

Building Better Assessments with AI



Summer Intensive 2025
Session 4

Agenda

10:30 – 11:00



Tennessee
TECH



Rethinking Assessment in the Age of AI

Getting Ahead of the Curve- What AI Means for Assignments Today



Building Better Assessments:

Practical Strategies for Redesign



Authentic Assessment 2.0:

Leveraging AI for Deeper Learning



Academic Integrity in the Age of AI:

A Shift in Mindset, Increase Transparency, Alternative Grading



Reflect & Apply

Reflecting questions and prompts to get started

Session Goals



Resources



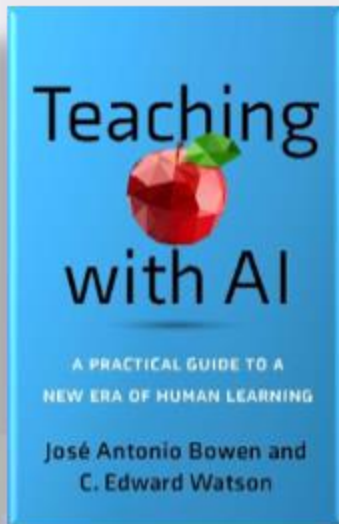
Practical strategies



Ideas & Examples

Why do we need to consider AI & assessments?

“All assignments are now
AI assignments.”



Bowen & Watson
Teaching with AI

"All assignments are now AI assignments"



AI for Instructors

- Generate questions
- Scaffold or adapt for different levels
- Align tasks with learning objectives
- Create model responses or rubrics
- Provide varied examples or rewrite format
- Chunk large assignments into smaller pieces



AI for Students

- Draft written responses or code
- Generate citations or outlines
- Tutor / Feedback for revision
- Brainstorm ideas
- Cognitive offloading
- Copy responses with minimal understanding

Instructors must now make deliberate decisions about:

When AI is
allowed,
encouraged, or
prohibited

How to design
assessments
that are **Open**
or **Closed** to AI.

Staying grounded in what we know works: Pedagogy First

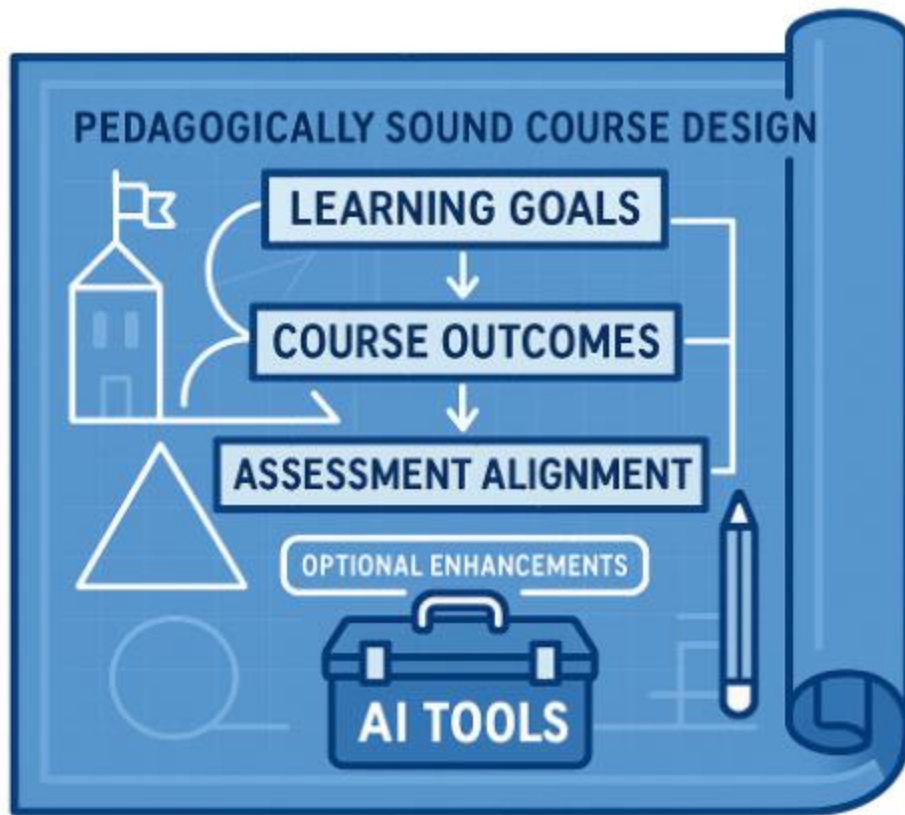
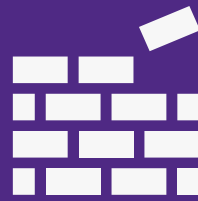


