

# Let's Think Secondary Science: testing a cognitive development programme for science

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|--------------------------|-----------------------------|--|
| <b>Submission date</b>   | <b>Recruitment status</b>   | <input type="checkbox"/> Prospectively registered    |
| 14/08/2014               | No longer recruiting        | <input type="checkbox"/> Protocol                    |
| <b>Registration date</b> | <b>Overall study status</b> | <input type="checkbox"/> Statistical analysis plan   |
| 13/10/2014               | Completed                   | <input checked="" type="checkbox"/> Results          |
| <b>Last Edited</b>       | <b>Condition category</b>   | <input type="checkbox"/> Individual participant data |
| 11/08/2017               | Other                       |  |

## Plain English summary of protocol

### Background and study aims

This study assesses the effectiveness of Lets Think Secondary Science (LTSS), a series of 19 science lessons taught alongside normal science lessons to students in Year 7 and through into Year 8. They are designed to help pupils improve their thinking skills as well as their science achievement. This study is conducted across two years with 2013/14 Year 7 classes in 50 secondary schools in England.

### Who can participate?

Schools with a Year 7 and Year 8 in Yorkshire/North East, Midlands and South West

### What does the study involve?

Schools are randomly allocated to either use Lets Think Secondary Science starting in September 2013 and ending in June 2015, or to be a comparison school teaching science as usual. After June 2015, all participating schools, including the comparison schools, are able to use Lets Think Secondary Science if they wish. At the end of the two years, students complete assessments in Science, English, Maths and thinking skills. Teachers either undergo training and school visits to support them in using LTSS lessons, or teach science as usual in the control schools. LTSS teachers also receive in-school support from a member of the senior management team and peer-to-peer support.

### What are the possible benefits and risks of participating?

All Year 7 science teachers at each intervention school receive professional development sessions in science teaching, and a set of science lesson plans and resources. This opportunity is also given to science teachers at the control schools after the two-year study period finishes.

### Where is the study run from?

Institute for Effective Education, University of York (UK)

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

May 2013 to July 2015

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

Who is the main contact?  
Dr Pam Hanley  
pam.hanley@york.ac.uk

## Contact information

### Type(s)

Scientific

### Contact name

Dr Pam Hanley

### Contact details

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-  
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## Additional identifiers

### Protocol serial number

N/A

## Study information

### Scientific Title

Let's Think Secondary Science: testing a cognitive development programme for science: a cluster randomised controlled trial

### Acronym

LTSS

### Study objectives

The use of a set of 19 science lessons based on Cognitive Acceleration through Science Education principles across the first two years of secondary school will have a positive impact on students' science attainment and their attainment in English, Maths and thinking skills.

### Ethics approval required

Old ethics approval format

### Ethics approval(s)

The Education Ethics Committee, University of York, 20/08/2013

**Study design**

Cluster randomised controlled trial

**Primary study design**

Interventional

**Study type(s)**

Other

**Health condition(s) or problem(s) studied**

Science education

**Interventions**

Random allocation at school level stratified by region (three regions involved).

Science teachers in the treatment group will undergo training and deliver LTSS lessons to their 2013/14 cohort of students. Teachers in the control schools will teach science as usual.

**Intervention Type**

Other

**Phase**

Not Applicable

**Primary outcome(s)**

Science assessment based on curriculum and age-appropriate questions from pre-existing KS3 SATs tests.

Schools will be asked to administer the post-test measures in June 2015

**Key secondary outcome(s)**

1. GL Assessments Progress in Maths

2. GL Assessments Progress in English

3. GL Assessments Cognitive Abilities Test (CAT4)

Schools will be asked to administer the post-test measures in June 2015

**Completion date**

30/07/2015

## Eligibility

**Key inclusion criteria**

Schools with a Year 7 and Year 8 in Yorkshire/North East; Midlands; South West

**Participant type(s)**

Other

**Healthy volunteers allowed**

No

**Age group**

Child

Sex

All

#### **Key exclusion criteria**

1. Children in eligible year group in eligible schools whose parents do not wish them to take part
2. Children who start the school after spring term 2014 (i.e., miss more than four terms of LTSS lessons)

#### **Date of first enrolment**

01/05/2013

#### **Date of final enrolment**

30/07/2015

## **Locations**

#### **Countries of recruitment**

United Kingdom

England

#### **Study participating centre**

University of York

York

United Kingdom

YO10 5DD

## **Sponsor information**

#### **Organisation**

Education Endowment Foundation (UK)

#### **ROR**

<https://ror.org/03bhd6288>

## **Funder(s)**

#### **Funder type**

Government

**Funder Name**

Education Endowment Foundation (UK)

## Results and Publications

### Individual participant data (IPD) sharing plan

**IPD sharing plan summary**

Not provided at time of registration

**Study outputs**

| Output type  | Details                       | Date created | Date added | Peer reviewed? | Patient-facing? |
|--|-------------------------------|--------------|------------|----------------|-----------------|
| <a href="#"><u>Funder report results</u></a>         | results                       |              |            | No             | No              |
| <a href="#"><u>Participant information sheet</u></a> | Participant information sheet | 11/11/2025   | 11/11/2025 | No             | Yes             |
| <a href="#"><u>Study website</u></a>                 | Study website                 | 11/11/2025   | 11/11/2025 | No             | Yes             |