

Developing adaptive expertise through reflective self-study: A randomised controlled trial during contrasting school placements in Initial Teacher Education

Submission date 02/12/2025	Recruitment status No longer recruiting	☐ Prospectively registered ☐ Protocol
Registration date 03/12/2025	Overall study status Ongoing	☐ Statistical analysis plan ☐ Results
Last Edited 02/12/2025	Condition category Other	☐ Individual participant data ☒ Record updated in last year

Plain English summary of protocol

Background and study aims

Developing adaptive expertise - the ability for teachers to apply their knowledge flexibly and respond effectively to new classroom challenges - is a central aim of initial teacher education (ITE). However, many trainees find it difficult to manage the emotional and cognitive demands of moving between very different school environments and to connect theoretical learning with practical experience. Contrasting School Placements (CSPs) are intended to build this adaptability by exposing trainees to diverse teaching contexts. Yet, there is limited evidence on how best to structure these placements to foster reflective and transferable learning. This study examines whether incorporating structured reflective self-study during CSPs can strengthen the development of adaptive expertise compared to the standard observation-based approach. It also explores whether this intervention influences trainees' professional aspirations and their understanding of the types of school settings in which they wish to teach.

Who can participate?

Trainee teachers specialising in primary or secondary education, currently enrolled in the NIoT's ITE programmes.

What does the study involve?

Trainee teachers will be randomly assigned to one of two approaches to CSPs. One approach will focus on reflective self-study, in which trainees replace three hours each week observing lessons with structured self-study modules. The other approach will be a standard practice condition, maintaining the usual observation structure during CSPs. Outcomes will be measured before the CSP, and again three months later (after the CSP). The primary focus is on trainees' ability to adapt their teaching to different situations, measured through online tasks that assess reasoning and problem-solving. A secondary focus will explore trainees' professional goals and attitudes using a short survey. In addition, the study will investigate how each approach is

implemented and the factors that influence its success. This will involve surveys, interviews, focus groups, and analysis of trainees' reflection logs. Participants will be drawn from multiple campuses and teaching phases to ensure a diverse range of experiences.

What are the possible benefits and risks of participating?

Participating trainees will be offered the opportunity to be named in the acknowledgements of the outputs associated with the research. They will also be invited to express interest in joining the Research Advisory Group and provide input on aspects related to dissemination and impact. In terms of risks, while attention and care will be taken by the research team to reduce the risk that participants may be identifiable, qualitative data carries the risk that some may be identifiable through in-depth description being used. In addition, while we will change wording of staff titles to reduce risk of re-identification (e.g. Head of ITE Faculty will be written as 'Senior ITE staff'), a small staff team includes risks to confidentiality for individual staff participants. These risks of re-identification will be made clear to staff member participants in the consent process, and they will be given the option to review any direct data or described scenarios from their transcripts used in the final report, and to remove if they feel uncomfortable.

Where is the study run from?

National Institute of Teaching (UK)

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

December 2025 to August 2026.

Who is funding the study?

Department for Education (UK)

Who is the main contact?

Dr Lydia Lymperis; l.lymperis@niot.org.uk

Contact information

Type(s)

Public, Scientific, Principal investigator

Contact name

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Additional identifiers

Study information

Scientific Title

Developing adaptive expertise through reflective self-study: A randomised controlled trial during contrasting school placements in Initial Teacher Education

Acronym

CSP

Study objectives

We will investigate how structured reflective self-study can support trainee teachers in developing adaptive expertise during their contrasting school experience by helping them navigate the emotional and cognitive challenges of moving across different school contexts during their training. It seeks to identify how such reflective approaches can enhance trainees' ability to transfer learning, integrate theory and practice and respond flexibly to the similarities and differences between placement settings.

R1:What is the impact on trainee teachers' development of adaptive expertise of structured reflective self-study relative to standard observation-based learning during contrasting school placements (CSPs)?