Image generated by ChatGPT 4o on April 24, 2025

Solid assessment still starts with

- **Clear learning goals**
- **Aligned outcomes**
- **Meaningful tasks**



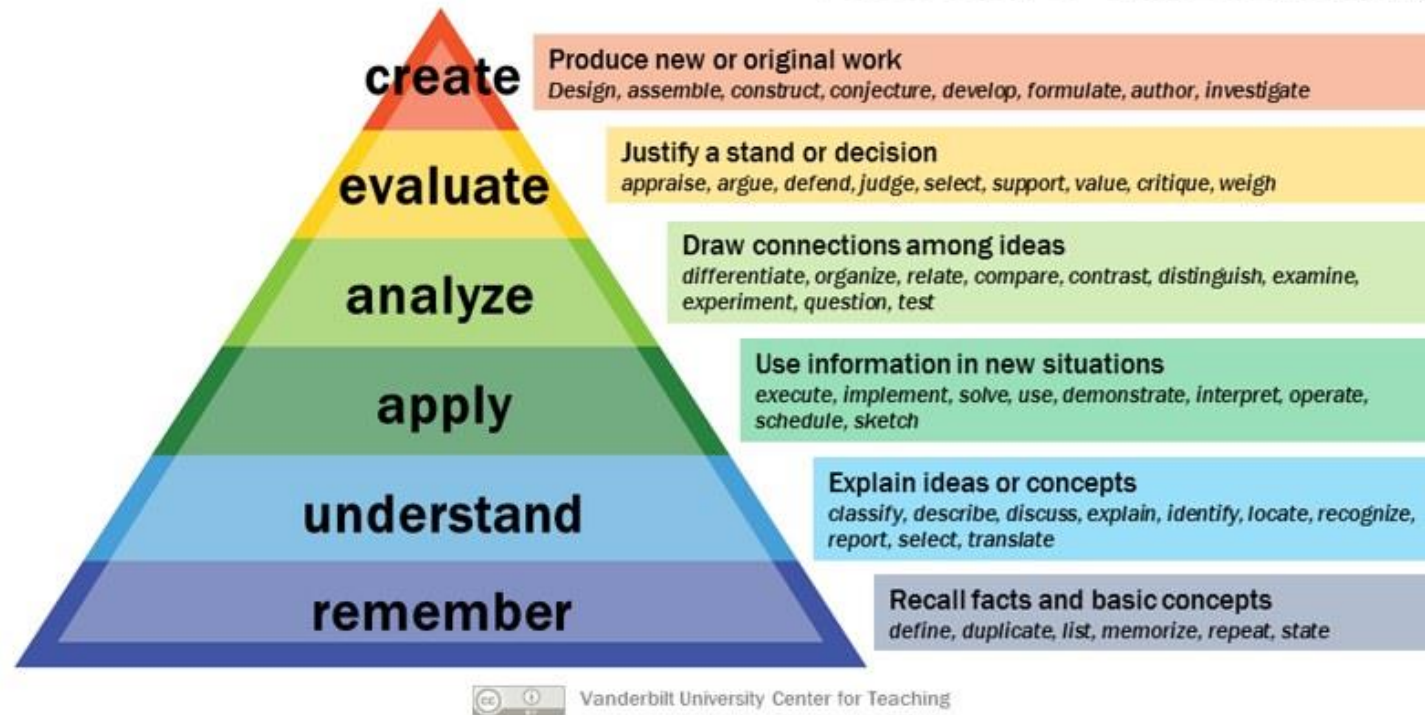
Building Better Assessments

- Increase the rigor / challenge deeper thinking
- Use AI to craft more authentic, personalized assessments
- Make expectations clearer with transparent goals and success criteria

Prompts:

- "Rewrite this quiz question to require analysis or evaluation instead of recall: *[Insert your original question here]*"
- "Generate three assessment ideas that ask students to take a stance or solve a problem related to *[topic]*."
- Create a rubric for a student reflection essay focused on learning from feedback. Include self-awareness, application of feedback, and depth of reflection.
- Analyze these assignments instructions and identify what might be unclear for students. *[Insert instructions]*

