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Insights for educators from the Center for Teaching and Learning

February 2023

Happy Mardi Gras!

Centenary's campus has been so lively this month – I hope this newsletter reaches you in some state of relaxation or celebration. In this issue, our first guest contributor, [Patrick Morgan](#), recommends tools for discovering open educational resources and open access, peer-reviewed research. Our main feature offers advice for incorporating retrieval practice as an active learning strategy. Throughout, you'll find links to practical applications, sample materials, and recent research.

If you have questions or an idea for future content, please reach out!

Sincerely,

[Rachel E. Johnson](#)

Director of the Center for Teaching and Learning

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1 – (Short) Reading Recommendation

[From Pandemic to Endemic Pedagogy: Being CLEAR in our Teaching](#) by Peter Felten

Published in [New Directions for Teaching and Learning](#)

In this quick and engaging read, Felten makes the case that both the disruption of the COVID-19 pandemic and the death of George Floyd have left an indelible mark on teaching and learning in higher education. He argues that the greatest lesson imparted by these two traumas is that “learning and well-being are inextricably linked” (p. 41). To outline a vision for the future, he proposes that endemic teaching and learning should be guided by: **C**ontext, **L**earning, **E**quity, **A**gency, and **R**elationships.

Peter Felten is author/co-author of several important works of higher education research including [Relationship Rich Education](#) and [The Undergraduate Experience](#). He serves as Assistant Provost for Teaching and Learning, Executive Director of the Center for Engaged Learning, and a professor of history at Elon University.

8 – Steps to Incorporate Retrieval Learning Strategies in Class

Retrieval is an [evidence-based learning strategy](#) where students are prompted to recall information from memory and demonstrate their knowledge. This helps students test whether they truly know something and identify/address gaps in learning. Retrieval practice involves a [struggle to activate and apply previous learning](#). When students engage with that struggle, especially over time, they retain more information. You can use this in the classroom as a tool for active learning. Before you get started, here are eight things to keep in mind.

Start by setting a positive tone.

[Make sure students understand your intentions](#). Many students become anxious at being evaluated, especially in front of others. If you want students to engage enthusiastically and challenge themselves, [create a positive climate](#) where they understand your goals. Try offering an accessible explanation of the [cognitive science](#) behind retrieval practice or [disguising a practice session as a game](#). Encourage students to adopt a [growth mindset](#), trusting that the effort they expend will result in improvement.

Decide how students will participate.

Avoid situations where only a few students participate and/or dominate by developing activities where **all students** have mechanisms for engagement. Try [low tech](#) options like having students respond to questions by simply raising their hands to vote or distributing index cards representing specific answer choices. Want to gather information from students quickly and anonymously? Try tools that leverage the ubiquity of smart phones (e.g., [Poll Everywhere](#), [Slido](#), [Mentimeter](#)). Clear structures for participation promote inclusion and ensure more students benefit from the practice.

Consider “desirable difficulty.”

A [desirable difficulty](#) is a learning task that is difficult yet still achievable. A task that’s too easy will not activate processes required for retention and transfer. Difficulty and increased effort may initially slow learners down, but in doing so, will “trigger encoding and retrieval processes that support learning, comprehension, and remembering” ([Bjork & Bjork, 2011](#)). Start by considering what background and skills your students already have. What can they draw on? What connections are feasible? What challenges can be overcome? What is outside of their current scope of knowledge?

Consider timing and frequency.

It’s important that students have already encountered the information you are testing, but effort or struggle is also essential, so information that students have *just* encountered (e.g., in

the same class period) may be too easy. Challenge students to [recall and apply concepts](#) from a previous class period or unit. Even if you've already tested students on something, return to it. The more students practice retrieving information the more they strengthen connections and improve long-term memory (see [Small Teaching by James Lang](#)).

Create mechanisms for feedback.

Students need [accessible feedback](#) to understand what they do and don't know. [Share correct information](#) so students can evaluate their progress. This can be as simple as a brief in class discussion or handout. *Remember:* You don't always have to be the source of feedback. Engage students in teaching each other to free up more of your time and attention. You might offer some form of reward or recognition to students who create an answer key or write explanations (see the final step in this section for more on peer-led learning).

Emphasize reflection and metacognition.

