

# Teaching Students to

## Learn While Learning

An Evidence-Based Approach to First-Year Retention

With a focus on structuring the first 30 hours like they  
matter – because they do.

February 4 – 5, 2026

Louisiana Board of Regents

Meauxmentum Summit IV

Lafayette, LA

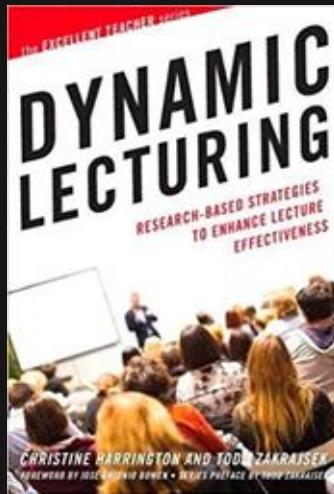
Todd Zakrajsek, Associate Professor

University of North Carolina at Chapel Hill School of Medicine &  
Director, Lilly Conferences on Evidence-Based Teaching and Learning

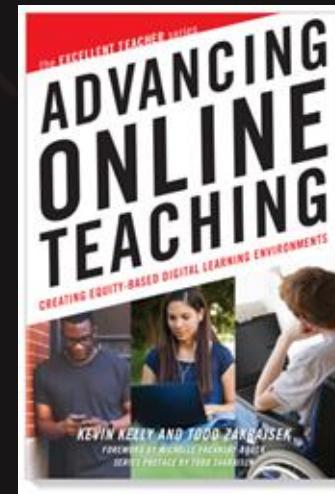
[toddzakrajsek@gmail.com](mailto:toddzakrajsek@gmail.com)



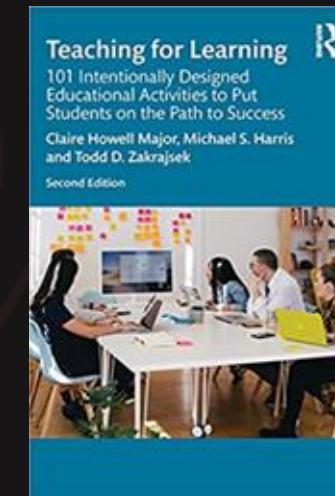
I strongly believe in looking at issues from multiple perspectives.  
And asking for assistance much more than I did early in my career.



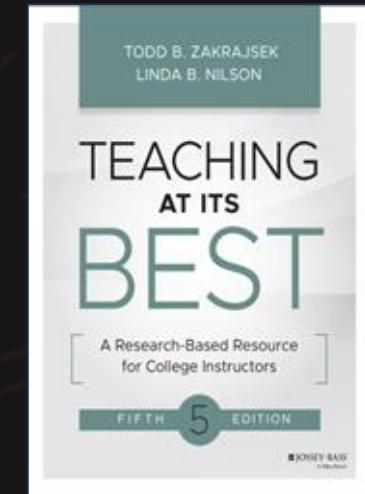
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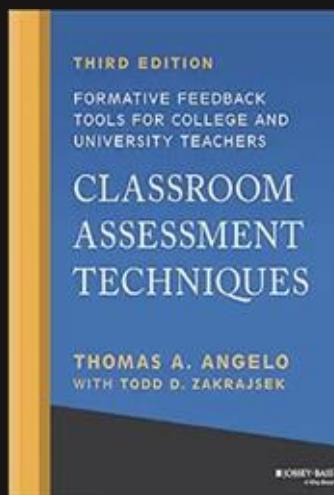
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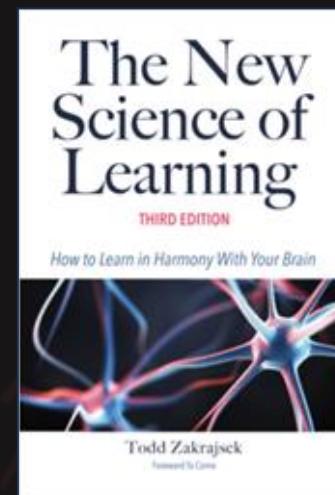
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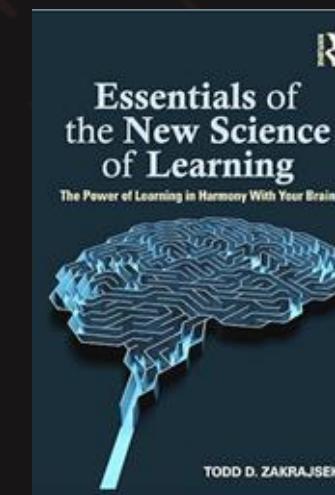
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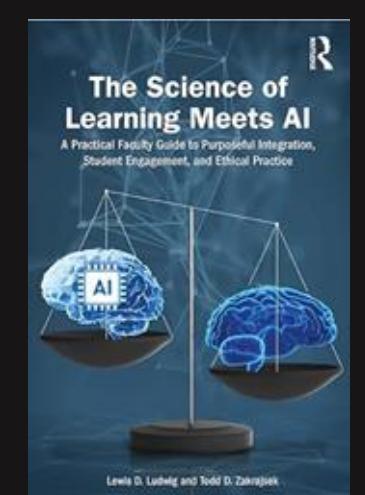
2023



2024



2025



2026

# Why This Workshop Matters

## The Challenge

Nearly 1 in 4 first-year college & University students do not return for their second year. We know opportunities in life decrease substantially for those individual.

