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The effectiveness of the Oral Language for Literacy Intervention (OLLI) program in children with developmental language difficulties

Submission date
10/12/2021

Recruitment status
No longer recruiting

Registration date
13/12/2021

Overall study status
Completed

Last Edited
20/04/2026

Condition category
Mental and Behavioural Disorders

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

Plain English summary of protocol
Background and study aims
This study will evaluate the effectiveness of the Oral Language for Literacy Intervention (OLLI) programme, which is a 20-week educational programme suitable for children in Years 4-5 (aged between 7-10 years) in English primary schools. The programme is designed to improve the language skills of children with language learning weaknesses. It is delivered by specially trained teaching assistants working with children individually and in small groups. Evidence from a previous study showed that an earlier version of this programme improved children's language skills. The current study uses an extensively revised version of the programme and will seek more robust evidence, from a larger sample, for the effectiveness of the programme.

Who can participate?
Children in Year 4 and 5 classes (aged between 7-10 years) in English primary schools.

What does the study involve?
Before the intervention programme begins all children in all participating classrooms will be assessed with LanguageScreen, an app-based assessment of four core language skills: expressive vocabulary, receptive vocabulary, sentence repetition, and listening comprehension (https://oxedandassessment.com/language_screen). Based on this assessment the six children in each participating Year 4 classroom with the poorest language scores will be selected for detailed language assessment. After pretesting is completed, the children will be randomly allocated within each class to the intervention group or waiting list control group. The three children in each participating class in the intervention group then receive the programme for 20 weeks from January 2022 to June/July 2022. The three children in the waiting list control group will receive the intervention from September 2022 to March 2023. Once the intervention group have completed the 20-week programme all children in every participating class will be assessed again using the same assessments (July 2022). The language skills of children in the intervention group will be compared to those in the waiting list control group to see how much the children who received the intervention have improved as a result.

What are the possible benefits and risks of participating?
Children taking part in the intervention will benefit from additional small group and individual teaching sessions. All six children in each class identified through the whole class screening as having language weaknesses will receive the intervention. There are no anticipated risks of participation.

Where is the study run from?
University of Oxford (UK)

When is the study starting and how long is it expected to run for?
March 2020 to July 2022

Who is funding the study?
Investigator initiated and funded

Who is the main contact?
Prof. Charles Hulme
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Contact information

Type(s)
Scientific

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Additional identifiers

Study information

Scientific Title
The effectiveness of the Oral Language for Literacy Intervention (OLLI) program: a randomized controlled trial

Acronym
OLLI

Study objectives
The researchers expect the OLLI programme to produce improvements in children's oral language skills

Ethics approval required
Old ethics approval format

Ethics approval(s)
Approved 20/03/2019, The Departmental Research Ethics Committee (DREC, Department of Education, The University of Oxford, 15 Norham Gardens, Oxford, OX2 1PY, UK; +44 (0)1865 274024; Liam Gearon liam.gearon@education.ox.ac.uk), ref: ED-CIA-19-090

Primary study design
Interventional

Study design
Interventional randomized controlled trial

Study type(s)
Treatment

Health condition(s) or problem(s) studied
Developmental language difficulties

Interventions
Schools have been recruited from London Boroughs, the South East of England and Cambridgeshire. All children in all participating classrooms will undergo language assessments at pretest and all pretest data will be collected prior to randomisation.

Phase 1 – Screening
Every child in the participating Year 4 classrooms in each school will be assessed using the LanguageScreen app (https://oxedandassessment.com/language_screen). This test assesses four core language skills: expressive vocabulary, receptive vocabulary, sentence repetition, and listening comprehension. This testing will be conducted by school staff. Scoring of responses is done online using the app. Based on a composite score (composite z-scores of raw scores from the 4 LanguageScreen subtests) children in each participating Year 4 classroom with the poorest language scores will be selected for further testing in Phase 2.

Phase 2 – In-depth testing
Detailed individual tests of language ability will be given to the 6 children in each class identified in screening as having weak language skills, as follows: CELF 4 Recalling Sentences; CELF 4 Formulating Sentences; CELF 4 Understanding Spoken Paragraphs; Renfrew Action Picture test ((i) information and (ii) grammar). These baseline tests will be administered by trained testers prior to randomisation.
After pretesting is completed, pupils will be randomised within class to either the intervention or waiting list control group. The researchers will use stratified randomisation within each class. They will identify the six children with the lowest LanguageScreen scores in each class and split them into three strata according to their average LanguageScreen z-score. Within each strata (containing two children) the researchers randomly assign to the two conditions (intervention or control).

At the posttest the same measures will be used as at the pretest. The trained posttest assessors will be blind to condition. LanguageScreen testing at posttest will be conducted by school staff, but school staff will not be blind to allocation.

Intervention Type
Behavioural

Primary outcome(s)
A latent language variable created from the four individually administered language tests (CELF 4 Recalling Sentences; CELF 4 Formulating Sentences; CELF 4 Understanding Spoken Paragraphs; Renfrew Action Picture test - Information and Grammar) measured at pretest (baseline) in December 2021 and at posttest (on completion of the 20-week intervention in June/July 2022)

Key secondary outcome(s)
Measured at pretest (baseline) in December 2021 and at posttest (on completion of the 20-week intervention in June/July 2022):
1. A latent language variable created from the four LanguageScreen subtests (Receptive Vocabulary, Expressive Vocabulary, Listening Comprehension and Sentence Repetition)
2. A latent language factor based on the four individually administered language tests (CELF 4 Recalling Sentences; CELF 4 Formulating Sentences; CELF 4 Understanding Spoken Paragraphs; Renfrew Action Picture test - Information and Grammar)
3. A latent variable of expressive writing based on the Writing Assessment Measure (WAM) involving measures of sentence structure and grammar, organisation and planning, vocabulary and ideas.
4. A latent variable for arithmetic skills based on one minute addition and subtraction tests (TOBANS)
5. Two observed variables assessing bespoke taught vocabulary (i.e. a measure of the understanding of words directly taught in the intervention) and bespoke untaught vocabulary (i. e. a measure of the understanding of words of similar difficulty to the bespoke taught words, but which have not been directly taught in the intervention)

Completion date
31/07/2022

Eligibility

Key inclusion criteria
1. Children must be in Year 4 class (or Year 3-4 mixed class).
2. Children must be aged 6 years 10 months to 9 years at pretest.
3. Children will be selected for having language weaknesses in comparison to their peers

Participant type(s)
Other

Healthy volunteers allowed
No

Age group
Child

Lower age limit
6 Years

Upper age limit
9 Years

Sex
All

Total final enrolment
296

Key exclusion criteria
Does not meet inclusion criteria

Date of first enrolment
01/06/2021

Date of final enrolment
21/01/2022

Locations

Countries of recruitment
United Kingdom

England

Study participating centre
The University of Oxford
Department of Education
15 Norham Gardens
Oxford
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OX2 6PY

Sponsor information

Organisation
University of Oxford

ROR
https://ror.org/052gg0110

Funder(s)

Funder type
Other

Funder Name
Investigator initiated and funded

Results and Publications

Individual participant data (IPD) sharing plan
The datasets generated during and/or analyzed during the current study will be stored in a publically available repository (https://www.cos.io/products/osf). Data will be anonymized.

IPD sharing plan summary
Stored in publicly available repository

Study outputs

Output type	Details	Date created	Date added	Peer reviewed?	Patient-facing?
Results article		01/12/2024	20/04/2026	Yes	No