

Metacognition | Session 1

Handout 1.1



Session 1 overview: introduction to metacognition

What is metacognition?

Metacognition is most simply defined as ‘thinking about thinking’ and is most often associated with the work of Flavell. Metacognition refers to higher order thinking which involves active control over the cognitive processes engaged in completion of a task. ‘Meta’ means ‘outside of’ or ‘beyond’, and ‘cognition’ relates to our thought processes. Because metacognition plays a critical role in successful learning, it is important to study metacognitive activity and development to determine how pupils can be taught to better apply their cognitive resources through metacognitive control and self-regulation.

Activities such as planning how to approach a given task, monitoring comprehension, and evaluating progress towards the completion of a task are metacognitive in nature. To understand metacognition, a definition is needed, as well as an understanding of the different aspects of knowledge and strategy use that metacognition involves.

Why use it?

If we can exercise thought and control over our behaviour, we may be more likely to carry out tasks thoughtfully and to the best of our abilities. The good news is that, for those of us less naturally metacognitive, self-regulation can be coached. Research indicates that metacognition has the potential to significantly accelerate children’s learning, providing an economical and well-evidenced tool for closing attainment gaps (Education Endowment Foundation, 2015). In addition to supporting the closing of gaps in learning for all pupils, metacognition can prove useful in enabling progression to ‘master learning’.

It is worth noting here that metacognition is not the end in itself, but a bridge to a higher domain of knowledge and understanding. By self-regulating, a pupil can focus on the subject matter – for example, when researching a topic, a pupil can use study strategies to get to a deeper level of knowledge and understanding of the subject matter.

With the 2014 primary National Curriculum and related assessment, the term ‘mastery’ has become a key part of a primary teacher’s lexicon. Although the term has been interpreted in different ways, mastery in itself is a simple concept – the command or grasp of a subject. Pupils’ command or grasp of subjects is perhaps even more relevant at secondary level, where the curriculum focus arguably moves towards more demanding abstract thought and critical evaluation of information. By enabling pupils to become ‘master learners’, who can plan, strategise, self-evaluate, and make controlled choices, teachers can endeavour to elevate their classrooms to a more thoughtful, higher domain of learning; one where pupils delve deeper than the surface to a more critical domain of thinking and learning.

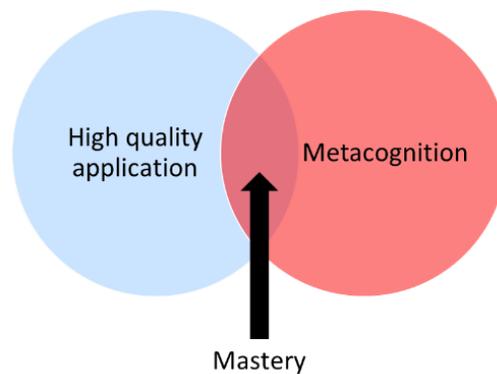
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It is important to acknowledge that the master learning opportunities we create for pupils are critical to them being able to demonstrate their mastery of the curriculum. In this type of teaching and learning environment, the teacher becomes both the facilitator and the extender of learning. Because pupils are able to do more and to think more on their own, and because the teacher is not as preoccupied with the organisational side of lessons, both teacher and pupils can focus on extending learning to a higher domain.

The task for us, as practitioners, is to create optimal conditions for master learning. Where does the learner sit within this? How can we ensure that pupils are equipped to seize opportunities to explore and demonstrate learning? What would a 'master learner' look like? How would he or she behave? What skills would the master learner have that move him or her from being active in applying skills, to showing a depth of knowledge and understanding? Could exploiting metacognitive approaches more overtly be what turns high-quality application into mastery?



Metacognitive knowledge and regulation

Metacognition is made up of different elements which support learners in a variety of ways. A metacognitive learner has both metacognitive knowledge and the ability to use metacognitive regulation (Lai, 2011).

Metacognitive knowledge is about knowing oneself as a learner and what might enhance or limit performance. It is also knowledge about tasks, and of strategies and when or why to use them.

Metacognitive regulation is the ability to monitor one's cognition – self-regulation. This includes the ability to plan activities, identify when something is understood or not understood, and self-assess performance within a task. It also includes the ability to evaluate the use of these metacognitive strategies and progress towards a given goal.

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Research shows that children from the age of 3 are capable of developing aspects of metacognition. It also shows that metacognition is teachable (Lai, 2011).

Many practitioners will immediately identify with aspects of metacognition. The idea of having strategies to overcome difficulties, the opportunity to plan, the confidence to say when something is or is not understood, and the ability to self-assess one's performance in a task are not new to us. These aspects are largely evident to some degree within our classroom cultures and are adopted to some extent by our pupils. The questions for practitioners are two-fold:

- How metacognitive are our classrooms already?
- How would we like our classrooms to become more metacognitive?

These questions provide a starting point, or a baseline, from which we can identify areas for improvement, in addition to evaluating our progress towards the goal: master learning environments.

Where do we start?

Let us begin with the pupils. It is by exploring how pupils view themselves as learners, and supporting them in developing a sense of self-awareness, that we create master learners. This is best done through the exploration of key questions, such as:

- What does a good learner do?
- How do you learn best?
- What do you find difficult in lessons?
- What stops you from learning?
- What helps you learn?
- How can you start tasks on your own?
- How often do you need help before you start your work and why?
- How can you tell if you are on track during a task?
- How do you feel about working on your own/with others?

Pupils' self-awareness underpins their use of metacognitive strategies and is best revisited regularly.

Where to next?

Once pupils have been supported in developing self-awareness as learners, the focus shifts to supporting them in developing metacognitive strategies that enhance their learning and performance on tasks. Pupils develop metacognitive skills that support the planning, monitoring, redirecting and evaluating of their thinking (McGuinness et al, 2005) – gradually leading to greater automaticity and independence, the hallmarks of the master learner.

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References

- Flavell, J. H. (1979). *Metacognition and cognitive monitoring: A new area of cognitive-developmental inquiry*. *American Psychologist*, 34, 906-911.
- Flavell, J. H. (1976). *Metacognitive aspects of problem-solving*. In L.R. Resnick (Ed.), *The Nature of Intelligence*. Hillsdale, NJ: Lawrence Erlbaum.
- Education Endowment Foundation (EEF) (2015). *Meta-cognition and self-regulation*. The Sutton Trust-EEF Teaching and Learning Toolkit.
- Lai, E.R. (2011). *Metacognition: A literature review*. Pearson Research Report.
- McGuinness et al (2005). *Metacognition in primary classrooms: A pro-ACTive learning effect for children*. TLRP Annual Conference Warwick.
- Darling-Hammond et al (2003). *The learning classroom, session 9 – thinking about thinking: metacognition*. Stanford University School of Education.