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Evaluating the Research on the Instruction of Literacy with Language (RILL) intervention programme for children learning through the medium of English

Submission date
23/09/2022

Recruitment status
No longer recruiting

Registration date
27/09/2022

Overall study status
Completed

Last Edited
17/09/2025

Condition category
Mental and Behavioural Disorders

[ ] Prospectively registered
[ ] Protocol
[ ] Statistical analysis plan
[X] Results
[ ] Individual participant data

Plain English summary of protocol
Background and overall aims
The Research on the Instruction of Literacy and Language (RILL: www.rillresearch.org) programme began in early 2020 in response to the COVID-19 outbreak. In its current form, it provides a fun and intensive fifteen-week language and literacy programme that can be delivered either through the medium of English or through the medium of Welsh. Crucially, it applies cutting-edge knowledge from reading science – i.e., what works – and it can be delivered to the child in their home or in the classroom. It is therefore potentially available to highly disadvantaged children (school non-attenders) as well as those able to attend school.

Who can participate?
Children who are in Key Stage 2 (7 – 9 years) with reading difficulties enrolled in mainstream primary schools in the UK.

What does the study involve?
Participants complete short screening tasks to assess reading ability. This is followed by completing short assessment activities measuring reading, writing and language skills with a teaching assistant present. Half of the children will then complete the RILL programme, in which lessons occur twice weekly for 15 weeks (around 45 minutes per lesson). The other half of the children will complete classroom activities as normal and the RILL programme at a later date.

What are the possible benefits and risks of participating?
Possible benefits are children's literacy and language skills will improve, teaching assistants' skill levels in delivering interventions will improve, and schools will benefit from support from the team. We anticipate no risk to participants or schools.

Where is the study run from?
Bangor University in collaboration with Leeds Trinity University and the University of Oxford (UK)

When is the study starting and how long is it expected to run for?
January 2022 to August 2024

Who is funding the study?
Nuffield Foundation (UK)

Who is the main contact?
1. Prof Manon Jones, manon.jones@bangor.ac.uk
2. Dr Cameron Downing, c.downing@leedstrinity.ac.uk

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Additional identifiers

Clinical Trials Information System (CTIS)
Nil known

Protocol serial number
EDO/FR-000023452

Study information

Scientific Title
Evaluating the English-medium Research on the Instruction of Literacy with Language (RILL) intervention programme for children with reading difficulties, aged 7 - 9 years old, compared with age-matched, wait-list control children on reading and language measures

Acronym
RILL-Eng

Study objectives
Current study hypothesis as of 23/05/2023:
We predict that:
1. Children in the experimental group, receiving the RILL intervention, will make greater gains in word-level literacy and reading comprehension
2. Improvements will be maintained six months after intervention at the post-test
3. Reading comprehension improvements will be mediated by the improvements in literacy at the post-test

Previous study hypothesis:
Children receiving the RILL intervention will make greater gains on literacy and language outcome measures (indices of phonological awareness, word-level decoding and fluency, spelling, and vocabulary) compared with children in the wait-list control group.

Ethics approval required
Old ethics approval format

Ethics approval(s)
Approved 07/09/2022, Ethics board of the School of Human and Behavioural Sciences (Brigantia Building, Penrallt Road, Bangor University, LL57 2AS, UK; +44 (0)1248388740; c.saville@bangor.ac.uk), ref: 2022-17213

Study design
Multicentre interventional concealed randomized controlled trial with wait-list control

Primary study design
Interventional

Study type(s)
Treatment

Health condition(s) or problem(s) studied
Children with reading difficulties (e.g., developmental dyslexia)

Interventions
Current interventions as of 23/05/2023:
Children are randomly allocated, within their class, to the intervention and the waitlist control arm of the study. Children in the intervention arm will receive the RILL programme twice a week for 15 weeks. Each lesson is administered by a trained teaching assistant and lasts ~45 minutes per lesson. The intervention will be administered outside standard literacy instruction.

Children in the waitlist control arm will receive standard instruction during the period that the intervention arm receives RILL. Once children in the intervention arm have completed RILL (following the post-test), children in the wait-list control group will then receive RILL (under the same conditions).

