Summary of recommendations

1

Teachers should acquire the professional understanding and skills to develop their students' metacognitive knowledge

- Self-regulated learners are aware of their strengths and weaknesses, and can motivate themselves to engage in, and improve, their learning.
- Developing students' metacognitive knowledge of how they learn – their knowledge of themselves as a learner, or strategies and of tasks – is an effective way of improving student outcomes.
- Teachers should support students to plan, monitor, and evaluate their learning

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2

Explicitly teach students metacognitive strategies, including how to plan, monitor, and evaluate their learning

- Explicit instruction in cognitive and metacognitive strategies can improve students' learning.
- While concepts like 'plan, monitor, evaluate' can be introduced generically, the strategies are mostly applied in relation to specific content and tasks and are therefore best taught this way.
- A series of steps beginning with activating prior knowledge and leading to independent practice before ending in structured reflection – can be applied to different subjects, ages and contents.

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3

Model your own thinking to help students develop their metacognitive and cognitive skills

- Modelling by the teacher is a cornerstone of effective teaching; revealing the thought processes of an expert learning helps to develop students' metacognitive skills.
- Teachers should verbalise their metacognitive thinking (*'What do I know about problems like this? What ways of solving them have I used before?'*) as they approach and work through a task.
- Scaffolded tasks, like worked examples, allow students to develop their metacognitive and cognitive skills without placing too many demands on their mental resources.

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4

Set an appropriate level of challenge to develop students' self-regulation and metacognition

- Challenge is crucial to allow students to develop and progress their knowledge of tasks strategies and of themselves as learners.
- However, challenge needs to be at an appropriate level.
- Students must have the motivation to accept the challenge. Tasks should not overload students' cognitive processes, particularly when they are expected to apply new strategies.

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5

Promote and develop metacognitive talk in the classroom

- As well as explicit instruction and modelling, classroom dialogue can be used to develop metacognitive skills.
- Student-to-student and student-to teacher talk can help build knowledge and understanding of cognitive and metacognitive strategies.
- However, dialogue needs to be purposeful, with teachers guiding and supporting the conversation to ensure it is challenging and builds on prior subject knowledge.

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6

Explicitly teach students how to organise and effectively manage their learning independently

- Teachers should explicitly support students to develop independent learning skills.
- Carefully designed guided practice, with support gradually withdrawn as the student becomes proficient, can allow students to develop skills and strategies before applying them in independent practice.
- Students will need timely, effective feedback and strategies to be able to judge accurately how effectively they are learning.
- Teachers should also support students' motivation to undertake the learning.

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7

Schools should support teachers to develop knowledge of these approaches and expect them to be applied appropriately

- Develop teachers' knowledge and understanding through high quality professional development and resources.
- Senior leaders should provide teachers with time and support to make sure approaches are implemented consistently.
- Teachers can use tools such as 'traces' and observation to assess students' use of self-regulated learning skills.
- Metacognition shouldn't be an 'extra' task for teachers to do but should be built into their teaching activities.

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