## The Opportunity

The first 30 contact hours shape habits, beliefs, and momentum. We have the power to guide that trajectory so that the students not only survive ... they thrive.

## The Approach

This is a systems conversation, not a deficit model. We're building on what we already do—just more intentionally. I like to remind people that Appreciative Inquiry (building from your strengths) was the original AI.



# Why This Workshop Matters to Me

My Grades; First in Family to

Attend College; My First 30

Introduction to CJ      D-

Hours

Physics

F

Calculus

F-

Chemistry

F--

Psychology -



# This Topic Matters to Me Because it Changed My Life

## From Struggle to Understanding

I was a solid high school student. Within the first 30 hours I thought that although I was a good high school student, I wasn't smart enough to be a college student.

I also now know that if I had flunked out, the faculty would have blamed me for it. That group of 25% of the students dropping out contain some excellent students.

My life changed more than I realized when an adviser told me that I needed to learn *how learning actually works*.

I started getting better grades with LESS work.

That single shift changed everything: my grades, my confidence, my entire academic trajectory.



# My advisor told me about learning how to learn: Neither of us expected I would I built a career out of it.

Campuses for which I have facilitated a workshop or delivered a keynote.

The number of students faculty from these schools all together easily numbers in the millions.

I would have likely never done this with that one advisor.

## Alabama

Alabama Agricultural and Mechanical University  
Auburn University  
Bishop State Community College  
Samford University  
University of Alabama

## Alaska

University of Alaska Event in Valdez  
University of Alaska-Fairbanks

## Arkansas

Harding University  
University of Arkansas

## Arizona

AT Still University  
Northern Arizona University

## California

California Polytechnic State University - Pomona  
California State University - Monterey Bay  
California State University - Pomona  
Loyola - Marymount, CA  
Pepperdine University  
Riverside City College  
University of California - Berkeley

## Colorado

Regis University  
United States Air Force Academy

## Connecticut

Norwalk Community College  
Quinnipiac University  
Southern Connecticut State University  
Yale University

## Delaware

University of Delaware

## Florida

Adventist University of Health Sciences  
Bethune-Cookman University  
Daytona State College  
Florida International University  
LEACOM School of Pharmacy  
Nova Southeastern  
Seminole State College  
University of Central Florida  
University of Florida  
University of West Florida  
Valencia College  
Webber International University

## Georgia

Augusta University  
Bainbridge State College  
Berry College  
Brenau University  
Clark Atlanta University  
Dalton State College  
Emory University  
Georgia State University  
Georgia Tech University  
Life University  
University of Georgia  
University of Georgia System

## Hawaii

Hawaii Pacific University

## Idaho

Boise State University  
Northwest Nazarene University  
University of Idaho

## Illinois

College of Lake County (Webinar)  
DePaul University  
Eastern Illinois University  
Harper College  
Illinois State University  
Indiana University Purdue at Calumet  
McHenry Community College  
Northern Illinois University  
Roosevelt University  
University of Illinois

## Indiana

Indiana University School of Medicine  
Indiana University - Bloomington  
Indiana University-Fort Wayne  
Indiana University-Purdue Univ South Bend  
Indiana University-Southeast  
Indianapolis - STFM  
Ivy Technical College - Fort Wayne  
Ivy Technical College - Kokomo

## Iowa

Des Moines University  
Grandview University  
Iowa Western Community College  
Iowa State University  
Palmer College of Chiropractic  
Morningside College  
Northern Iowa State University  
Simpson College

## Kansas

Kansas State University  
AT Still University

## Kentucky

Bellarmine University  
Murray State University  
Northern Kentucky University  
University of Kentucky  
University of Louisville  
University of Western Kentucky

## Louisiana

Loyola University - New Orleans, LA  
Nicholls State University

## Maine

Husson University

## Maryland

Frostburg University  
National Institute of Health  
United States Naval Academy  
University of Maryland - College Park  
University of Maryland System

## Massachusetts

Bridgewater State University  
Massachusetts Institute of Technology  
Quinnipiac University  
Suffolk University  
Western New England University

## Michigan

Adrian College  
Baker Community College  
Central Michigan University  
Ferris State University  
Kettering University

Lake Superior State University  
Lansing Community College  
Michigan State University  
Michigan State University College of Osteopathic Medicine  
Mid Michigan Community College

Mott Community College  
Northern Michigan University  
Oakland University

Saginaw Valley State University  
Siena Heights University  
University of Michigan - Flint

