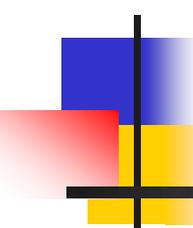


@gapingvoid

# Habits, Meta-Cognition and Self-Regulation

Gladstone Park SC  
Sept 2016

*Dr Adrian Bertolini*



## Intentions of the Session

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

Wayne Dyer

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

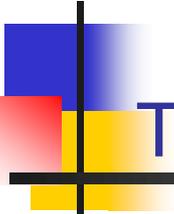
To unpack the **importance of meta-cognition and self-regulation**

# What **YOUR** job is today



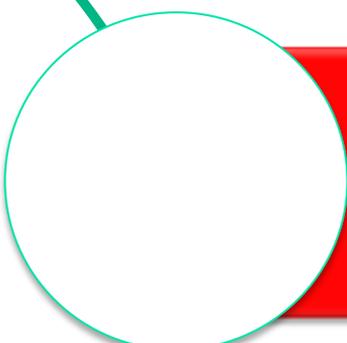
Be **open**,  
**honest** and  
**participate**

**Try the  
ideas on**

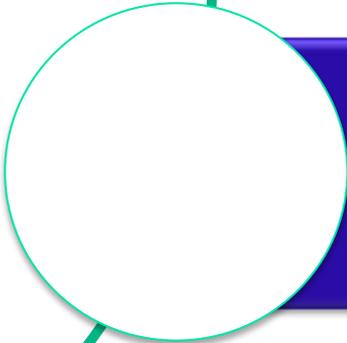


