

The Memory Game: Boosting Pupil Information Retrieval



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Whether it be individual lessons, schemes of work or curriculums, it's very easy to focus on what is being taught in a school. But how often do you stop to consider effective ways to ensure that students actually remember the content and are able to recall and utilise it at a later date? What strategies can be used to ensure that the teaching going on in their establishment really 'sticks' and in doing so, ensure long-term value to planning, quality and practice? Being aware and engaging in the science of learning and the research that surrounds it, means that practitioners not only concentrating on passing on knowledge, they're taking steps to ensure that it isn't lost after they do. Here are some approaches that are well worth considering:

I. Distributed and interleaved teaching practice:

Cramming (seemingly the panicked student's favoured method) only goes so far and can lead to superficial learning and retention. Instead, exposing pupils to the same material multiple times and spacing out the period of recall over a few weeks or months can significantly improve memory retention. This method (known as distributed practice) allows pupils and teachers to reflect on what has already been learned and combine that knowledge with new information at a dramatic rate. Timing is important however as revisiting new material too quickly increases the likelihood of forgetting.

This can be especially effective when coupled with interleaved practice. This strategy mixes up material by having students practice a range of tasks and concepts in one session. It avoids completing tasks that requires them, in essence, to repeat the same skill as 'massed practice', which can lead to rote learning, something that research has recently shown to be superficial. Interleaving increases the range of skills and stretches knowledge, skills and ability.

Consider:

How much of your teaching facilitates the use of distributed or interleaved practice? Do the classroom activities, homeworks and/or independent study tasks you set enable students to work in this way? Looking through SOWs and evaluating with your teams where this can be achieved, even going so far as to set out dates to repeat certain skills and information can help.

This could also be a good opportunity to develop further higher-order thinking tasks and approach the curriculum with a fresh perspective where skills are 'scattered' throughout the year rather than approached chronologically and moved on from, never to be highlighted again.

2. Enhancing retention through assessment:

Assessment is always a hot topic in schools but it goes without saying that regularly assessing students and providing quality feedback improves learning and is useful for establishing where a student is in regards what they know and what they don't (or indeed, what they can remember). Assessment forces the retrieval of information and keeps it alive in the memory and there are steps that can be taken to maximise the effect. Leaving behind memory aides such as notebooks and encouraging students to rely on their own memory to increase their capabilities. This coupled with immediate feedback makes assessment a powerful tool for retention but also ensures that possible misconceptions can be dealt with immediately.

Consider:

When assessing avoid using memory aids such as keywords, images, sentence starters or writing frames. Enable learners to work independently and follow this with instant feedback and allow time for that feedback to be of high quality. Over the next term, try sharing useful assessment strategies and discuss what's working especially in reference to retention.

3. Questioning:

The type of question that you ask can be extremely important. Probing questions and actions such as 'why', 'how', 'compare' and 'contrast' help students to think critically, solve questions, be analytical, make connections with previous learning, be information literate and be creative. Questions should not only provoke opinion or emotion (although there is nothing wrong with doing this as well). But they should also push students to retrieve and use both old and new material, exploring concepts and processing information in a deeper way.

Consider:

Use learning walkthroughs that employ more challenging and deeper probing questioning but ensure all participating teachers fully understand the purpose of them before starting. During observation, monitor the nature of the questions, the level of challenge and the links made both within a particular subject discipline and/or cross-curricular links. Also crucial is that you've set up a platform for teacher feedback and use the findings to evaluate and improve classroom practice in this area.

Understanding and applying the above strategies has certainly improved my own classroom practice over the years, but much more importantly, it has improved the learning experiences of my students. It's one thing knowing about such techniques but embedding them into schemes of work and in the delivery of lessons requires thought, not just as an individual, but for time allocated to working collaboratively with colleagues. Evaluating how you are incorporating practice in reference to improving memory retention in your students, using theories from both science and pedagogy in your own teaching and planning as well as facilitating discussions with others can all lead to an improvement in pupil retention skills school-wide.

It's worth remembering.

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