The RILL intervention: RILL is a highly structured, scripted, programme based closely on earlier demonstrably effective interventions developed by Hulme and colleagues, particularly the Reading with Vocabulary Intervention (REVI) and Reading Intervention programmes. These programmes share a focus on the explicit teaching of vocabulary and phonological awareness, combined with highly structured reading instruction, in which the word and text level information is matched to the learner's level. In addition, lessons are short but regular (National Literacy Strategy, 2000) which is in line with theories concerning the importance of distributed learning for effective memory consolidation. RILL targets specific skills related to the development of vocabulary and visual word recognition suitable for children of all abilities in children aged 7 – 9 years old. Language-rich interventions, focusing on vocabulary development and word decoding provide the foundations for strategic and automatic reading comprehension. We developed RILL as a distilled literacy programme which focuses on targeting empirically validated literacy-related skills by adapting demonstrably effective instructional techniques for delivery online.
1. Words of the Day (5 minutes): Vocabulary is targeted via direct instruction in the meaning and written form of 2 words each day. We selected Tier 2 words which are high frequency for mature language users, utilised across multiple domains, have good instructional potential and build upon children's conceptual understanding.
2. Passage of the Day (10 minutes): Reading is targeted by asking children to read a passage aloud, containing the words of the day. The instructor asks two-to-three comprehension questions for each text.
3. Word Games (5 minutes): Phonemic awareness is trained by asking children to blend words.
4. Word Writing (10 minutes): Spelling is trained by first training letter-sound knowledge (if needed) and then focusing on specific vowel-spelling patterns.
5. Story Time (5 minutes): Narrative skills are trained by focusing on one key narrative skill (characters, sequencing, structuring, elaborating, connectives, and verb use) in both the verbal and written domains. These skills are used to construct a story over the last 10 sessions.
6. Words of the Day Recap (5 minutes): Words of the day are recapped by asking the child to recall the words, define them, and produce examples of using the words in context.

Previous interventions:
For the intervention arm, children will receive the RILL intervention programme twice a week for 15 weeks. Each lesson is administered by a trained teaching assistant and lasts for up to 45 minutes per lesson. The intervention will be administered outside standard literacy instruction.

The waitlist control arm will receive standard instruction during the period that the intervention arm receives RILL. After the children in the intervention arm receive RILL, children in the wait-list control group will then receive RILL (under the same conditions).

Intervention Type
Behavioural

Primary outcome(s)
Current primary outcome measures as of 23/05/2023:
The following primary outcome measures are assessed at baseline, post-test (following the intervention, which is +15 weeks) and follow-up (+ an additional 15 weeks) and reflect two latent literacy variables:
1. Word-level reading measured using measures created from single-word reading, single-word spelling, word fluency and pseudoword fluency taken from Word Reading Accuracy (Wide Range

Achievement Test 5th edition; WRAT-5)
2. Reading comprehension measured using the York Assessment of Reading for Comprehension Passage Reading (YARC Passage Reading)

Previous primary outcome measures:
Latent literacy measured using a variable created from the measures of single-word reading, single-word spelling and passage-reading accuracy used at each timepoint from baseline (pre-test) to post test (15 weeks)

Key secondary outcome(s))
Current secondary outcome measures as of 23/05/2023:
The secondary outcome measures include those measuring the language skills of phonemic awareness (Multilanguage Assessment Battery of Early Literacy; MABEL) and vocabulary (expressive vocabulary assessment of items taught during the RILL programme itself). Measures are taken at baseline, post-test (following
the intervention, which is +15 weeks) and follow-up (+ an additional 15 weeks).

Previous secondary outcome measures:
1. Phoneme awareness measured using MABEL phoneme deletion in English and Welsh at pre and post test
2. Vocabulary measured using a criterion reference test at pre and post test
3. Rapid naming measured using the MABEL test battery at pre and post test

Completion date
01/08/2024

Eligibility

Key inclusion criteria
Current participant inclusion criteria as of 23/05/2023:
1. Children aged 7 - 9 years old
2. Undertaking English-language instruction at school
3. Normal or corrected-to-normal vision and hearing
4. Identified as having literacy difficulties via a reading screener

Previous participant inclusion criteria:
1. Children aged 8 - 10 years old
2. Undertaking English-language instruction at school
3. Normal or corrected-to-normal vision and hearing
4. Identified as having literacy difficulties via a reading screener

Participant type(s)
Other

Healthy volunteers allowed
No

Age group
Child

Lower age limit

7 years

Upper age limit
9 years

Sex
All

Total final enrolment
285

Key exclusion criteria
Children not in a mainstream school setting

Date of first enrolment
01/09/2022

Date of final enrolment
01/07/2023

Locations

Countries of recruitment
United Kingdom

Wales

Study participating centre
Bangor University
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Sponsor information

Organisation
Nuffield Foundation

ROR
https://ror.org/0281jqk77

Funder(s)

Funder type
Charity

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
The datasets generated during and/or analysed during the current study will be stored in a publically available repository (http://reshare.ukdataservice.ac.uk); raw, anonymised data will become available 12 months after data collection and available indefinitely (or until a date decided upon at a later date). Open data will be available to anyone via mechanisms available in reshare (the licence applied to the data will be attribution non-commercial share alike: CC BY-NCSA). Consent will be obtained from participants to share anonymised data.

IPD sharing plan summary
Stored in non-publicly available repository

Study outputs

Output type	Details	Date created	Date added	Peer reviewed?	Patient-facing?
Participant information sheet	Participant information sheet	11/11/2025	11/11/2025	No	Yes
Preprint results		16/09/2025	17/09/2025	No	No
Study website	Study website	11/11/2025	11/11/2025	No	Yes