## Today's workshop

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The Power of Habits



Meta-Cognition and  
Self-Regulation

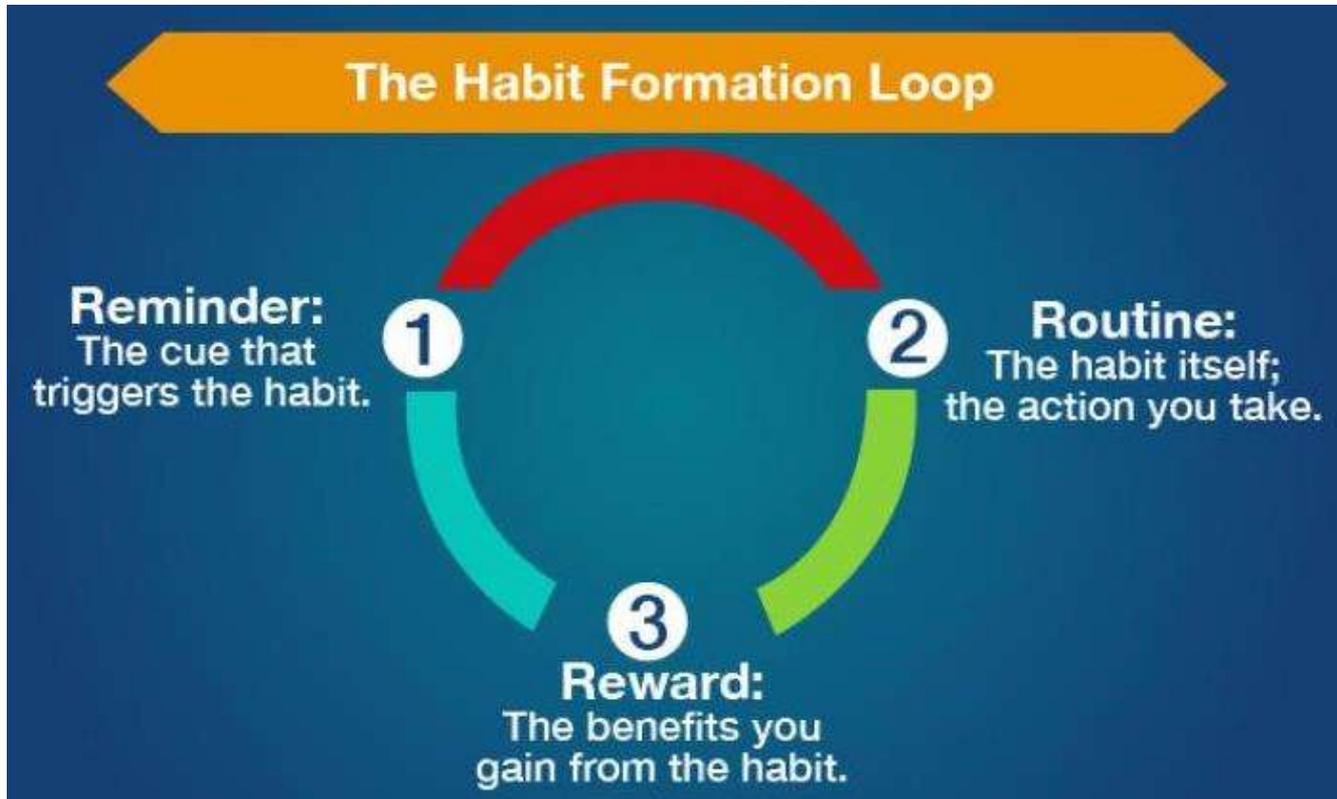
## How to kick a football

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



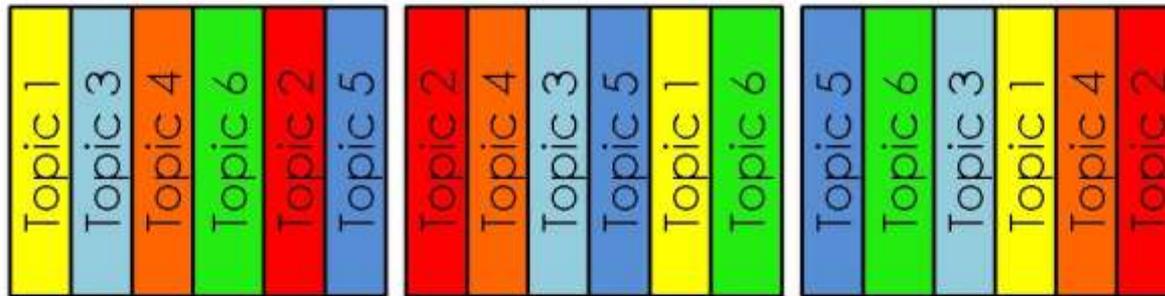
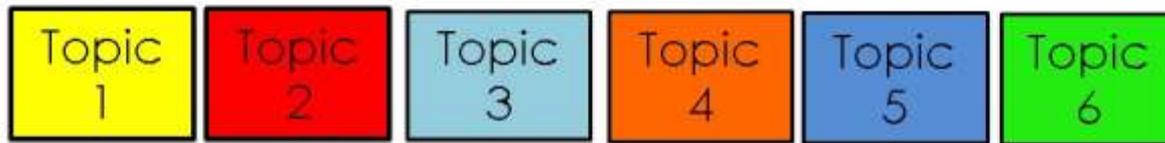
What would be the process you would use?

# Habitual Routines

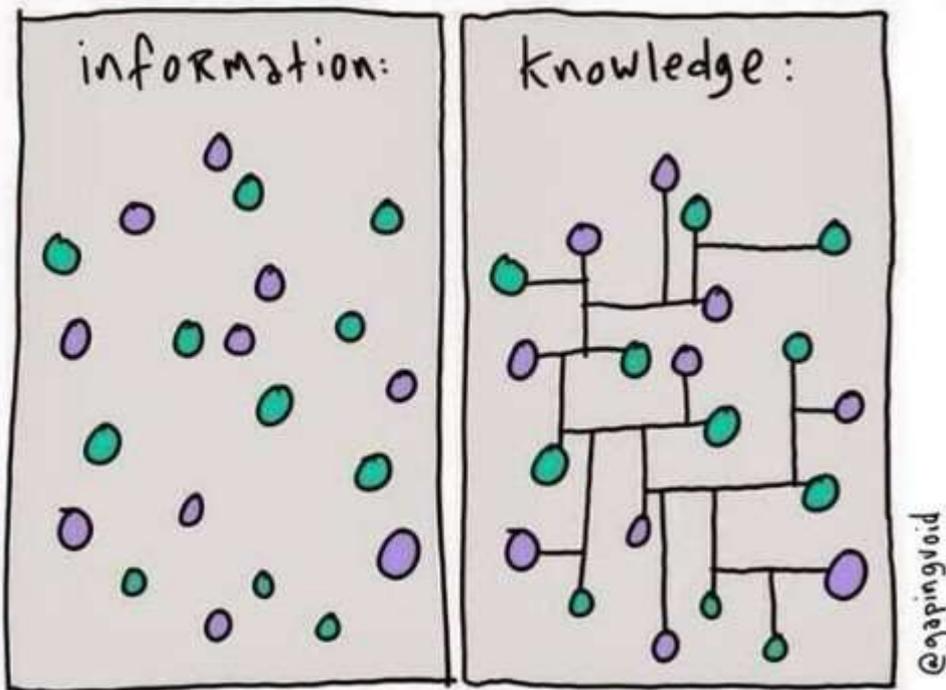


# Interleaved Practice

## Blocking vs interleaving



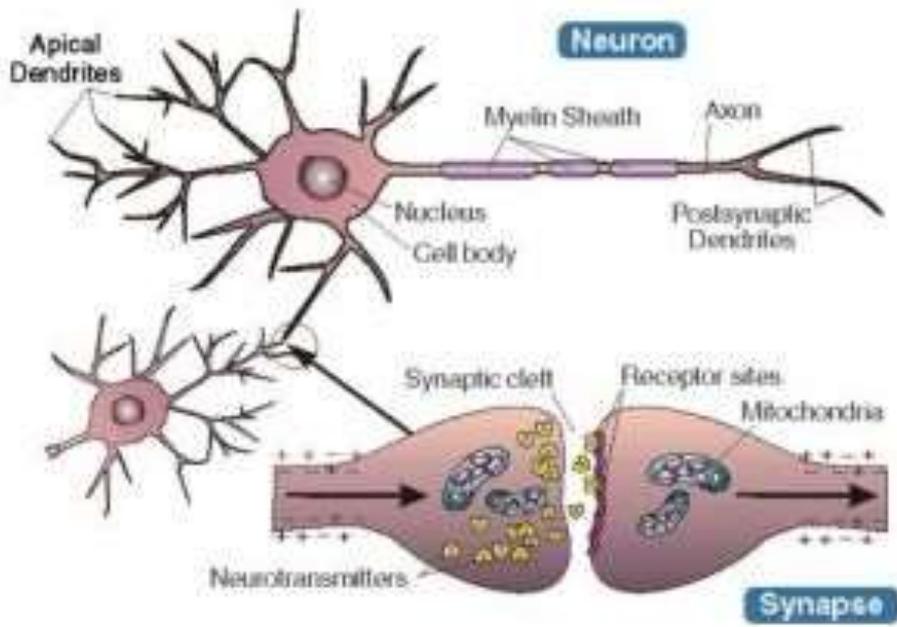
# Interleaved Practice



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**.

