**Metacognition – Recommendation 7**

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| **Recommendation 7: Schools should support teachers to develop knowledge of these approaches and expect them to be applied appropriately.**  |

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| There is no shortage of interesting research evidence or advice on teaching and learning for school teachers and leaders.Even so, it is widely accepted that teachers often lack the time, tools, and training to implement new strategies and to translate research evidence into action. Metacognition and self-regulation are no exception to this problem.Despite strong evidence that they are important, there are also many examples of interventions designed to improve pupils’ selfregulatory skills that have had no impact on pupil outcomes. Sometimes this is due to a distinct lack of understanding of what metacognition is; this, in turn leads to misconceptions and often weak implementation.As with any changes to classroom practice and pedagogy, teachers will need a lot of support, training, and time to practise in order to implement them.It is important that supporting pupils’ metacognition and self-regulation skills isn’t seen as something ‘extra’ for teachers to do, but an effective pedagogy that can be used to support their normal classroom practice.  |

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| **Key aspects of successful implementation:** 1. **Sufficient time** needs to be built in for the implementation to work and to have an effect on pupils. Time is needed both to train teachers and to allow them to practise and embed the new methods.
2. **High-quality professional development** for teachers is key to any successful intervention. The teachers are the people who are going to make the difference in their classrooms, with the particular challenge of integrating metacognition to specific subject domains or specific phases, so the focus should be on supporting them to do this.
3. Teachers need to be provided with **high-quality tools**, such as textbooks and resources, and **support**, such as on-going mentoring and coaching.
4. While what happens in the classroom is what will ultimately make the difference to pupil learning, **support from senior leadership** in the school is key to making that happen effectively and consistently. Senior leaders need, for example, to support all the steps outlined above, and make sure approaches are implemented consistently and coherently across the school so every pupil in every lesson gets the best possible learning environment. Their commitment is crucial to implementation effectiveness.

The EEF’s guidance report, [Putting Evidence to Work—A School’s Guide to Implementation](https://educationendowmentfoundation.us8.list-manage.com/track/click?u=cb569f99caaaedff117cdc74c&id=c283800466&e=ab6bf9c839), describes the implementation journey in more detail.   |

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| **Support teachers with high quality continuous professional development**Given the challenge of developing self-regulated learning and metacognition in pupils, it is crucial that the key principles of effective continuing professional development (CPD) are followed to allow teachers to develop their knowledge.In their [overview of research on effective CPD](https://educationendowmentfoundation.us8.list-manage.com/track/click?u=cb569f99caaaedff117cdc74c&id=8d7894877d&e=ab6bf9c839) for the Teacher Development Trust, Cordingley et al. (2015) identified the following key aspects: [1] * sufficient time needs to be devoted to CPD, preferably at least two terms;
* activities need to be iterative and build on how well approaches are working in the classroom;
* CPD needs to build on teachers’ starting knowledge and understanding, and explore—and where necessary challenge—existing beliefs and practices;
* CPD needs to focus firmly on pupils’ learning;
* internal input is helpful as it can challenge existing beliefs more easily;
* external and internal facilitators need both subject expertise and expertise on CPD delivery; and
* peer support is useful to encourage reflection and risk-taking.

Good CPD will show teachers that development of metacognition should not be an ‘extra’ task that adds to their workload but is intrinsic to their teaching activities.   |

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| **Assessing the impact of self-regulation and metacognition interventions**It is widely recognised that the reliable assessment of self-regulated learning and metacognition is challenging. Nevertheless, assessment is crucial to guide practice in the classroom.The development of measures of self-regulation and metacognition has followed changes in our knowledge and understanding of the processes involved. Thus, as it has become clearer that self-regulated learning and metacognition are subject- and task-specific, generic instruments have largely been replaced by subject- or task-specific ones. [2] Alongside typical standardised test performance, there are more qualitative assessments that teachers can use.Typical assessments of metacognition that can be used in the classroom by teachers include: * **traces**—observable metacognitive strategies used by pupils while completing a task, such as underlining a passage or making notes;
* **observation**—observing learners while they are completing a task, and estimating their use of metacognition directly, allows teachers to take non-verbal behaviours and social interactions into account; recording measures like **‘time-on-task’** or **homework completion rates** can also let teachers make inferences about self-regulated learning;
* **self-report questionnaires**—perhaps the most common assessment strategy is retrospective pupil self-reporting in the form of questionnaires (a note of caution should attend this method: recalling metacognitive strategies accurately is a difficult challenge for learners);
* **structured interviews**—though challenging to implement, interviews can take the form of a hypothetical learning scenario, with pupils asked to describe how they would use self-regulated learning strategies during it, thus allowing them to access, or not, more context-specific strategies; [3] and
* **talk aloud protocols**—assessments that get pupils to express their thought processes while doing a particular task (these self-reporting measures, however, may be biased by pupils’ literacy and ability to articulate their thoughts).

Research indicates that assessment during task performance appears to be more predictive and accurate than assessment before or after task performance. [4] Teacher assessments of their pupils appear moderately accurate. However, each of these assessment methods have their limitations and biases, so teachers should be circumspect in generalising their results.  |

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| **Further resources...**If this has whetted your appetite to find out more about metacognition and self-regulation, you can: * Read the **EEF**'s fellow guidance report, '**Putting Evidence to Work - A School's Guide to Implementation**', which offers a helpful structure for embedding effective CPD in an evidence-informed structure. [Click here to read/download](https://educationendowmentfoundation.us8.list-manage.com/track/click?u=cb569f99caaaedff117cdc74c&id=c283800466&e=ab6bf9c839).
* **Megan Dixon**, the EEF's Regional Lead for the North West, has written an excellent article for the CEM website, '**Translating Evidence into Practice**', on the challenging on doing just that (which is especially pertinent to metacognition). [Click here to read](https://educationendowmentfoundation.us8.list-manage.com/track/click?u=cb569f99caaaedff117cdc74c&id=d0ca6f6ddd&e=ab6bf9c839).
* Blogger and school leader, **Phil Stock**, has written a handy, accessible blog on '**Evaluating CPD: Hard but not Impossible**'. [Click here to read](https://educationendowmentfoundation.us8.list-manage.com/track/click?u=cb569f99caaaedff117cdc74c&id=b7d09d340d&e=ab6bf9c839).
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