1: WHAT IS METACOGNITION?

Aims and outcomes
By the end of this session, participants will:

- know what is meant by metacognition
- know the advantages and disadvantages of different approaches to metacognition
- be able to make decisions about the organisation’s objectives in terms of accelerating pupil progress with metacognition and how to achieve them.

Participants
This session is intended to support senior leaders, members of a teaching and learning (or similar) group, middle leaders and classroom practitioners. It has been written for participants who have particular specialisms within the organisation (for example, behaviour support, a specific key stage) as well as those who assume more generic roles.

How this unit fits in with whole school improvement
New initiatives are more likely to be accepted and adopted in schools where practitioners perceive clear links to the improvement agenda. Slide 15 and the activity that follows it demonstrate how to cross-reference approaches to metacognition with aspects of the Framework for School Inspection (Ofsted, 2013). As a result, participants should begin to make links to particular aspects of their own school’s raising achievement plan. They will return to their findings from this exercise in Unit 5.

Resources
- **ACCEL Unit 1 Presentation** (21 slides)
- **ACCEL Unit 1 Trainer Notes** (this document)
- Copies of **ACCEL Unit 1 Handouts 1.1 to 1.9**
- Treats (for example biscuits or a piece of fruit) – two for each participant
- Laptop, projector and screen
- Seating cards
- Flipchart paper (A1 size)
- Marker pens
- Crayons, pens
- Sticky notes
- Stopwatch or timer

Timing
90 minutes, depending on discussion time and number of participants.
Rationale and background

The aim of this session is to promote awareness. It introduces some of the major issues in metacognitive approaches to accelerating pupil progress. As such, following an introductory briefing, participants decide how far they want to go in their organisation, before embarking on developing strategies to enhance learning capacity in subsequent sessions.

Before you begin

- Read through the PowerPoint presentation and complete each of the activities as described in this document. This will give you a feel for colleagues’ reactions and help you to plan for their individual needs.
- Add your name and job title to the title slide (red text).
- Ensure that you understand slide 7, the principles behind the self-regulating trajectory (slide 11), Ecclestone’s (2000) three types of autonomy (slide 14) and links between metacognition and a framework for school inspection (slide 15). This will support your facilitation of discussions between colleagues.
- Where you have a choice of activities, make decisions about the appropriateness of each one for your particular group of colleagues and ensure that there are enough copies of the handouts to go round.
- Consider using paper tablecloths and crayons for step 9 (slide 18) and make appropriate arrangements for the layout of the room. Alternatively, use the mind map template (Handout 1.10).
- Consider how you will make additional resources and Handouts 1.5, 1.6 and 1.8 available to participants.

Seating cards

Consider using a seating plan for the session using seating cards. Seating cards can facilitate group work as they reduce possibilities for working with friends and encourage collaboration across attainment ranges and participants’ capacity for collaboration. Each participant should receive a card with his or her own name on at the beginning of a session. From this point, the cards dictate multiple variations for working in groups of four.

- Four number 1s work together, four number 2s work together, etc.
- Four dotted borders work together, four emboldened borders work together, etc.
- One group of each number works together (1, 2, 3, 4)
- One group of each border type works together (solid line, bold, double line, dotted line).

Numbers can be used to signify attainment levels of participants. Borders can be used to signify participants’ capacity for collaboration.

A template for making seating cards is included as ACCEL Unit 1 Handout 1.1: Seating cards.

Progress marker

Consider whether you want to use a progress marker in your training sessions. A template is included as ACCEL Unit 1 Handout 1.3: Progress marker to each participant.

Progress markers can help facilitators to respond to participants’ individual needs in a personal manner, which does not have to involve the whole group.
Ask participants to evaluate their current knowledge and experience of each of the learning objectives at the beginning of the training session and indicate the outcome of their self-assessment on the sliding scale: 0 suggests that they have no prior knowledge or experience and 10 suggests extensive knowledge and experience of the objective. Circulate and eavesdrop into conversations to identify the range of knowledge and experience within the group, as well as the participants who might require support or could support others.

At appropriate stages of the training session, or towards the end, ask participants to review their knowledge and experience of each learning objective. Participants are often motivated to find out more about metacognition when they can identify aspects of personal progress.

**Step 1: Being metacognitive (5 minutes)**

If you are using a seating plan, make sure the cards are placed on the tables before participants arrive.

As in introductory activity, run activity 1A or 1B.

Have slide 1 on the screen as participants arrive.

**Activity 1A**

- Distribute a treat or a piece of fruit as part of the seating plan.
- Show slide 2 as participants enter the room and observe their reactions.
- After 5 minutes, ask participants to discuss with a partner how they felt about this introductory task.
- If they were asked to complete the task again, would participants make the same decision? What would they change?
- Distribute the second treat to the participants who chose to wait 5 minutes.
- Explain that participants have demonstrated examples of being metacognitive, which we will unpack during the session.

