

OPINION

BLOG

Classroom

Q&A

With

Larry

Ferlazzo

In this EdWeek blog, an experiment in knowledge-gathering, Ferlazzo will address readers' questions on classroom management, ELL instruction, lesson planning, and other issues facing teachers. Send your questions to lferlazzo@epe.org.

TEACHING

OPINION

Ten Ways to Use Retrieval Practice in the Classroom



By [Larry Ferlazzo](#) — February 21, 2021

🕒 12 min read





Larry Ferlazzo

FOLLOW

Opinion Contributor, Education Week

Larry Ferlazzo is an English and social studies teacher at Luther Burbank High School in Sacramento, Calif.



The new question-of-the-week is:

How and why do you practice retrieval practice in your classroom?

The strategy of retrieval practice has been shown by research to be an extremely effective teaching and learning strategy time and time again. Today's post will explore what it is and what are the different ways it can look like in the classroom.

Today's contributors are Blake Harvard, Vivian Micolta Simmons, Luiza Mureseanu, Dr. Donna Wilson, and Diane Dahl. Blake, Vivian, and Luiza were also guests on my [10-minute BAM! Radio Show](#). You can also find a list of, and links to, [previous shows here](#).

I've used retrieval practice in a number of ways. I'd like to highlight two here.

In my long-term English-language-learner support class, we began a regular retrieval practice warm-up—after we studied the research behind it. Each student had a “Retrieval Practice Notebook.” When they first came to class, they wrote what they thought had been the most important thing they had learned the previous day in each of their classes. That was followed by partner and classwide sharing. Not only did that help individual student learning, it also was an excellent way to help “catch-up” a student who had been absent since they all had the same classes.

In my history class, every unit test includes a blank sheet at the end. There, students can write anything else they remember learning during the unit. I often find that the insights students share on that sheet to be a better gauge of higher-level learning and thinking than their responses to the specific questions on the test!

You might also be interested in [The Best Resources For Learning About Retrieval Practice](#).

‘The Brain Dump’

Blake Harvard is an AP Psychology teacher at James Clemens High School in Madison, Ala. His [blog](#) focuses on the application of cognitive psychology in the classroom. You can find Blake on Twitter at [@effortful eduktr](#).

I use retrieval practice quite often in my classroom. Anytime I want my students to assess their learning, I want them attempting to retrieve that information from memory. Over a century of research suggests that retrieval of memory produces better long-term retention of material than simple restudy of material (rereading notes or highlighting information).

The most important aspect of retrieval practice is students are attempting to access the information from their memory and are not provided any assistance or cues while completing the assessment. I tell my students that retrieval practice is the truest way to know what they know and what they don’t know, provided they don’t use any notes or peers for assistance. Without assessment using retrieval practice, teachers and students are making assumptions about the knowledge students possess.

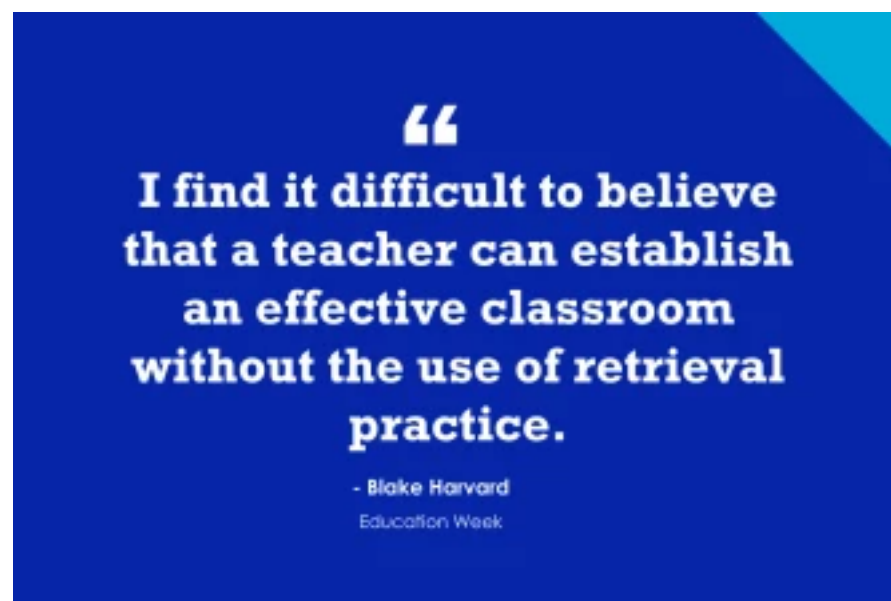
Retrieval practice can be easy and simple to implement in the classroom, and it takes on many forms: answering multiple-choice or matching questions, written essay response, class discussion, and/or a project that requires subject knowledge to complete. Here are a couple of my favorite go-to activities:

