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Using the Power of Pictures to improve pupil attainment in schools

Submission date
17/07/2018

Recruitment status
No longer recruiting

Registration date
24/07/2018

Overall study status
Completed

Last Edited
15/08/2022

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
The Power of Pictures (PoP) is a programme that uses the creation of picture books to develop primary school pupils' writing skills. Through this programme, PoP aims to enhance teachers' understanding of the power of picture books and increase teachers' comfort in and ability to teach using picture books to a range of ages. PoP has been developed from research that showed that picture books can significantly help in the development of literacy, especially in pupils with weak literacy skills.
The primary objective of this study is to look at the effects of participating in the PoP programme on pupils' writing skills over the course of one school year .

Who can participate?
Approximately 120 state-funded primary schools in England. Within the schools, we focus on year 5.

What does the study involve? (what interventions will be compared, will all participants receive the same treatment?)
Schools are randomly allocated to one of two groups: treatment or control group.
The treatment group will select year 5 teachers to receive the PoP training and visits from an author-illustrator in schools.
The control group will be business as usual.

Schools are randomly allocated to either the intervention or the control group.
Schools in the intervention group will participate in the PoP programme. Teachers will receive training on how to convey meaning through drawing and pictures, along with creative approaches to using books and how to design characters and storytelling. Teachers will use this training to teach their classes, utilising what they have learned to imrpove the writing skills of the children.
Schools in the control group will receive no intervention and continue as usual.
Children will be asked to complete writing tests at the end of the year.

What are the possible benefits and risks of participating?
A possible benefit to participants of taking part is that creating picture books has been shown to

potentially improve literacy and idea generation, which can improve test scores. There are no known risks to participants of taking part.

Where is the study run from?
Study run from Centre For Literacy In Primary Education (CLPE), London (UK)
Evaluation is being run by UCL Institute of Education, London (UK) and the Behavioural Insights Team (BIT), London (UK)
Schools participating in the study are based in London, North East England (training located in Newcastle) and East Sussex (training located in Brighton).

When is the study starting and how long is it expected to run for?
May 2017 to December 2019

Who is funding the study?
Education Endowment Foundation (EEF) (UK)
Royal Society for the Arts (RSA) (UK)

Who is the main contact?
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Contact information

Type(s)
Scientific

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Additional identifiers

Study information

Scientific Title
Using the Power of Pictures to improve pupil attainment: A randomised trial in schools

Acronym
PoP

Study objectives
Participation by schools in the Power of Pictures programme, which trains teachers to use picture books and have their pupils draw or express themselves creatively, will improve pupils' writing attainment and idea generation.

Ethics approval required
Old ethics approval format

Ethics approval(s)
University College London Institute of Education's Research Ethics Committee, 18/01/2018, Z6364106/2017/12/54

Primary study design
Interventional

Study design
Two-armed clustered randomised trial with randomisation occurring at the level of the school

Study type(s)
Quality of life

Health condition(s) or problem(s) studied
Writing attainment at the end of year 5

Interventions
Schools will be randomly allocated to either the intervention or the control group. For the randomisation, blocking will be used to improve cross-arm comparability of schools and also to improve precision of estimates. There will be four blocks, defined on the basis of class composition by English as an Additional Language (EAL) (high vs. low) and class composition by eligibility for Free School Meals (FSM) (high vs. low). This approach will help to ensure that our treatment and control groups are well balanced in terms of these characteristics, which are likely to be correlated with our outcome measures (EEF, 2015b). High and low EAL and FSM in these definitions will be defined as above and below by the sample median to ensure that block sizes are approximately equal (which may not be the case if we used population, rather than sample,

