

Habits, Meta-Cognition and Self-Regulation

Gladstone Park SC
Sept 2016

Dr Adrian Bertolini



Intentions of the Session

“Our **intention**
creates
our **reality**.”

Wayne Dyer

To explore the **role of habits and rituals** in creating powerful learning

To unpack the **importance of meta-cognition and self-regulation**

What **YOUR** job is today



Be **open**,
honest and
participate

**Try the
ideas on**



Today's workshop



The Power of Habits



Meta-Cognition and
Self-Regulation

How to kick a football

How would you go about developing one of your students to become a good kick of a football



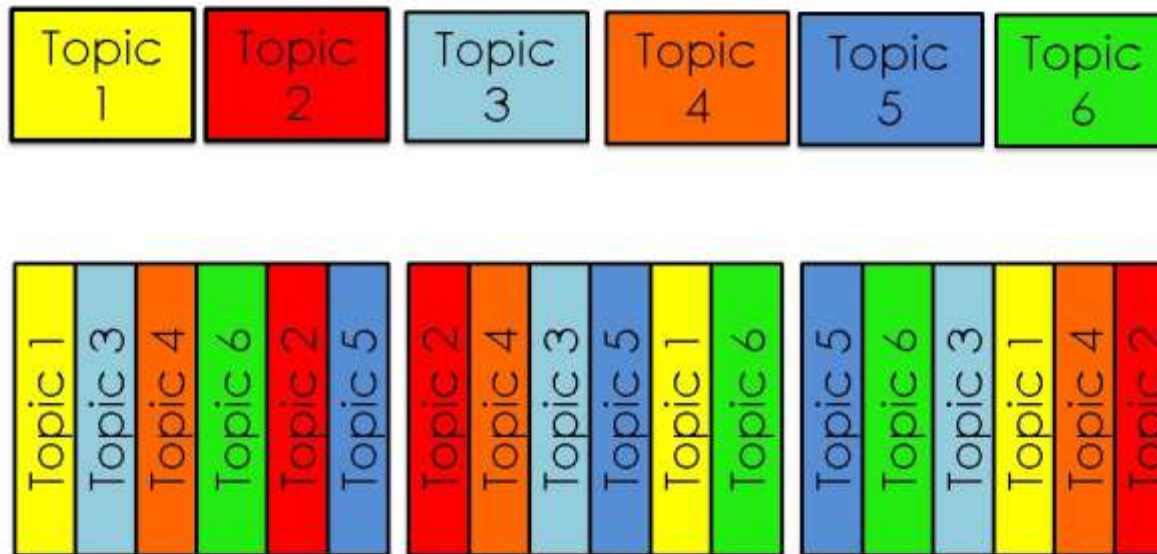
What would be the process you would use?

