



## PREDICTING BENEFITS LEARNING

You are about to begin your class, and decide to present students with a dilemma based on the topic of the day. It is an issue they might be better able to weigh in on after you've taught your lesson, but you decide to challenge them beforehand, encouraging how and why questions...or, maybe you choose to present a problem that they cannot yet solve, requiring them to make predictions about the outcome. Activities like this are excellent for engaging students and generating interest. However, they also have a **potent impact on learning**. It turns out that it is even more beneficial if their initial predictions are *incorrect!*

Activating prior knowledge is a useful instructional tool that requires students to search for memory traces, and cue up information from long-term memory. It is critical in our quest to help them connect new knowledge to that which they already know. **Making predictions, before experiencing new information** increases the opportunities for the kinds of connections that comprise real learning.

Using prediction during instruction

is a common practice across the education spectrum, but it has only been recently that researchers are attempting to understand its mechanisms. While the strategy has the benefit of activating prior knowledge, it is now believed that **retrieval practice alone does not explain the benefits** of making predictions. Interestingly, [Brod \(2021\)](#) proposes that "predicting [also] boosts surprise about ensuing answers, which leads to enhanced attention to the correct answer, and strengthens encoding."

[As we've pointed out previously](#) (and again later in this issue) leveraging the **attention** of our students, so that they focus on the right things, at the right time, is critical for learning. Making predictions appears to aid this focus on the correct pieces of information, especially if we recently predicted a different outcome.

In his practical book, **Small Teaching**, James Lang provides several simple tools that teachers can use to have students make predictions. These include individual or group "knowledge dumps," using pre-quizzes, employing classroom polling, asking for predictions about new content based on knowledge from

earlier instruction, and ending a class with predictions about upcoming homework. Lang further guides us to keep these activities focused on conceptual knowledge, immediately provide feedback on predictions, and **require the effort to think** deeply. There is a bit of nuance here. The benefit of these activities is best realized when (a) we can draw upon something we already know, (b) receive immediate feedback on our predictions, and (c) work hard at thinking; that is, be effortful in our attempts to connect what we know to the new problem or idea.

We encourage you to place your students in the position of making predictions. We can help you refine the practice, and would [love to hear](#) about how you are implementing this strategy.

Supporting Students with Mental Health Needs: A Conversation.  
October 20th, 12:30 - 1:30  
Student Union - Music Room

Please join Professional Counselor, Morgan Churchill, the CAA, and the DLSI in this important conversation.

If you were unable to join us for our previous workshop, here are [our top strategies for supporting students with learning disabilities](#).



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## ENGAGING PRACTICES ON CAMPUS

**Denise Femia, Assistant Professor, Department of Chemistry and Biochemistry, shares:**

"Organic chemistry requires *practice*." This statement has appeared on my syllabi since I began teaching the topic. However, it has been a challenge to get students to utilize the ungraded "suggested textbook problems", despite my insistence that they provide the practice needed before the exam.

One commonly cited issue was that not all of the "correct" answers were available in the book, so how could they check their work? My initial response was to suggest bringing the problems to office hours. My answer has since changed. I now employ more opportunities for students to practice their skills through **low-stakes assignments, with feedback** they can learn from for future assignments.

One such strategy with multiple beneficial outcomes is the use of **Organic Learning Communities** (OLCs). Students form groups of 3-4 that meet once a week for an hour (virtually or in person) to work on about 5 suggested textbook problems related to material we are covering in lecture. They submit their worked problems and a brief reflection on how the meeting affected their understanding of the topics. I then provide corrections to their submitted work, similar to a graded assignment or exam. Their OLC grade is completion-based, so

it is a free opportunity to make mistakes, and learn from them, in time for higher-stakes assignments such as exams.

The OLCs work as envisioned—student performance has improved overall. In addition, students' reflections highlight beneficial camaraderie and support they get from working through problems together. Another advantage for students who may be intimidated by meeting one-on-one during office hours, is that they can instead meet with me along with their OLC to have their questions answered.

## WHAT IS OER?

Increasingly, students are facing a troubling dilemma: should personal funds be allocated for basic needs, like food and living expenses, or should textbooks and course materials take priority? As early as the 1970's, educators began responding by developing low and no cost curricular materials, and the concept of **open education resources** (OER) was born. More recently, the dramatic cost increases for textbooks and course materials has given the concept significant renewed momentum.