- [The Brain Dump](#) – Students use either pencil/paper or word processor to write down any and all information they can about a particular subject or concept. They should not use any assistance while completing this. If they know it well enough, they should be able to write it down. Anything they cannot write without assistance needs to be looked at again by students. I frequently use

brain dumps to begin class, giving students 5-10 minutes to write everything down. Then, students turn to partners and tell what information they wrote and find out what their partner wrote down. Finally, this turns into a whole-class discussion of that major idea or concept that was originally presented. This activity is especially useful when implemented after a significant period of time between information presentation and brain-dump assessment ([the spacing effect](#)).

- [Last Lesson, Last Week, Last Month](#) – This activity requires a bit more planning but is very useful. I look back to the most important information presented yesterday, last week, and last month. I then choose three questions from each and ask students to answer (retrieval practice) the questions with no assistance. I tell my students that even though there's been a period of time between when we originally learned about these subjects, they are still important. It is quite interesting to discuss with students which set of questions they were more successful completing. This activity is especially effective if the current day's lesson relates to some of the material assessed either last week or last month. It lets the students know that the importance of studying a particular topic doesn't end with the summative assessment. Knowledge builds knowledge.

I find it difficult to believe that a teacher can establish an effective classroom without the use of retrieval practice. There is no better tool for finding holes in students' learning. This information is powerful for both teacher and student. For the teacher, discovering that a large percentage of the class didn't grasp a concept should inform future instruction and perhaps elicit a revisit of some material. For the student, understanding [what they know and what they don't know](#) should perhaps prioritize what material is covered during future studies.



‘Flashcards & visuals’

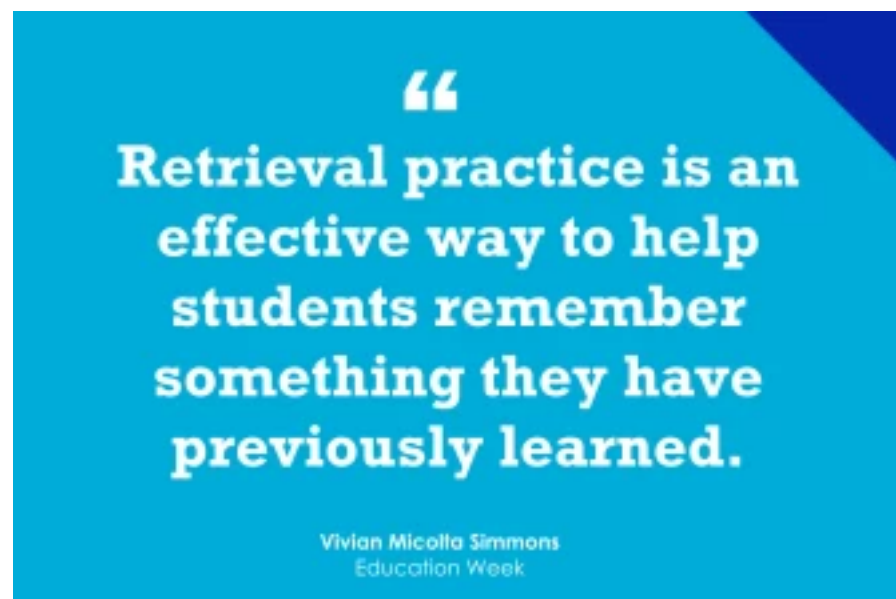
Vivian Micolta Simmons was born in Colombia and has been in the U.S. for seven years. She has been a teacher for 14 years and is currently working as a ESL/DLI lead teacher for the Iredell-Statesville schools in N.C:

There are three main processes involved in human memory: encoding, storage, and recalling (retrieval). As teachers, we are continually seeking ways to help our students learn new information and remember it to create meaningful new memories and make them a part of their long-term learning.

Retrieval practice is an effective way to help students remember something they have previously learned to make new connections and boost learning. I think this is a great way to start a class and “break the ice.” There is nothing more meaningful than creating stronger memories while learning. Examples of retrieval practices that I have used in class include concept maps and graphic organizers—individually and in groups—which will involve students with the lesson and concepts taught, flashcards and visuals, writing prompts, and practice activities like songs.