Minnesota Minnesota State University - Mankato

St. Mary's University  
University of Michigan - Dearborn

Washtenaw Community College  
University of Buffalo

## Minnesota

Metropolitan State University  
University of Minnesota - Mankato

## Mississippi

University of Mississippi  
University of Southern Mississippi

## Missouri

Mercy Medical Residency Program, St. Louis  
University of Missouri - Kansas City  
University of Missouri - St. Louis

## Maine

Montana State University

## Nebraska

Creighton University - Omaha  
Union College - Lincoln Neb  
University of Nebraska - Lincoln

## Nevada

University of Nevada  
Nevada State University

## New Hampshire

Rivier University

## New Jersey

New Jersey Council of Community Colleges  
Middlesex County College  
Stockton University  
Rowan University

## New Mexico

Las Cruces High School  
New Mexico State University

## New York

Alfred College  
Columbia University  
Hobart and William Smith Colleges  
Hofstra University

Iona College  
Kingsborough Community College  
Marist College

Nassau Community College  
New School  
New York Medical College

Niagara University  
Rochester Institute of Technology  
SUNY - Alfred College

SUNY - Oneonta  
Suffolk County Community College

University of Buffalo  
West Point Military Academy

## North Carolina

Alamance Community College  
Appalachian State University  
Brevard College  
Duke University  
Durham Technical College  
Fayetteville State University  
Greensboro Technical College  
Highpoint University  
Impact Alamance  
Johnson & Wales University  
Louisburg College  
Mt. Olive University (Webinars)

## Montana

Montana State University

## Nebraska

North Carolina State University  
North Carolina Wesleyan College  
Rowan-Cabarrus Community College  
Shaw University

## Nevada

Southeastern Area Health Education Center  
UNC School of Medicine - AHEC  
UNC - Charlotte  
UNC - Chapel Hill

## New Hampshire

UNC - Greensboro  
UNC - School of Medicine

## New Jersey

University of Mount Olive (Webinar)  
Wayne Community College  
Wilkes Community College  
Wingate University

## North Dakota

City Valley State University

## Ohio

Christ College of Nursing & Health Sciences  
Columbus State Community College  
Cuyahoga Community College

Denison University  
Heidelberg University

## Kent

Kent State  
Kenyon College

Kingsborough Community College

Marist College  
Nassau Community College

New School  
Ohio University at Ironton

New York Medical College  
Niagara University

Rochester Institute of Technology  
SUNY - Alfred College

SUNY - Oneonta  
Suffolk County Community College

University of Buffalo  
West Point Military Academy

## Oklahoma

Oklahoma University Health Sciences Center

University of Central Oklahoma

## Oregon

Pacific University - College of Optometry

University of Oregon

Southern Oregon State University

## Pennsylvania

Bloomsburg University  
Drexel University  
Edinboro University of Pennsylvania  
Gannon University  
Harrisburg Area Community College  
Indiana University - Pennsylvania  
Lycoming College  
Northampton Community College  
Pennsylvania State University  
St. Joseph's University - Philadelphia  
Temple University  
Thomas Jefferson University - Philadelphia  
Villanova University  
York College of Pennsylvania

## Rhode Island

University of Rhode Island

## South Carolina

Clemson University  
Florence-Darlington Technical College  
South Carolina State University  
South Central Technical College  
Tri-County Technical College  
University of South Carolina

## South Dakota

South Dakota State University  
South Dakota State University - Sanford School of Medicine

## Tennessee

East Tennessee State University  
Lee University  
Rhodes College  
Tennessee Tech University  
University of Tennessee - Chattanooga

## Texas

Alamo Colleges  
Blinn College  
College of Mainland  
Fort Sam Houston  
Lonestar Community College (Web - Keynote)  
Lonestar Community College  
Palo Alto College  
Parker University  
Rice University  
Sam Houston State University  
South Texas State College  
Southern Methodist University  
Texas Christian University  
Texas Tech University  
University of Mary Hardin - Baylor  
University of Texas - Commerce  
University of Texas- San Antonio

## Utah

Weber State University  
Utah Valley University  
Brigham Young University

## Virginia

George Mason University  
Jefferson College of Health Sciences  
Liberty University  
Liberty University College of Osteopathic Medicine  
Lynchburg College  
Mary Baldwin University  
Northern Virginia Community College  
Randolph Macon Women's College  
Virginia State University  
Virginia Community College System  
University of Virginia  
University of Virginia - School of Medicine

## Vermont

Northern Vermont University

## Washington

Bellevue College  
Bill & Melinda Gates Foundation  
Tacoma Community College  
University of Washington

## Washington, DC

George Washington University

## Wisconsin

Chippewa Valley Technical College  
Herzing University (Webinar)

## West Virginia

Fairmont State University  
University of West Virginia

## Wyoming

University of Wyoming  
(291 not counting countries below))

**Due to space countries listed without institutions.(see [toddzakrajsek.com](http://toddzakrajsek.com))**

## Austria

## Canada

Brunei-Darussalam

## Germany

## Hong Kong

## Ireland

## Jamaica

## Macau

## Saudi Arabia

## Scotland

## Sweden

## United Kingdom



CORE PROBLEM

When were you first asked to demonstrate learning (e.g., tests, quizzes, papers)

When were you taught how to learn how to learn?

