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Learning to learn in primary schools

Submission date
18/01/2016

Recruitment status
No longer recruiting

Registration date
29/07/2016

Overall study status
Completed

Last Edited
05/08/2019

Condition category
Other

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

Plain English summary of protocol

Background and study aims
The ReflectED approach aims to support primary school age pupils in 'learning to learn' by developing their metacognitive skills. Metacognition, or self-regulation, is often described as 'learning to learn' and focuses on encouraging learners to reflect on how they learn, and then to develop strategies to improve these learning processes and their motivation. Metacognition is widely believed to have a positive impact on children's development and most studies suggest positive outcomes. Teachers at Rosendale primary school developed the ReflectED approach over a number of years before it was developed into a set of weekly lessons specifically for the schools involved in this study. The lessons, produced as a specially designed workbook, were adapted from the teachers' own practice in Rosendale school, but developed into a training programme for the children in the study to become effective reflectors. The aim of this study is to assess the impact of the ReflectED approach on children's progress and attitudes in maths and reading.

Who can participate?
Year 5 children aged 9-10 in primary schools in the UK

What does the study involve?
Classes are randomly allocated into two groups: intervention and control. Children in the control classes receive 'business as usual' teaching. Children in the intervention classes receive a weekly ReflectED lesson from trained teachers following a series of expertly designed lesson plans. These lessons both introduce the children to reflection via various different tasks and introduce them to the process. For example, in the first lesson children are encouraged to think about when they learned something new and then taught to juggle or do origami. Throughout this lesson they are talking about how the instruction helps them to learn, but also about learning in stages and practising. The process also includes the use of the software Evernote to record the children's reflections into a tagged database. A number of lessons in the first term focus on both getting the children to understand how to reflect, but also to record this using the Evernote software. As the year progresses teachers encourage pupils to use Evernote to record their reflections on a regular basis, ideally several times a week, across different subjects. Children 'tag' their reflections – this enables them, and the teacher, to go back to reflections to inform future teaching and learning.

What are the possible benefits and risks of participating?
Children in the intervention classes are encouraged to develop the skills of being able to actively engage in their own learning processes, being able to develop a better sense of how they are learning, what they learn well and what areas of the curriculum they find more challenging. Following the initial year-long study it is expected that the schools will take on the approach and develop it more widely in the school.

Where is the study run from?
Manchester Institute of Education (UK)

When is the study starting and how long is it expected to run for?
January 2014 to July 2015

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

Who is the main contact?
Dr Gary Motteram

Contact information

Type(s)
Public

Contact name
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Additional identifiers

Study information

Scientific Title
Primary age children's experiences of metacognition using a two-arm randomised controlled trial to measure achievement on maths, reading and attitudes to learning

Study objectives
The principal research question is:
What is the impact of the ReflectED approach on progress in maths, reading and attitudes?

Other questions connected to the process approach include:
1. What are the teachers understandings of metacognition?
2. What value do the schools see in the ReflectED approach?
3. What are the teachers' attitudes towards the intervention?
4. What are the learners' attitudes to the approach?
5. What do teachers and learners perceive the benefits to be?
6. Is the approach scalable?
7. What are the barriers to delivery?

Ethics approval required
Old ethics approval format

Ethics approval(s)
University of Manchester Research Ethics Committee, ref: 14225

Primary study design
Interventional

Study design
School-based randomised control trial

Study type(s)
Other

Health condition(s) or problem(s) studied
N/A

Interventions
The trial involves 30 schools with a minimum of two-form entry. Typical class sizes in the schools are between 25-30. Classes are randomly allocated into two arms: intervention (ReflectED) and control (business as usual)

The intervention consists of a year-long trial of a training process (ReflectED) to enable children to learn better how to be aware of learning and how they can improve their learning. There are a total of 28 lessons in the materials. These lessons both introduce the children to reflection via various different tasks and introduce them to the process. For example, in the first lesson children are encouraged to think about when they learned something new and then taught to juggle or do origami. Throughout this lesson they are talking about how the instruction helps them to learn, but also about learning in stages and practising. The process also includes the use of the software Evernote to record the children's reflections into a tagged database. A number of lessons in the first term focus on both getting the children to understand how to reflect, but also to record this using the Evernote software. As the year progresses teachers encourage pupils to use Evernote to record their reflections on a regular basis, ideally several times a week, across different subjects.

Intervention Type
Behavioural

Primary outcome(s)

1. Reading attainment
2. Mathematics attainment
3. Reading attitudes
4. Mathematics attitude

All of the measures are based on a comparison between the children's Key Stage 1 (KS1) scores at the end of Year 2 when children are either 7 or almost 7, and their scores on the Centre for Evaluation and Monitoring (CEM) InCAS test conducted at the end of the trial (after 12 months). InCAS measures for Reading, Maths, Reading attitudes and Mathematics attitudes and a similar measure from KS1 tests was used as a baseline.

Key secondary outcome(s)
Gains in academic progress for children:
1. Eligible for free school meals
2. With English as an additional language
3. With Special Educational Needs

Completion date
31/07/2015

Eligibility

Key inclusion criteria
Year 5 children in primary schools in the UK, ages 9-10

Participant type(s)
Other

Healthy volunteers allowed
No

Age group
Child

Lower age limit
9 Years

Upper age limit
10 Years

Sex
All

Total final enrolment
1858

Key exclusion criteria
N/A

Date of first enrolment

01/01/2014

Date of final enrolment
31/07/2014

Locations

Countries of recruitment
United Kingdom

England

Study participating centre
Manchester Institute of Education
United Kingdom
M13 9PL

Sponsor information

Organisation
Education Endowment Foundation (UK)

ROR
https://ror.org/03bhd6288

Funder(s)

Funder type
Charity

Funder Name
Education Endowment Foundation (UK)

Results and Publications

Individual participant data (IPD) sharing plan

IPD sharing plan summary
Stored in repository

Study outputs

Output type	Details	Date created	Date added	Peer reviewed?	Patient-facing?
Funder report results	results		05/08/2019	No	No
Study website	Study website	11/11/2025	11/11/2025	No	Yes