

TEACHING WALKTHRU_s: EXPLAINING & MODELLING



OUR SUMMARY OF THE BOOK BY TOM SHERRINGTON & OLIVER CAVIGLIOLI

- The process of enabling students to develop their knowledge and understanding of concepts and processes.
- Explaining and modelling are vital elements of any teacher's repertoire of techniques..



Worked Examples & Backward Fading: Applies Cognitive Load Theory as novices learn more successfully from studying a series of complete worked examples than working independently. From guided to independent.

<p>1) Fully worked to introduce</p> <p>Go through problem, produce a live model answer & think out loud. Recap on steps & CFU.</p>	<p>2) Fully worked to reinforce</p> <p>Repeat with another example, highlighting similarities & differences. Narrate thinking & CFU.</p>	<p>3) Partially worked to finish off</p> <p>Begin to answer a problem following same procedure as before, then give pupils time to complete.</p>	<p>4) Cued start for pupil completion</p> <p>The practice phase: set one or more Qs of the same type as steps 1-3, Give information as cues.</p>	<p>5) Completed independently</p> <p>Set one or more Qs where pupils undertake the process independently. Follow details of examples.</p>
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Dual Coding: Teachers share their schema with students visually as well as with words. This embodied cognition by students bypasses many constraints of working memory. Understanding is strengthened through peer explanation.

<p>1) Construct & explain diagram</p> <p>Explain that the diagram you draw is a model of your schema. They are going to be experts too!</p>	<p>2) Copy & explain first branch</p> <p>Pupils copy and explain the first part/branch of the diagram, taking it in turns in pairs.</p>	<p>3) Repeat until diagram complete</p> <p>Continue in this way until the whole diagram has been copied. Pupils must explain key words.</p>	<p>4) Recount the diagram</p> <p>If time allows give pupils an opportunity to explain the whole map to their partner, and repeat.</p>	<p>5) Redraw from memory</p> <p>Redraw the diagram from memory. Compare with original & check for any gaps or inaccuracies.</p>
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Deliberate Vocabulary Development: For students to become fluent in the use of complex subject-specific terminology and more general vocabulary, the process of learning new words needs to be done explicitly.

<p>1) Specify & design words</p> <p>Compile lists of words that need to be known and their accompanying definitions</p>	<p>2) Say the words</p> <p>Chorally for pronunciation, In pairs during structured discussions (circulate!). Rapid fire to check that individual pupils can use.</p>	<p>3) Read words in context</p> <p>Ensure that target vocabulary is encountered during texts that students will read.</p>	<p>4) Practise using verbally & writing</p> <p>Give practice tasks that require words to be used in writing & discussions (do not revert to basics terms!)</p>	<p>5) Word-based retrieval practice</p> <p>Require pupils to recall words from memory by defining them and using them.</p>
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Big Picture, Small Picture: Illustrate how ideas are connected; that specific ideas form part of a bigger picture & that we can arrange concepts in categories or at various levels of depth & generalisation.

<p>1) Set out the big picture</p> <p>Present a broad overview of a topic and highlight the sub-divisions/categories of it.</p>	<p>2) Zoom in - orientate!</p> <p>Focus on specific element but make connection to big picture very clear. See how knowledge relates.</p>	<p>3) Zoom in & out, step by step</p> <p>Continually make the link to and from details of knowledge to a bigger frame & back again.</p>	<p>4) Rehearse & CFU</p> <p>Explore links explicitly & make sure pupils can make links themselves independently (CFU).</p>	<p>5) Zoom in, zoom out routinely</p> <p>Establish the routine that in all topics you explicitly look at layers of detail within a wider frame.</p>
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Abstract Models with Concrete Examples: One of the biggest challenges is the need to make a connection between concrete examples & abstract concepts. We can help by linking examples & models explicitly.

<p>1) Demonstrate an example</p> <p>Introduce an idea with a specific example e.g. <i>Michael's room was a disaster area</i> = metaphor.</p>	<p>2) Define concept in general terms</p> <p>Provide a general definition of the concept or state a general rules that applies. <i>A metaphor is...</i></p>	<p>3) Provide further concrete examples</p> <p>For each abstract concept, provide multiple concrete examples highlighting how the connection works.</p>	<p>4) Check for understanding</p> <p>Set tasks that make them generate examples, look for errors, spot the exceptions & categorise.</p>	<p>5) Engage in retrieval practice</p> <p>Ensure that pupils can recall and explain specific concrete examples fluently for the concepts learned.</p>
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Live Modelling: Teachers walking through a learning process themselves, showing students how to do things, highlighting key procedures and the thinking that underpins them. Making implicit decision-making implicit.