characteristics).
Randomisation will be designed to achieve an equal number of schools in each arm (i.e. 60 control and 60 treatment). Each school will be assigned a randomly generated number (setting a stable seed for the random number generation). Schools will be sorted by block and random number and will be assigned to the treatment arm and to the control arm in turn.
Randomisation will be carried out by UCL in Stata and the code used to carry out the process will be recorded and reported in the final report.
Schools allocated to the intervention group will receive the Power of Pictures (PoP) intervention, which operates as follows: PoP operates as follows. The PoP team selects picture book authors with whom they wish to work. This selection is based on the quality and relevance of a specific book from the author's work, which will be used for the intervention. The PoP team work with the author and the illustrator (always the same person) of this book throughout the course of the intervention. The author-illustrator is selected based on the quality of their text and their experience of talking about their process either through direct teaching, workshops at festivals or similar. They then take part in training with the PoP team before the intervention in the schools begins.
Schools that are selected to take part in the intervention must commit at least four weeks of their English curriculum to PoP. Typically, two teachers from a school are selected to lead on the intervention: one from Year 1 and one from Year 4 or 5.
The teachers selected from each school receive 2.5 days of training between October and March directly from the author-illustrator and the PoP team. The first day (in October) of training focuses on conveying meaning through drawing, reading pictures, creative approaches to using books and feedback. Throughout the entire process, the PoP team makes web resources available to the teachers, including sample teaching sequences.
Following the first day of training, the teachers are expected to do a 'gap task' with their pupils, where the pupils work with a picturebook by the focus author/illustrator. This task is documented via photos, which are sent to the PoP team. During this time (in November), the schools attend a half day visit delivered by the PoP team and the author-illustrator, where they get to meet the author/illustrator and take part in a workshop focussed on character design and development of narrative.
The second day of training for the teachers, which occurs in January, focuses on the full writing process for a book, how to design characters, sequential storytelling, feedback on writing, publication and reflection. This training session is delivered by the same PoP team and author-illustrator as the first training session. The teachers then return back to their class for another six-week period and use the teaching sequences in more detail to focus on the innovation of pupil's own picturebook stories, inspired by the workshop. This is again documented via photos sent to the PoP team.
The third and final half-day of training involves not only the teachers who have previously participated, but also the school's senior leadership team and the literacy coordinator. On this day, reflection takes places as to the effectiveness of approaches and an action plan is formulated for how to continue incorporating picture books and illustration into schools' curriculum, based on successes shared.
At the end of the year 5 school year, the follow-up takes place and all outcome measures are collected at treatment and control schools.
Schools allocated to the control group will not receive the PoP intervention and will continue as usual.

Intervention Type
Behavioural

Primary outcome(s)

Writing attainment, assessed using the Writing Assessment Measure (WAM) at the end of the Year 5 school year in 2019.

Key secondary outcome(s)
Writing self-efficacy, assessed using the Self-Efficacy for Writing Scale (SEWS) (adapted to ensure age appropriateness) at the end of the Year 5 school year in 2019.

Completion date
31/12/2019

Eligibility

Key inclusion criteria
1. North East England, London and East Sussex based
2. Agree to provide student data so that it is possible to apply for data from the National Pupil Database
3. Identify a lead teacher from Year 5 for participation (all pupils in this teacher's class will participate in the trial)
4. Agree to cooperate with the project and evaluation teams during the trial

Where possible it will aim to recruit schools that have larger populations of individuals receiving Free School Meals (FSM) than the national average of 15.3 per cent of pupils aged 5-10 (DfE, 2016).

Participant type(s)
Other

Healthy volunteers allowed
No

Age group
Child

Sex
All

Total final enrolment
2674

Key exclusion criteria
Parents may choose for their child to not participate in the study; their data will not be collected or processed.

Date of first enrolment
01/01/2018

Date of final enrolment
30/06/2018

Locations

Countries of recruitment
United Kingdom

England

Study participating centre
UCL Institute of Education
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Study participating centre
Behavioural Insights Team
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Study participating centre
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Sponsor information

Organisation
UCL Institute of Education

ROR
https://ror.org/02jx3x895

Funder(s)

Funder type
Not defined

Funder Name
Education Endowment Foundation

Funder Name
Royal Society of Arts

Results and Publications

Individual participant data (IPD) sharing plan
The datasets generated and analysed during the current study have been archived in the Education Endowment Foundation (EEF)'s data archive, and will be available from this data archive in the future, on application to the EEF. Consent for this archiving and administrative data linkage was obtained from participants as part of the study. At the time of writing, access is not yet possible and the timing of access being made available is dependent upon the EEF, rather than the project team. The data archived includes all variables used as part of the analyses reported, named in line with a consistent data specification provided by the EEF (see appendix 3 of their policy on data archiving: https://d2tic4wvo1iusb.cloudfront.net/documents/evaluation/archiving-evaluation-data/Archiving-evaluation-data-analysed-in-the-SRS-Project-completion-and-archiving-form_v2.pdf). Application for access to the EEF data archive is contingent on providing detail of the public benefit of the research to be carried out, in line with the EEF data archive privacy notice: https://educationendowmentfoundation.org.uk/privacy-notices/privacy-notice-for-the-eef-data-archive; this will be assessed by the EEF as archive data owners, rather than the project team. Archive data are held and shared within a secure environment (UK Office for National Statistics Secure Research Service; ONS SRS), for which applicants must meet relevant requirements (including application for recognition as an accredited researcher from the ONS), as mitigation against potential identifiability risks.

IPD sharing plan summary
Stored in non-publicly available repository

Study outputs

Output type	Details	Date created	Date added	Peer reviewed?	Patient-facing?
Funder report results		07/09/2021	13/09/2021	No	No
Protocol (other)		09/04/2019	12/08/2022	No	No
Statistical Analysis Plan		16/10/2018	12/08/2022	No	No
Study website	Study website	11/11/2025	11/11/2025	No	Yes