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A randomized controlled trial of a digital reading programme

Submission date
06/10/2023

Recruitment status
No longer recruiting

Registration date
16/10/2023

Overall study status
Completed

Last Edited
12/10/2023

Condition category
Other

[ ] Prospectively registered
[X] Protocol
[ ] Statistical analysis plan
[ ] Results
[ ] Individual participant data
[ ] Record updated in last year

Plain English summary of protocol

Background and study aims
This study provides an opportunity not only to assess the impact, at a larger scale, of the Lexia® Core5® Reading Programme on young struggling readers' outcomes but also to contribute to the currently limited body of evidence regarding computer-assisted reading instruction in the UK. The researchers will measure the effectiveness of a computer-led reading intervention whilst also highlighting factors that make that intervention work (or not work). This study directly supports the objectives of the Department for Education's (DfE's) Accelerator Fund, which seeks to allocate supplementary resources towards children who are lagging in their acquisition of English and mathematics competencies. Furthermore, this study provides an opportunity to explore any different effects of the programme on students from socioeconomically disadvantaged backgrounds. This aligns with the EEF's broader mission to break the link between socioeconomic disadvantage and educational outcomes. In addition, this focus on disadvantaged populations aligns with the Government's broader levelling-up policy, which has designated specific educationally underperforming locales as Education Investment Areas (EIAs). Hence, this study supports broader policy objectives to improve educational provision for disadvantaged pupils.

Who can participate?
All state-funded schools in England with pupils aged 6 – 7 years

What does the study involve?
Participating schools will be randomly allocated to either receive Lexia or to act as a business-as-usual comparison group. The researchers will look at the impact of Lexia on struggling readers in Year 2 (age 6–7 years). The evaluation will also look at the impact specifically for pupils receiving free school meals and explore the reasons why the intervention may be a gap closer.

What are the possible benefits and risks of participating?
The benefits of participating in the evaluation are that you can get the Lexia core reading programme for a heavily discounted rate. Schools that are allocated to control get a cash incentive at the end of the evaluation, which they can use towards the purchase of the programme in the following year.

Where is the study run from?
Education Endowment Foundation (EEF) (UK)

When is the study starting and how long is it expected to run for?
August 2022 to June 2025

Who is funding the study?
Education Endowment Foundation (EEF) (UK)

Who is the main contact?
Elena Rosa Brown, erbrown@randeurope.org

Contact information

Type(s)
Public, Scientific, Principal investigator

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Additional identifiers

Clinical Trials Information System (CTIS)
Nil known

ClinicalTrials.gov (NCT)
Nil known

Protocol serial number
022807.011

Study information

Scientific Title
Lexia Reading Core5® randomised controlled trial

Study objectives

A trial to test the impact of Lexia Reading Core5® (Lexia), a computer-based integrated learning system that aims to improve reading skills by providing children with individualised reading instruction and practice in six areas: phonological awareness, phonics, structural awareness, automaticity, fluency, vocabulary, comprehension.

Ethics approval required
Ethics approval required

Ethics approval(s)
approved 31/03/2023, RAND's Human Subjects Protection Committee (HSPC) (1776 Main Street, Santa Monica, 90401, United States of America; +1 (310) 393-0411; hspcinfo@rand.org), ref: 2023-N0046

Study design
Two-armed cluster-randomized controlled trial

Primary study design
Interventional

Study type(s)
Other

Health condition(s) or problem(s) studied
Reading technology intervention

Interventions
Reading Core5® (Lexia) is a computer-based integrated learning system that aims to improve reading skills. Lexia is being independently evaluated at an effectiveness level. This means that it will be delivered to a large number of schools under everyday conditions. The evaluation will be a two-armed cluster-randomised controlled trial, with randomisation at the school level. 224 schools will be randomly allocated to either receive Lexia or to act as a business-as-usual comparison group. This is a split cohort trial: half the total schools (112) will be recruited in 2023 to participate in the trial in 2023–24, with half recruited in 2024 to participate in 2024–25.

The primary outcome will look at the impact of Lexia on struggling readers in Year 2 (age 6–7 years). The evaluation will also look at the impact specifically for pupils receiving free school meals and explore the reasons why the intervention may be a gap closer.

