AN INTRODUCTION TO METACOGNITION

WEBINAR 1

Mr Metacognition

An Introduction to Metacognition
24 June

Developing your understanding of why metacognition matters and exactly what it is

Improving Feedback and Evaluation
15 July

Explore approaches to ensure that feedback is effective and is utilised

Developing Your Modelling
1 July

Understand different approaches to effective modelling in the classroom

Developing Independent Learners
17 July

Explore ways that we can develop more resilient and independent learners

Getting Questions Right
8 July

Explore exactly what makes effective metacognitive questioning

Ensuring Effective Revision
22 July

Develop your understanding of what makes effective revision

The Aim of the Webinar Series

- Ensure access to PD that wouldn't otherwise be available to all
- Develop a deeper understanding of the power and true meaning of metacognition
- Consider a range of different approaches to embed in the classroom from the very next day!
- Tackle key classroom problems, like resilience and effective revision
- Be ready to lead change in your schools!

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A Little Ask...

Share comments and photos across social media!

X: @MrMetacognition

BlueSky: mrmetacognition.bsky.social

LinkedIn: Nathan Burns

Pay as you feel/can

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Who Am I?

- Nathan Burns
- Former Head of Maths/Pastoral Lead/MAT Lead
- Metacognitive researcher and author
- Full time teacher educator

Website

Books

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Contracting Sessions

- Note down questions so that you don't forget them.
- Opportunity to record them on the post-session survey.
- Reach out to me through my SM channels
- Email me: nathan@mrmetacognition.com OR mrmetacognition@gmail.com

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Session Aims

- Determine why metacognition needs to be such a key focus for *all* of us
- Develop our understanding of metacognitive theory
- Consider what metacognition looks like in the real-world, and in the classroom

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Why Theory Matters?

- Understand the 'essence' of the theory (what makes it so)
- More appropriate implementation into the classroom
- Reduces risk of (lethal) mutation
- Allows for critical evaluation of strategies (removal of ignorance)
- Supports professional conversations (move beyond a surface level)

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Think and Write...

Why does metacognition matter?

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Why Metacognition? The Headlines...

- Greatest positive attainment impact of any intervention (EEF, 2019)
- OFSTED (2018) suggested area of focus for high-quality CPD
- Benefits ALL students (regardless of: socio-economic status; prior attainment; sex; behaviour; SEN status; age) (many, many papers...)

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Anything Else?

- Works across phases (i.e. can be a focus for all)
- Works across curriculum areas (i.e. can be a focus for all)
- Compliments other development, such as feedback, modelling, questioning (and more...)

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There's More?!

- Develops problem solving skills
- Improve skill transference across contexts
- Improves students self-regulatory abilities
- Improves student revision effectiveness

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Think and Write...

What is metacognition?

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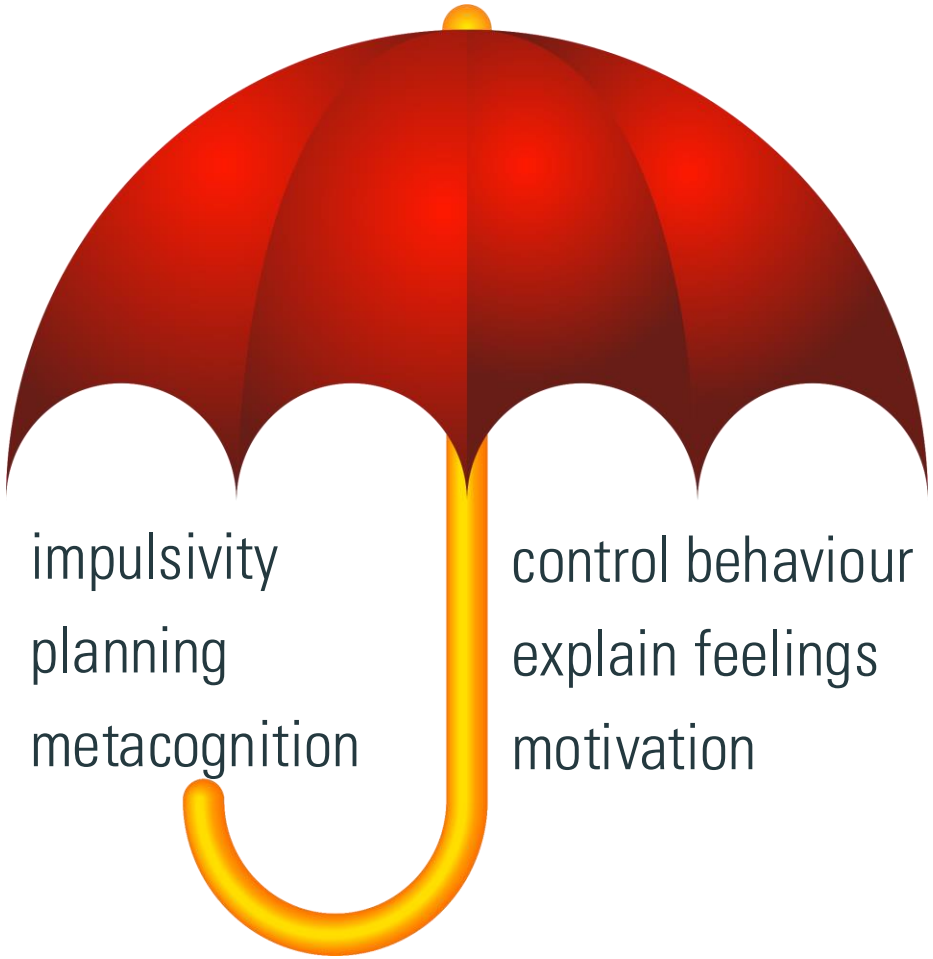
What Metacognition Isn't