Bloom's Taxonomy



Increasing Rigor & Expectations

Increasing Rigor & Expectations

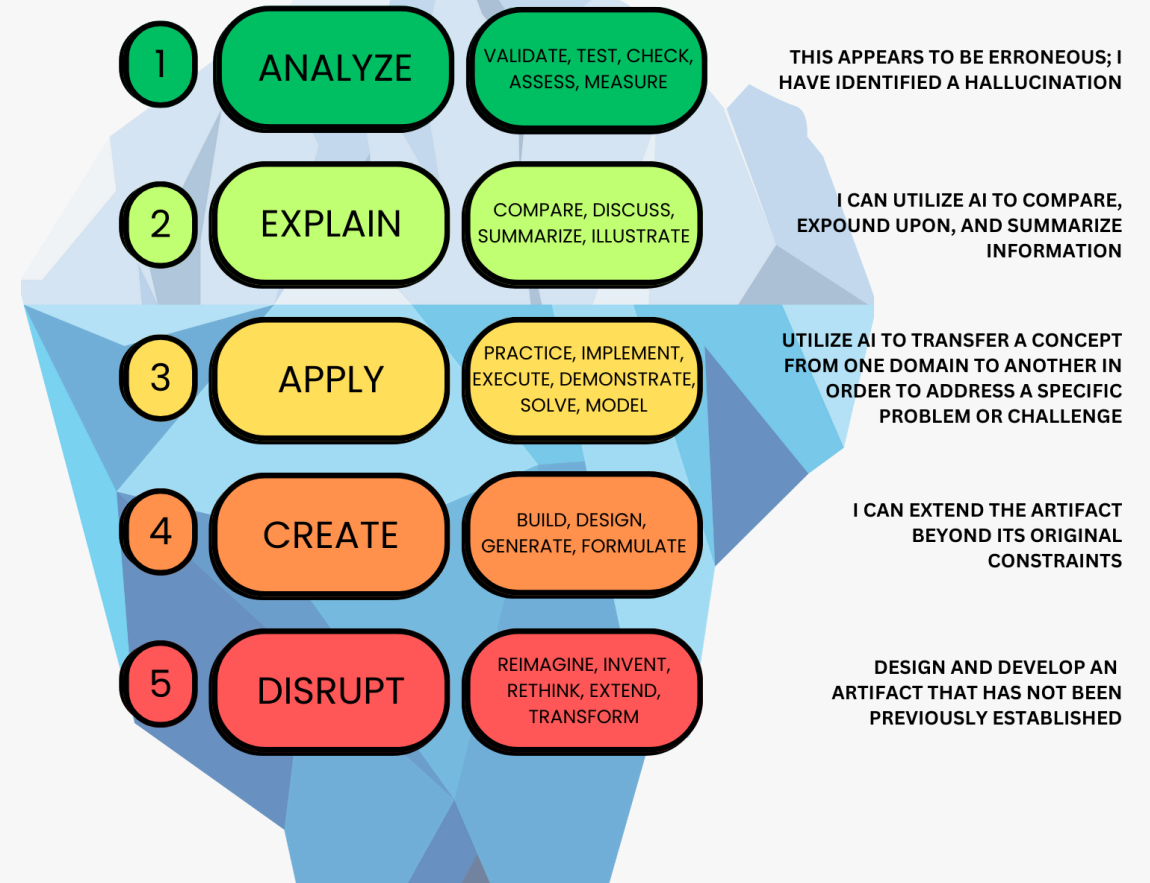
BLOOM'S TAXONOMY



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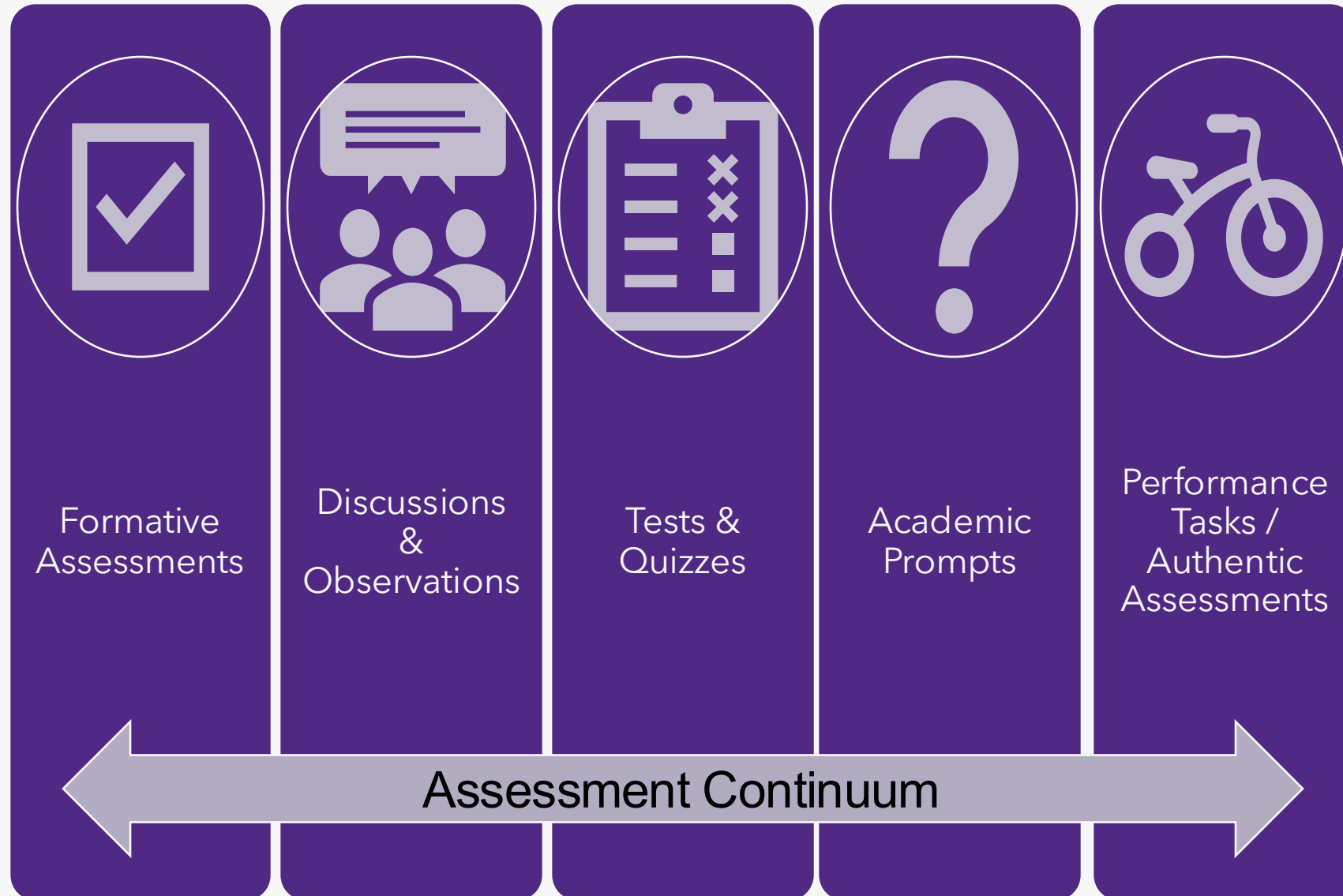
Post AI: Increasing Rigor & Expectations

POST-AI LEARNING TAXONOMY

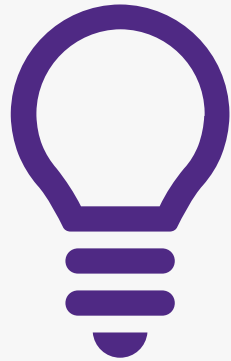


Based on Lisa Batchelder & Sarah Freye's design (OLC 2025) & inspired by Dr. Phillippa Hardman's "Post AI Learning Taxonomy" (2024)

Assessment Types



Authentic Assessment 2.0: How can AI help?



Creative partner



Co-planner



Creative Partner



- Brainstorm real-world tasks
- Redesign traditional assignments
- Personalize for flexibility & choice
- Help draft supporting materials
- Speed up iteration by providing feedback

Faculty Highlight: Dr. Derek Cashman, Chemistry

GI Disorders and Nutritional Implications

Learning Activity: Case Study Analysis

Objective:

Analyze and present key aspects of gastrointestinal (GI) disorders, with a focus on pathophysiology, symptoms, diagnostic criteria, and nutritional implications. Work collaboratively to explore evidence-based dietary interventions for managing these conditions.

Assessment Criteria:

- ☐ Depth and accuracy of research
- ☐ Clarity and engagement in presentation
- ☐ Application of knowledge in the case study
- ☐ Participation in discussion and Q&A
- ☐ Quality of written reflection

Hypothetical Patient Case Studies for GI Disorders

1. Barrett's Esophagus

Patient: James R., 52-year-old male

History: Diagnosed with GERD for 10+ years, frequent heartburn, regurgitation, and difficulty swallowing.

Symptoms: Chronic acid reflux, chest discomfort, and occasional nausea.

Dietary History: High intake of spicy, acidic, and fried foods; frequent late-night meals.

