

WHEN TO USE RETRIEVAL PRACTICE

“Retrieval practice is the most powerful learning strategy”, according to Pooja Agarwal, a cognitive scientist and founder of an informative retrieval practice

WHAT IS RETRIEVAL PRACTICE?

Retrieval practice involves generating answers to questions about previously learnt information – for example, this could take the form of a past paper, a multiple choice quiz or even verbal question and answer. This requires students to recall topics that they have learned throughout the year and has several benefits:

- It helps them make new connections
- It helps strengthen existing connections
- It is reliable under pressure
- It gets information into our long term memory (which also makes it easier to learn new things)
- It provides a foundation for future learning if it prompts feedback

[Research suggests](#) that asking students to pull concepts out of their brain rather than only putting concepts in it will help them learn those concepts better. In the study that found this, a group of students within a class were regularly quizzed over a year and a half. The quiz did not contribute to their grades and only covered some of the material that was being taught. At the end of the unit, all students completed an exam – those who had been in the quiz group scored a full grade level higher on the material from the quizzes.

WHEN SHOULD YOU USE RETRIEVAL PRACTICE?

Retrieval practice is not the same as a formal assessment. It is actually most effective when students know that the quiz has low stakes and is being used as a learning strategy. Although it is not a tool to grade students, it can measure their progress. This will be a useful guide for both students and teacher when evaluating what to focus on more.

To make the switch from reviewing information to retrieving information, start small. Ask students what they have learned about a specific topic, and even if they only write down one or two things, they will benefit. Over time, continuous use of retrieval practice will help students become more confident in their knowledge. It is not necessary for students to complete a quiz or past paper to reap the benefits of this practice – you can do it in just a few minutes per lesson. Simply asking them what they have learned that day at the end of each class or what they learnt last time at the beginning will enhance their recall and solidify the knowledge in their memory.

TAKING IT ONE STEP FURTHER

Once you are using the strategies above confidently, there are many more things you can do to [use retrieval practice](#). Ask students to explain what they know about a specific topic to take this one step further. You can even ask them to teach this to the class – this may be easier for some students who may find it daunting to write down everything they know on a blank piece of paper and is a great example of [using the Protégé Effect](#).

[Evidence suggests](#) that explaining is an extended function of retrieval practice. Students spend a significant amount of time retrieving information when they want to explain something to a peer. It is considered an effective way to enhance learning, especially when it is done in-between learning activities. In one [research study](#), students were split into groups: (1) explain at the end of learning, and (2) explain in-between. Those in group 2 experienced enhanced conceptual knowledge, compared to their peers in group 1. This suggests that timing is important for improved learning when using retrieval practice. Doing this during revision rather than after can encourage the student to explore gaps in their learning, which will ultimately improve their academic performance.

FINAL THOUGHT

As a teacher, you often aim to [develop independent students](#) through your teaching. For them to transition into life-long learners, it is important to equip them with the skills and strategies they need to succeed. Revision techniques are some of the hardest to perfect as they are crucial to academic performance and it can be difficult to find ones that work well. Retrieval practice is a strong contender for one of the best ones as its methods lead to strengthened memory and recall.