How do we ensure that students are using feedback to update their understanding? We need to get students [thinking about thinking](#). A tried-and-true strategy is structured reflection. Many instructors use simple exit tickets: What's one thing you learned today? What did you struggle with and how did you overcome it? What misconceptions did you have going into this lesson? What do you need more practice with? Have students [keep a journal](#) throughout the semester to record important learning milestones and note successful strategies.

Vary your content and questions.

Help students practice a variety of thinking skills. Posing simple multiple-choice questions works well for testing students' knowledge of facts or concepts. Aiming for higher order thinking? You can alter the format of your evaluations. Challenge students to explain their answers or try a case study approach to help students synthesize responses to complex situations. Want to kick it up a notch? Design a [continuous case study](#) where your students return to the same case and, over time, encounter more and more layers of difficulty.

Incorporate peer-led learning.

Combining retrieval practice with the [high impact practice](#) of cultivating learning communities [can enhance both learning and belonging](#). Have students create supplemental course materials to test each other. [A free tool called PeerWise](#) allows students to write practice questions (and answers) in a shared course database that you manage. Students can organize questions by topic, write explanations, ask follow ups, and rate the difficulty of each other's questions. You can incentivize contributions through extra credit or by creating a [peer teaching assignment](#).

2 – Resources for OER Discovery

Contributor: [Patrick Morgan](#) (Director of Library Reference and Instruction)

“...no matter how good information may be, it only has value when it can be found.”

Chris Powter

Open educational resources (OER) are teaching, learning, and research materials in the public domain or published under an open license allowing users to reuse, adapt, remix, modify, and/or share with few restrictions. Many educators have adopted OERs in place of traditional textbooks and other course materials to [reduce costs and increase accessibility](#). If you're interested in doing the same, here are some places to start your search.

LOUIS OER Commons

Have you visited the [LOUIS Open Education Resources Commons](#) recently? This is a great tool for discovering OERs in a range of content types, including over 1700 full textbooks, 1000 course modules, and nearly 2500 full courses. This user-friendly site allows you to browse or search through a variety of content types and find links to more resources.

CloudSource OA

Looking for a quick way to search thousands of open access publications? Look no further than [Magale Library's homepage!](#) You know that our website is the place to begin your research, right from our powerful Omnia search box, but have you noticed the tabs above the search box? These tabs give you the ability to tailor your search to specific parts of our collection. You'll see one labeled "Open Access" on the search box's far right; following the link you find there will take you a familiar-looking [search interface dedicated entirely to open access publications](#), including peer-reviewed articles from the likes of Elsevier, recently published monographs, and even textbooks.

5 – Essential Ways of Knowing by Ben Harley and Mays Imad

This piece was published in *Inside Higher Ed* in August 2022 just as the new fall semester began. I wanted to bring it to your attention in case you missed it in the shuffle.

When developing learning goals, our central question should be, “What do I want to be true about my students as a result of this experience?” We know that students will need a variety of skills to succeed in [a 21st century job market](#) and to lead [productive lives of vitality and purpose](#). Harley and Imad challenge us to “think *beyond* critical thinking” as the primary capability of a college graduate. While acknowledging the importance of learning to “evaluate data, make connections, and draw conclusions in a rational and unbiased manner,” they advocate for attention to other critical skills. [Read their case for developing students more holistically toward critical feeling, critical imagination, critical engagement, critical being, and critical thinking.](#)

Interested in learning more about connecting assessments to students’ sense of meaning and purpose? Check out these two upcoming teaching circle meetings:

Creating Authentic Assessments

Thursday, Mar 2 at 4pm

Authentic assessments evaluate students’ ability to transfer knowledge and skills gained in the classroom to real-world contexts, scenarios, and situations. They focus on challenging students toward higher order thinking and [act as tools of engagement](#). We’ll break down the features of authentic assessments and apply them to our own courses.

Learning in the Age of AI: Course and Assignment Design

Thursday, Mar 30 at 4pm

How can we accurately measure what students are learning? How can we craft assignments that engage our students’ creativity? What should we change about our current practice? What should we keep? Using the [5 Essential Ways of Knowing](#) as a framework, we’ll collaborate to imagine new ways to challenge our students and grow their interdisciplinary skills.