R2:What is the impact on trainee teachers' professional aspirations of structured reflective self-study relative to standard observation-based learning during contrasting school placements (CSPs) ?

R3:How, if at all, does reflective self-study shape trainee teachers' development of adaptive expertise during CSP in comparison to observation time alone with a focus on (i) the key mechanisms and contextual factors that shape this reflective process, (ii) the strengths and limitations of the two approaches, and (iii) the implications for andragogical choices in future design and delivery of training?

Ethics approval required

Ethics approval required

Ethics approval(s)

Approved 25/11/2025, National Institute of Teaching (Potovens Lane, Outwood, Wakefield, WF1 2PF, United Kingdom; +44 330 133 6300; research.ethics@niot.org.uk), ref: NIOT-25-7

Primary study design

Interventional

Study design

Dual-strand design randomized controlled trial and a mixed-methods implementation and process evaluation

Study type(s)

Treatment

Health condition(s) or problem(s) studied

Developing adaptive expertise—teachers' capacity to apply knowledge flexibly and respond effectively to novel classroom challenges—is a core goal of initial teacher education (ITE). However, trainees often find it difficult to navigate the emotional and cognitive demands of

moving between contrasting school contexts and to integrate theory with practice. Contrasting School Placements (CSPs) are designed to support this adaptability, yet there is limited empirical evidence on how best to structure such experiences to promote reflective, transferable learning.

Interventions

RCT:

The trial will compare two training approaches: one maintaining the standard observation time as part of the Contrasting School Placement(CSP) experience, and the other reducing observation time to allow for structured reflective self-study focused on key trainee outcomes. We will use a parallel-group design with school-level randomisation, i.e., trainees within each placement school will be randomly assigned together to one of two training approaches. The intervention involves a structured programme of three self-study modules per week over a six-week period, designed to promote reflective connections between trainees' experiences in their CSP and their Main School Placement (MSP). Trainees in the treatment group will allocate three hours per week to these self-studies, replacing three of their usual observation hours. Each self-study will last approximately 50 minutes, with around 20 minutes of taught content and 30 minutes of structured reflection. The materials draw on key evidence from the five ITE strands and are sequenced for interleaving to encourage integrated practice. Reflection activities are guided by the Rolfe et al. (2001) reflective model ('What? So what? Now what?'), aimed at helping trainees to analyse, interpret and adapt their practice based on insights from both placements. The self-studies will be hosted and tracked via the Articulate LMS, with accessible features such as an optional audio version of the content. Trainees in the control group will complete the standard allocation of observation hours(20% placement hours) during their CSP. The outcomes of the two groups across all participating schools will be compared to evaluate the relative impact of each approach in terms of key trainee outcomes identified.

Intervention Type

Other

Primary outcome(s)

Adaptive expertise will be measured using an online scenario-based assessment at both baseline and endline (3 months later).

Key secondary outcome(s)

Trainees' self-reported professional orientation - will be measured using a survey (1 - 2 items) at both baseline and endline (3 months later).

Other secondary measures are related to the IPE:

2. Trainees' experience of their CSP will be explored using surveys (at endline), focus group discussions and individual interviews with trainees. The latter will be conducted in June 2026.
3. NIoT staff's experiences of the CSP intervention will be explored using surveys and individual interviews with NIoT staff.
4. How trainees approached the reflective process in the intervention will be explored by analysing a sample of trainees' reflection logs generated as part of the self-study modules.

Completion date

30/08/2026

Eligibility

Key inclusion criteria

RCT:

1. Eligible participants will be trainees specialising in primary and secondary education who are enrolled in NIoT's 2025/26 ITE programmes via the full-time fee-paying route. They will be based at campuses across the South and West, East, South and London, North and West, and North and East regions of England.

IPE:

Eligible participants for the mixed-methods IPE will be NIoT ITE primary and secondary trainees and NIoT ITE tutors delivering the ITE programme across the four NIoT regions (including Associate Colleges), as well as senior ITE Faculty members and members of the content design team.