Diagnostic Findings: Endoscopy shows esophageal metaplasia (Barrett's Esophagus).

Key Nutritional Concerns: Avoidance of trigger foods, weight management, and risk of esophageal cancer progression.

2. Crohn's Disease

Patient: Emily T., 26-year-old female

History: Diagnosed at age 20, experiences intermittent flare-ups.

Symptoms: Chronic diarrhea, abdominal cramping, fatigue, weight loss.

Dietary History: Avoids dairy due to lactose intolerance, struggles with fiber intake due to symptom flare-ups.

Diagnostic Findings: Colonoscopy reveals inflammation in the ileum, anemia detected in bloodwork.

Key Nutritional Concerns: Malabsorption of iron, vitamin B12, and fat-soluble vitamins; need for an anti-inflammatory diet.

3. Ulcerative Colitis

Patient: Daniel P., 34-year-old male

History: Diagnosed with UC at age 30, currently experiencing a flare-up.

Symptoms: Frequent bloody diarrhea, abdominal pain, urgency to defecate, fatigue.

Dietary History: Consumes high-fiber diet, which worsens symptoms; previously tried elimination diets.

Diagnostic Findings: Colonoscopy confirms inflammation and ulcers in the large intestine.

Key Nutritional Concerns: Avoiding trigger foods, maintaining hydration and electrolyte balance, potential need for enteral nutrition during severe flare-ups.

4. Celiac Disease

Patient: Sarah L., 19-year-old female

History: Diagnosed at age 18 after years of unexplained digestive issues.

Symptoms: Chronic bloating, diarrhea, fatigue, and unintentional weight loss.

Dietary History: Previously consumed a high-gluten diet; recently started a gluten-free diet but struggles with cross-contamination.

Diagnostic Findings: Positive serology for anti-tTG antibodies, confirmed by intestinal biopsy showing villous atrophy.

Key Nutritional Concerns: Risk of nutrient deficiencies (iron, calcium, folate), need for strict gluten-free adherence, education on hidden sources of gluten.

5. Hepatitis (Chronic Hepatitis C)

Patient: Mark S., 48-year-old male

History: Diagnosed with Hepatitis C two years ago; history of IV drug use in his early 30s.

Symptoms: Fatigue, jaundice, mild nausea, occasional right upper quadrant pain.

Dietary History: High-fat, processed diet; consumes alcohol socially.

Diagnostic Findings: Elevated liver enzymes, liver fibrosis on imaging.

Next step: Create a rubric (about 1 minute)

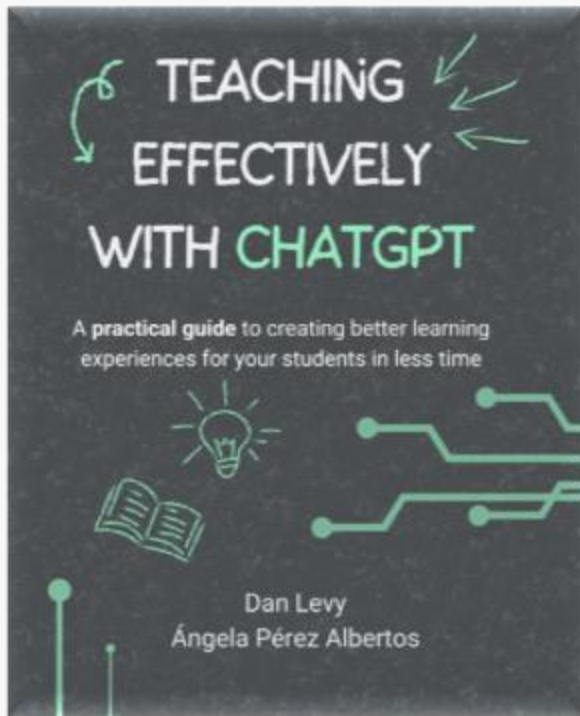
Criteria	Exceeds Expectations	Meets Expectations	Progressing Toward Expectations	Needs Significant Improvement
Depth and Accuracy of Research	Research is thorough, well-organized, and integrates high-quality, credible sources. All required topics are fully addressed with depth and insight.	Research accurately covers all required topics with appropriate sources. Information is organized and clear.	Research covers some required topics but lacks depth, detail, or has minor inaccuracies. Source quality may vary.	Research is incomplete, inaccurate, or missing major elements. Few or no credible sources cited.
Clarity and Engagement in Presentation	Presentation is exceptionally clear, engaging, and highly organized. Visual aids (slides, infographic) strongly enhance understanding.	Presentation is clear and organized. Visual aids effectively support the content.	Presentation is somewhat organized but may be unclear or less engaging. Visual aids are basic or somewhat ineffective.	Presentation lacks organization and clarity. Visual aids are missing, confusing, or unhelpful.
Application of Knowledge in Case Study	Case study analysis is insightful, clinically accurate, and fully evidence-based. Recommendations are specific, realistic, and well-justified.	Case study analysis is accurate and appropriate. Recommendations are evidence-based and generally realistic.	Case study analysis has some errors or generalizations. Recommendations are somewhat vague or lack strong support.	Case study analysis is incomplete, inaccurate, or unsupported. Recommendations are missing or unrealistic.
Participation in Discussion and Q&A	Actively engages peers with thoughtful, probing questions and detailed, respectful responses. Demonstrates deep engagement.	Participates in Q&A with appropriate questions and responses that show understanding of the topic.	Minimal participation; questions and responses are basic or show limited understanding.	Rarely participates or contributions do not demonstrate understanding.
Quality of Written Reflection	Reflection provides deep, thoughtful analysis connecting nutritional interventions to patient outcomes with specific examples and insights.	Reflection clearly connects nutritional interventions to patient outcomes with reasonable examples.	Reflection attempts connection but is vague, lacks examples, or demonstrates shallow understanding.	Reflection is missing, unfocused, or shows little understanding of nutritional interventions or outcomes.