Habitual Routines

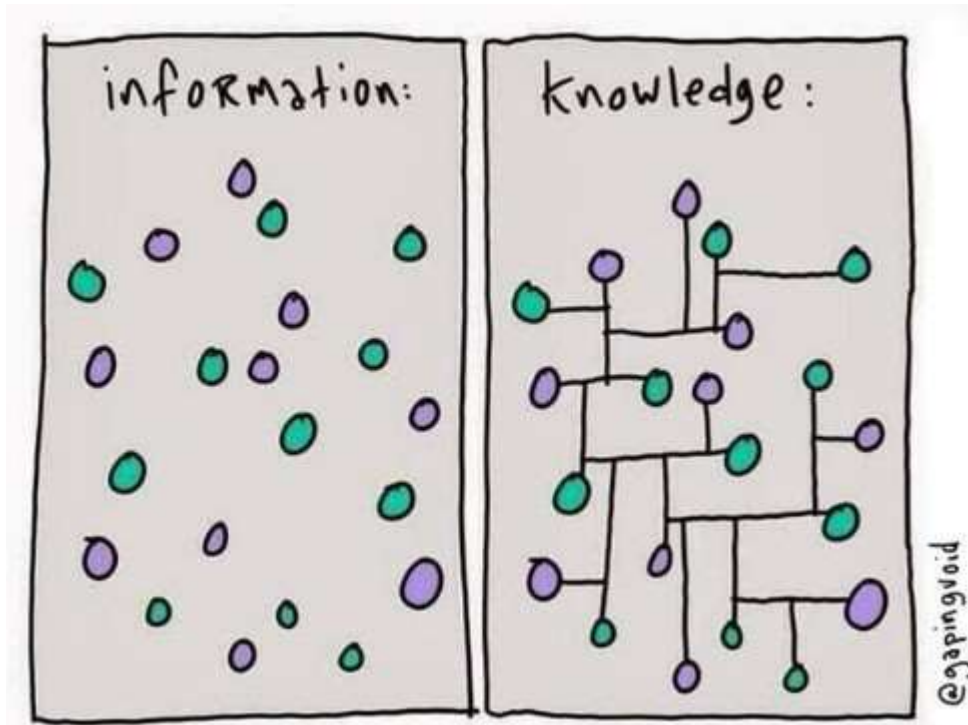


Interleaved Practice

Blocking vs interleaving



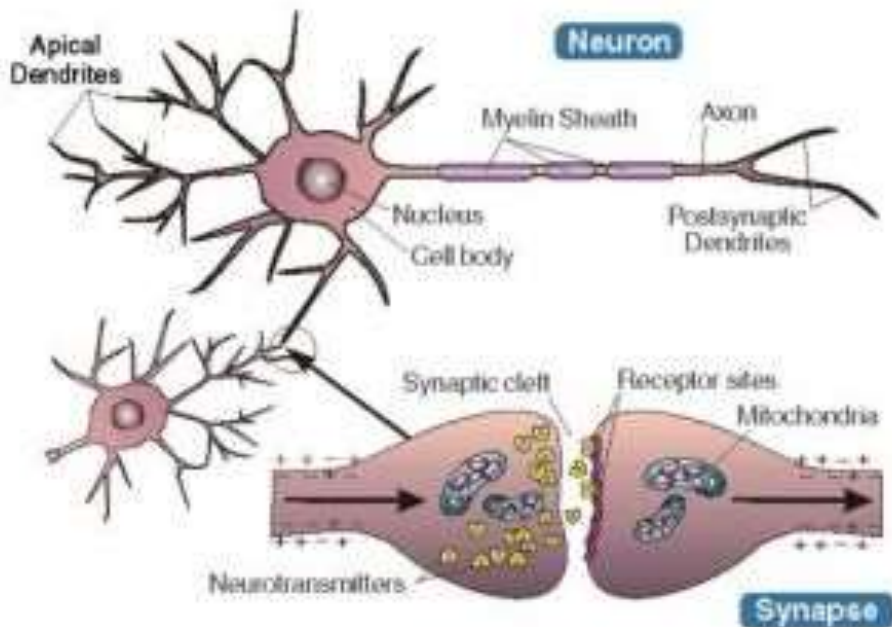
Interleaved Practice



Improves the brain's ability
to discriminate between
concepts

Your brain is continually
engaged at retrieving
different responses and
bringing them into short
term memory

Interleaved Sleep



If we want young people to maximize their ability to learn and retain new information and skills, sufficient sleep is required

Sleep promotes branch-specific formation of dendritic spines after learning.
Science 2014

Some things to think about

You are **ALWAYS** building learning

- Some times it is **intentional**, mostly it is **unconscious**
- It is in the **language** you use,
 - the **structures** you have in place,
 - the **habitual practices**,
 - the way **you relate** to each other,
 - the **type of complaints** you have,
 - the way you **organise** yourself (or not),
 - the things **you love doing** and the things you **avoid**.

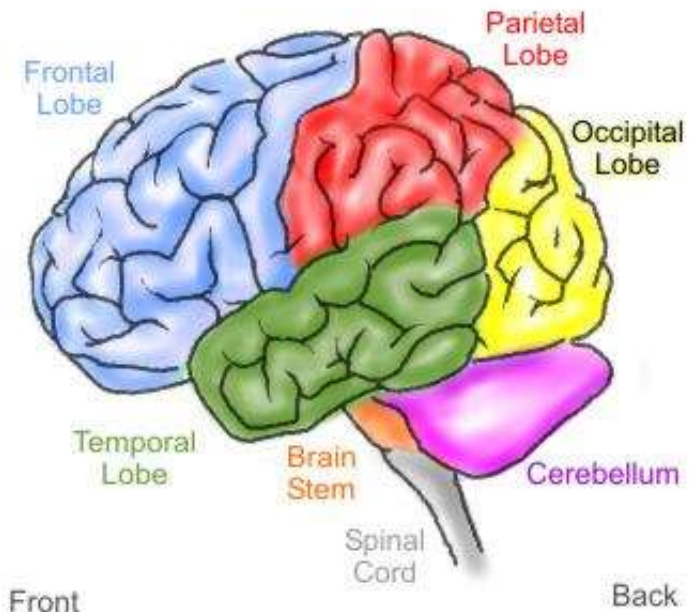


None of this is bad or wrong.

