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Evaluating the Parents and Children Together (PACT) pre-school home reading programme: how it was used and the impact on children's language skills. [PACT-3]

Submission date
12/07/2022

Recruitment status
No longer recruiting

Registration date
13/07/2022

Overall study status
Completed

Last Edited
09/07/2026

Condition category
Other

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

Plain English summary of protocol

Background and study aims
Past research has demonstrated the importance of oral language skills and their link to learning to read. Children from low-income backgrounds are at risk of delayed language development and educational disadvantage. Interventions that promote oral language in the early years have the possibility to improve children's learning and development, particularly for those from deprived backgrounds. Parents and Children Together (PACT) is a parent-delivered early language teaching programme that aims to help preschool children learn new words, listen to and talk about stories, understand and tell stories, and enjoy books and reading.
The PACT intervention has been the focus of two previous randomised control trials - the first was delivered by the PACT developer team and showed that PACT could improve children's language skills. The second PACT trial (PACT-2) had an independent evaluator but was disrupted by the Covid-19 outbreak and response, affecting both the programme delivery and the evaluation. A third PACT trial (PACT-3) was therefore funded by the Education Endowment Foundation to investigate whether the PACT programme improves children's language skills and how the PACT programme is delivered.

Who can participate?
Pre-school children (3-4 years old), their parents/carers, and nursery staff.

What does the study involve?
Nursery children are randomly allocated to either the PACT group (who get the programme) or a comparison group (who do not get the programme). The children's language skills are tested at the start and end of the project to see if there was any difference between the two groups. They are also tested again after an 11 month delay when the children are then at school.
After attending a two hour online training session, parents and children in the PACT group commence the 30-week parent/child reading programme. This consists of six 5-week teaching 'blocks' that each encompass a different theme which aligns to common early-years themes including: (1) Animals, (2) The World Around Us, (3) Journeys, (4) The Body, (5) Home, and (6)

Places and People. Each PACT ‘block’ includes four storybooks and each book has an activity book including all activities and related resources to enable parents/carers to deliver a scripted 20 minutes interactive learning session, five times a week. Each block also contains a ‘Bringing it all Together’ activity book which features consolidation and theme-level activities. Each PACT session should last around 20 minutes and should include all listed activities and should follow a consistent structure and routine.
Parents are requested to complete a daily record form through a mobile application to gauge session completion and whether the pair enjoyed it. In any cases where families are unable to use the mobile app, paper copies of this form will be provided.
Parents are asked to complete a survey about their child's home learning environment at the beginning of the trial and at the end of the intervention period. The child's nursery teacher will also complete a school readiness questionnaire at the end of the intervention period.
Families allocated to the comparison group will receive a pack of books up to a value of £130 at the end of the intervention period to thank them for their participation in the programme.

What are the possible benefits and risks of participating?
Benefits
Possible benefits include improving the language skills development, early literacy skills, home learning environment and school readiness of children aged 3-4 years old. The programme may also help parents/familes to support their child's learning.
Risks
The intensity of the programme may mean that families struggle to complete it and may get distressed or upset trying to find the time to fit all the programme sessions in.

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

When is the study starting and how long is it expected to run for?
March 2021 to June 2024

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

Who is the main contact?
Victoria Menzies, Principal Investigator, Durham University

Contact information

Type(s)
Principal investigator

Contact name
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Additional identifiers

Protocol serial number
DU/PACT-3/RT/3293

Study information

Scientific Title
Evaluating the impact of the Parents and Children Together (PACT) programme on the language skills of preschool children, a two-armed cluster randomised trial [PACT-3]

Acronym
PACT-3

Study objectives
Main study hypothesis
Language skills will improve more for children in the PACT intervention group than for those in the 'business as usual' comparison group.

