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Peer assisted learning strategies for reading UK (PALS-UK)

Submission date
02/05/2019

Recruitment status
No longer recruiting

Registration date
02/08/2019

Overall study status
Completed

Last Edited
10/01/2022

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
Peer-Assisted Learning Strategies for Reading UK (PALS-UK) is a form of class-level interventions in schools with the aim of improving children's reading comprehension and fluency. It pairs pupils with stronger and weaker skills, who read to each other and correct mistakes in the reading of their assigned partner. PALS-UK have been widely implemented and studied in the US, but high quality, rigorous evidence is lacking. It is a strong candidate for evaluation as it provides structure for within-class peer interactions, which is supported by the literature and makes scale-up more feasible.

Who can participate?
All Year 5 pupils at participating state schools

What does the study involve?
All Year 5 teachers will receive the PALS-UK manual and resources needed to deliver the intervention. In addition, all Year 5 teachers will receive initial training (1 day), top-up training (half-day) and various other opportunities throughout the year to support them in the implementation of PALS-UK. Schools with two or more Year 5 classes will be asked to implement PALS-UK in all of them. However, only children in one randomly selected class will undertake outcome testing at the beginning and end of the project. In schools with one Year 5 class, one additional teacher within the school should attend the PALS-UK training to act as a peer observer as part of the intervention. Intervention schools will receive a selection of books to help support the delivery of PALS-UK.

What are the possible benefits and risks of participating?
PALS-UK can benefit schools in multiple ways, such as raising the profile of language in primary schools and providing schools with professional support for teaching and learning. Furthermore, studies have found positive effects of peer tutoring in relation to reading skills, such as accuracy, comprehension and fluency. Schools in the control group will receive small monetary compensation and can choose to implement PALS-UK once the study is completed. Intervention schools will be charged a fee of £200 for taking part in the PALS-UK intervention. This fee will cover teacher training and resources (including books and the intervention manual). There is minimal risk in this evaluation which largely consists of the completion of surveys. There is a

small risk that confidential information is released to the public. Only RAND and Coventry University will have access to any of the information that is collected. RAND will monitor any concerns teachers may have through surveys and will report anonymous and aggregated results to the implementation team and schools.

Where is the study run from?
The study is run from:
1. RAND Europe (Independent evaluator)
2. Coventry University (Intervention delivery team)

When is study starting and how long is it expected to run for?
December 2018 to March 2022

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

Who is the main contact?
Dr Sashka Dimova
PALS@rand.org
(updated 04/09/2019, previously: Dr Alex Sutherland)

Contact information

Type(s)
Public

Contact name
Dr Sashka Dimova

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Milton Road
Cambridge
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Additional identifiers

Protocol serial number
RR-3159-EEF

Study information

Scientific Title
The effectiveness of the Peer Assisted Learning Strategies for Reading UK programme

Acronym
PALS-UK

Study objectives
Current hypotheses as of 10/01/2022:
Hypothesis 1 (Primary Outcome): Year 5 pupils in randomly allocated primary schools participating in PALS-UK (intervention schools) will have higher levels of reading attainment than pupils in control schools by Autumn term 2020, as measured by Progress in Reading Assessment (PiRA).
Hypothesis 2 (Secondary outcome): Year 5 pupils in randomly allocated primary schools participating in PALS-UK (intervention schools) will have higher self-efficacy in reading than pupils in the control schools by Autumn term 2020, as measured by pupil self-efficacy in reading.
Hypothesis 3: Year 5 pupils in treatment schools for whom English is another language (EAL) will perform better on all outcomes than EAL pupils in control schools.
Hypothesis 4: Year 5 pupils in treatment schools who are entitled to Free School Meals (FSM) will perform better on all outcomes than FSM pupils in control schools.

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Previous hypotheses:
Hypothesis 1: Year 5 pupils in randomly allocated primary schools participating in PALS-UK (intervention schools) will have higher levels of reading attainment than pupils in control schools within the couple of months following the end of PALS-UK implementation in Summer 2020 (Primary outcome)
Hypothesis 2: Year 5 pupils in randomly allocated primary schools participating in PALS-UK (intervention schools) will have higher self-efficacy in reading than pupils in the control schools by summer 2020 (Secondary outcome)
Hypothesis 3: Year 5 pupils in randomly allocated primary schools participating in PALS-UK (intervention schools) will have higher levels of reading fluency and oral skills than pupils in the control schools by summer 2020 (Secondary outcome)

Ethics approval required
Old ethics approval format

Ethics approval(s)
1. Approved 18/02/2019, Departmental Research Ethics Committee (DREC) at Coventry University (Faculty Research Support Office, Faculty of Health and Life Sciences, Coventry University, Richard Crossman Building, Jordan Well, Coventry, CV1 5RW; +44 (0)24 7765 9132; ethics.hls@coventry.ac.uk, ref: ED-CIA-18-192.
2. Approved 17/06/2019, RAND U.S. Human Subjects Protection Committee (HSPC) (Sandra H. Berry, HSPC Chair; berry@rand.org; +1 310-393-0411 x7779), ref: n/a

