

## **Metacognition at Cleaswell Hill School**

There is increasing research surrounding the importance of metacognition. Ofsted is encouraging schools to support pupils' memory and cognition to enable them to 'learn more and remember more'. However, the research is not wide-ranging for those learners with SEND and it is more difficult to specify how the pedagogy of cognition can be applied to support their learning.

Metacognition is deliberately selecting the most effective strategy to approach a learning task and then adapting it based on feedback about how effective it is.

It is considered essential for daily functioning because it is monitoring of one's own internal states in order to self-regulate.

The Education Endowment Fund (EEF) captures metacognition as a cycle of planning, monitoring and evaluating.

Thinking Matters talk about the explicit development of 'meta-learners' through processes including metacognition which they describe as monitoring and controlling your thought processes.

Metacognitive knowledge refers to an individual's understanding of the strategies used in learning. Metacognitive skills refer to how an individual is able to assess and control their own cognitive processes.

Research shows that learners with SEND can be less proficient at self-regulation, may be less likely to develop independence with learning strategies and may need support to reach deeper levels of metacognitive thinking.

For neurodiverse learners, there may be diminished accuracy in their judgements of confidence and metacognitive accuracy, in addition to socio-communicative difficulties and a delay in recognising emotions, making calibrating confidence accurately a challenge.

Learners whose SEND affect their ability to organise information, stay focussed on task, or understand information in context, may benefit from metacognitive skills teaching that explicitly shows them how to look for the bigger picture and how to prompt or cue themselves to monitor progress.

At Cleaswell Hill, teachers continually exploring how children learn best, to underpin and inform how to help our learners access the curriculum and support their performance across personal, social, emotional as well as academic areas. We support pupils to develop an understanding of the world through rich, active and meaningful learning experiences in and outside of the classroom. We look closely at metacognitive strategies, including use of scaffolds and prompts, such as visible thinking frames, and provide opportunities for rehearsal, review and retrieval of learning to enable learners to be more independent in monitoring their own learning, be able to problem-solve and reason, have an increased positive attitude and support their memory and recall. We encourage children to develop personalised self-regulation strategies, initially mutually, with the intention of children developing self-awareness.

Metacognitive practice is well-embedded in school, and we are currently in our fourth year of all teachers/class leads completing metacognition research projects. Having our own class-based action research means that we can make educational decisions on evidence that is appropriate rather than evidence that is available.

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These projects provide teachers with invaluable contextual information on how the children learn and to understand strategies that can support metacognition and those that do not.

Previous research projects include;

Reggio Emilia believes the environment is the second teacher. Does artificial light in classrooms impact behaviour?
Will using a portable sound enable children to transition to different areas any easier?
Does adopting a spaced practice approach (Cognitive Science) promote academic progress and emotional well-being?
Does the use of background music during independent learning activities aid engagement and concentration?
Does the use of 'breakout' spaces within the classroom environment increase pupils' ability to respond to mutual regulation strategies, and, over time, enable pupils to seek out the strategy independently?
<i>Petrichor- 'the scent of rain has a calming effect on the body and mind. The chemical geosmin (compounds responsible for the earthy smell of recent rain) unlocks the feeling of calm'.</i> <i>Principle 1 FS- Forest school is a long term process of frequent and regular sessions encompassing the seasons.</i> How does the change in weather effect engagement and participation in Forest school?
Does the use of music at 60 beats per minute train the brain for higher forms of thinking and stabilize impulse control with children with SEND?
Is the use of manipulatives beneficial to the development of mathematical concepts that pupils find typically challenging? Specifically, can the use of Cuisenaire rods support pupils' conceptual understanding of ratio and proportion?
Does the use of a visual thinking frame (say it, write it, read it, check it) promote autonomous learning, enabling pupils to compose, structure and record sentences that are grammatically correct in line with the Year 1 programme of study statements for English?
Does the use of a learning journal promote learner's explicit awareness of their personal development journey and increase involvement in the personalisation of his or her own learning?
Trialling two Habits of Mind to judge effectiveness in improving self-regulation in a class of pupils with complex autism
How effective are Songs of Reference for promoting active listening (Habit of Mind) for pupils on the Engagement Pathway to develop their sensory regulation and engagement?
Does the use of a visual chat board increase the number of peer interactions?
Does the use of a visual support, 'Zones of Regulation', really help pupils with their emotional regulation?
When the pressure of recording work in written form is removed, does the engagement of pupils improve?