**Task 1B**

- Distribute a copy of ACCEL Unit 1 Handout 1.2: Metacognition – Eight Q template to each participant when you put out the seating cards.
- Show slide 3 as participants enter the room and ask them to devise as many questions as they can about the word ‘metacognition’ using the starter words.
- After 5 minutes, ask participants to share their responses with a partner.
- Distribute three sticky notes to each pair and listen to the discussions.
- Ask each pair to record up to three questions which they would like to explore during this course and stick them on the wall.
- Summarise the responses for the rest of the group, and include anecdotes from what you have heard/observed.
- Explain that participants have demonstrated examples of being metacognitive, which we will unpack either during today’s session or during the course of the course. Ask participants to retain their handouts – they will need them in Unit 5 of the course. alternatively, ask participants to write their names on the handouts and collect them in for redistribution during Unit 5.
Step 2: Overviews (5 minutes)

Show slide 4 and explain that it includes an overview of the whole course. Units 1 and 2 are designed to develop an awareness of metacognition and encourage discussion about current practice. Unit 3 will support planning for implementing metacognitive strategies. Unit 4 includes teaching tools and how to ‘stage manage’ metacognitive discussions. In Unit 5, participants will report back and reflect on practices for consolidation.

Show slide 5 and explain that we will begin by cementing a knowledge base for accelerating pupil progress with metacognition.

Step 3: Progress marker (5 minutes)

Show slide 6 and distribute a copy of ACCEL Unit 1 Handout 1.3: Progress marker to each participant. Explain that this is a progress marker for the learning objectives for this session.

Ask participants to evaluate themselves against the criteria on a scale of 1–10.

A 1 signifies very little existing knowledge and/or skill, 10 signifies a large amount of knowledge and/or skill.

Ask early finishers to justify why they have positioned themselves at a particular point on the scale.

Explain that we will review progress using this tool during the session.

Step 4: What is metacognition? (5 minutes)

Show slide 7 and ask participants to read through the definition of metacognition. They can do this silently or out loud.

Tell them that they will have 30 seconds to learn the definition of metacognition off by heart, and that there will be a self-assessment task on this. Set a timer or have a stopwatch to hand and begin timing 30 seconds while participants attempt to remember the definition.

After 30 seconds, show slide 8 and ask participants to work in groups of four to complete the blanks. Tell them they have another 30 seconds to do this. Circulate among the groups and monitor responses.

After a further 30 seconds, show slide 9 and ask participants to evaluate their performance. Did they have strategies to support this task? What were they? If they were to do the same task again, what would they do the same? What would they change?

Explain that we not only have a definition of metacognition at this stage of the session, we will be able to remember the definition more easily because we have used metacognitive skills.

Step 5: Approaches (10 minutes)

Show slide 10 and explain that there are different approaches to metacognition. The first approach perceives metacognition as a means to an end. In practice, this is evidenced by tasks similar to activities 1B or step 4 above. The second approach perceives metacognition as an end in itself. Here, pupils are encouraged to be more self-regulating or independent. This is emphasised by the asterisk on the slide.

Show the first part of slide 11 and explain that these approaches can be plotted on a self-regulating trajectory, which differentiates between approaches to learning which are teacher-led and task driven and those which are more pupil-centred and process-driven.
Reveal the **first arrow** on slide 11 and explain that thinking can be classified from surface level thinking to deeper thinking.

Reveal the **second arrow** on slide 11 and explain that planning and reflecting shift along a spectrum that is teacher led at the left and more pupil led towards the right.

Distribute **ACCEL Unit 1 Handout 1.4: Plotting approaches to metacognition on the self-regulating trajectory** and show slide 12.

Ask participants to plot the three approaches to metacognition on their blank self-regulating trajectory.

Show slide 13, which reveals the positions of each of the three approaches. Explain that this is a simplified version of research findings. However, pupil-centred and pupil-led, process-driven approaches to metacognition tend to appear towards the bottom right of the trajectory. Teacher-led, task-driven approaches feature towards the top and at the left of the trajectory.

Distribute **ACCEL Unit 1 Handout 1.5: The self-regulating trajectory summary information**. Explain that the self-regulating trajectory is a useful visual representation of approaches to metacognition, which might help participants during the planning stage.

**Step 6: Independent learning (5 minutes)**

Show slide 14 and explain that metacognitive approaches can promote and encourage independent learning and distribute **ACCEL Unit 1 Handout 1.6: A summary of Kathryn Ecclestone’s research findings into metacognition**.

Kathryn Ecclestone (2000) has produced research evidence of three types of ‘autonomy’. She argues that metacognitive practices can enhance learners’ independent learning skills and motivation.

**Step 7: Metacognition framework (10 minutes)**

Distribute a copy of **ACCEL Unit 1 Handout 1.7: Positioning metacognition within a professional framework** and show slide 15.

This handout is an example of cross-referencing approaches to metacognition with aspects of achievement, teaching and behaviour.

Explain that researchers have found metacognition to improve achievement, teaching and behaviour – key areas of school inspection and improvement. In particular, John Hattie (2009) argues in his synthesis of over 800 meta-analyses relating to achievement that metacognitive strategies produce highly significant outcomes.

Ask participants to break into groups of four (this activity can be carried out by using the seating cards in **Handout 1.1**).