- Metacognition is not the same as self-regulation
- Self-regulation is an umbrella that cover learning habits AND behaviours



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What Metacognition Is

- Flavell (1976): 'I am being metacognitive if I notice that I am having more trouble learning A than B; if it strikes me that I should double check C before accepting it as fact'
- Burns (2023): '[Metacognition is] the little voice inside your head that constantly evaluates and informs your decisions.

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Why Is It So Difficult?

- It's invisible
- There are complexities to the theory
- It is reliant on cognition and motivation (i.e. it is not a standalone strategy or pedagogy)

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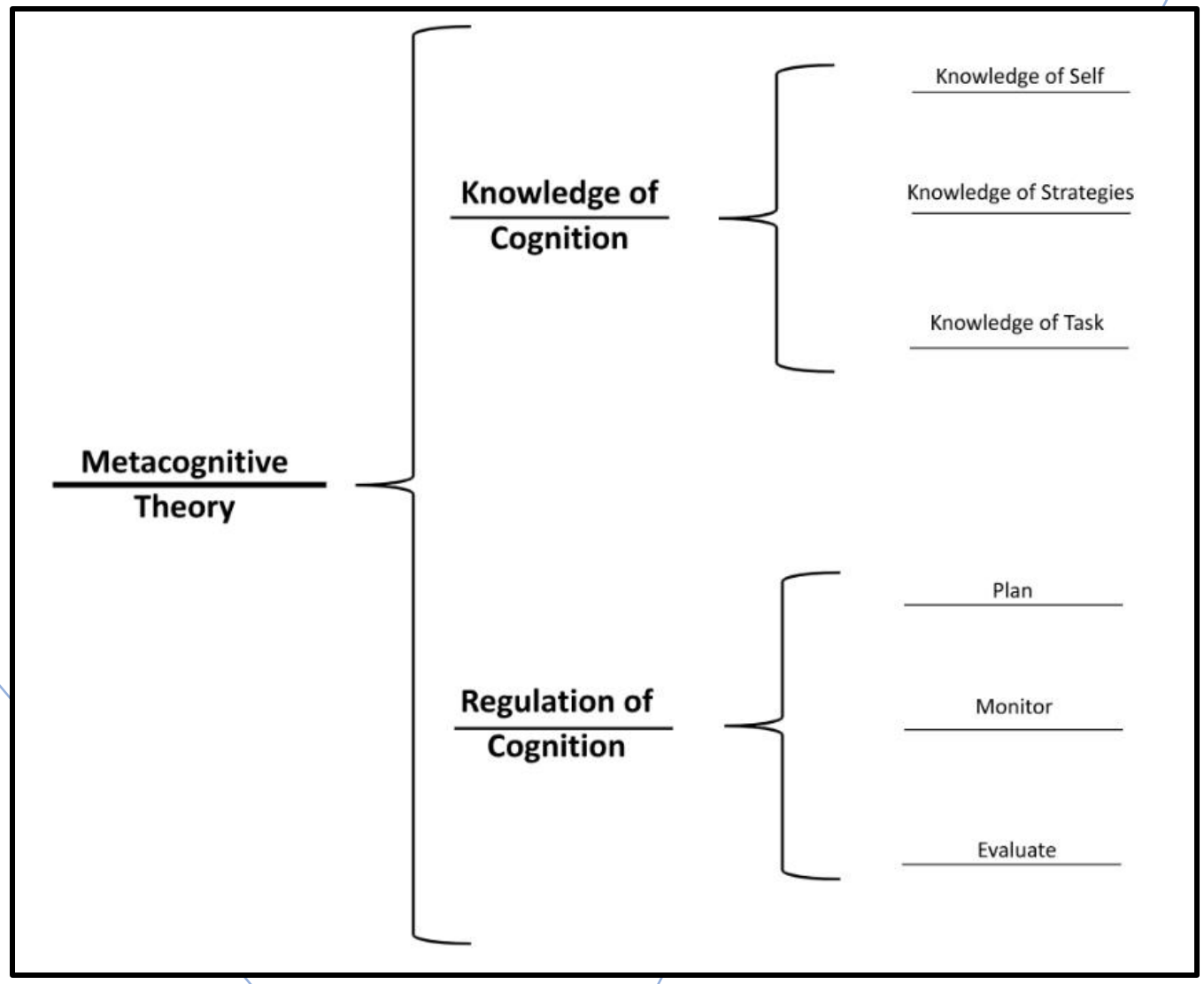