When I talk about songs, I think about sites like Flocabulary, where concepts are taught with catchy rap songs. These are a fun way to introduce a lesson or as a warm-up for a follow-up session.

When I think about teaching and learning, and explicitly recalling information, I often like to revisit a quote attributed to various people: “tell me, and I forget, teach me, and I may remember, involve me, and I will understand.”



Working With ELLs

Luiza Mureseanu is an instructional resource teacher-K-12, for ESL/ELD programs, in the Peel District School Board, Ontario, with over 17 years of teaching middle and high school students in Canada and Romania.

Retrieval practice is an excellent method I like to use in various domains of teaching language, but I use it particularly for building up fluency and oral-language skills. It works well with all ELLs on various levels of language acquisition because it is flexible and easy to adapt.

For example, students have a few familiar topics they use every week for short speaking activities that takes 15 to 20 minutes of class time. For example, every Monday, students are expected to talk about their weekend. They all have to respond to the same prompt/question in about two minutes. The question is very open-ended: *How did you spend your weekend? Tell me something interesting about your weekend.* They take turns to answer and build fluency. Each session will have a different focus on the words they need to retrieve, revisit, and retain.

One time they might select all action words (verbs) and build lists and banks of words. They will use the selected words to learn more about vocabulary, tenses, differences between regular and irregular verbs, spelling. Once this task is completed, they can focus on another bank of words, nouns and adjectives, and focus on descriptive language.

Teaching Students The ‘Why’ Behind It

Dr. Donna Wilson is a psychologist and author of 20 books, including Developing Growth Mindsets, Teaching Students to Drive Their Brains, and Five Big Ideas for Effective Teaching (2nd Edition). Dr. Wilson can be reached at donna@brainsmart.org; visit her website at www.brainsmart.org.

Diane Dahl has been a teacher for 13 years, having taught grades 2-4 throughout her career. Mrs. Dahl currently teaches 3rd and 4th grade GT-ELAR/SS in Lovejoy ISD in Fairview, Texas. Follow her on Twitter at @DahlD, and visit her website at www.fortheloveofteaching.net:

Exciting new research conducted over the past decade places retrieval practice squarely within a group of powerful learning and memory strategies that can help to transform student achievement! Simply put, retrieval practice is the act of trying to recall information without having it in front of you.

Traditionally, teachers have worked long and hard to download lots of information into young brains—that is, to teach so that students encode knowledge into long-term memory with tools such as lecture and review sheets. In the past, it has been said that when such methods were used, teachers

often learned more than the students because they were working hard while students were passive recipients of knowledge.

Now we know that retrieval practice works as a way for students to actively work their brains, enhance knowledge, and access what they have learned. In other words, retrieval practice helps students to bring information front of mind as a way to boost learning. When information is deliberately recalled, students learn to pull out knowledge and see what they know.

Active retrieval practice is most effective when students understand the “why” behind it. Mrs. Dahl uses various methods to teach students how the brain learns and connects new knowledge to existing knowledge. Once learners have a grasp on the concept, Mrs. Dahl shows students a city map and asks them to focus on a two-block section. They spend considerable time discussing street names and landmarks. Finally, Mrs. Dahl puts the map away, and students are asked to work together to write down how to get *to* the area on the map. Students are inevitably flummoxed and point out that they were only able to study a small section of the map. That’s when Mrs. Dahl has them!

Comparing a road map to connections in the brain, kids discover that studying only a small section of a map is just like reinforcing a small section of neurons in the brain. It doesn’t matter how well you were able to recall the small square of map/neurons if you don’t know how to access it. This is often a watershed moment for learners and revolutionizes how they look at learning and studying. Foundational retrieval practice reinforces the “why” behind the practice and becomes part of the language of the classroom.

Educators can boost learning and help recall by leveraging short, informal preteach quizzes combined with meaningful interaction of content. For example, Mrs. Dahl’s 4th grade study of events leading up to the Mexican-American War begins with a three-question quiz. The first question is on connected content students already know, while the last two are based on content to be learned. Since brains are primed to learn after a mistake, students tune in to see if their answers were correct and thus are more likely to remember the information. Once the content has been presented, collaborative groups apply their new understanding to analyze the ethics of events leading up to the war from the points of view of both Mexico and the United States. This activity purposefully stretches students’ thinking in a meaningful way and boosts their future retrieval of knowledge. Success is evident by the informal questioning of kids as they enter class the next day and their application of what they learned in future projects.