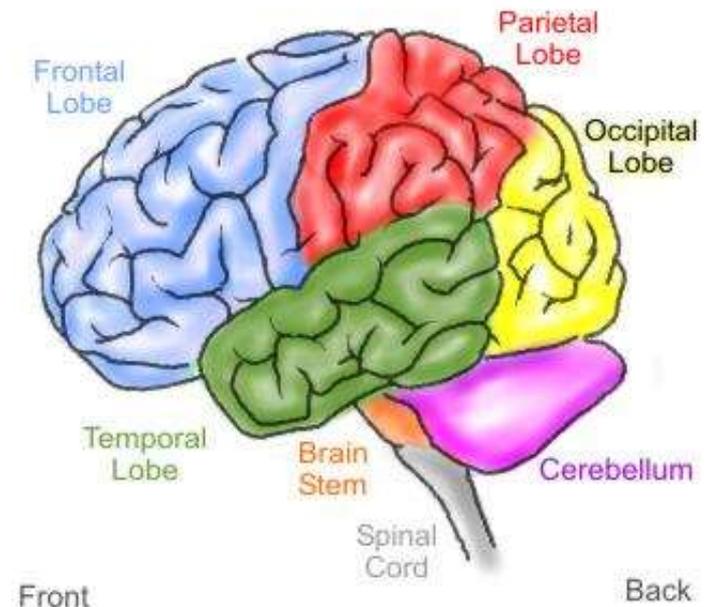


**None of this is bad or wrong.**

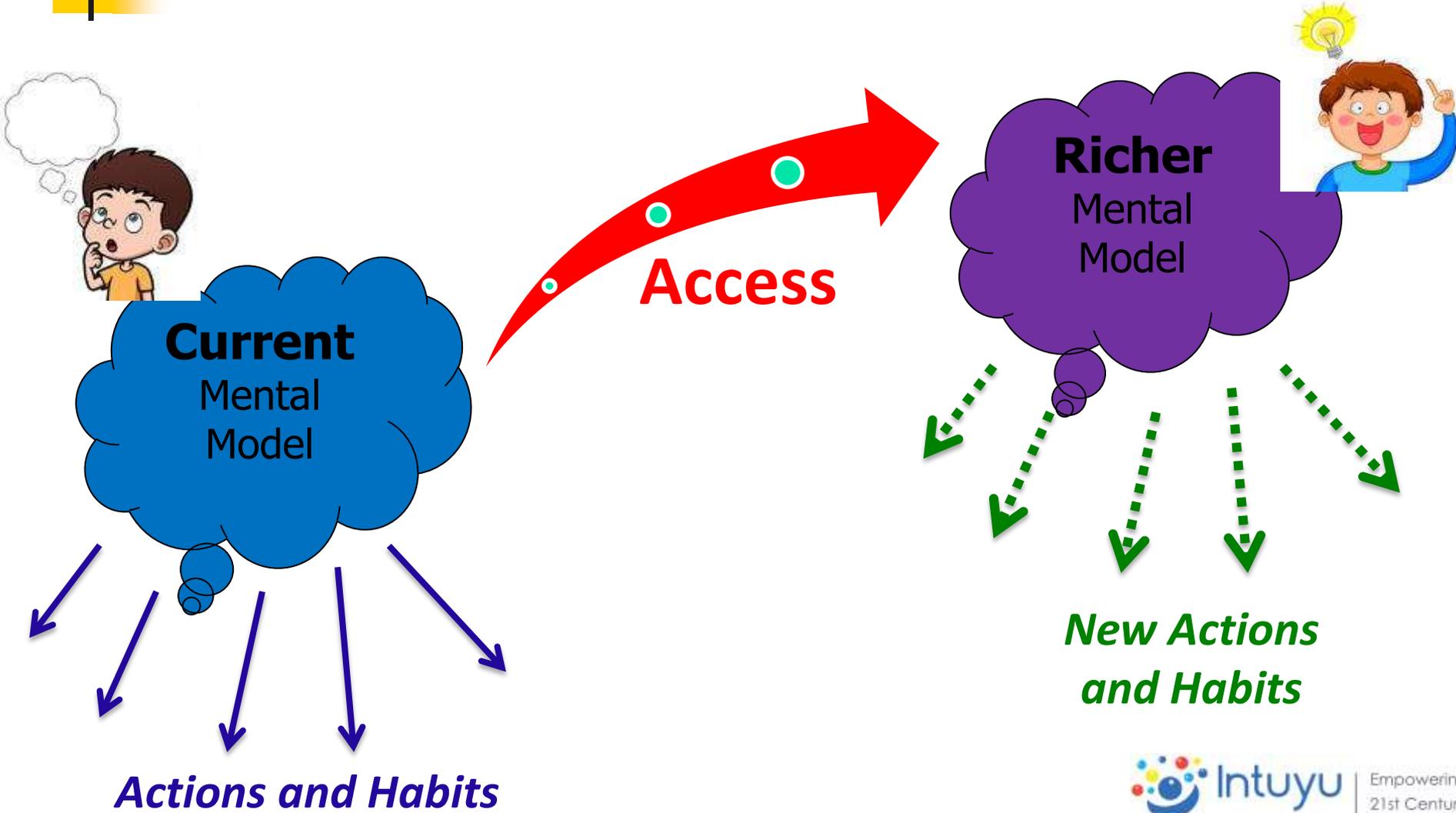
# Design of Brain

- 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

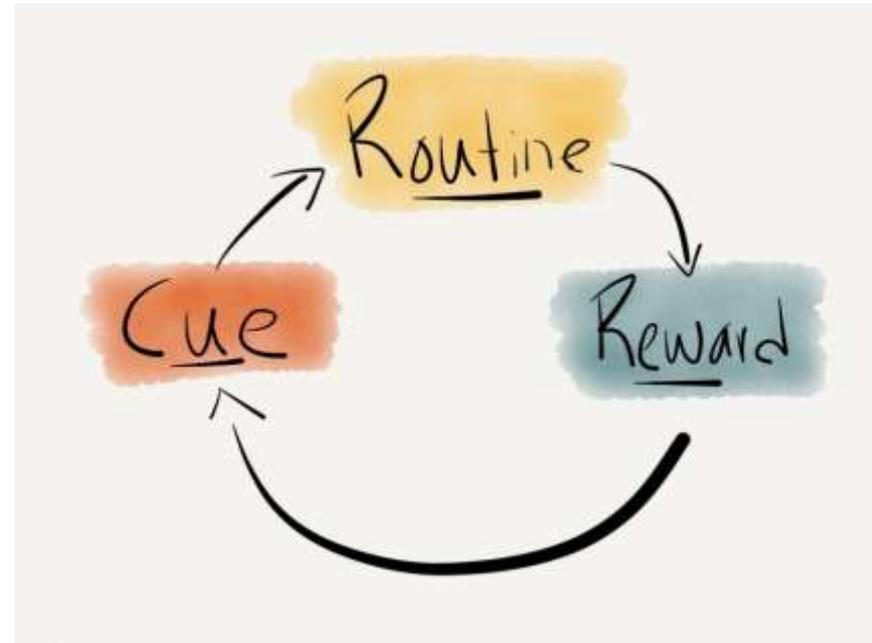


# Learning in its Essence



## Enriching mental models requires habits

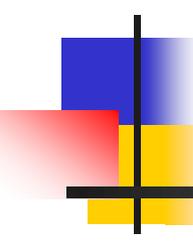
- Whatever we **systemically ritualise** – we embed
- To **shift an ingrained mental habit / belief**
  - first become conscious about it
  - challenge it
  - ritualise the new behaviour / practice / thinking



## 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

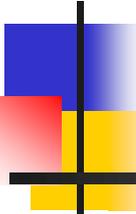
# Habits and Rituals – Need to be explicit



- *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?*

