

TEACHING WALKTHRU^s: PRACTICE & RETRIEVAL



OUR SUMMARY OF THE BOOK BY TOM SHERRINGTON & OLIVER CAVIGLIOLI

- Retrieval practice helps to secure fluency in storing and retrieving information from long-term memory.
- Confidence and fluency can be improved through engaging in practice, moving from guided to independent.



Quizzing Provides information about what has been learned and where gaps still exist. It also reinforces the retrieval strength of the material so that is easier to remember later. As a form of practice pupils should remember more fluently.

<p>1) Specify material in advance</p> <p>A good quiz supports the principle of building confidence. Pupils know what is coming up.</p>	<p>2) Ask a set of Qs, varying in style</p> <p>Ask 5-10 Qs checking for recall in a variety of styles. Inc multiple choice, label diagrams, T or F, bullet pts</p>	<p>3) Give time to answer</p> <p>Allow all students to answer all Qs to check understanding.</p>	<p>4) Provide answers for self/peer check</p> <p>Pupils see or hear the answers to check their own. Teacher may provide explanations.</p>	<p>5) Praise & seek wrong answers</p> <p>Important that teacher & pupils learn what the gaps are. Praise performance & understand wrong answers.</p>
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Elaborative Interrogation: Pupils explore connections within their schema for a set of knowledge by asking *Why?*, *How?* and *What happens next?* questions of peers and themselves. Improves retention & deepens understanding.

<p>1) Model how to generate Qs</p> <p>How does? Explain process Why did? Explore reasoning. What happens if? Explore variables.</p>	<p>2) Either paired interrogation</p> <p>Provide a resource for pupils to quiz each other to explore understanding/ explore schema</p>	<p>3) Or individual interrogation</p> <p>Pupils silently test their own knowledge, generate their own Qs & answers. Teacher follows up.</p>	<p>4) Check for accuracy</p> <p>In pairs pupils provide corrective feedback. Individually pupils use resources to check.</p>	<p>5) Consolidate with assessment</p> <p>Mostly hidden from the teacher as preparation so need to follow up with quizzing etc.</p>
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Using A Knowledge Organiser: Accessible guidance about knowledge for self-study to build a secure schema with strong recall. Intended as a summary not a comprehensive list. Need to be used effectively.

<p>1) Design to be quizzable</p> <p>Key information presented visually avoiding extended prose. Supports self-quizzing.</p>	<p>2) Focus on specific elements</p> <p>Direct students to focus in specific elements of KO in advance, focusing on its place in their schema.</p>	<p>3) Read & rehearse</p> <p>Encourage pupils to read it aloud. Quiz pupils whilst they are still looking at it. Then do individually & in pairs.</p>	<p>4) Cover for generative recall</p> <p>Remove information from view & engage in generative recall. Teacher supports by modelling.</p>	<p>5) Check for accuracy</p> <p>Reveal covered information & check. Over time leave longer time gaps after studying KO.</p>
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Rehearsal & Performance: There are areas of the curriculum where a rehearse-perform-evaluate cycle is best for retrieval practice, perhaps where applying a technical skill, physical procedure or for giving detailed explanations.

<p>1) Set out criteria for excellence</p> <p>Set out clear success criteria, highlight key elements for achieving excellence.</p>	<p>2) Initiate low-stakes rehearsal</p> <p>Time to practise and rehearse. Allow private practice away from scrutiny for self-review.</p>	<p>3) Generate feedback</p> <p>What went well? What could be better? Ideally self-generated. Refer to success criteria.</p>	<p>4) Deliver the performance</p> <p>Pupils deliver a performance aiming to embed the feedback in achieving success criteria.</p>	<p>5) Evaluate & repeat</p> <p>Compare performance to the success criteria. Check pupils can see what went well & where to improve.</p>
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Peer-Supported Retrieval: Activating learners as resources for one another. Ask pupils to test each other's knowledge and to provide corrective feedback (supported by resources). This allows teachers to amplify pupils' feedback.