Primary study design
Interventional

Study design
Two-group parallel stratified cluster-randomised trial with school as the unit of randomisation, and pupil as the unit of analysis

Study type(s)
Other

Health condition(s) or problem(s) studied
Reading comprehension and fluency in children in Year 5 classes

Interventions

Current intervention as of 10/01/2022:
Peer Assisted Learning Strategies for Reading UK (PALS-UK) is a whole-class structured paired reading intervention that is designed to improve children's reading fluency and reading comprehension skills. Pupils are paired and take it in turns to act as tutor and tutee in a set of structured activities. PALS sessions comprise of four activities: (i) partner reading, in which the tutor corrects the tutee's reading errors using the PALS check-it procedure; (ii) re-tell, in which the tutee re-tells a story with prompts from the tutor; (iii) paragraph shrinking, in which both pupils summarise what they have read using ten or fewer words; and (iv) prediction relay, in which both pupils have to predict what will take place in the next half-page of a story after reading each half page. As an intervention, PALS-UK is quite intensive: each session lasts 30-35 minutes and takes place three times a week over a period of 20 weeks.

In this evaluation, PALS-UK will be delivered to children in Year 5 classes in approximately 80 schools in England. Approximately half of the schools will be in the Midlands and half will be in the North East England. Schools will be recruited by Coventry University but allocated to either the intervention or control group by RAND Europe. Region will be the main stratifying variable, as around half of the schools will be recruited from the Midlands and another half from the North East. In addition, the researchers plan to stratify on school size (single-entry versus multiple-entry school), as reported by the school.

Control group: Schools in the control group will teach "business as usual", apart from that pupils will be asked to participate in outcome testing, which will be independently administered and invigilated in September 2019 and June 2020.
Intervention group: The implementation of PALS-UK will involve the following activities:
1. All Year 5 teachers in intervention schools will receive the PALS-UK manual and resources needed to deliver the intervention
2. Teachers from Year 5 classes will attend two training sessions: one full day session and one half day top-up session.
3. Children will undergo training for four weeks, which will be provided by their Year 5 teachers. This will focus on how to deliver the activities and how to work well in pairs
4. Children will work in pairs for 32 minutes, three times a week during the autumn, winter and spring terms of 2019/2020. This will continue for 14 weeks after the initial training. These sessions will be observed by teachers.

Intervention schools with two or multiple-entry Year 5 classes will deliver the intervention in all classes, but only one randomly selected Year 5 class will be tested. This will significantly reduce testing costs but will have only a small effect on the power of the study. The selected Year 5 class will be asked to complete a reading attainment test at the beginning (September, 2019) and the end of the programme (June 2020).

The outcome analysis will be on an intention-to-treat (ITT) basis. The analysis will include all randomized schools in the groups to which they were randomly assigned, regardless of the treatment they actually received, withdrawal post-randomisation, or deviations in programme implementation. This principle is key in ensuring non-biased programme effects. This approach compares outcome means for the treatment and comparison groups, and subjects are analysed according to their randomised group allocation. The ITT approach is inherently conservative as it captures the averaged effect of offering the intervention, regardless of whether or not the participants complied with assignment. The primary outcome is pupil-level PiRA test scores standardised with mean 0 and standard deviation 1. To estimate the impact estimate on the primary outcome we will use a two-level multilevel model to account for clustering of data.

Due to the COVID-19 pandemic, planned outcome testing in the early Summer term 2020 was postponed until December 2020. The outcome measures remained the same. Testing was organised in as much as possible to match the original plans (i.e. whole-class testing for the primary outcome measure and the reading self-efficacy secondary outcome; one-to-one testing with a sample of ten randomly selected pupils per school for the oral fluency and reading comprehension secondary outcome based on the WIAT III). The tests remained the same to account for the disruption caused by COVID-19, despite the fact that children were older than originally planned at test administration.

More information on the study can be found in the updated study protocol, see here: https://d2tic4wvo1iusb.cloudfront.net/documents/projects/PALS-trial-protocol-update-2021.pdf.

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Previous intervention:
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testing costs but will have only a small effect on the power of the study. The selected Year 5 class will be asked to complete a reading attainment test at the beginning (September, 2019) and the end of the programme (June 2020).

The outcome analysis will be on an intention-to-treat (ITT) basis. The analysis will include all randomized schools in the groups to which they were randomly assigned, regardless of the treatment they actually received, withdrawal post-randomisation, or deviations in programme implementation. This principle is key in ensuring non-biased programme effects. This approach compares outcome means for the treatment and comparison groups, and subjects are analysed according to their randomised group allocation. The ITT approach is inherently conservative as it captures the averaged effect of offering the intervention, regardless of whether or not the participants complied with assignment. The primary outcome is pupil-level PiRA test scores standardised with mean 0 and standard deviation 1. To estimate the impact estimate on the primary outcome we will use a two-level multilevel model to account for clustering of data.