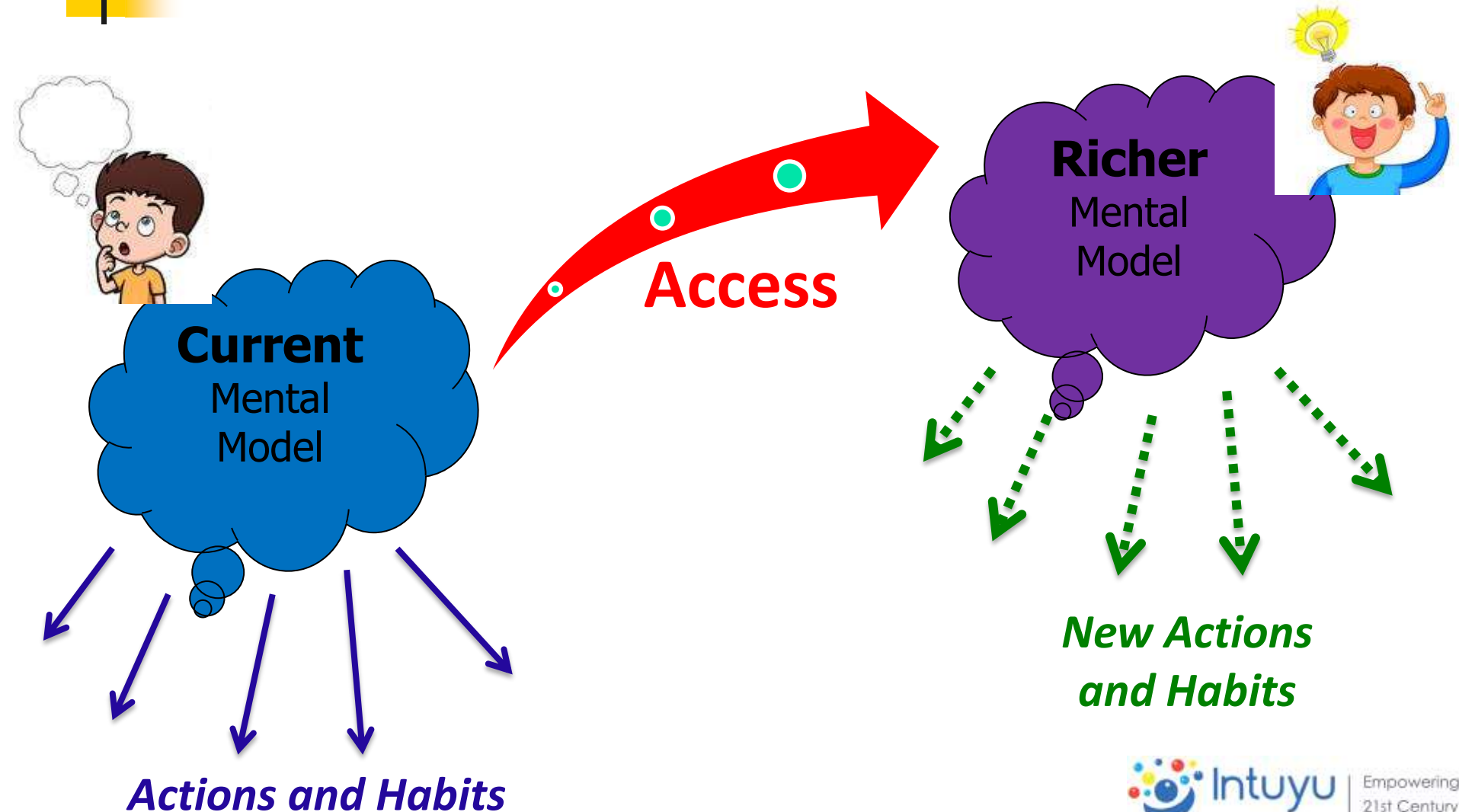
Design of Brain

- To ensure the survival of the body
- To take shortcuts to save energy usage
- **To make what is conscious – unconscious**
- **Use it or lose it.**