<p>1) Model each stage step-by-step</p> <p>Talk through each step, including before you begin. They listen & watch but do not copy at this stage.</p>	<p>2) How to organise messy thinking</p> <p>Model the decision-making process. How do you choose from options? How do you order? Edit?</p>	<p>3) Review your own work</p> <p>Stand back from model, review it & check it. Does it meet success criteria? Make reviewing explicit.</p>	<p>4) Model further examples</p> <p>Don't confine thinking to just one example. Alternatives are needed - different ways of success.</p>	<p>5) Set tasks to emulate model</p> <p>Pupils now put the ideas learned into practice themselves. Move from guided to independent.</p>
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Scaffolding: More effective teachers provide scaffolds for difficult tasks. Rather than setting lower expectations for pupils, support them to reach ambitious goals. When ready the supports are withdrawn (scaffolding is always temporary).

<p>1) Map out task components</p> <p>Break tasks down into steps to follow. Consider difficulties. Design resources to support.</p>	<p>2) Provide detailed supports</p> <p>E.g. word lists, diagrams/ concept maps, sentence starters, phrases, prompts, knowledge organisers.</p>	<p>3) Provide overview supports</p> <p>E.g. paragraph structures, partial examples, checklists, prompts, exemplars of completed tasks</p>	<p>4) Offer varying levels of support</p> <p>Set common goal of producing work to a high standard but differentiate the scaffolding.</p>	<p>5) Take the scaffolding down</p> <p>I do it, We do it. You do it. It is vital to know what pupils are capable of doing unsupported.</p>
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Metacognitive Talk: Successful pupils plan, monitor and evaluate their progress through a task. Teachers can support pupils in developing their capacity for metacognitive thinking by modelling it and promoting metacognitive talk.

<p>1) Set a problem & explore it</p> <p>Read through the problem by drawing on relevant past experience & prior knowledge.</p>	<p>2) What do we already know?</p> <p>What information is available? What do we know from the question? Relevant prior learning?</p>	<p>3) Where do we start?</p> <p>Which Qs always start in the same way? If there are options, how do we choose which one?</p>	<p>4) Make a plan & monitor</p> <p>Model the process of setting out an overview plan. Narrate progress through the plan.</p>	<p>5) Have we been successful?</p> <p>Model the process of self-review. Is it completed to a high standard? Teach the checking mechanisms.</p>
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Set the Standards: Unless we know where we are going we will never get there. Engage pupils in clarifying the learning goals. Pupils need to know what the high standard looks like in advance.

<p>1) WAGOLLS become routine</p> <p>Discuss the nature of the excellent work that pupils will be expected to produce.</p>	<p>2) Deconstruct exemplars</p> <p>Present exemplars and pick apart the constituent parts that when put together make them excellent.</p>	<p>3) Co-construct success criteria</p> <p>Make a list of the features of excellence that emerge from discussion. Link exemplars to the criteria.</p>	<p>4) Contrasting examples</p> <p>Show pupils exemplars of a range of standards. How is excellence different to average?</p>	<p>5) Blend teacher & self assessment</p> <p>Provide feedback using exemplars as a comparison. Pupils identify their own areas for development.</p>
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Head-on Misconceptions: In many subjects there are several errors or misconceptions that that crop up repeatedly. If pupils have developed a schema around a misconception we need to deliberately and effectively rewire it.

<p>1) Anticipate misconceptions</p> <p>Where do pupils often get stuck or go wrong? Why? Plan opportunities to teach them directly.</p>	<p>2) Introduce explicitly</p> <p>Present examples of misconceptions. Ask pupils to identify where it has gone wrong.</p>	<p>3) Reinforce correct model</p> <p>Re-teach the underlying model that explains why the misconceptions and errors must be wrong.</p>	<p>4) Check for understanding</p> <p>Can pupils explain back to you what the errors are and how to correct them?</p>	<p>5) Practice correct version</p> <p>Give opportunities to strengthen a correct schema through practice. Return to over time.</p>
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EXEMPLUM EXEQUATUR

Model flawlessly