Music should not be overlooked as a powerful tool for retrieval practice. This was brought home to Mrs. Dahl after watching her 3rd graders struggle year after year with subject-verb agreement on the district benchmark. After watching the [Music Notes](#) video on subject-verb agreement, the kids not only begged for more, but the rate of correct answers on the benchmark went up. As a result, music

has been used as an intentional retrieval tool in the classroom ever since.

Thanks to Blake, Vivian, Luiza, Donna, and Diane for their contributions!

Please feel free to leave a comment with your reactions to the topic or directly to anything that has been said in this post.

Consider contributing a question to be answered in a future post. You can send one to me at lferlazzo@epe.org. When you send it in, let me know if I can use your real name if it's selected or if you'd prefer remaining anonymous and have a pseudonym in mind.

You can also contact me on Twitter at [@Larryferlazzo](https://twitter.com/Larryferlazzo).

Education Week has published a collection of posts from this blog, along with new material, in an e-book form. It's titled [Classroom Management Q&As: Expert Strategies for Teaching](#).

Just a reminder; you can subscribe and receive updates from this blog via [email](#) (The RSS feed for this blog, and for all Ed Week articles, has been changed by the new redesign—new ones won't be available until February). And if you missed any of the highlights from the first nine years of this blog, you can see a categorized list below.

- [This Year's Most Popular Q&A Posts](#)
- [Race & Racism in Schools](#)
- [School Closures & the Coronavirus Crisis](#)
- [Classroom-Management Advice](#)
- [Best Ways to Begin the School Year](#)
- [Best Ways to End the School Year](#)
- [Student Motivation & Social-Emotional Learning](#)
- [Implementing the Common Core](#)

- [Facing Gender Challenges in Education](#)
- [Teaching Social Studies](#)
- [Cooperative & Collaborative Learning](#)
- [Using Tech in the Classroom](#)
- [Student Voices](#)
- [Parent Engagement in Schools](#)
- [Teaching English-Language Learners](#)
- [Reading Instruction](#)
- [Writing Instruction](#)
- [Education Policy Issues](#)
- [Assessment](#)
- [Differentiating Instruction](#)
- [Math Instruction](#)
- [Science Instruction](#)
- [Advice for New Teachers](#)
- [Author Interviews](#)
- [Entering the Teaching Profession](#)
- [The Inclusive Classroom](#)
- [Learning & the Brain](#)
- [Administrator Leadership](#)
- [Teacher Leadership](#)
- [Relationships in Schools](#)
- [Professional Development](#)
- [Instructional Strategies](#)
- [Best of Classroom Q&A](#)
- [Professional Collaboration](#)
- [Classroom Organization](#)
- [Mistakes in Education](#)
- [Project-Based Learning](#)

I am also creating a [Twitter list including all contributors to this column](#).

Related Tags:

Teaching Strategies

The opinions expressed in Classroom Q&A With Larry Ferlazzo are strictly those of the author(s) and do not reflect the opinions or endorsement of Editorial Projects in Education, or any of its publications.

Add a display name [here](#) to be able to comment with EdWeek.

0 Comments

EdW

 Disqus' Privacy Policy

1

Login ▾

 Recommend

Sort by Oldest ▾



Start the discussion...

LOG IN WITH

OR SIGN UP WITH DISQUS 

EdW

LOG IN TO COMMENT

Name

Email

Password

Please access our [Privacy Policy](#) to learn what personal data Disqus collects and your choices about how it is used. All users of our service are also subject to our [Terms of Service](#).

➔

Be the first to comment.

We encourage lively debate, but please be respectful of others. Profanity and personal attacks are prohibited. By commenting, you are agreeing to abide by our [user agreement](#). All comments are public.

CLASSROOM Q&A WITH LARRY FERLAZZO



TEACHING & LEARNING OPINION

Thirteen Instructional Strategies for Supporting ELL Newcomers

Five educators share effective instructional strategies to use with English-language-learner newcomers, including using images and games.

Larry Ferlazzo, February 23, 2021 • 17 min read

TEACHING OPINION

Six Strategies I Apply to Make My Distance Learning Classes Not Terrible

Larry Ferlazzo shares the six key strategies he's using in his distance learning classes, including developing student-leadership teams.