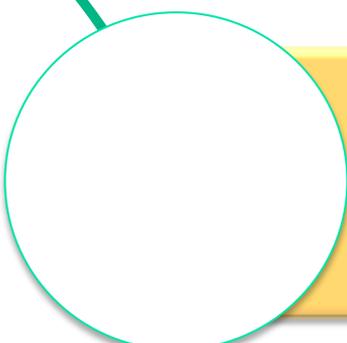
## Example – Austin's Butterfly



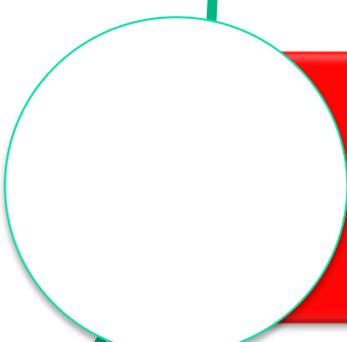


## Today's workshop

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The Power of Habits



Meta-Cognition and  
Self-Regulation

# What would be the top 3?

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

# 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

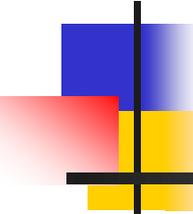
- The more transparent the teacher makes the learning goals the more likely the learner is to engage in the work needed to meet the goal

### Success criteria

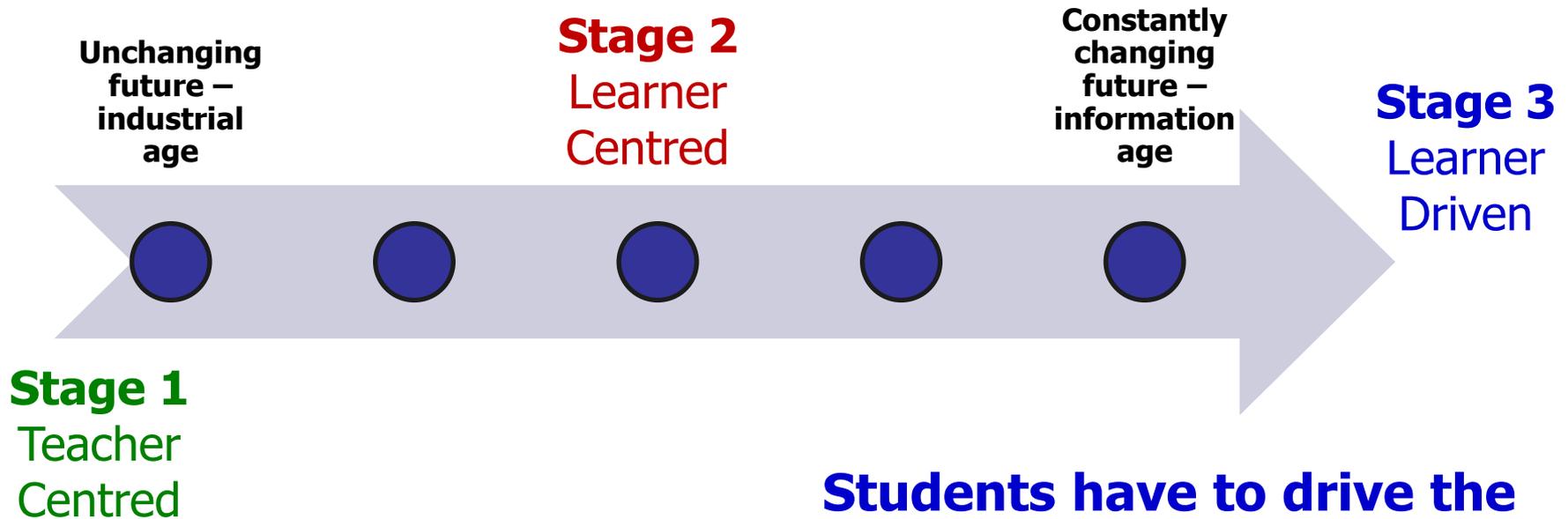
- the more the learner is aware of the criteria of success the more the learner can see the specific actions that are needed to attain these criteria

