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KEEP Teaching is a programme that aims to improve the job satisfaction of physics newly qualified teachers by increasing their time teaching physics

Submission date
08/09/2023

Recruitment status
No longer recruiting

Registration date
25/09/2023

Overall study status
Completed

Last Edited
21/01/2025

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
KEEP Teaching is a programme that aims to improve the job satisfaction of Newly Qualified Teachers (NQTs) of physics by increasing the proportion of time they spend teaching physics. Guidance materials are provided to schools based on an initial assessment of their timetabling processes with an aim to increase the amount of time these NQTs spend teaching physics.

Who can participate?
Adult physics NQTs aged between 18 and 65 years old working at non-selective state schools in England

What does the study involve?
The unit of analysis is a school-NQT pairing. A pairing randomised to receive the programme will receive an email offering timetabling guidance. These materials may include guidance, example timetables and direct feedback upon timetables. All NQTs will complete a survey towards the end of their NQT year, which will include a series of questions that will allow us to create a validated measure of job satisfaction.

What are the possible benefits and risks of participating?
The possible benefits of participation are improved job satisfaction for NQTs and improved teacher retention for schools. No risks associated with participating are foreseen. Schools and NQTs can withdraw from the study at any time.

Where is the study run from?
The evaluation is being carried out by the University College London (UCL) Institute of Education (IOE) (UK). The KEEP Teaching programme is designed and delivered by the Institute of Physics (IOP) (UK)

When is the study starting and how long is it expected to run for?
June 2018 to June 2023

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

Who is the main contact?
David Wilkinson, d.wilkinson@ucl.ac.uk (UK)

Contact information

Type(s)
Principal investigator

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Additional identifiers

Study information

Scientific Title
A randomised trial of whether KEEP Teaching, an intervention designed to increase the proportion of time that Physics Newly Qualified Teachers spend teaching Physics, improves their job satisfaction.

Acronym
KEEP Teaching

Study objectives
1. What is the size of the effect of the KEEP Teaching intervention on the job satisfaction of physics NQTs towards the end of their NQT year?
2. What is the size of the effect of the KEEP Teaching intervention on the retention within the teaching profession of physics NQTs three years after starting their NQT year at that school, compared to a business-as-usual control?
3. What is the size of the effect of the KEEP Teaching intervention on the retention within a school of physics NQTs three years after starting their NQT year at that school, compared to a business-as-usual control?
4. What is the association between the extent of ‘matchedness’ and job satisfaction, as well as ‘matchedness' and teacher retention?

Ethics approval required
Ethics approval required

Ethics approval(s)
Approved 13/06/2019, UCL Institute of Education Research Ethics Committee (20 Bedford Way, London, WC1H 0AL, United Kingdom; None provided; ioe.researchethics@ucl.ac.uk), ref: Z6364106 2019 05 102

Primary study design
Interventional

Study design
Two-arm randomized controlled trial with school (teacher)-level allocation

Study type(s)
Quality of life

Health condition(s) or problem(s) studied
Physics teacher job satisfaction

Interventions
The unit of analysis for this trial will be non-selective state schools within England that have recruited a physics NQT. For the purposes of this project, a physics NQT is defined as someone with a physics or 'maths with physics' degree or mechanical, civil or electrical engineering degree; and/or someone with a physics or physics and maths Postgraduate Certificate in Education (PGCE) (or Qualified Teacher Status (QTS)-equivalent teaching certificate labelled as specialising in physics or physics and maths). Tailored guidance materials are provided to schools based on an initial assessment of their timetabling processes. These materials may include guidance, example timetables and direct feedback upon timetables.

Once a matched pair of physics NQT and eligible schools are allocated to a trial condition, the Institute of Physics (IOP) team will offer guidance to promote 'matchedness' of the timetable for the physics NQT, if they are a treatment school. A timetable is more matched if the physics NQT has a greater proportion of their lessons in physics. Once a draft timetable is produced, this will be shared with the IOP who may repeat the cycle of guidance and provide feedback to maximise 'matchedness'.

Schools will be recruited into the trial over the course of three years with a target of 60 to 70 schools per year. Schools will be randomly allocated to treatment or control as soon as they join the trial using sequential treatment allocation, to maximise the amount of time the implementation team have to work with schools before schools finalise their timetable.

To allow sequential treatment allocation while also ensuring equal-size treatment and control groups, the following method will be adopted for randomisation:
1. A dataset is generated with two hundred rows labelled 1, 2, 3... 200.
2. Flip a coin (using the computer) for row 1. Row 1 is assigned to treatment if it is heads, or to control if it is tails.
3. The process repeats for the following 199 rows.
4. The number of heads is checked. If the number of heads is not 100, steps 1-4 are repeated until a dataset with exactly 100 heads is generated.
5. The first school recruited to the trial is assigned to treatment if row 1 is a treatment row, or to control if row 1 is a control row.
6. The process is repeated in step 5 for the next 199 schools recruited to the trial.
Sequential allocation is sometimes critiqued because it can introduce biases when the recruiter knows what the next allocation will be. In this study, this approach is acceptable because the evaluation team will conduct the randomisation and the recruiter will not know what the next allocation will be. The randomisation process will be recorded in the syntax and log files used to carry out the randomisation and included as an appendix in the evaluation report.

Intervention Type
Behavioural

Primary outcome(s)
NQT job satisfaction measured using a short online survey in the summer term of the NQT year

Key secondary outcome(s)
The following secondary outcome measures will be measured by matching the NQTs to the School Workforce Census for the three years following their NQT year:

1. NQT retention in the profession - whether the NQT remains in the teaching profession in the state sector
2. NQT retention in school - whether the NQT remains in the same school as they were for their NQT year

Completion date
01/06/2023

Eligibility

Key inclusion criteria
The unit of analysis for this trial will be non-selective state schools within England that have recruited a physics NQT.

For the purposes of this project, a physics NQT is defined as:
1. Having a physics or 'maths with physics' degree or a mechanical, civil or electrical engineering degree
AND/OR
2. A physics or physics and maths Postgraduate Certificate in Education (PGCE) (or QTS-equivalent teaching certificate labelled as specialising in physics or physics and maths)

Participant type(s)
Employee

Healthy volunteers allowed
No

Age group
Adult

Lower age limit
18 Years

Upper age limit
65 Years

Sex
All

Total final enrolment
227

Key exclusion criteria
1. Not participated in a requisite training course
2. Not agreed to Memorandum of Understanding

Date of first enrolment
14/06/2019

Date of final enrolment

31/05/2022

Locations

Countries of recruitment
United Kingdom

England

Study participating centre
UCL Institute of Education
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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, 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 will be stored in the non-publicly available EEF data repository

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		01/08/2024	21/01/2025	No	No
Protocol file	version 2.0	07/02/2022	11/09/2023	No	No
Statistical Analysis Plan	version 1.0	16/02/2023	11/09/2023	No	No
Study website	Study website	11/11/2025	11/11/2025	No	Yes