La Salle's OER working group was formed in August 2022, and joined [AAC&U's OER Initiative](#), to help us better understand the OER landscape. An action plan was developed, and the group recently expanded to include representation from across the university. **You will hear more**, as they seek to inform and support those of you who wish to incorporate OER into your own

courses and scholarship.

You may already be familiar with the term **open access**, which includes, text, video, software, and research articles. These items are available for anyone to freely use, but *may not be altered or redistributed*, as the copyright holder maintains authority.

**OER**, on the other hand, reside in the public domain, and are free for anyone to **use, alter, and/or tailor to a specific situation, make freely available for students and colleagues, and redistribute** with attribution. OER includes any materials used for teaching and learning, such as texts, lessons, activities, software, and videos.

Also appealing, are the opportunities presented by OER enabled pedagogy or **open pedagogy** to improve teaching, learning, and the materials we use. For example, it is an excellent way to update instructional materials to represent the cultural diversity of both the field being studied, and the student community. Using and/or creating OER also positions us to deeply consider our own pedagogy, and make better use of evidence-based practices. There are also opportunities to engage students in the development of OER, creating a better educational experience for the next class of students, then making that work freely accessible to anyone who might benefit.

[The Connelly Library lib guide](#), and our [ID Team training hub](#) can help you get started, and you also might find [CUNY's OER Starter Kit](#) useful.

Another prediction activity: Before students arrive in class, project a picture, phrase, problem, or vignette with the questions “What do you notice?” and “What do you wonder?” As students arrive they can think, jot a note or draw a picture.



### MIX IT UP TO MAINTAIN ATTENTION

Our students have incredible demands on their attention. Their minds are on academics and finding pathways to envisioned careers, negotiating social interactions, and fostering relationships that are so important for young adults. For some, physical and mental health issues are foremost, while for others issues of equity and fairness tug at their attention. Many are preoccupied with where to find their next meal, or whether they will be able to pay the next tuition bill. Our students come to class, we launch into our planned lesson, and perhaps wonder, [why can't they just pay attention?](#)

Attention to the right things, at the right time is critically important for learning, but it is tricky to assess. Even when students appear to be looking right at us, and responding to our prompts, their [minds might be wandering](#). It is often difficult for them to understand what really deserves their attention. For many students everything seems important, and that can lead to ineffective learning and studying strategies, like highlighting too much, mindlessly re-reading, or feeling like everything needs to be remembered in time for an exam.

There is quite a bit of research on the topic of attention, and several fairly easy to employ strategies that can dramatically improve attention in our classrooms. It begins with building a comfortable classroom climate, which rests upon interpersonal relationships, then working hard to make sure our students are actively engaged during class. Questioning, problem solving, and analysis, especially when students are asked to work with one another, are helpful approaches. Models of excellence are also useful so that students can begin to understand where to focus.

Bunce, Flens, and Neils (2010) conducted a study of inattention in three different chemistry courses,

which resulted in [some interesting findings](#). The implications are clear. When we **mix it up**, or employ a variety of teaching and learning strategies within a class session, we have a better chance of *retaining* student attention, and/or *regaining* the attention of students whose minds are wandering.

[Active learning](#) tools provide us with opportunities for refocusing and re-engaging students. Central to any of these strategies, is that it is up to us to **make the most important points as salient as possible**, so that our students are attending to the right things at the right time.

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### THE TEACHER'S SPIRIT

**Br. Don Alger, Instructor, Department of Chemistry and Biochemistry**

We have in our memory the ways of a teacher who inspired us to *become wise* (c.f. Prov 9:9). In their own way, they might have saved us from our own selves. We remember foremostly the **kindness and affection** those teachers had for us, especially when learning became challenging. This affection toward students confided to our care must spring from our own charity, and by which we might draw students toward their salvation (c.f. Med. 101.3).

Motivated by practicability, de La Salle contemplated that *salvation* must allow us and our students to ask interiorly “am I better this hour than last?” or “am I better today than yesterday?” This contemplation moved de La Salle to imbue the “street urchins” of 17<sup>th</sup> century France with a sense of life purpose from which they might be rescued from idleness or poverty – the very ways these boys were far from salvation. Indeed, for de La Salle, the purpose of instruction is one's salvation in which the principal aim – God's glory – can take place in the learning spaces where teachers work to help students journey toward their salvation and, in the process, acquire theirs. For those who lead many to righteousness shall shine like stars for all eternity (c.f. Dan 12:3).

The DLSI Newsletter is written, edited, and curated by

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