We expect students to learn and produce information about what and why, but we rarely teach them how.

A vast majority of us learned how to learn through trial & error, implicit assumptions, and advice from individuals who are not educators trained in learning, memory, and cognition. They develop ineffective study habits. Without learning the how along with the what and why many students struggle. Because they don't know learning involves struggle for most everyone at times, they interpret their struggle as failure. They disengage when momentum matters most.



# Advising Happens By Design—Or By Default

1

## The Hidden Truth

The most influential advising in the first semester doesn't happen in an advisor's office. It happens inside courses—especially in the first few weeks.

2

## The Reframe

Every interaction, assignment, and piece of feedback is already the process of advising students about how to approach learning, persistence, and belonging.

3

## The Invitation

I'm not asking you to do something extra. This is an invitation for you to make what you're already doing more intentional and more powerful.

# The First 30 Contact Hours

1

Week 1-2

**Habits form:** How do students approach reading, note-taking, and preparation?

2

Week 3-4

**Beliefs solidify:** Does struggle mean failure, or is it part of learning?

3

Week 5-6

**Momentum begins:** Students either build confidence and capacity—or start to disengage.

This window is critical. What happens here and compounds throughout the semester, impacting whether students return next year.



# Some of the Most Important Advising Pertains to:



## Hidden Curriculum and Implicit Messages

Whether we intend it or not, advisors and course instructors answer critical questions for first-year students:

- **Do I belong here?** Am I the kind of person others will accept as I am?
- **Can I use my phone to take notes?** What technology is allowed?
- **How much effort is enough?** What does preparation really look like?
- **Is there a point at which I should drop a course?** Is this worth the investment?
- **What is the appropriate amount to talk in class?** What are expectations nobody tells you about?
- **How much help from AI can I legitimately use in this class?** How do I keep from getting into trouble?
- **A few others?**



LEARNING SCIENCE

# Just Enough to Be Useful

❑ I'm not going to try to teach you a what we know about the human brain with respect to learning. I am going to touch on a few topics that tend to have a strong impact on students learning how to learn that you can use to help them in those critical first 30 hours.



# Learning Feels Hard at times Because It Is



## Productive Struggle

Effortful thinking—the kind that feels challenging—is exactly what builds durable learning. Ease during study often signals shallow processing. Bjork studied desirable difficulties for many years.



## The Misinterpretation

Students who don't know this misread difficulty as evidence they don't belong or aren't "good at" the subject. They give up instead of leaning in.



## The Advising Move

Normalize struggle early and explicitly. Frame difficulty as a sign learning is happening, not a signal something is wrong.

## Expectations and Understanding of Value of the Effort

People run and work out expecting to expend energy. Here, no pain no gain. Classroom motto?

# Retrieval Builds Memory Better Than Rereading

## The Science

Attempting to recall information—even imperfectly—strengthens memory far more effectively than passively reviewing material. This is called the **testing effect**.

## What Students Often Do Instead

Most students reread notes and highlight text because it *feels* productive. But familiarity isn't the same as retrieval strength.

## The Consequence

Every practice opportunity we design is advising students about how to study. Low-stakes quizzes, reflection prompts, and practice questions teach retrieval—if we frame them that way.





(a)



(b)



(c)



(d)



(e)



(f)



(g)



(h)



(i)



(j)



(k)



(l)



(m)



(n)



(o)

Students need to be told that it is natural for our brains to learning a bit too

# Help Students to Recognize that Beliefs Shape Persistence More Than Ability

## Mindset and Self-Efficacy Matter

Those who believe intelligence is fixed disengage faster when challenged and find feedback as criticizing. Those who see ability as developable persist through difficulty and see feedback as helpful. Advise student to add "Yet" to any statement that starts with "I can't ...."



## Belonging Uncertainty

First-gen and underrepresented students are especially vulnerable to interpreting early struggle as proof they don't belong. Advise students that many feel like they don't fit in and that it is helpful to find others who are similar to them.

## Feedback as Advising

How faculty others respond to your work—the language, the framing, the tone— influences your beliefs about whether struggle is normal or disqualifying. Advise students to talk to faculty when uncertain about feedback.