Co-planner (Emphasis on “Co”)



What You Bring	What AI Brings
Deep knowledge of students and learning goals	Fast generation of ideas, formats, and variations
Context and judgment about what works	Brainstorming support for prompts, scenarios, or rubrics
Awareness of course tone, community, and pacing	Rapid drafts of reflection questions, instructions, or case studies
Flexibility to adapt for your specific field	Suggests options outside your usual toolbox

Can AI help with grading?

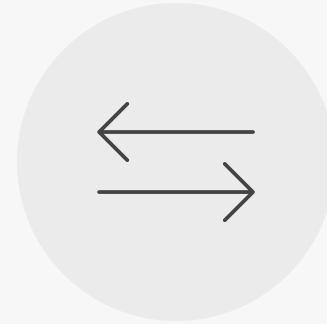


Some Considerations:

1. AI does not know your students.
2. AI isn't perfect.
3. You can't rely solely on AI for Grading.
4. You are ultimately responsible.

* Adapted from [*Teaching Effectively with ChatGPT*](#) by Dan Levy & Ángela Pérez Albertos

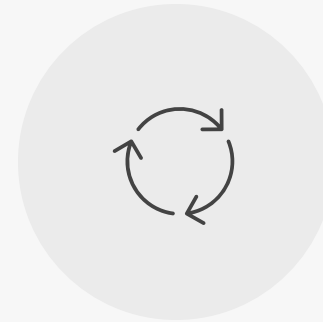
Tackling Academic Integrity



Making the shift



Increasing transparency in
assessments & grading



Designing courses with
academic integrity in mind

AI changed the game... Now what?

- AI makes it easier for students to generate work without learning
- Detection tools exist, but are often unreliable or promote fear
- Integrity now requires proactive, intentional assessment design