<p>1) Provide Q&A prompts</p> <p>Explicitly model how to ask Qs of a variety of forms with the aim of providing complete answers.</p>	<p>2) Allocate checking partners</p> <p>Ensure everyone has a clear role and learning goal. Be explicit about expected behaviours.</p>	<p>3) Student 1 assesses student 2</p> <p>One pupil in each pair asks a series of Qs. They then verify the answers & provide feedback.</p>	<p>4) Student 2 tests student 1</p> <p>Swap the roles & repeat Step 3. Second pupil in a stronger position is now in a stronger position.</p>	<p>5) Discuss common errors</p> <p>Follow up with a discussion of common difficulties. Find out who still does not understand.</p>
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Weekly & Monthly Review: Periodic reviews to attenuate the rate of forgetting and to secure stronger long-term recall. The challenge is to embed review routines whilst also keeping track of the path through the curriculum.

1) Generate study resources

Provide resources like KOs to support independent study and to help building secure schema.

2) Plan for spaced practice

As well working through the curriculum, take time to look back over previous material. Routine slot?

3) Set a retrieval activity

Choose an appropriate retrieval practice activity (see this sheet!). Could include mind mapping.

4) Explore gaps & errors

Establish where the common gaps & check for understanding. Re-teach if necessary.

5) Make connections

Show pupils how previously learned material connects to other topics they've covered.

Concrete Examples: To form detailed schema pupils need to be able to link between concrete examples and the abstract, including being able to illustrate ideas with concrete examples. Supports fluent recall & deeper understanding.

1) Make abstract-concrete explicit

During instruction make concrete-abstract examples a focus in explanations.

2) Show range of concrete examples

Choose a defined set of concrete examples that typify abstract ideas. Provide support resources.

3) Quiz for concrete examples

Retrieval activities to recall concrete examples of abstract ideas. E.g. Give an example of...

4) Quiz for abstract ideas

Invert Step 3. Link concrete examples to an abstract idea. E.g. ...is an example of what?

5) Extend the range of examples

Once confident in recall, add more examples to develop the depth and range.

Guided Practice: Initial high success rate through clear models, scaffolds and support. Guide the early stages of practice, making sure pupils are getting the details right, practising doing it right not wrong. Then re-teach or move on.

1) Explain & model new learning

Introduce new idea with explaining & modelling techniques. Take account of prior knowledge.

2) Set short task using models

Set a short task where pupils follow method that has been modelled with examples in view.

3) Actively check for success

As pupils practice, circulate to observe, engage in individual feedback conversations.

4) Check for error, affirm success

Build confidence but highlight errors in understanding. If common, restate or remodel.

5) Re-teach or extend practice

Pupils progress at different rates. If struggling, support further. If succeeding, extend the practice.

Independent Practice: Moving from guided to independent is a continuum as teachers gradually reduce guidance. Independent practice is necessary for everyone as it supports the overlearning essential for automaticity & recall.

1) Secure guided success

Pupils need to be getting things mostly right before independent practice. Teacher judgement.

2) Remove scaffolds

Set pupils tasks that use the same material featured in guided practice but without models etc.

3) Check & feedback

Evaluate success of independent practice & provide feedback to improve fluency.

4) Reduce guidance

Fully independent performance achieved when students self-diagnose gaps act on it.

5) Increase challenge

As success and confidence builds direct pupils to tasks with greater challenge.

Building Fluency: Fluency is the capacity to recall knowledge from memory with minimal effort & a level of automaticity. It is secured through repeated practice with a high success rate. Successful practice leads to fluency.

1) Design drillable elements

Deconstruct complex tasks into a set of small, specific drillable elements. Model each element.

2) Repeated low-stakes practice

Include lots of repetition of words, language, operations, skills, explanations, facts etc.

3) Check accuracy & precision

Focus sharply on accuracy & precision, highlighting areas for pupils to work on.

4) Increase range, pace & variety

Practice routines include variety so that knowledge is flexible not rigid. Add complexity.

5) Integrate into complex tasks

When fluent in separate skills, start combining the elements together into a whole, complex task.

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Practice makes perfect. Use makes master.