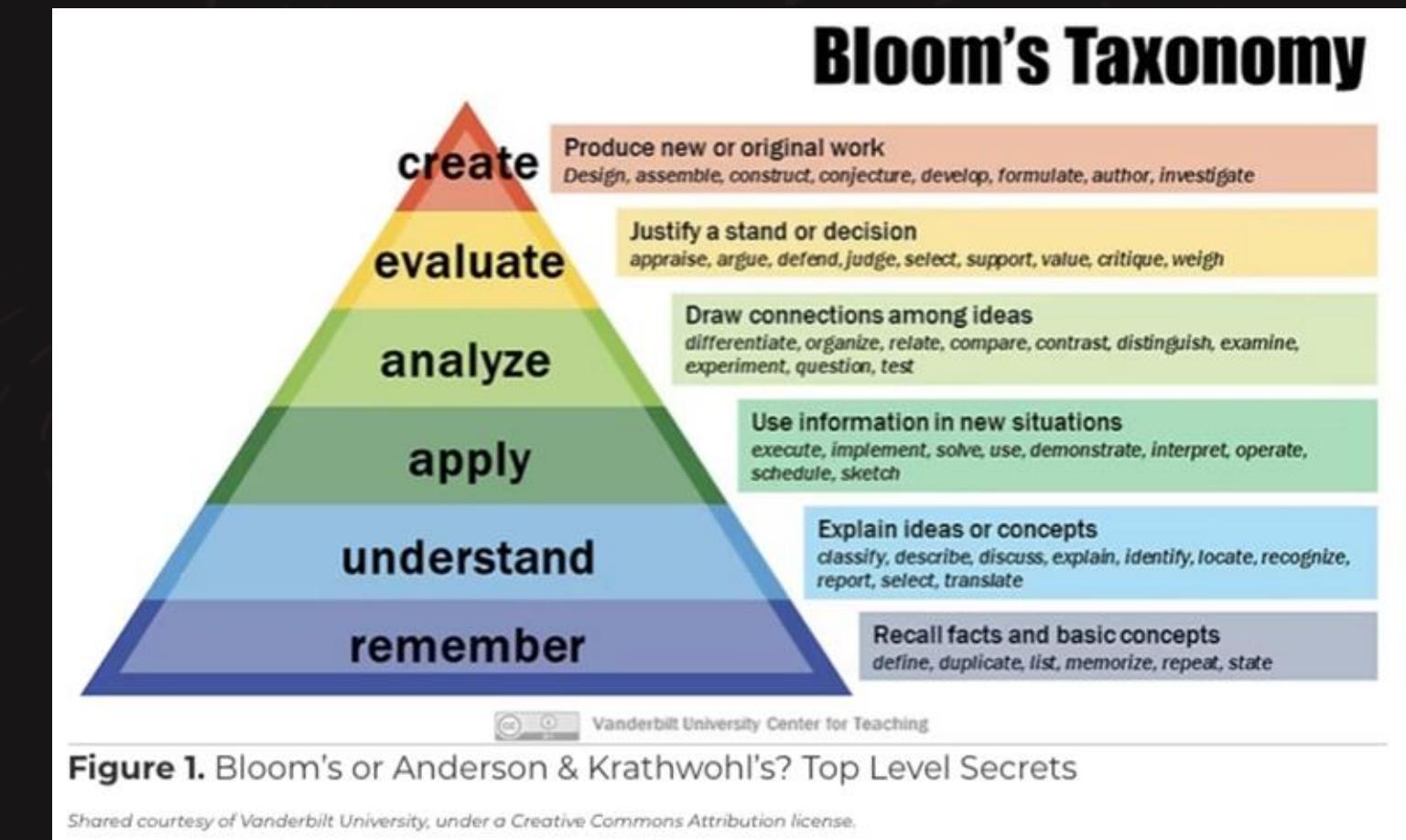
I never lose, I win or I Learn –  
Nelson Mandela