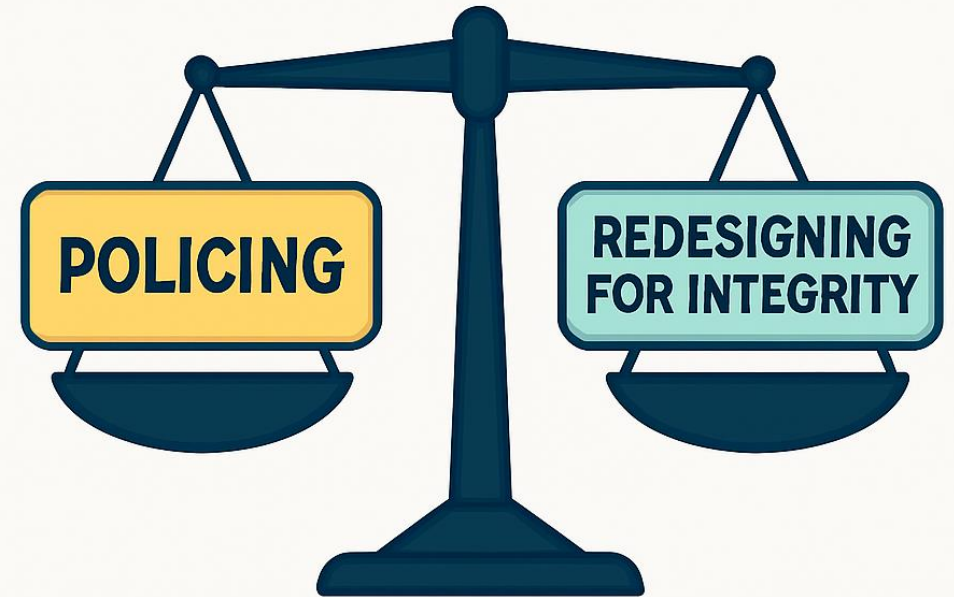


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Making the Shift

"We have to get to the point where we stop looking for evidence that students are using these tools to cheat and **shift our emphasis** to looking for evidence that learning has occurred."

Dr. Jason Lodge

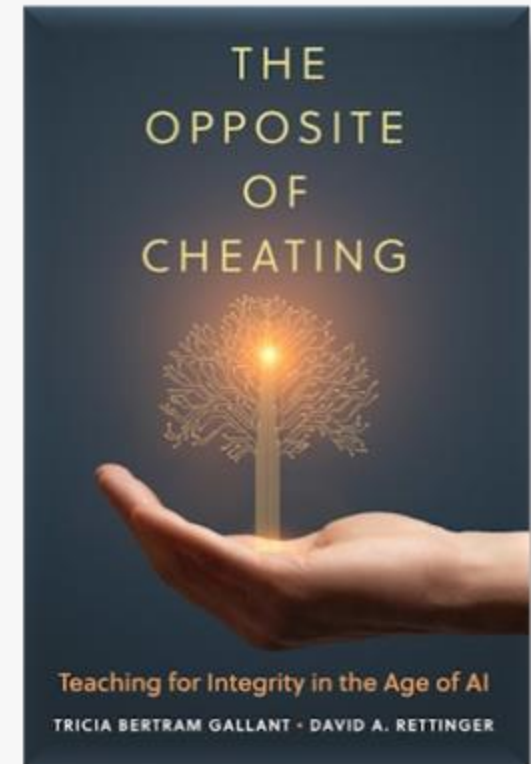
Teaching in Higher Ed Podcast

Resource to check out:

The Opposite of Cheating: Teaching for Integrity in the Age of AI by Tricia Bertram Gallant & David A. Rettinger

Highlights:

- Communicating with students early and explicitly about Academic Integrity and AI
- Design courses and assessments for Integrity
- Strategies that promote student success
- General thinking through of why students cheat and ways to mitigate the behavior



Rethinking Assessment to Promote Integrity



- Make the alignment visible
- Design assessments that ask for personal reflection, documentation of process, or evolving drafts
- Make expectations about AI use explicit in each assignment

When we give students meaningful tasks and clear guidelines—including whether they can use AI—they're more likely to engage honestly

Closed to AI Example

Quiz Details:

1. You may use your notebook.
2. You may not use other resources including the internet or AI.
3. **Here's why:** This quiz is testing grammar-- something that is easy to check with online tools. Completing this quiz on your own will help you know where you are at with this skill. Some of these questions are very similar to what you will see on your ACT and your midterm (which is also proctored) so it is important that you know if you have any gaps in these areas.

Things to note:

1. Clear permissions and restrictions
2. A positive, supportive rationale
3. Alignment with future high-stakes tasks
4. Student friendly language

Ways to improve:

1. Connect to learning objective
2. Bold the AI policy, make it stand out
3. Normalize the struggle: "It's okay if you miss some questions... it's how we learn."
4. Include a brief note on integrity


Assignment Instructions:

1. Use this link to create a copy of the assignment document: [Narrative Planner](#)
2. Submit your completed Document to this assignment page.

How can I use AI for this Assignment?

This assignment is Open for AI use. Please see below for specific instructions. Remember, if you use it, you must cite it.