Regions of the Human Brain

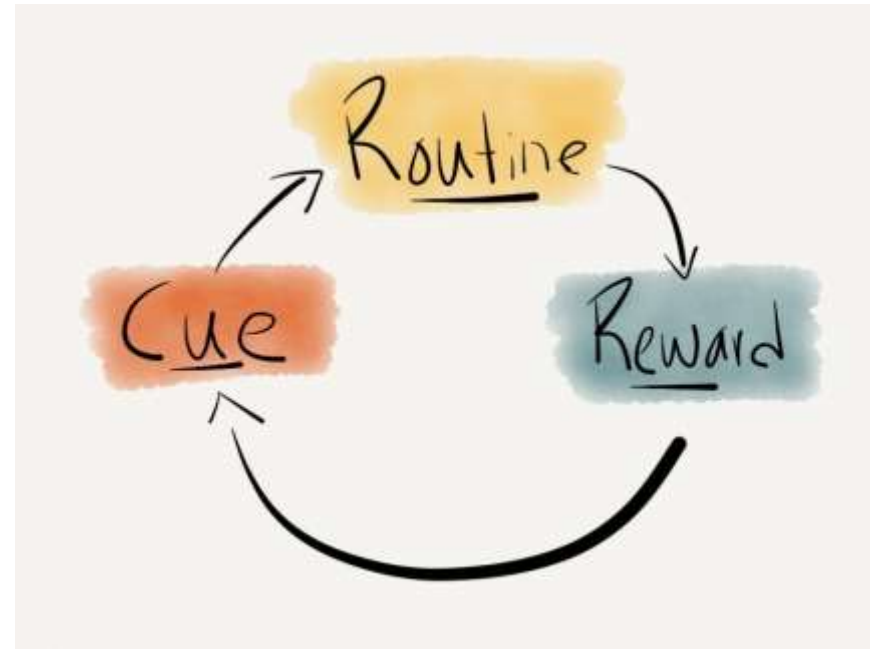


Learning in its Essence



Enriching mental models requires habits

- Whatever we **systemically ritualise** – we embed
- To **shift an ingrained mental habit / belief**
 - first become conscious about it
 - challenge it
 - ritualise the new behaviour / practice / thinking





Point #1 – Habits and Rituals



Powerful learning is built upon rituals and habitual practices that develops people to think, view and interpret the world in particular ways



Unpacking our Habits – Paired Sharing

Habit

What it builds

Intentional/Unconscious?

- **Honestly** look at your habits
 - How you **begin, run and end** your classrooms,
 - How you **plan and design** your sessions,
 - The **language** you use,
 - The **types of activities and assessments**,
 - **The visual structures** in your classrooms,
 - ... ***everything.***

Scaffolding and Frameworks



*** WHAT?** (What is the learning?)

*** SO WHAT?** (What does this learning mean to/for me?)

*** NOW WHAT?** (What do I need more help with? What do I not understand? What do I find easy? What do I need to work on/improve? What is the next step in my learning?)

When Kids Have Structure for Thinking Better Learning Emerges, Ron Ritchardt – Project Zero Harvard

Habits and Rituals – Need to be explicit



- *What habits and practices do I want the students to develop?*
- *What rituals and habitual practices could I embed in my practice to develop the students in these areas?*

Example – Austin's Butterfly





Today's workshop



The Power of Habits



Meta-Cognition and
Self-Regulation

What would be the top 3?

Approach	Rank (associated with the most student improvement)
Peer-Assisted Learning / Tutoring	
Explicit teacher-led instruction / Direct Instruction	
Concrete feedback to parents	
Emphasizing real-world applications	
Worked Examples	
Problem Solving Teaching	
Provide feedback or recommendations to students	
Ability Grouping	
Ability Grouping for Gifted Students	
Attitude to Subject	
Expectations	

Rankings and Effect Size

Approach	Rank	Effect Size (Hattie)
Peer-Assisted Learning / Tutoring	5	0.55
Explicit teacher-led instruction / Direct Instruction	3	0.59
Concrete feedback to parents	7	0.43
Emphasizing real-world applications	11	-0.04
Worked Examples	4	0.57
Problem Solving Teaching	2	0.61
Provide feedback or recommendations to students	1	0.73
Ability Grouping	10	0.12
Ability Grouping for Gifted Students	9	0.30
Attitude to Subject	8	0.36
Expectations	6	0.44



3 major messages from Hattie's *Visible Learning*

Transparent Goals

- The more transparent the teacher makes the learning goals the more likely the learner is to engage in the work needed to meet the goal