# Know the Level of Your Learning



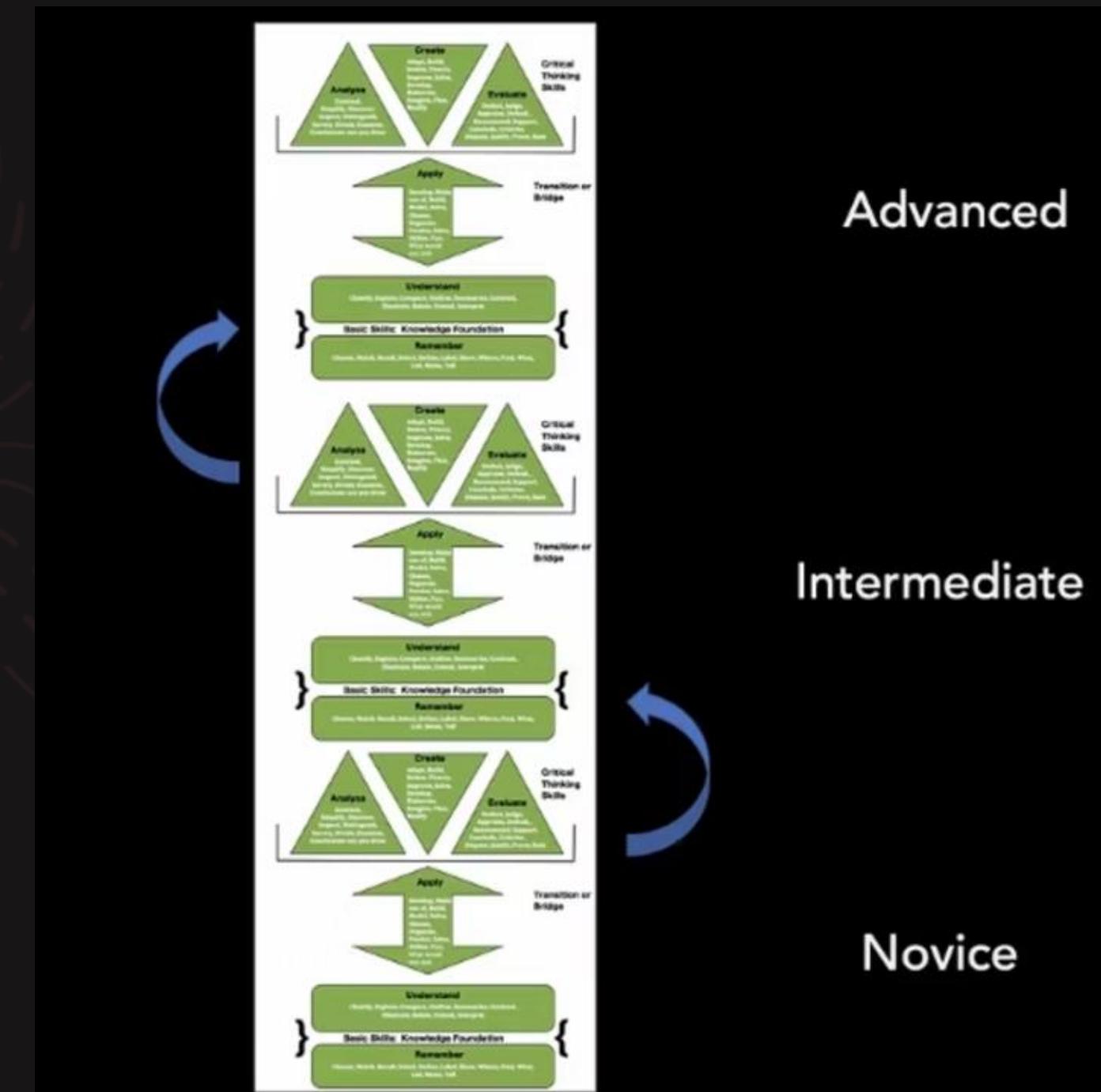
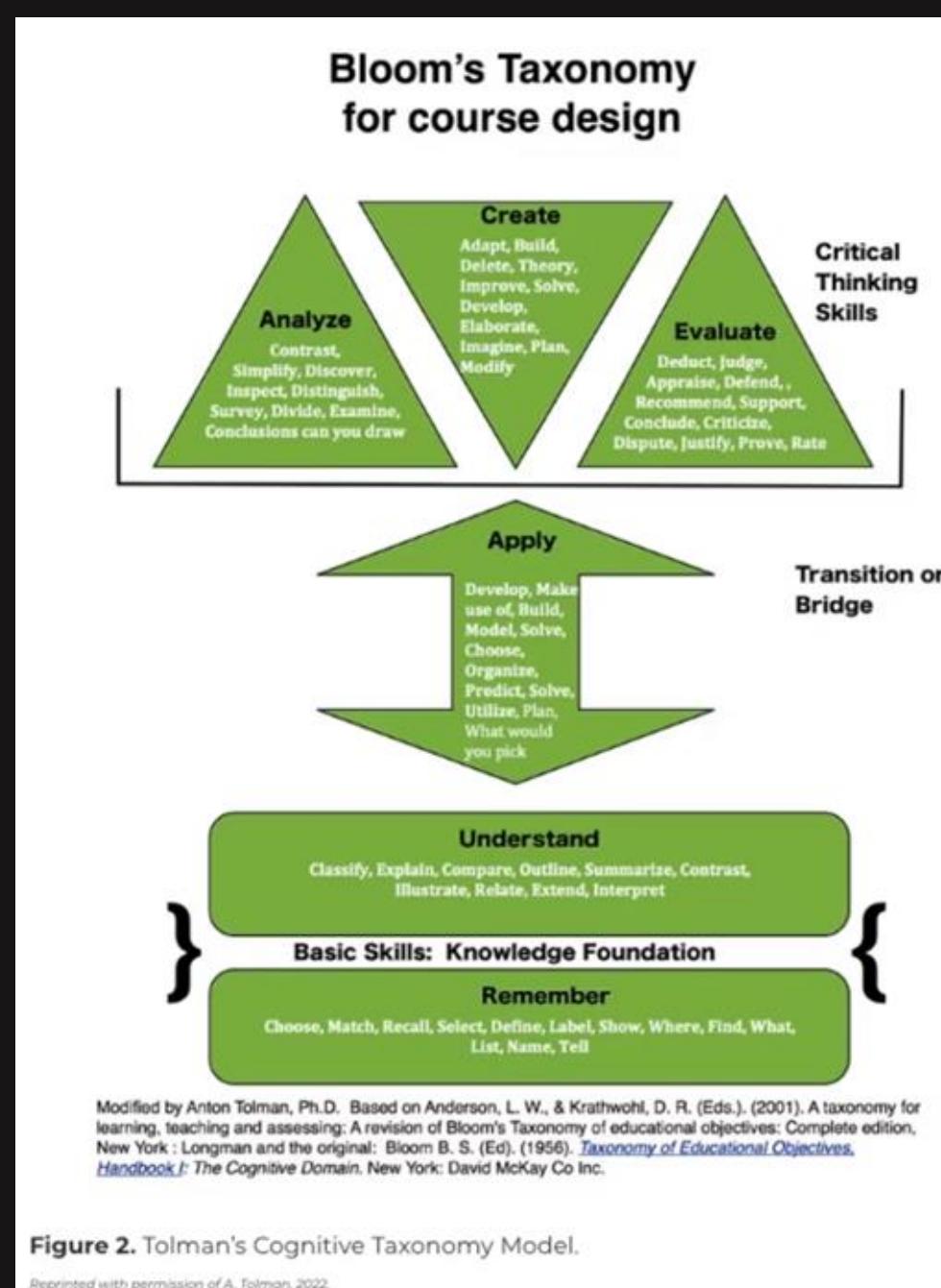
An illustrated figure (pyramid) of Bloom's Taxonomy with the six steps listed, one on each level. Make it with muted colors.