1. Trainees eligible for individual interviews, Focus Group Discussions (FGDs) and analysis of reflection logs will be those trainees that have taken part in the trial component of the study, regardless of group allocation.

2. Eligibility criteria for NIoT staff participating in individual interviews will include ITE tutors or other facilitators leading the training, and ITE Faculty members who oversee NIoT training, as well as members of the content design team.

Participant type(s)

Employee, Learner/student

Healthy volunteers allowed

No

Age group

Mixed

Lower age limit

18 Years

Upper age limit

99 Years

Sex

All

Total final enrolment

690

Key exclusion criteria

1. Trainees on the postgraduate teaching apprenticeship route and salaried school direct, as well as part-time trainees, will not be eligible to participate due to differences in programme structure and delivery.

Date of first enrolment

28/11/2025

Date of final enrolment

04/12/2025

Locations

Countries of recruitment

United Kingdom

England

Study participating centre

National Institute of Teaching - South & West Campus Birmingham

Woodview Drive

Birmingham

England

B15 2HU

Study participating centre

National Institute of Teaching - North & West Campus Blackburn

Shadsworth Road

Blackburn

England

BB1 2HT

Study participating centre

National Institute of Teaching - South & West Campus Bristol

The Greenway Centre, Doncaster Road

Bristol

England

BS10 5PY

Study participating centre

The National Institute of Teaching - North & East Campus Doncaster

Tenter Balk Lane, Adwick le Street

Doncaster

England

DN6 7EQ

Study participating centre

National Institute of Teaching - Harris Institute Peckham

112 Peckham Road, Peckham

London

England

SE15 5DZ

Study participating centre
David Ross Education Trust
Thorpe Hill, Loughborough
Loughborough
England
LE11 4SQ

Study participating centre
The Harris Federation
Marlborough Hill, St. John's Wood
London
England
NW8 0NL

Study participating centre
Kernow learning
The Old Cricket Pavilion, Treninnick Hill,
Newquay
England
TR7 2JU

Study participating centre
Learn A-T
School Lane, Lubenham
Leicestershire
England
LE16 9TW

Study participating centre
North East Learning Trust
The Academy at Shotton Hall Passfield Way
Peterlee
England
SR8 1AU

Study participating centre
Oasis Community Learning
Oasis Community Learning, Devonshire House

London NO COUNTRY SPECIFIED, assuming England
England
SE1 7RW

Study participating centre
Ormiston Academies trust
Assay Studios141 Newhall Street
Birmingham
England
B3 1SF

Study participating centre
Outwood Grange Academy
Potovens Lane
Outwood
Wakefield
England
WF1 2PF

Study participating centre
Pen Green Centre
Rockingham Road, Corby,
Northamptonshire
England
NN17 1BJ

Study participating centre
Star Academies
Shadsworth Road
Blackburn NO COUNTRY SPECIFIED, assuming England
England
BB1 2HT

Study participating centre
Trinity Academy
Thorne,
Doncaster
England
DN85BY

Study participating centre
The White Horse Federation
Plymouth St
Swindon
England
SN1 2LB

Study participating centre
Windsor academy trust
Windsor Academy Trust, Trinity Point, High St
Halesowen
England
B63 3HY

Sponsor information

Organisation
Department for Education

ROR
<https://ror.org/0320bge18>

Funder(s)

Funder type
Not defined

Funder Name
Department for Education, UK Government

Alternative Name(s)
Department for Education (DfE), Department for Education, educationgovuk, DfE

Funding Body Type
Government organisation

Funding Body Subtype
National government

Location
United Kingdom

Results and Publications

Individual participant data (IPD) sharing plan

The anonymised datasets generated and/or analysed during the current study will be stored in a publicly available repository (Harvard Dataverse).

IPD sharing plan summary

Stored in publicly available repository