Success criteria

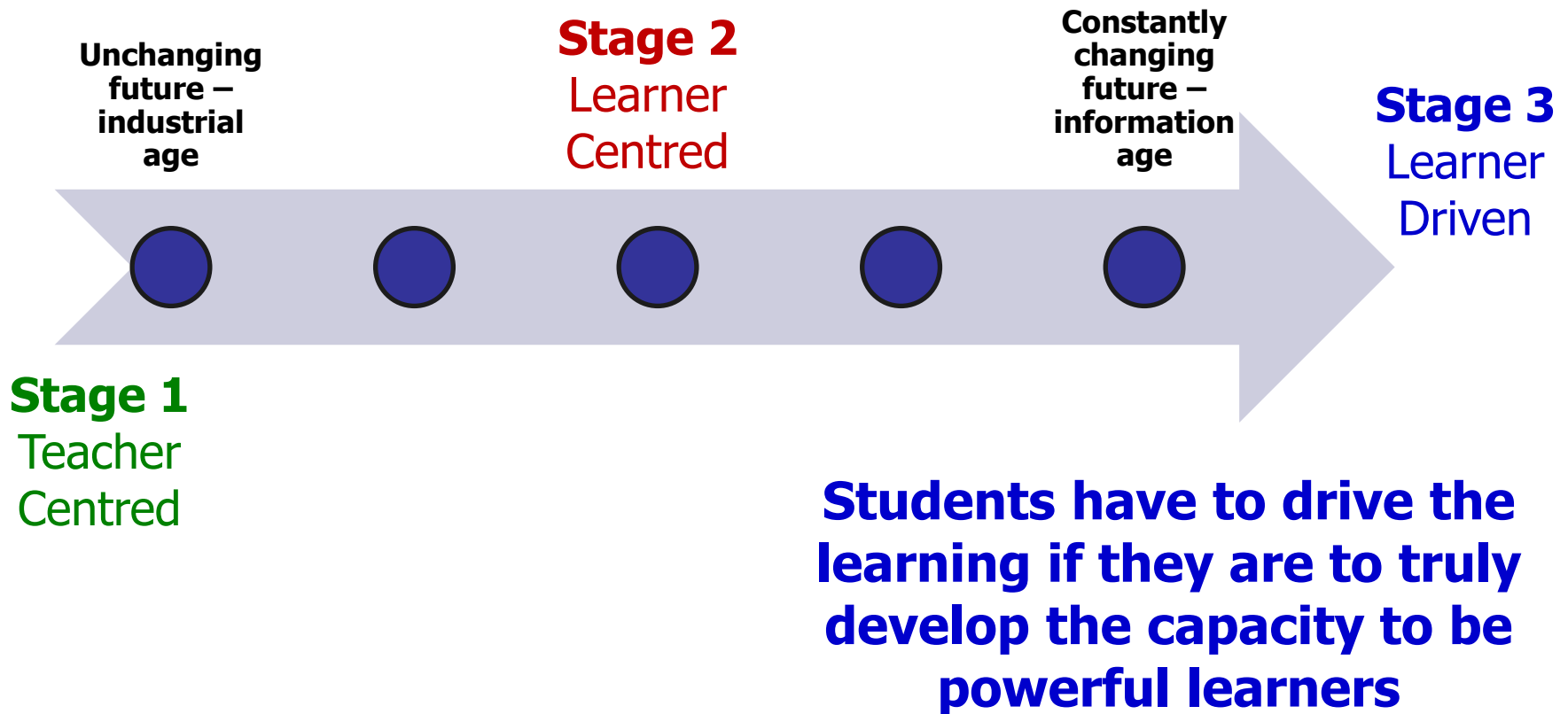
- the more the learner is aware of the criteria of success the more the learner can see the specific actions that are needed to attain these criteria

Rapid formative feedback

- the more there is feedback about progress towards desired outcomes the more a positive disposition / mindset is developed



Our goal is to develop self-regulated learners



Teacher Centred Environment	Learner Centred Environment	Learner Driven Environment
<ul style="list-style-type: none">• High Effort by Teacher• Passive Learners• Low motivation and resilience• Low learner responsibility• High content focus• Low skill development focus• Differentiation is driven by teacher and hard work		

Teacher Centred Environment	Learner Centred Environment	Learner Driven Environment
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Meta-Cognition and Self-Regulation

What do you think they mean?