**Figure 1.** Bloom's or Anderson & Krathwohl's? Top Level Secrets

Shared courtesy of Vanderbilt University, under a Creative Commons Attribution license.

# Know The Level of Your Learning





# Timing Is the Multiplier

These principles matter most **early**, while habits are forming, beliefs are still flexible, and students are saying to themselves, "should I stay or should I go."

Interventions in week 10 are valuable. But interventions in week 2? Those compound. They shape the lens students use to interpret every subsequent challenge. Those in the health professions often discuss the downstream effect.



TEACHING STUDENTS TO LEARN

# Embedded, Not Extra

## The Traditional Model

Advising happens in designated spaces: advising appointments, academic support centers, tutoring sessions. These are important, but often reactive. Particularly when student come for help when struggling.

## The Proactive Model

Advising is embedded in course design. Brief explanations, intentional practice, and strategic feedback teach students *how to learn* while they're learning your content.

# A Few Suggested Options During the First 30 Hours

01

## 5-Minute Explanations

Brief, direct explanations of how learning works, such as automaticity, spaced practice, growth mindedness, sleep, exercise, elaboration.

02

## Early Low-Stakes Retrieval

Ungraded quizzes, reflection prompts, or think-pair-share activities that give students practice recalling—and can teach them about metacognition, particularly if you have them estimate.

03

## Guided Reflection on Study Strategies

"How did you prepare for today? What worked? What didn't?" Make study strategies visible and discussable and teaches student value of reflection.

04

## Normalizing Struggle

Syllabus language, in-class comments, and feedback that frame difficulty as expected and productive. Teach students to look carefully at syllabus, explicit and implicit information.

05

## Explicit Coaching on Preparation

"Here's what effective preparation looks like for this assignment. Here's why those strategies work." This can be very helpful with respect to self-efficacy.

**Key message:** These take minimal time but create high leverage.

# A Few More Small Moves With Potential for Big Returns

Keep These Quick and Minimal Effort

You don't need to add new assignments or redesign your course. Teaching students how to learn is about making small, strategic shifts in what you're already doing.

Another option is a 2-min learning tip at the end of each class period (or beginning). Asking students to give it a try and see if it works for them. Examples include:

- Read material very quickly and then slower while taking notes as needed (leave hi-lighter on desk).
- Practice the strategies we learned today. Use ChatGPT in a role play.
- Provide a reflection prompt and suggest students reflect after reading or studying.

These moments compound and require only a minute or two.



# Reframing the AI Question



## Old Question

"How do we prevent students from using AI to cheat?"

## New Question

"What guidance are we giving students about learning *with* AI in ways that build capacity?"

This isn't about policing. It's about advising students toward uses of AI that supports the cognitive work that builds learning, not replacing it. Offloading is tempting, but it is dangerous for learning.





## The Boundary That Matters

AI doesn't change how learning works—it changes how visible our advising needs to be. Advising will also be increasingly more valuable.

It is so important I will say it again a slightly different way. Students need to learn to recognize when AI supports learning and when it short-circuits it. Without that guidance, they default to convenience—without understanding what it is costing them.

# Learning-Supportive AI Use: A Few Examples



## Generating Practice Questions

Ask AI to create practice problems based on course material. Then attempt them without AI assistance.

This supports retrieval.



## Explaining Concepts—After Attempting

Struggle with a concept first. Explain new concept to AI and then ask what was right and what needs work. AI could also provide feedback on practice problems.