Intervention Type
Other

Primary outcome(s)
Reading proficiency measured using the Woodcock Reading Mastery Test (WMRT-III) at baseline and endline

Key secondary outcome(s))
There are no secondary outcome measures

Completion date
01/06/2025

Eligibility

Key inclusion criteria

The trial will be implemented across 224 schools, recruited nationwide across England. Schools located in EIAs will be prioritised for recruitment to ensure at least half will be recruited from the said areas. To be considered for participation in the trial, schools will need to respond to a publicly available request for expressions of interest. This request for expressions of interest (EOIs) was published on dedicated pages on the respective websites of the EEF and LexiaUK, the programme provider. The Queen's University of Belfast (QUB) lead school recruitment for this trial and will contact schools with the school information sheet and MOU documents and follow up on EOIs received via EEF and LexiaUK websites.

Schools that express interest will then be screened against the following eligibility criteria:
1. Have a minimum of 8 pupils (and a maximum of 16 pupils) that would be eligible for Lexia
2. Not currently involved in any other EEF trial focusing on Year 2
3. Have not held a Lexia licence in the 12 months prior to July 2022 (for Cohort 1) and July 2023 (Cohort 2)
4. Able to provide the necessary IT equipment required in order to support the intervention.

The trial participants will be struggling readers. Eligible pupils will be identified by their classroom teacher when they are in Year 1, the term before they are to go into Year 2, using written guidance provided by LexiaUK to select struggling readers. In each school, a minimum of 8 and a maximum of 16 struggling readers will receive Lexia. The written pupil selection guidance lays out the following criteria:
1. They are able to stay on task at a computer for 20–30-minute sessions.
2. They are available to attend 4-5 Lexia sessions every week during the school's planned delivery schedule.
3. Hearing-impaired pupils may struggle if their amplification device does not enable them to hear spoken language and isolated sounds. Deaf pupils may not be suitable candidates for Lexia use.
4. Visually impaired pupils might benefit from Lexia if they can read print on a computer screen or tablet. Blind pupils may not be suitable candidates for Lexia use.
5. For pupils with physical disabilities such as paralysis or cerebral palsy, specialist devices provided by the school and set up by assistive technology specialists may help access to Lexia.

These struggling readers will be identified by teachers, based on existing evidence that teachers are able to successfully identify appropriate students when armed with the correct guidance (Hoge and Coladarci, 1989). Each participating school will nominate one Year 2 teacher and one teaching assistant, who will be given written pupil selection guidance by LexiaUK, informing them that the program will be appropriate for struggling readers but not for those who have severe learning difficulties.

All pupils about to go into Year 2 will either be in a school assigned to treatment or to control, meaning all pupils in a single school who are included in the trial will be assigned to the same condition. The researchers select pupils in this way (i.e., randomisation at the school level) to minimise the occurrence of resources being diverted away from control to treated pupils – a confounding event observed during the efficacy trial.

Participant type(s)

Learner/student

Healthy volunteers allowed
No

Age group
Child

Lower age limit
6 years

Upper age limit
7 years

Sex
All

Key exclusion criteria
Does not meet the inclusion criteria

Date of first enrolment
01/04/2023

Date of final enrolment
01/07/2024

Locations

Countries of recruitment
United Kingdom

England

Study participating centre
All state-funded schools in England are eligible to take part
United Kingdom
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Sponsor information

Organisation
Education Endowment Foundation

ROR
https://ror.org/03bhd6288

Funder(s)

Funder type
Charity

Funder Name
Education Endowment Foundation

Alternative Name(s)
EducEndowFoundn, Education Endowment Foundation | London, EEF

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 data from the trial will be archived in the EEF archive, held on the ONS's SRS. Data will be pseudo-anonymised.
The type of data stored results from testing, pupil names, dates of birth, FSM status, trial allocation status.
The process for requesting access (if non-publicly available): through the National Pupil Database (NPD).
Dates of availability: after the publication of the final report.
Whether consent from participants was required and obtained: the legal basis for processing data under GDPR is legitimate interest.
Comments on data anonymization: all data will be pseudo-anonymised, with data being identifiable by a small number of data controllers within the Department of Education National Pupil Database (NPD) Team – the team that controls the repository.

IPD sharing plan summary
Stored in 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
Protocol (other)			12/10/2023	No	No
Study website	Study website	11/11/2025	11/11/2025	No	Yes