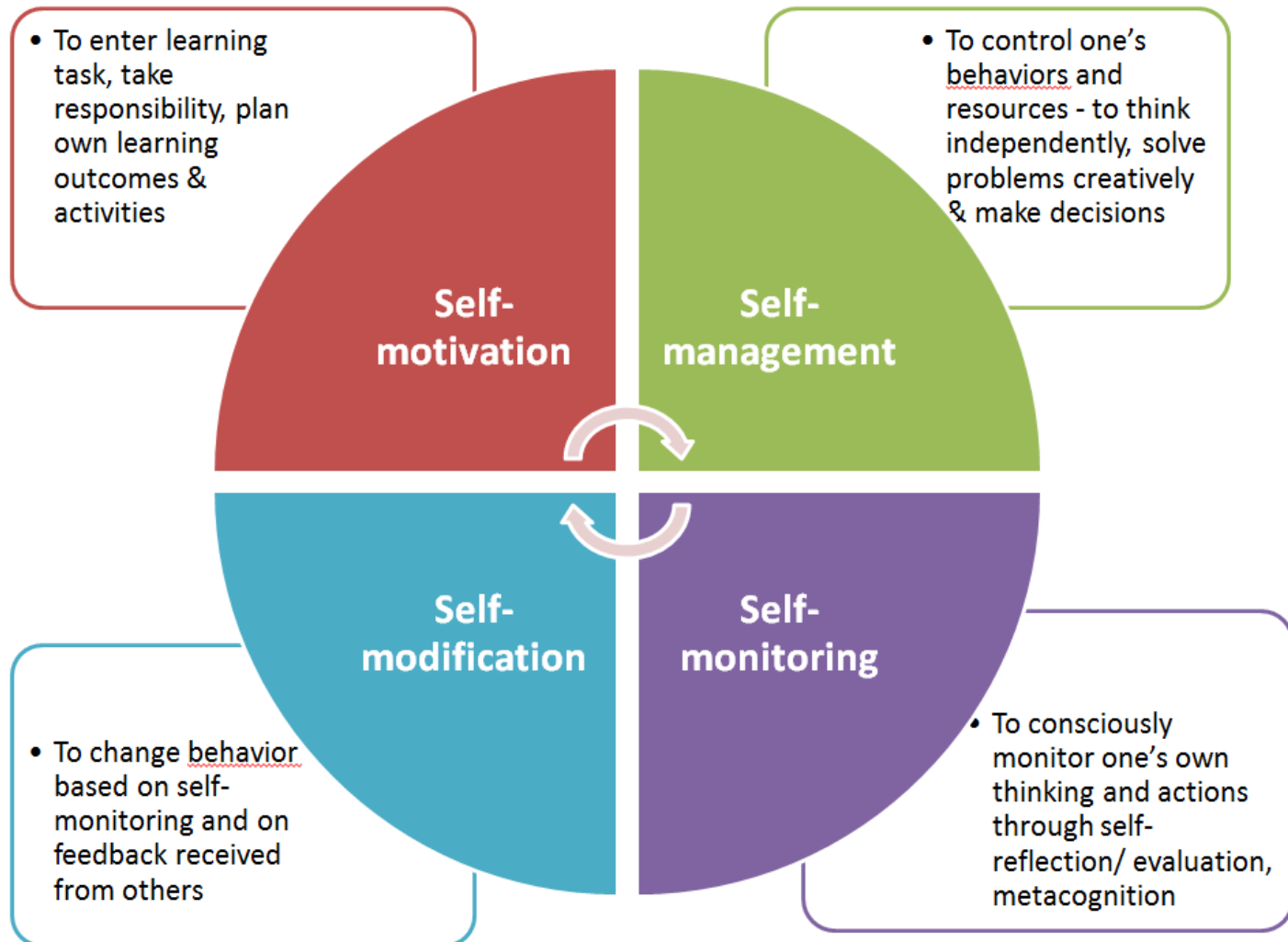


Meta-Cognition

Metacognition is broadly defined as “thinking about thinking” and includes activities such as:

- Learning about how people learn
- Developing an awareness of one's own learning processes
- Monitoring one's learning strategies and assessing their effectiveness
- Consciously managing one's own motivation and attitudes toward learning
- Making adjustments to one's learning strategies when appropriate

Successful Learners = Self-Regulated





Successful Learners are Self-Regulated

High Achievers

- are clear that it is the application of strategies and effort that lead to success.
- failure = incorrect application of a strategy or lack of effort
- formally USE lots of strategies

Low Achievers

- attribute success to luck and failure to lack of ability
- are very informal or don't use specific learning strategies

Learners that are Self-Regulated

- Know what they are trying to achieve – they are clear what they are working on
- Have identified a strategy they are going to use to achieve that goal
- Monitor their progression towards that goal
- Use self, peer and teacher feedback to adjust their strategies to more effectively progress towards their goal