## Acting as a Project Manager

Load in course requirements and ask AI to set up a study plan. What should be studied when, how best to practice, and suggestions for healthy snacks.



**Guiding principle:** AI should come **after** thinking, not instead of thinking. The cognitive work is the learning.

Also - AI can be used for many of the planning aspects of learning (e.g., when should I start writing, or how to work well in groups.)



When I die, I want my group members to lower me in the ground so they can let me down one last time.

Imagine you are a student and have just been assigned to work in a group of 5 for a semester-long project to research an unknown person in the field of study who did something valuable but never got the recognition they deserved. The assignment is for the group to turn in a 10-page group paper. All members of the group will also participate in a 30-minute presentation where any person in the group may be asked about anything presented (so everyone must a bit of knowledge of all aspects of what is being presented).

What prompt might you use to help increase the probability the group will be able to finish this task?

(No: Find the person, write the paper, and outline the presentation is not acceptable. Ok, since you brought that up, how might you make this assignment AI resistant.)

# Example of a Way to Use AI that Students Often Don't Think About:

## *Study snack suggestions for a big exam.*

Prompt: I have a big exam on Friday, and I will be having some long study sessions. Please give me some ideas about what I should have around for snacking. :

Fueling your body with the right nutrients is crucial for optimal brain function during intense study sessions. Proper nutrition can significantly enhance focus, memory, and energy levels, helping you perform your best during exam preparation.



### Brain Boosters

Enhance cognitive function and memory.

- **Nuts:** Almonds, walnuts, and cashews are packed with healthy fats and vitamin E.
- **Berries:** Blueberries, strawberries, and raspberries are rich in antioxidants.
- **Dark Chocolate:** Improves blood flow to the brain (in moderation).



### Sustained Energy

Maintain steady energy levels without crashes.

- **Greek Yogurt:** High in protein, keeps you full and focused.
- **Whole Grain Crackers with Hummus:** Provides complex carbs and protein.
- **Apple Slices with Peanut Butter:** A balanced mix of fiber, healthy fats, and protein.
- **Trail Mix:** A homemade mix of nuts, seeds, and a few dried fruits.



### Things to Avoid

Steer clear of snacks that hinder performance.

- **High Sugar Snacks:** Candies, sodas, and pastries lead to energy crashes.
- **Heavy Meals:** Can cause drowsiness and divert blood flow from your brain to your digestive system.
- **Excessive Caffeine:** May lead to jitters and anxiety.



### Hydration & Timing

Keep your body and mind in top shape.

- **Stay Hydrated:** Drink water regularly throughout your study sessions; dehydration can impair concentration.
- **Small, Frequent Snacks:** Aim for small, balanced snacks every 2-3 hours to maintain consistent energy and focus.

# Designing Advising Moments

## Reflection Prompt

Think about your first 30 contact hours—the first five weeks of your course. There are already likely moments when you're already implicitly advising students about concepts related to them learning how to learn:

- How to prepare for exams.
- Where students tend to struggle in a challenging area of content.
- Steps in writing a paper.
- That it is a good idea to read before class.

We have considered many examples in this session.

Many of the individual elements already exist. The question is to what extent are they intentional? Think backward design.



# Early Investments Compound

Week 2

One quick explanation of how automaticity impacts learning. Students begin to reframe struggle.

Week 4

One low-stakes retrieval opportunity. Students practice effective study strategies.

Week 8

Students now applying those strategies independently in all classes. Self-Efficacy, confidence, and capacity build.

Semester's End

Students persist through challenges, perform better, and are more likely to return next year – and continue to build on what they are learning about how to learn.

Oh, and hopefully they learn that they can learn how to learn. For me, because of good advising, I never received and F- – again. Four of my faculty that semester would have let me drop out of college and likely never given it a thought. Tim Sawyer saved my college career. Not only was I the first family member to go to college, I was also the only one in the family to go to grad school, run a teaching conference, write a book, be invited to give a lecture/presentation in Slovenia (where my Zakrajsek clan is from), teach a college course,



# Quick Share

## Turn to a Neighbor

Share one new thing you could start to teach students based on this session you feel you could do fairly easily.

- How will you teach this to your students?
- To what extent will the thing you chose lead to even
- ~~When~~ in the first 30 hours will it happen?

**Time: 2 minutes**

This isn't about perfect plans. It's about making one intentional choice and telling it to another person. That increases commitment and clarifies thinking.



Students advising is happening everywhere in The First 30 Hours.

The question is whether our advising results in confusion—or creates learning meauxmentum.



# The Core Message

- Teaching students how to learn during that first 30 hours is a small investment that compounds into confidence, persistence, and completion. It's proactive advising at its most powerful.

# Thank You

Questions? Thoughts?

Let's continue the conversation about how we can support our first-year students—not just with what we teach, but with how we teach them to learn.

Maybe we can help them create their own educational butterfly effect for their entire academic lives.