Research questions
RQ1. What is the impact of the PACT intervention on language skills immediately after the intervention period, at the end of nursery, as measured by the LanguageScreen assessment? [Primary Outcome]
RQ2. What is the impact of the PACT intervention on language skills 11 months after the intervention period, as measured by the LanguageScreen assessment? [Secondary Outcome]
RQ3. What is the impact of the PACT intervention on the specific language domains of receptive vocabulary measured by the British Picture Vocabulary Scale (BPVS), expressive vocabulary measured by CELF Preschool 2 Expressive Vocabulary subscale (CELF EV) and spoken language information and grammar measured by the Renfrew Action Picture test (APT Information, APT Grammar) immediately after the intervention period, using researcher-delivered assessments [Secondary Outcome]?
RQ4. What is the impact of the PACT intervention on the specific language domains of receptive vocabulary (measured by the BPVS), expressive vocabulary (measured by CELF EV) and information and grammar in spoken language (measured by APT Information and APT Grammar) 11 months after the intervention period, using researcher-delivered assessments [Secondary Outcome]?
RQ5. What is the impact of PACT on school readiness immediately after the intervention period measured using teacher-completed Brief Early Skills and Support Index (BESSI)? [Secondary Outcome]
RQ6. What is the impact of PACT on the home learning environment as measured using the parent/carer-completed Home Learning Environment Index (HLE) at the end of the intervention period? [Secondary Outcome]
RQ7. What is the impact of PACT on early literacy skills as measured 11 months after the

intervention period using the York Assessment of Reading Comprehension (YARC) assessment? [Secondary Outcome]

Ethics approval required
Old ethics approval format

Ethics approval(s)
Approved 11/03/2021, Durham University's School of Education Ethics Committee (School of Education, Leazes Road, Durham University, Durham DH1 1TA, UK; no telephone number provided; ed.ethics@durham.ac.uk), ref: EDU-2022-02-04T14_38_37-jxjx34

Primary study design
Interventional

Study design
Two-armed cluster randomized controlled efficacy trial

Study type(s)
Efficacy, Other

Health condition(s) or problem(s) studied
Educational development of pre-school children aged 3-4 with programme specifically targetting language skills, home learning environment and school readiness.

Interventions
This research uses a two-armed randomised controlled efficacy trial design delivered under ideal conditions with allocation at child level but with pupils nested within school nurseries. Children will be allocated into one of two groups on a 1:1 ratio to:
Intervention – children allocated to receive the Parents and Children Together (PACT) home reading programme
Control – children allocated to 'business as usual' nursery and home practice plus equivalent incentive cost of materials (approximately £130) in books to parents/carers at the end of nursery and the end of the intervention period.

Randomisation will stratify so that there are equal numbers (where possible) of participants within schools as well as equal numbers assigned to intervention and control groups across the full sample. Stratification will also account for completeness of pre-testing so that participants who have not completed the pre-testing at the time of random allocation are balanced between the intervention and control groups.

The PACT intervention is an early language teaching programme delivered by parents or carers to their pre-school child in the year before they start school (aged 3 to 4 years). It is an intensive programme delivered over a period of thirty weeks with focused language activities based on story books provided by the programme to be completed five days a week, for approximately 20 minutes a day. There are two levels of delivery in the programme with parents/carers signing up to and accessing the programme and programme support through their child's nursery and then delivering the programme sessions directly to their child at home. Training is provided at both levels: for the nursery staff driving the programme (PACT Lead) and for the parents. In this trial the PACT programme will be delivered by families between November 2021 and June 2022. PACT Lead training is provided in May 2021 and Parent/Carer training in November 2021.

Intervention Type
Behavioural

Primary outcome(s)
Language skills are measured using the LanguageScreen assessment which will be collected by a member of staff in the child's nursery at baseline (September 2021) and immediately after the intervention delivery period (June/July 2022) as well as 11 months post intervention (May/June 2023). The primary outcome measure will be a latent variable created using 4 LanguageScreen subscale standardised scores (Expressive vocabulary, Receptive Vocabulary, Listening Comprehension and Sentence Repeition) as in the PACT-2 trial also funded by EEF.

Key secondary outcome(s)
1. Specific domains of Language Skills using researcher-delivered standardised tests at immediate post-test (June/July 2022) and 11 month delayed post-test:
1.1. Expressive vocabulary as measured using Clinical Evaluation of Language Fundamentals 2 UK (CELF-Preschool 2 UK) – Expressive vocabulary subscale raw score
1.2. Receptive vocabulary as measured by British Picture Vocabulary Scale – 3 (BPVS-3) raw score
1.3. Grammar and information giving abilities as measured by the Renfrew Action Picture Test (APT), information score and grammar score
2. Early literacy skills as measured at 11 month delayed post-test (May/June 2023) using Early Word Reading, Letter-Sound Knowledge and Sound deletion subtest from York Assessment of Reading Comprehension (YARC).
3. Child's home learning environment measured by the parent-reported Home Learning Environment Index (HLE) at baseline (September 2021) and immediate post-test (June/July 2022)
4. Specific domains of language skills (assessed by LanguageScreen subtest scores) at baseline, immediate post-test (June/July 2022) and 11 month delayed post-test (May/June 2023)
5. School readiness, measured by teacher reported Brief Early Skills and Support Index (BESSI) at immediate post-test (June/July 2022).