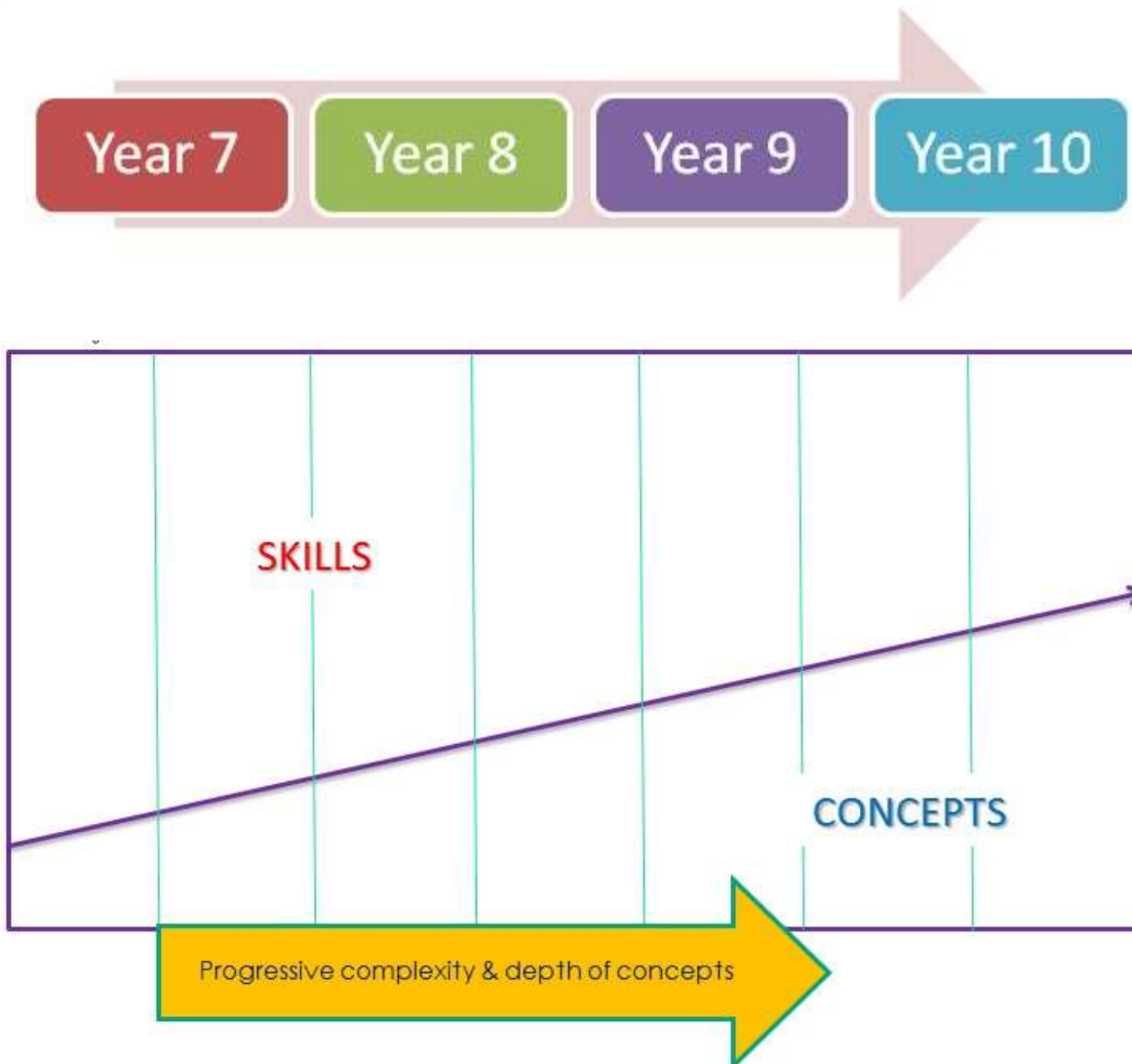


Our Goal – be explicit so they can internalise

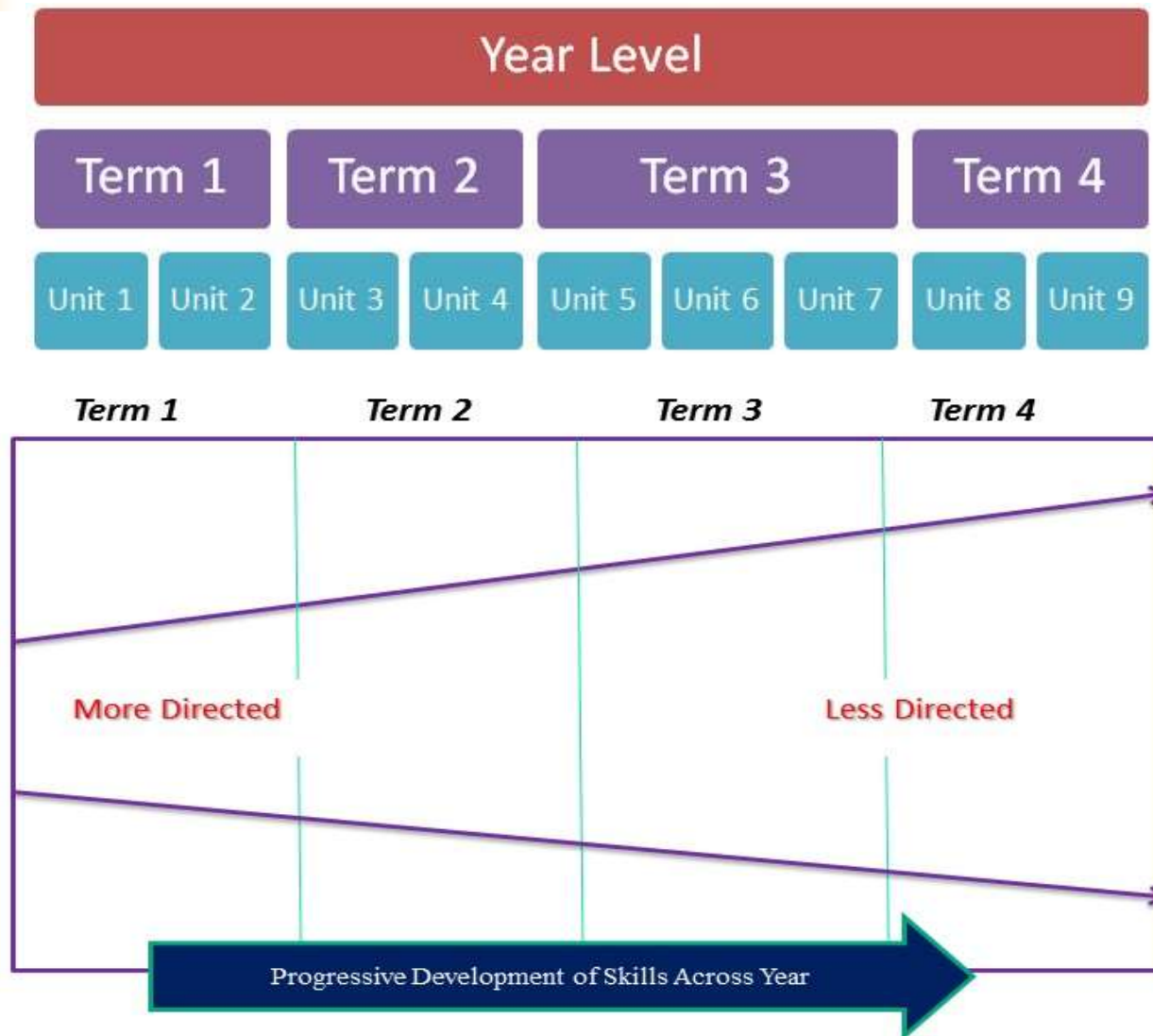
1. Clearly articulate the student learning **goals**
2. Support students to identify their **beliefs** about learning (growth versus fixed mindset)
3. Provide students with **strategies** to achieve those goals
4. Provide students with sufficient **opportunities** to monitor their progress, receive feedback and, modify their strategies