Knowledge Vs Regulation

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Knowledge Of Cognition

- Knowledge of task – knowledge of requirements to meet to fulfill task criteria
- Knowledge of self – knowledge of… knowledge
- Knowledge of strategies – knowledge of methods available to attempt a cognitive task

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REPORT CARD

Salford High School

Student :

Level :

Class :

Subjects	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
English				
Economic				
History				

Regulation Of Cognition

- Planning – an approach for the task
- Monitoring – staying on track for successful task completion
- Evaluation – review of the efficiency and effectiveness of approach and outcomes

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LESSON
PLAN

Levels Of Metacognition

- Metacognition is not a dichotomy
- We have Perkins' (1992) 4 levels: tacit; aware; strategic; reflective

Tacit – not aware of control of cognitive processes

Aware – aware of cognitive processes but don't actively engage with them

Strategic – begin to plan and evaluate cognitive action

Reflective – plan, monitor and evaluate cognitive action

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Think and Write...

What level(s) do you think your students are?

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Translating Metacognitive Abilities

- Metacognitive abilities hinge upon cognition (*note, meta!)*
- Where cognitive function varies, so will the metacognitive evaluation
  - Thus, metacognitive abilities may fluctuate within a subject
  - Thus, metacognitive abilities can fluctuate between subjects

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Developing Metacognitive Skills

- Metacognitive development must be within the context of content
- Metacognition needs to be development within the wider curriculum
- Metacognition needs to be embedded – not a bolt-on or an enrichment opportunity
- Metacognition should not be taught as a discrete lesson

But

- Metacognitive strategies ought to be taught explicitly within the context of content

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Cognitive Load Implications

- Two inputs: curriculum and metacognitive
- To avoid cognitive load, focus on one area at once...

New curriculum + Known metacognitive strategy

Known curriculum + New metacognitive strategy

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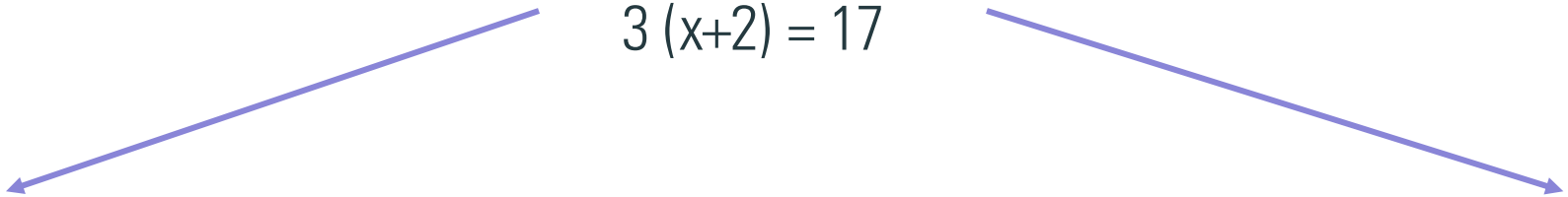
For Example...

Solve:

$3(x+2) = 17$



Expand

Divide

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Myths Of Metacognition (1)

Metacognition is only for high-attaining students

- Metacognition reliant on cognition – so more able are more metacognitive?
- Don't want to overload students?
- Don't believe they're capable?

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Myths Of Metacognition (2)

Metacognition is not for students with SEN

- Metacognition too complicated?
- Too many steps/stages or fear of overload?
- Don't believe they're capable?

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Myths Of Metacognition (3)

Metacognition is only for older students

- Older students have greater cognition?
- It's something complicated so you need to be older to understand it?

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Myths Of Metacognition (4)

Metacognition is only for girls

- Girls are academically better?
- Students are more studious?
- Girls make better notes?

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Historic Issues With Metacognition

- Early 00's 'L2L' curricula
  - Resilience skills
  - Group work skills
  - Mindfulness
  - Critical thinking skills

Done explicitly outside of the context of a lesson.

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Key Takeaways

- Theory is crucial to supporting improved implementation
- Metacognition is the constant process of plan, monitor and evaluate
- Knowledge of task, self and strategies are crucial to supporting this
- Metacognitive skills can have weak transfer power
- Myths around suitability for students – but all can (and should) benefit
- Previous implementation was poor and not true to the literature

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What's Next?

Share comments and photos across social media!

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Survey

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Book in Further Support

- 500+ educators now asked me to work in their context next year.
- INSET – full & half day; in-person and online; designed around context and whole-school aims
- Leadership support and consultancy
- Subject/year group focus and support
- Focus on key areas: oracy; revision; independence; feedback; resilience
- On-going and year-long packages
- Leaders in Metacognition course

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