



# METACOGNITION AND THE SCIENCE OF LEARNING

## Delegates will:

- Develop a deep understanding of the best evidence available around metacognition and cognitive science
- Gain a deep understanding of metacognitive strategies and how to implement them successfully
- The Learning Scientists' Six Strategies for Effective Learning
- Explore the possible myths and mutations associated with ideas such as retrieval practice and interleaving



**ArthurTerry**  
Teaching School Hub  
North Birmingham



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# METACOGNITION AND THE SCIENCE OF LEARNING

All Modules: 9:30am - 3:30pm

## Module 1, 2 & 3: Face to Face to Delivery Thursday 21st March

### Key learning: What do teachers and leaders need to know about implementation? What does an effective 'explore' phase look like?

Delegates will be guided through a summary of the EEF's 'Putting Evidence to Work: a School's Guide to Implementation', focusing on the characteristics of effective leadership at the 'explore' phase

- Know what is expected and what will be gained from completing the programme.
- Explore how to use baseline evidence from your school to ensure a focus on monitoring & evaluation from the outset.
- Establish the conditions needed to implement evidence-informed practice in the teaching of literacy in your school

### Key learning: How do people learn and what are the implications for effective teaching and learning?

Delegates will be guided through a summary of relevant research into cognition and the science of learning.

They will explore:

- The three essential components of self-regulated learning and the ways in which they interact.
- Willingham's simple model of memory.
- The importance of activated prior knowledge and implications for teachers.
- The implications for classroom practice of the simple model of memory.

### Key learning: What is metacognition and can we teach it?

Delegates will discuss the principles of metacognition and how developing metacognitive skills enhances pupil outcomes.

They will explore:

- The six aspects of metacognition.
- The facts and the myths about metacognition.
- Levels of metacognitive learners and reflect on their own experiences.
- The recommendations of the EEF's Metacognition and Self-Regulated Learning guidance report

## Modules 4, 5 & 6: Face to Face to Delivery Tuesday 16th April

### Key learning: What are the challenges of applying evidence to the classroom?

Delegates will:

- Dispel common myths associated with an evidence-based approach
- Understand the EEF Toolkit and how to avoid surface level compliance with evidence
- Have a better understanding of which evidence supports metacognition and cognitive science
- Gather data that is fit for purpose, allowing for identification of 'quiet trends' and nuanced descriptions of issues
- Consider how evidence might be misapplied in the classrooms

### Key learning: How should teachers teach metacognitive strategies?

Delegates will explore:

- The seven-step model.
- Worked examples of the seven-step model in action across different ages and subjects.
- How the seven-step model could be applied in different scenarios in their own contexts.

*Recommendation 2: Explicitly teach pupils metacognitive strategies, including how to plan, monitor, and evaluate their learning*

### Key learning: What are the benefits of live modelling and how might we make the most of live modelling in lessons?

Delegates will explore:

- The differences between novices and experts.
- Why live modelling is crucial to developing metacognitive learners.
- What good practice for live modelling could look like across a range of subjects and ages.

*Recommendation 3: Model your own thinking to help pupils develop their metacognitive and cognitive skills*

## Module 7, 8 & 9: Face to Face to Delivery Friday 21st June

### Key learning: How can teachers make the most of recommendations from cognitive science?

Delegates will explore:

- The Learning Scientists' Six Strategies for Effective Learning
- The possible myths and mutations associated with ideas such as retrieval practice and interleaving.
- Examples and non-examples of these strategies in action.

### Key learning: How can we develop learners who are able to manage their learning independently?

Delegates will explore:

- The characteristics of effective metacognitive learners.
- The role of motivation in effective independent study.
- The effectiveness of different learning techniques.

*Recommendation 6: Explicitly teach pupils how to organise, and effectively manage, their learning independently*

### Key learning: Identifying Priorities: Prepare, Deliver and Sustain

Delegates will:

- Know the features of the sustain and deliver phases of the implementation process.
- Understand the challenges of the behaviour change.
- Consider manageable and meaningful monitoring of teaching and learning.
- Using RAG rating from the explore phase throughout the programme, identify a priority and write an implementation plan.



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