Three Levels of Documentation - Master

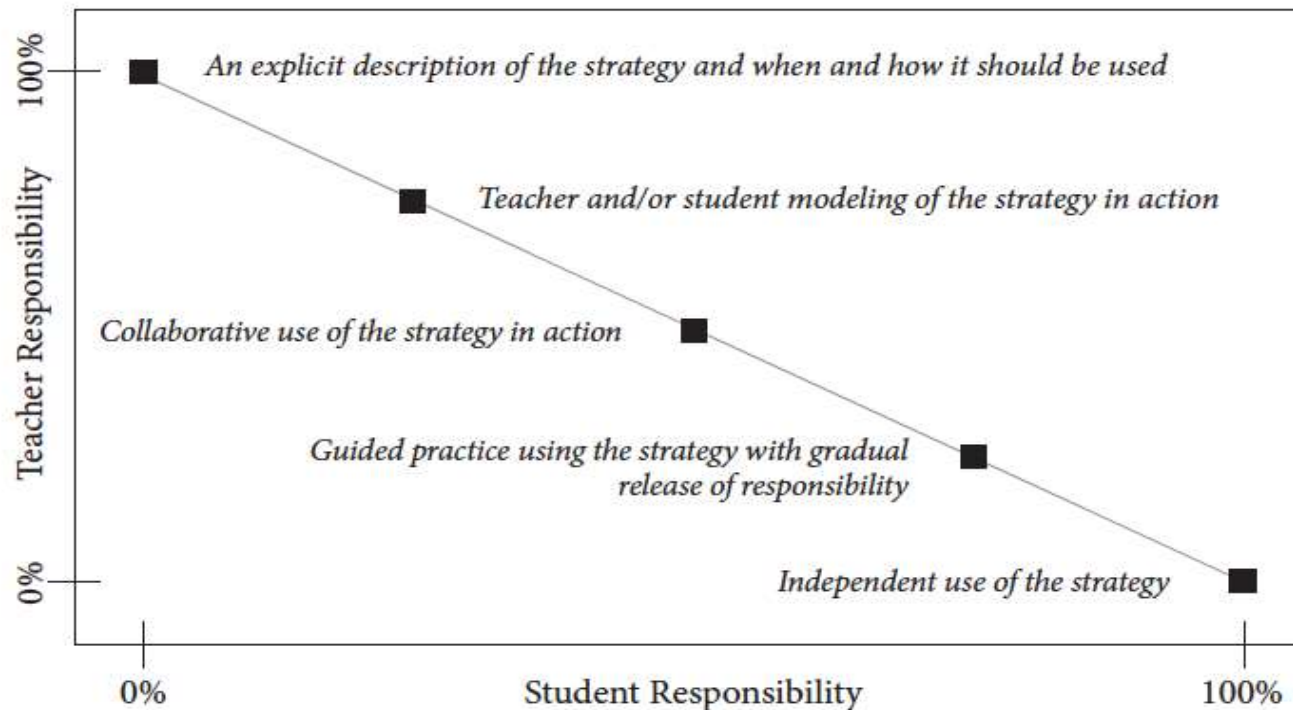


Three Levels of Documentation – Year Level



Gradual Release of Responsibility

Figure 3.1. An Adapted Version of the Gradual Release of Responsibility Model



Note. Adapted from “The Instruction of Reading Comprehension,” by P.D. Pearson & M.C. Gallagher, 1983, *Contemporary Educational Psychology*, 8(3), 317–344.





Suggested Homework



1. Start sharing the strategies you use when you are learning, solving problems, etc
2. Start having conversations with students where you have them share their strategies



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