Now ask participants read a particular section of **ACCEL Unit 1 Handout 1.7: Positioning metacognition within a professional framework**. One participant reads the section on ‘achievement’, one participant reads the section on ‘teaching’, one participant reads the section on ‘behaviour’ and one participant skim reads the whole document.
Step 8: Different approaches (10 minutes)

Distribute a copy of ACCEL Unit 1 Handout 1.8: Advantages and disadvantages of different approaches to metacognition to each group and show slide 16.

Drawing on their understanding of their particular section of ACCEL Unit 1 Handout 1.7: Positioning metacognition within a professional framework, participants record the advantages and disadvantages of ‘evidence of good and outstanding practice through metacognition’ on ACCEL Unit 1 Handout 1.8: Advantages and disadvantages of different approaches to metacognition.

Circulate and monitor progress. Where necessary, invite the participants who skim read Handout 1.7 to prompt discussion by comparing understanding. Show slide 17 and introduce a second progress marker task.

In the pairs suggested on slide 17 and on the seating cards, ask participants to share responses to the first question and then the second question.

Step 9: Objectives (25 minutes)

This is a consolidation task, which builds on the knowledge developed during the previous steps.

Show slide 18 and explain that the final objective of the session is to determine how far we want to develop metacognitive approaches to improving pupil progress.

Write each of the questions on slide 18 at the top of a sheet of flipchart paper. Put each sheet on a different table.

Explain that the each sheet has a question about possible aims in terms of metacognition in our organisation. Ask participants to take it in turns to visit each table for 5 minutes at a time and add their suggestions to the sheet using the crayons at their disposal. They are free to use different colours and drawings as they see fit. Circulate and add your own suggestions based on your developing knowledge of metacognition.

Move the groups round each table in a clockwise direction every 5 minutes. At the end of the activity, explain that you will begin the next session with key findings from this activity.

Alternatively, distribute ACCEL Unit 1 Handout 1.9: What are our objectives in terms of accelerating pupil progress with metacognition? and ask participants to use the ‘thought bubble’ to record their ideas.

Step 10: Review/preview (5 minutes)

Reintroduce slide 2 (the initial ‘treat’ activity) also included as slide 19 and ACCEL Unit 1 Handout 1.3: Progress marker. Ask participants to use the handout to re-evaluate their knowledge of metacognition, the advantages and disadvantages of different approaches to metacognition, and their decisions about how to proceed with developing metacognitive approaches to improving pupil progress by evaluating themselves against the criteria on a scale of 1–10. A 1 signifies very little existing knowledge and/or skill, 10 signifies a large amount of knowledge and/or skill.

Ask participants who finish early to justify their evaluations; if there are shifts either up or down the scale, ask them to explain these shifts.
Show slide 20 and explain that the aims of the next unit are to understand the benefits of metacognition, to identify metacognitive knowledge and skills, to explain the link between how pupils think and their attainment, and to evaluate where we currently are in terms of accelerating pupil progress with metacognition.

**What next?**

You could follow up on this session by:

- summarising the outcomes of step 9
- evaluating how you can include sticky note responses to step 1 activity 1B in subsequent sessions
- comparing your experiences of completing the preparation tasks prior to presenting this unit and your colleagues’ experiences of the session itself
- reading and summarising your understanding of some of the additional resources below
- evaluating the way in which you asked questions as participants completed group tasks.

Participants could follow up on this session by:

- reviewing the outcomes of the self-evaluation tasks using the progress marker on ACCEL Unit 1 Handout 1.3: Progress marker
- reading ACCEL Unit 1 Handout 1.5: The self-regulating trajectory summary information for participants, ACCEL Unit 1 Handout 1.6: A summary of Kathryn Ecclestone’s research findings into metacognition and ACCEL Unit 1 Handout 1.7: Positioning metacognition within a professional framework.
- reading and summarising their understanding of some of the additional resources below.

**What has changed?**

To evaluate the impact of the unit:

- review steps 3 and 10 using the progress marker on ACCEL Unit 1 Handout 1.3: Progress marker
- evaluate the extent to which your new knowledge about metacognition has changed your (and other participants’) perceptions of learning and progress
- collate responses from your group about opportunities for developing metacognitive approaches to accelerating pupil progress in your school. What will enable this? Identify potential blockers.

**Prepare for the next session**

You could prepare for the next session by:

- considering the range of existing documentation and policies in your organisation, which contain examples of metacognitive approaches to learning
- visiting the Education Endowment Fund website and reviewing some of the information it contains
- completing the ‘Before you present’ tasks in unit 2
- planning the kinds of questions you will ask in future sessions.

Participants should prepare for the next session by:

- reviewing the outcomes of the self-evaluation tasks using the progress marker on ACCEL Unit 1 Handout 1.3: Progress marker
• bringing copies of existing documentation and policies from their organisation, which contain examples of metacognitive approaches to learning
• visiting the Education Endowment Fund website and reviewing some of the information it contains
• reviewing responses to the step 1 sticky note activity 1B.

Additional resources


Teachers’ TV videos

*Primary History – Enquiry Skills*

*Primary Science Part One – Planning the Crime*