpha values 0.9) (GL-Assessment, 2018). This test has two sub-scales sentence completion and passage comprehension. Performance on each of these sub-scales is combined to report an assessment of reading ability, both as a raw score and as an age-standardised score. The analysis will be undertaken on raw scores.

Simple random assignment to condition will be used. No stratification (i.e., minimization) will be used. Schools will be ranked according to the time they complete the NGRT pre-test, then randomly assigned to condition (intervention or wait-control) using the method of randomly permuted blocks of random size (Randomization.com).

Other measures include the Progress in Reading Assessment (PiRA digital version) from RS Assessment, Hodder Education. This is an adaptive test which has high reliability (Alpha values 0.84-0.92). PiRA includes a specific vocabulary sub-scale amongst 8 subscales: vocabulary, comprehension, summary, inference, prediction, structure, impact and comparison. These combine to give a reading raw score which is standardised into a reading age. Analysis will be undertaken on the vocabulary sub-scale.

Intervention Type
Behavioural

Primary outcome(s)
Reading ability measured using the New Group Reading Test (NGRT digital version) at baseline (September 2024) and endline (June 2025)

Key secondary outcome(s)
Vocabulary measured using the Progress in Reading Assessment (PiRA digital version) at baseline (September 2024), midline (Feb-Mar 2025) and endline (June 2025)

Completion date
09/06/2026

Eligibility

Key inclusion criteria
1. Students in Years 3 and 4, from 64 elementary schools in England
2. Students who can read with relative accuracy but who struggle with vocabulary and comprehension

Participant type(s)
Learner/student

Healthy volunteers allowed
No

Age group
Child

Lower age limit
7 Years

Upper age limit
9 Years

Sex
All

Total final enrolment
512

Key exclusion criteria
Low reading levels, as measured by their completion of the Phonics section of the NGRT adaptive reading test, preventing them from completing the passage comprehension section of the test.

Date of first enrolment
04/01/2024

Date of final enrolment
31/05/2024

Locations

Countries of recruitment
United Kingdom

England

Northern Ireland

Study participating centre
Queens University Belfast
20 College Green
Belfast
United Kingdom
BT7 1LN

Sponsor information

Organisation
Queen's University Belfast

ROR
https://ror.org/00hswnk62

Funder(s)

Funder type
Research organisation

Funder Name
Nuffield Foundation

Alternative Name(s)
NuffieldFound

Funding Body Type
Private sector organisation

Funding Body Subtype
Trusts, charities, foundations (both public and private)

Location
United Kingdom

Results and Publications

Individual participant data (IPD) sharing plan
Data will be anonymised carefully by stripping out personal identifiers that could lead to identification of a school or an individual. Both Cockerill and O'Keeffe are certified under the Northern Ireland Statistical Records Agency (NISRA) Safe Researcher scheme. This is a form of certified training that trains researchers how to exclude risk of unintentional disclosure. To minimise this risk some data may be removed from the data set (eg. where cell numbers are small and there is a risk of unintentional disclosure). Variables that will be included in this data set will include an anonymous project pupil identifier code, anonymous project class identifier code, anonymous project school identifier code, FSM status, SEN status (statement/non-statemented), EAL status, age at post-test, gender, NGRT sentence completion sub-scale score, NGRT passage comprehension sub-scale score, NGRT overall reading test score, NGRT standardised reading score, NGRT reading age, PiRA vocabulary sub-scale score, and condition (control/VfR) and any other sub-scale scores from PiRA used.

IPD sharing plan summary
Stored in non-publicly available repository

Study outputs

Output type	Details	Date created	Date added	Peer reviewed?	Patient-facing?
Study website	Study website	11/11/2025	11/11/2025	No	Yes