Intervention Type
Behavioural

Primary outcome(s)
Current primary outcome measure as of 10/01/2022:
Reading attainment will be measured using the Progress in Reading Assessment (PiRA) test at baseline and 9 months

Due to the COVID-19 pandemic, planned outcome testing in the early Summer term 2020 was postponed until December 2020. Due to the schools' no visitor policy on site unless necessary, the PiRA test was administered by teachers, but was marked by skilled markers who were blinded to the allocation.

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Previous primary outcome measure:
Reading attainment will be measured using the Progress in Reading Assessment (PiRA) test at baseline and 9-months

Key secondary outcome(s)
Current secondary outcome measures as of 10/01/2022:
At baseline and 9 months:
1. Oral fluency and language comprehension based on the Wechsler Individual Achievement Test–III (WIAT III) oral fluency and reading comprehension subscale
2. Reading self-efficacy. Self-efficacy refers to children's beliefs in their capability to produce satisfactory attainment. The final measure is yet to be confirmed.

Due to COVID-19 , due to the movement of schools to remote learning as a result of the national lockdown from January 2021, completion of one-to-one testing for the Oral reading fluency and Reading comprehension subtests of the WIATIII was no longer considered feasible. Owing to the minimal power and the likelihood of higher attrition following lockdown, the decision was taken to stop all data collection activities for assessing oral fluency as measured by the WIAT-III subtests. Thus, while data was collected
in a small number of schools (n=22) on the WIAT- III reading comprehension subtest before school closures were implemented, collection of data on the secondary outcome on oral fluency (i.e. WIAT III) was not completed. The secondary outcome on self-efficacy was collected in

majority of schools in December 2020, and will be analysed as originally planned.

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Previous secondary outcome measures:
At baseline and 9-months:
1. Oral fluency and language comprehension based on the Wechsler Individual Achievement Test–III (WIAT III) oral fluency and reading comprehension subscale
2. Reading self-efficacy. Self-efficacy refers to children's beliefs in their capability to produce satisfactory attainment. The final measure is yet to be confirmed

Completion date
01/03/2022

Eligibility

Key inclusion criteria
Schools:
Schools will be recruited by the Delivery team (Coventry University), based on the following eligibility criteria:
1. Schools have never used PALS in the last three years
2. Schools have not taken part or will not take part in other trials for KS2 in the school year of 2019/2020
3. Schools should not have mixed age classes. There must be at least a one single-form entry Year 5 classroom in the school

Teachers:
All Year 5 teachers in schools taking part in the trial

Children:
There are no inclusion/exclusion criteria based on pupil characteristics as PALS-UK is a whole-class intervention. children with Special Educational Needs and Disabilities (SEND) will not be paired with other children but will implement PALS activities with a Teaching Assistant (TA).

Participant type(s)
Mixed

Healthy volunteers allowed
No

Age group
Child

Sex
All

Key exclusion criteria
To minimise burden on schools, pupils enrolled at the time of school recruitment in 2019 are included in the study, but pupils who join the schools at a later time will not be included in the evaluation as this would require additional information collected from schools. Parents can withdraw children at any time.

Date of first enrolment
01/03/2019

Date of final enrolment
01/09/2019

Locations

Countries of recruitment
United Kingdom

England

Study participating centre
RAND Europe
Westbrook Center Milton Road
Cambridge
United Kingdom
CB4 1YG

Study participating centre
Coventry University
Priory Street
Coventry
United Kingdom
CV1 5FB

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, The Education Endowment Foundation (EEF), 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 datasets generated during and/or analysed during the current study are available from the corresponding author on reasonable request.
Aggregated outcome data, together with UPN's, will be sent to the Education Endowment Foundation (EEF) archive, managed by the Fischer Family Trust (FFT). This is to allow for follow up investigations in the future, for example to investigate long term effects by comparing it to Nation Pupil Database data. Data will be kept indefinitely and be available on request for the purposes outlined before. Parents of participating children are informed about this process in a privacy notice prior to the trial and can choose to withdraw their consent of their children's data being used in this trial. This process concerns all primary and secondary outcomes. The EEF may be contacted under the following address:

Education Endowment Foundation
5th Floor, Millbank Tower
21-24 Millbank
London
SW1P 4QP
info@eefoundation.org.uk
0207 802 1676

IPD sharing plan summary
Available on request

Study outputs

Output type	Details	Date created	Date added	Peer reviewed?	Patient-facing?
Protocol (other)		01/03/2021	10/01/2022	No	No
Study website	Study website	11/11/2025	11/11/2025	No	Yes