Completion date
30/06/2024

Eligibility

Key inclusion criteria
School level inclusion criteria
To be included schools must:
1. Be state- funded and have a nursery which is administratively part of the school setting
2. Be located in areas with high scores on the Indices of Multiple Deprivation (including Warrington, Bolton, Rochdale, Lancashire, Tameside, and Blackpool)
3. Agree to all study requirements outlined in the Memorandum of Understanding (MoU) which describe their commitment to the delivery of PACT and participation of a minimum number of families (n=4) in the trial and administration of research measures
4. Agree to and sign a project specific Data Sharing Agreement (DSA)

Child level inclusion criteria
To be included the child must:
1. Be 3 or 4 years old by September 2021 and attend a participating nursery in the year before they start school
2. Have someone within a their household who is able to access the resources by having a basic

level of English.
3. Not have a sibling in the same target year group
4. Not have a suspected or diagnosed developmental or learning difficulty
5. Not be part of a family which took part in a previous PACT trial

Participant type(s)
Learner/student, Other

Healthy volunteers allowed
No

Age group
Child

Lower age limit
3 Years

Upper age limit
4 Years

Sex
All

Total final enrolment
43

Key exclusion criteria
School level Exclusion Criteria
1. Schools that do not have a nursery within the school
2. Schools out of area for the project (outside of the North West)
3. Schools who are unable to recruit at least 4 children to take part in the trial
4. Non- statefunded schools

Child level Exclusion Criteria
1. Children who are not due to start school in following September
2. Children who do not have someone with a basic level of English in their household
3. Children who have a sibling in the same target year group
4. Children with a suspected or diagnosed developmental or learning difficulty
5. Children where the family has previously taken part in a PACT trial

Date of first enrolment
21/03/2021

Date of final enrolment
30/09/2021

Locations

Countries of recruitment
United Kingdom

England

Study participating centre
Durham University
School of Education
Durham
England
DH1 1TA

Study participating centre
University of Manchester
Manchester Institute of Education
Manchester
England
M13 9PL

Sponsor information

Organisation
Durham University

ROR
https://ror.org/01v29qb04

Organisation
University of Manchester

ROR
https://ror.org/027m9bs27

Funder(s)

Funder type
Research organisation

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
At the end of the project, Durham University will share participating children's data with the EEF's Data Archive through secure data portals. At that point EEF will become the data controller for the data in the archive. The data will be shared with the Department for Education (DfE), the EEF, EEF's archive manager, the Office for National Statistics (ONS) and potentially other research teams, subject to the appropriate approvals. Data will be matched with the National Pupil Database (NPD) for analysis after the trial. Further matching to the NPD other administrative data may take place during subsequent research to better understand the impact of the project.

Education Endowment Foundation will act as the data controller for the archive, which is managed on their behalf by FFT and held in the ONS Secure Research Service. While the archive does not contain any information that can be used to directly identify an individual pupil, Durham University will submit personal information and identifiers to the archive to allow the EEF to match to the NPD and obtain the Pupil Matching Reference (PMR) which is an identifier used by the DfE to enable the linking of archive data to the NPD longer term. This will then be stored in the archive and the identifying fields removed.

It will not be possible to share the data for the primary outcome measure, LanguageScreen, with the archive due to the license agreed with the publisher of LanguageScreen, OxEd. However, other baseline and secondary outcome measures will be including in the data submission to the archive.

Participants are aware of the data sharing (through information sheets and privacy notices) and agreed to this.

IPD sharing plan summary
Stored in non-publicly available repository

Study outputs

Output type	Details	Date created	Date added	Peer reviewed?	Patient-facing?
Results article		06/11/2025	09/07/2026	Yes	No
Funder report results		01/05/2024	12/07/2024	No	No
Other files	Technical appendices		12/07/2024	No	No

Protocol file	version 1.2	28/06/2022	12/07/2024	No	No
Statistical Analysis Plan	version 1	13/10/2022	12/07/2024	No	No
Study website		11/11/2025	11/11/2025	No	Yes