### 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



**Students have to drive the learning if they are to truly develop the capacity to be powerful learners**

## Teacher Centred Environment

## Learner Centred Environment

## Learner Driven Environment

- 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

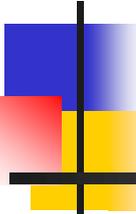
Teacher Centred Environment	Learner Centred Environment	Learner Driven Environment
<ul style="list-style-type: none"> <li>• High Effort by Teacher</li> <li>• Passive Learners</li> <li>• Low motivation and resilience</li> <li>• Low learner responsibility</li> <li>• High content focus</li> <li>• Low skill development focus</li> <li>• Differentiation is driven by teacher and hard work</li> </ul>	<ul style="list-style-type: none"> <li>• High Effort by Teacher prior to learning to develop the scaffolding (Medium effort during)</li> <li>• Co-construct rich task learning with learners</li> <li>• Growing Active Learners</li> <li>• Varying Motivation and Resilience</li> <li>• Increasing Learner Responsibility</li> <li>• Focus on developing skills in preference to just delivering content</li> <li>• Differentiation is co-constructed</li> <li>• Backward planning</li> </ul>	

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

What do you think they mean?





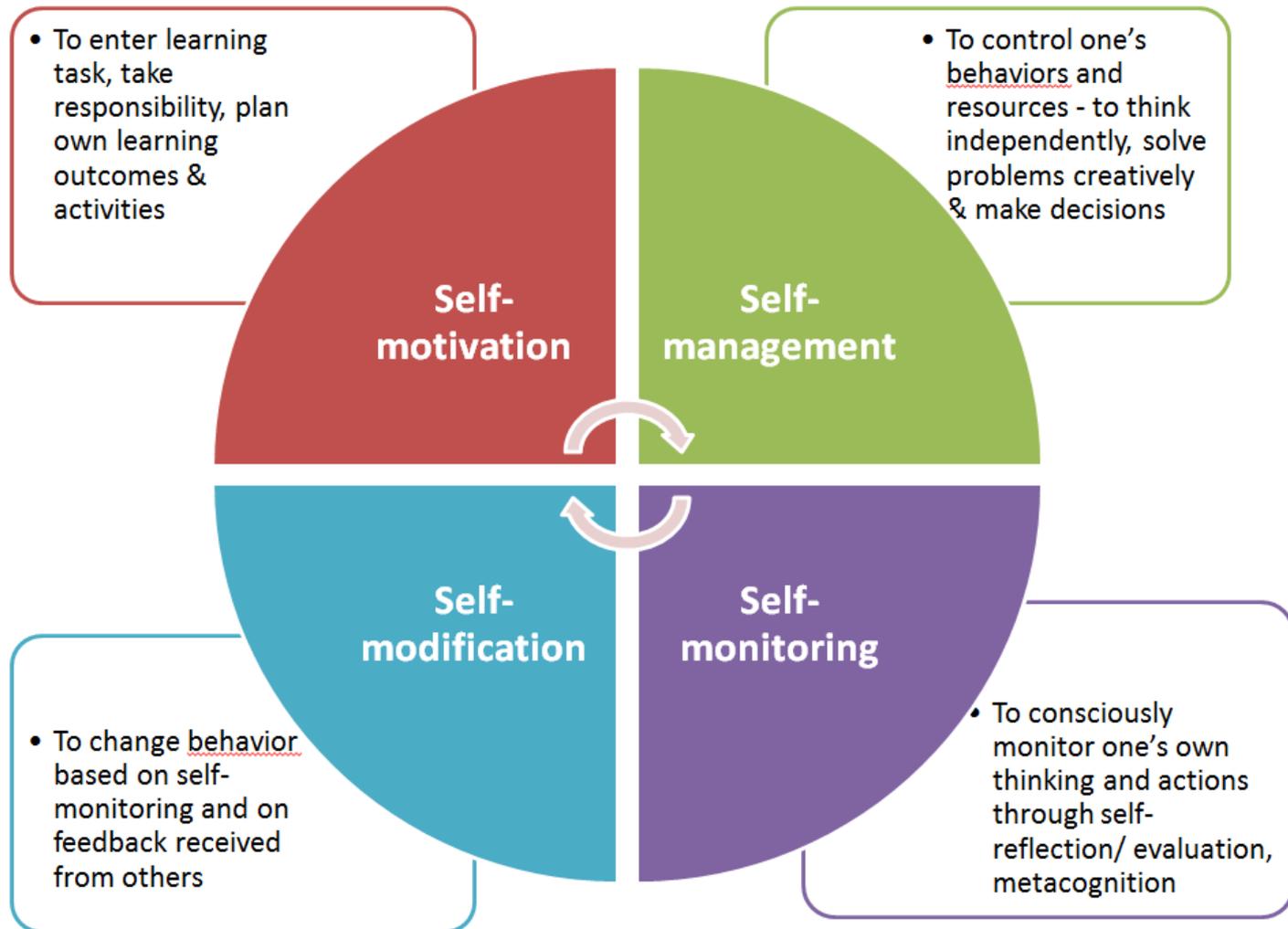
# Meta-Cognition

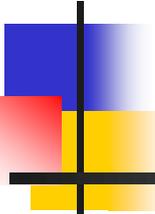
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Metacognition is broadly defined as “thinking about thinking” and includes activities such as:

- 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

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## 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

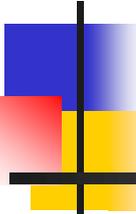
## Low Achievers

- 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





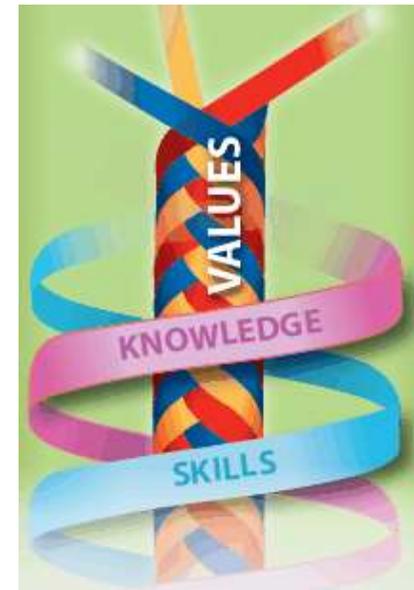
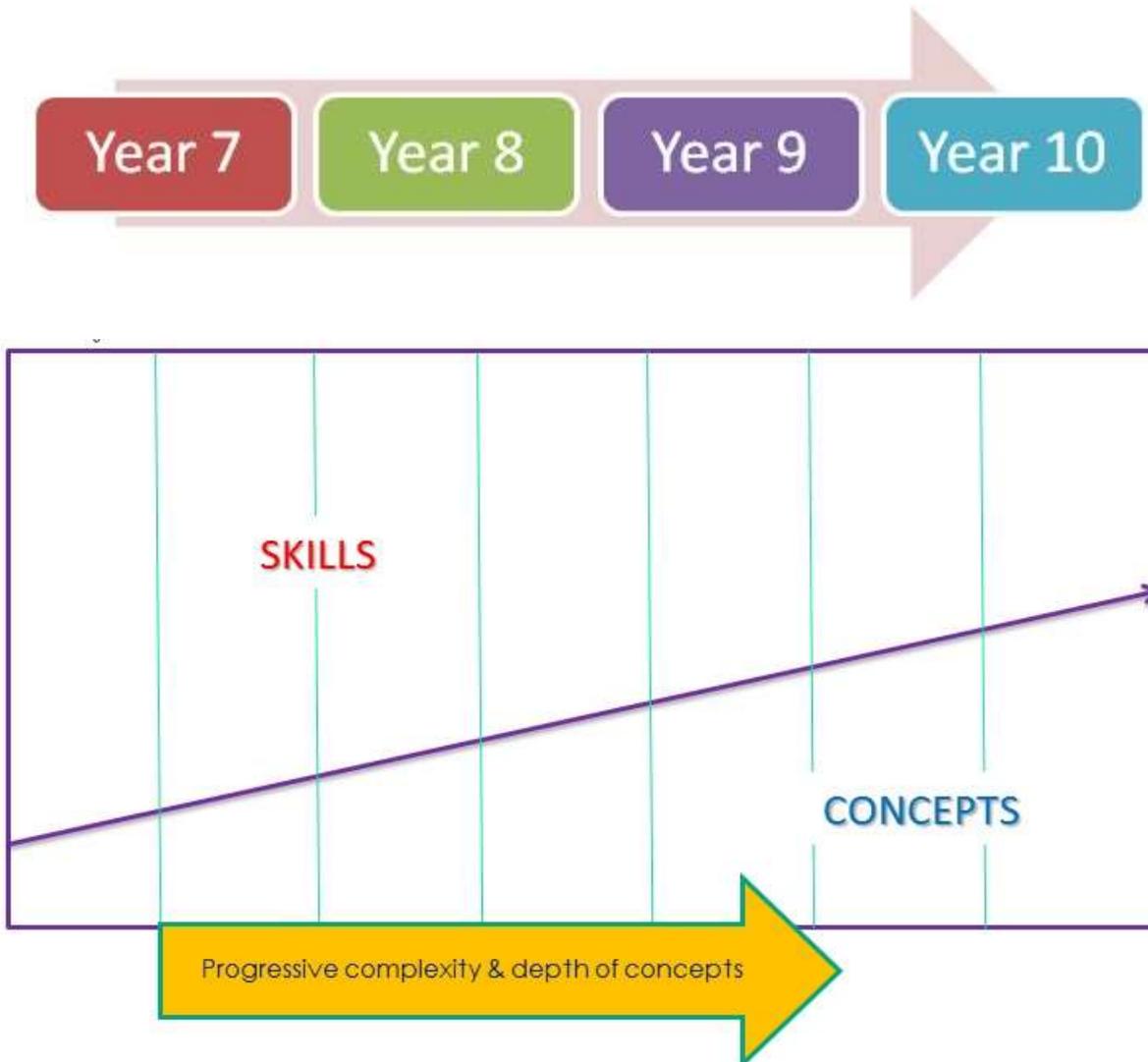
## Our Goal – be explicit so they can internalise

