



Retrieve to Achieve: Retrieval Practice for Long-Term Learning

by [Hall Houston](#)

Retrieval practice (also known as the retrieval effect, the testing effect, or self-testing) is a hot topic in education. It's one of the best study methods, and yet it's used infrequently by most students and teachers. In this article, I explain what retrieval practice is, describe some of its benefits, establish a few key principles, and share some ideas for retrieval in the classroom.

Teacher, writer, and blogger Kate Jones, in her recent book *Love to Teach* (2018), provides this straightforward definition: "Retrieval practice is essentially the process of bringing information to mind from memory, without that information in front of you."

Your first thought might be that this is a basic technique that teachers already know about—reviewing or quizzing is nothing new. Though your reaction might be accurate, the point is that retrieval practice is highly supported by educational research as one of the best ways to learn. Unfortunately, most teachers and students do not use it enough.

Benefits of Retrieval Practice

Dunlosky et al.'s (2013) article in *Scientific American Mind* titled "What Works, What Doesn't" summarized more than 700 academic articles about study techniques. The authors found that retrieval or self-testing is much more effective than underlining or rereading, two common study methods. One positive aspect is that teachers can incorporate it into any lesson without spending a lot of time or putting in a lot of effort. Also, students often remember significantly more after doing several weeks of retrieval than they would by just rereading the material, and many students are often grateful for the opportunity to review what they've been learning.

Here are some of the main benefits of retrieval practice:

It helps students' long-term learning. The more times students retrieve information, the stronger their memory of that information will be. Giving a quick quiz at the beginning or end of each lesson makes it far more likely that students will retain information long after the course ends.

It can demonstrate gaps in knowledge. After a retrieval activity, students have a better idea of what they have and haven't learned well. In addition, teachers also can get a sense of the students' progress.

It informs students. It lets students know what material will be likely to appear on the course assessment. Thus, students are clear about what they will be responsible for learning in the course.

The 7 Basic Principles of Retrieval Practice

Following are the seven basic principles of retrieval practice.

1. Keep It Short and Simple

Retrieval practice should only take a few of minutes of class time and should be easy to explain, set up, and conclude. A perfect example is Agarwal and Bain's (2019) retrieval exercise titled "Two Things," in which students are asked to write down two things they remember from the current lesson or a previous lesson.

2. No Notes, No Books

When students are doing retrieval work, it's imperative that they have no access to their notes, their book, or a search engine. The key is to get students to rely on their own memory to get the information, not other resources.

3. Everybody Retrieves

Ideally, every student in the class should be retrieving. If you call on individual students to answer a question, other students will not retrieve, and only the one student you address will receive the benefits. Agarwal and Bain (2019) suggest using a think-pair-share format, where students first retrieve individually and subsequently compare their answers with a classmate.

4. Keep It Low Stakes or No Stakes

Experts, such as Agarwal and Bain (2019), agree that retrieval practice should not count toward students' course grades, or that it should count minimally. This creates a less stressful environment for the students. In addition, it helps students to associate retrieval more with learning and less with testing. In the words of Agarwal and Bain (2019), "By keeping retrieval practice no-stakes, we (and our students!) get away from thinking of retrieval as more tests and move toward retrieval as being *more learning*" (p. 49).

5. Provide Feedback Immediately

Once the class is finished retrieving, provide the answers to the questions. If the retrieval is based on input (e.g., an article in the coursebook, a listening track, or a video), you can let them access the input again to check their own answers.

6. Connect Retrieval to Assessment

When planning your retrieval practice, it's ideal to include material that will appear in the course assessment. Make sure that you have a clear idea of what you want your students to get out of your course.

7. Retrieve Often Throughout the Course

Retrieval is most effective when students are asked to retrieve several times over the days and weeks of a course. This is called spaced practice. If you want to challenge your students, you should include quiz questions based on material from different times throughout the course. Spacing your retrieval practice takes a little extra planning, but it pays off when students are able to remember more at the end of the course (and long after the course ends).

Keep the preceding principles in mind when planning to do retrieval practice. It can be as simple as asking students to write down a few things they remember or answer a few questions.

Retrieval Practice Options: Keeping It Interesting

Using the same format for retrieval practice every week can become dull for students (as well as teachers). Here are some suggestions for adding some variety to retrieval practice.

Take Advantage of Reading, Listening, and Video Exercises

Retrieval is not only for word lists. Students can also retrieve ideas and concepts from any reading, listening, or video activity. Agarwal and Bain (2019) suggest an activity called "Retrieve-Taking," where students take notes without access to the text. During a lesson, students can close their books, retrieve some of the material they've been reading or listening to, and then open their books again to continue.

Retrieve Information Related to Your School

Additionally, you can build important information related to your course or school into retrieval practice. Ask students to recall the school's address, phone number, email address, rules of the class, or even fun facts about their classmates.

Employ Apps and Websites

Use apps such as [Kahoot!](#) or [Quizizz](#) to create multiple-choice quizzes for your class. Russell Stannard has some outstanding videos (www.teachertrainingvideos.com) which show you how to use these apps.

Use Both Recognition and Recall

Horvath (2019) distinguishes between recognition and recall, two types of retrieval. Recognition is when students have a few cues that help them remember the important information, while recall entails remembering the information without any cues. Multiple-choice quizzes or

translation exercises are examples of recognition. Activities where students must write a summary or a few vocabulary words (without being able to look at the text) are examples of recall. Though recall is the most challenging and the most powerful, you might wish to use recognition when students are first encountering new information.

Get Students to Quiz Each Other

Students can create a list of questions or cues, then work in pairs or small groups to quiz each other. Jones (2019) describes an activity titled “Quiz Quiz Trade.” In this activity, each student has a card with a question on one side and the answer on the back. Students use the cards to mingle and find a partner. The two will then quiz each other, give feedback, and trade cards.

Make a Game Out of It

Students can play a game in which they take turns retrieving material from previous lessons. You can find a blank gameboard by doing a Google or [Pinterest image search](#) on the phrase “free blank board game templates.” You can add review questions or short cues on the board game spaces. Alternatively, you can put questions or cues on small cards (I use blank business cards) and put the words “DRAW A CARD” on most of the gameboard spaces.

Make Retrieval Practice Part of Your Own Professional Development

The next time you get to the end of a presentation at a conference, an online webinar, or an article in *TESOL Connections*, find a quiet spot to sit down and write down the main points, without looking at your notes. Alternatively, you can create a study guide or mind map that covers the most important information.

This year, as you plan your lessons, consider devoting a small section of each lesson for retrieval practice. If you do retrieval practice repeatedly, without assigning grade points, and provide feedback afterwards, your students should see an improvement in their retention of material.

References

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Hall Houston currently teaches at National Taipei University of Nursing and Health Sciences in Taiwan. He has a master's degree in foreign language education from The University of Texas at Austin. He has conducted presentations and workshops for Cambridge Assessment and British Council. He is the author of numerous articles and several books about ELT, including *Provoking Thought and Creative Output*. (www.hallhouston.com)