Larry Ferlazzo, February 16, 2021 • 10 min read



SCIENCE OPINION

Ten Culturally Responsive Teaching Strategies for the Science Classroom

Four teachers share how they implement culturally responsive instruction in their science classrooms.

Larry Ferlazzo, February 14, 2021 • 13 min read



MOST POPULAR STORIES

ASSESSMENT

States Still Must Give Standardized Tests This Year, Biden Administration Announces

Andrew Ujifusa, February 22, 2021 • 3 min read



TEACHING PROFESSION

Teachers Are Stressed Out, and It's Causing Some to Quit

Madeline Will, February 22, 2021 • 7 min read



[STATES](#) [INTERACTIVE](#)

Where Teachers Are Eligible for the COVID-19 Vaccine

January 15, 2021 • 2 min read



RELATED

TEACHING OPINION

Implementing 'Multiple Career Pathways to Engage All Learners'

Larry Ferlazzo, February 10, 2021 • 13 min read



RESOURCES

SPONSOR **PRIVACY & SECURITY** SPONSOR

How Public K-12s Can Bolster Their Cyber Defenses

Content provided by CIS - Center for Internet Security

SPONSOR **PRIVACY & SECURITY** SPONSOR

How Public K-12s Can Defend Against Today's Cyber Threats

Content provided by CIS - Center for Internet Security

EVENTS

FEB

24

WED., FEBRUARY 24, 2021, 2:00 P.M. - 3:00 P.M. ET

EARLY CHILDHOOD LIVE ONLINE DISCUSSION

The Impact of the Coronavirus on Early-Childhood Learning

Join Peter DeWitt and his guests on A Seat at the Table as they discuss the implications of coronavirus on early-childhood learning.

REGISTER

FEB

25

THU., FEBRUARY 25, 2021, 12:00 P.M. - 1:00 P.M. ET

SPONSOR RECRUITMENT & RETENTION WEBINAR

Recruiting and Retaining a More Diverse Teaching Workforce

We discuss the importance of workforce diversity and learn strategies to recruit and retain teachers from diverse backgrounds.

REGISTER

Content provided by EdWeek Top School Jobs

STUDENT WELL-BEING

WEBINAR

Boosting Teacher and Student Motivation During the Pandemic: What It Takes

Join Alyson Klein and her expert guests for practical tips and discussion on how to keep students and teachers motivated as the pandemic drags on.

REGISTER

See More Events

EdWeek Top School Jobs

Michigan Data Coach- (MGLVA)

Michigan, United States
[K12 Inc.](#)

Program Manager, State Solution Delivery

Portland, OR, US
[Northwest Evaluation Association](#)

Director of Education

Lexington, Kentucky
[Lexington Public Library](#)

Great Oaks AmeriCorps Fellow August 2021 - June 2022

New York City, New York (US)

[Great Oaks Charter Schools](#)

Load More ▼

READ NEXT

TEACHING OPINION

Being a Teacher Means Talking About Sensitive Social Issues. Here's How

You can set the stage for conversations that benefit all students, writes a team of researchers and practitioners.

Laura Brady, Stephanie Fryberg, Hazel Rose Markus, Camilla Griffiths, Jenny Yang, Perla Rodriguez & Laura Mannen-Martínez

• 5 min read

TEACHING OPINION

Learning Means Changing Your Mind

Teachers can help students acquire the skill of uncertainty, writes Katherine Burd.

Katherine Burd • 5 min read

TEACHING OPINION

Nine Strategies for Promoting Student Engagement

Five educators discuss how to maximize engagement, including the importance of understanding student motivation in and out of the classroom.

Larry Ferlazzo • 18 min read

TEACHING OPINION

Why Teamwork in Class Builds Competence and Confidence

When students have real-world problems to solve and incentives to work with each other, their self-efficacy grows.

Angela Duckworth • 2 min read

Load More ▼

Subscribe for Complete, Immediate Access

Get always-fresh news, analysis, best practices, and proprietary research. Enjoy immediate access on every device, and be ready to dive into a full library to build your expertise.

SUBSCRIBE NOW

ABOUT US	CONTACT US	GET EDWEEK	DO BUSINESS WITH US
Our Organization	Letters to the Editor	Subscriptions	Advertising & Marketing Solutions
Our History	Help/FAQ	Newsletters & Alerts	Recruitment & Job Advertising
Our People	Customer Service	Group Subscriptions	K-12 Market Intelligence
Careers at EdWeek	Contact the Newsroom	Content Licensing & Permissions	Custom Research