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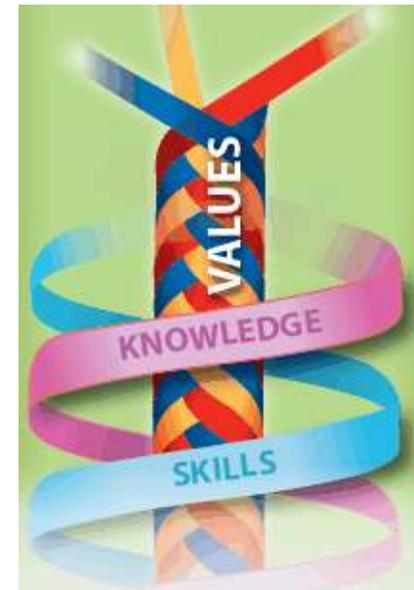
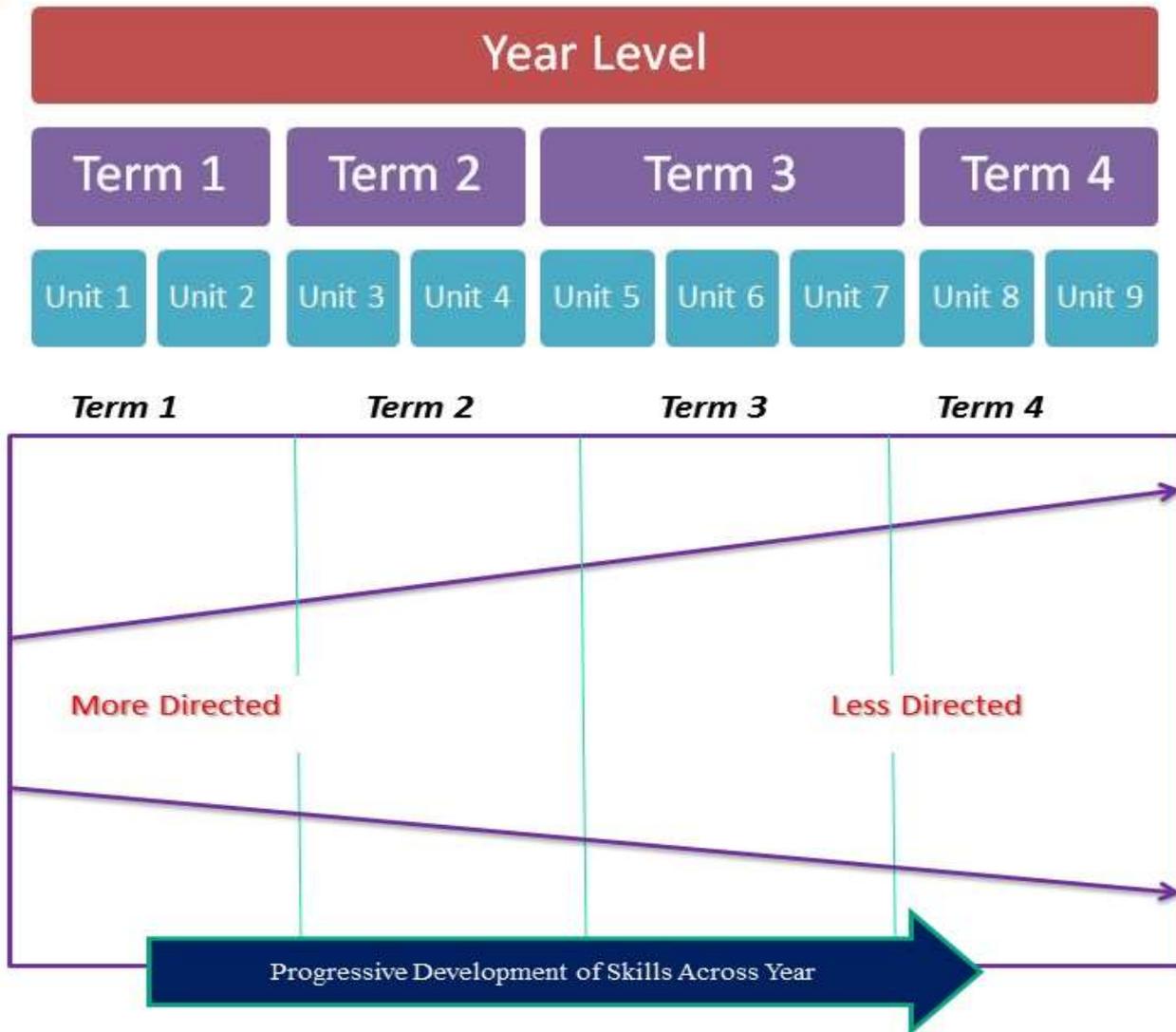
1. Clearly articulate the student learning **goals**
2. Support students to identify their **beliefs** about learning (growth versus fixed mindset)
3. Provide students with **strategies** to achieve those goals
4. Provide students with sufficient **opportunities** to monitor their progress, receive feedback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



# Three Levels of Documentation - Master

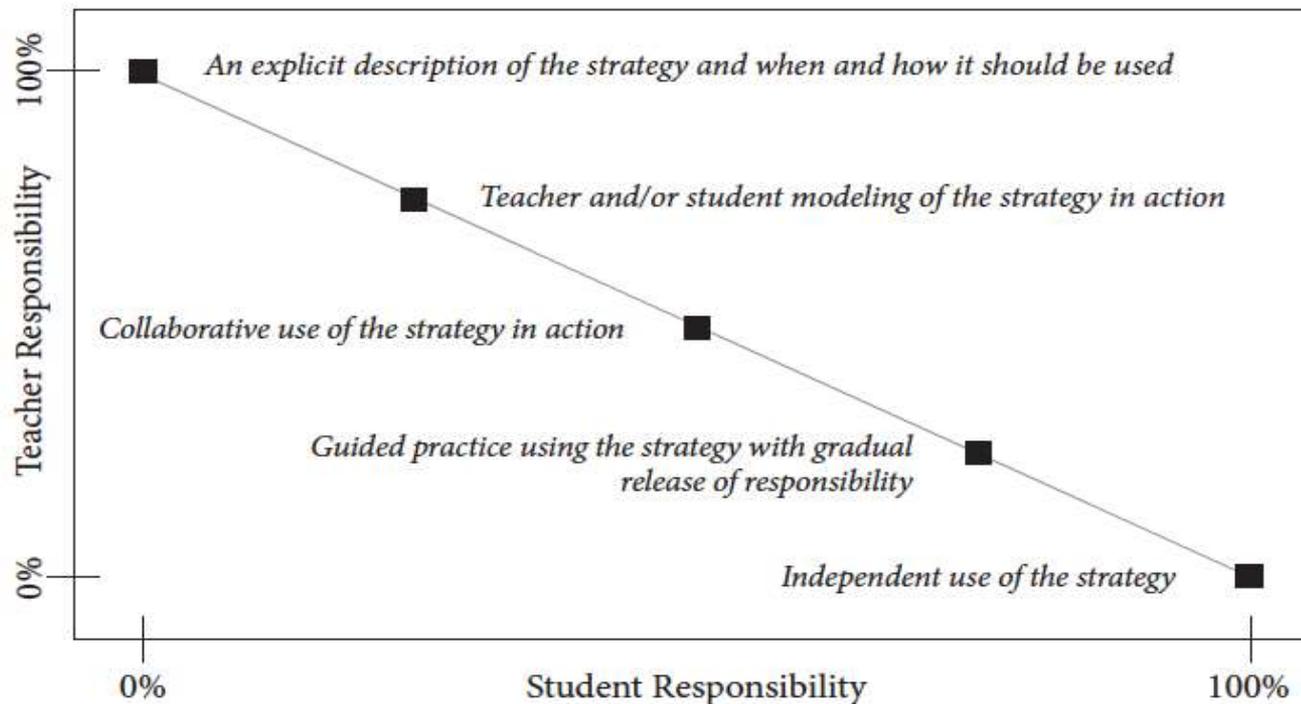


# Three Levels of Documentation – Year Level

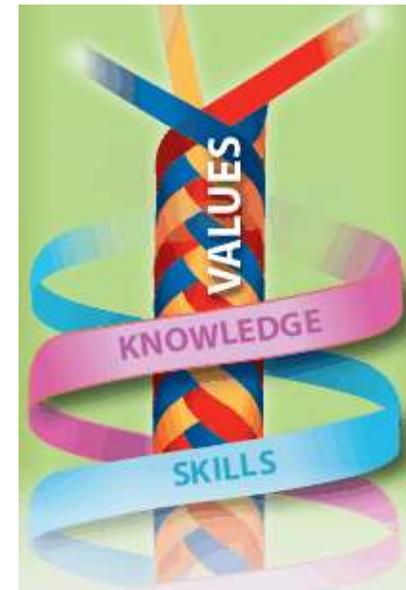


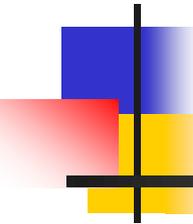
# Gradual Release of Responsibility

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



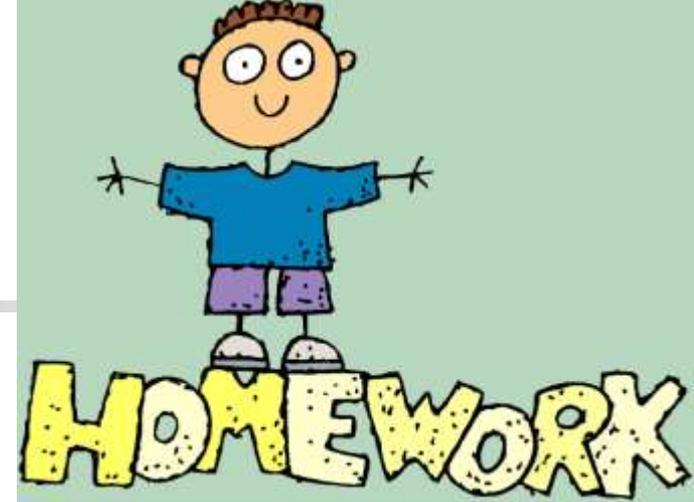
Note. Adapted from "The Instruction of Reading Comprehension," by P.D. Pearson & M.C. Gallagher, 1983, *Contemporary Educational Psychology*, 8(3), 317-344.





## Suggested Homework

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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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