Option 1:

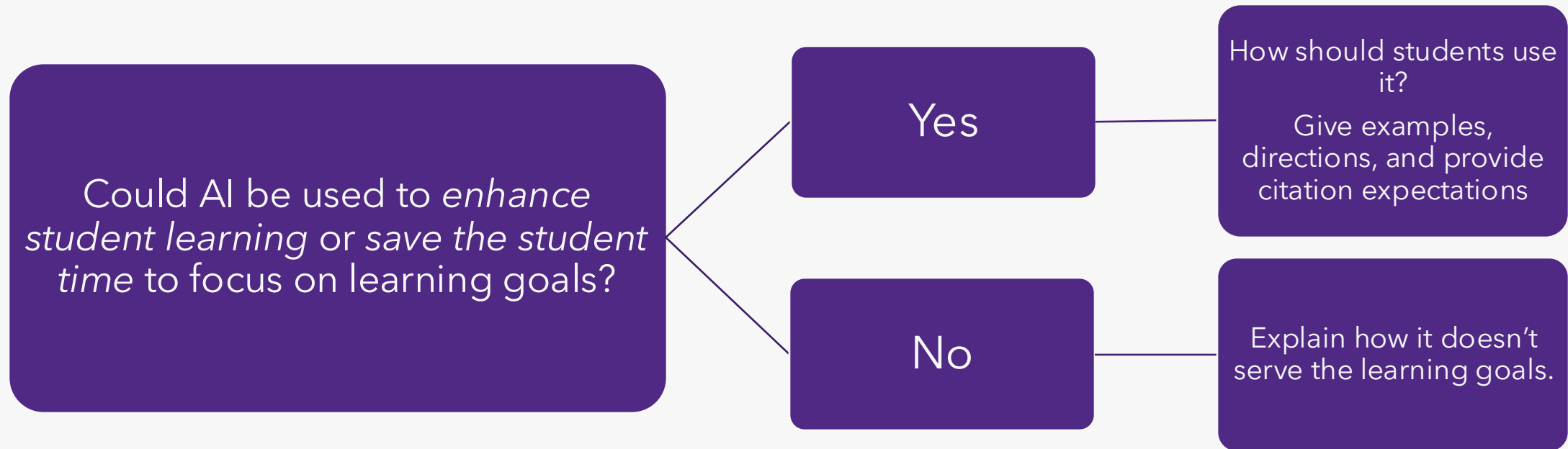
- Use this link for a MagicSchool tool that has several built-in prompts ready to go: [Narrative Writing Planner Tools](#) 
- This MagicSchool link has a Writing Feedback tool, a Text Proofreader, a Character Chatbot (It will act like any character from the story), and a Document feedback tool.
- To cite it, Use (MagicSchool AI, Date of Access). For example (MagicSchool Ai, 8 Sept 2024).

Option 2:

- If you would like to use an AI of your choice (ChatGPT, Gemini, Copilot, etc) here's a potential prompt you can use, but you can also adapt it to meet your needs:
 - You are a highly effective, kind, and confident high school English tutor. I'd like for you to give feedback on a narrative planner for my English class. Do not do the work for me, but read through the attached document (or you can copy and paste sections) and identify specific areas that will enrich the narrative of the story. Use bullet points and include five suggestions with resources that explain your answer.
- To cite it, use (Name of AI, Date of Access) and include the prompt. If you use ChatGPT, please export the link to the conversation.

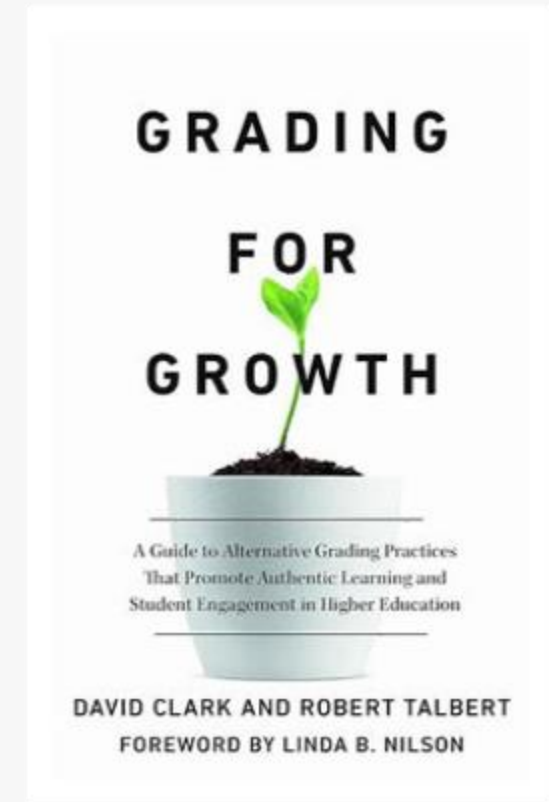
Open to AI Example

Open, Closed, or Hybrid?



Big Picture Planning: Consider Alternative Grading Practices

- Shifts focus from points to progress
- AI tools can help!
- Lowers stress for students
- Provides clarity in assessment (which can lead to more authentic work)



Alternative Grading



Standard-Based Grading

- Assigns separate marks for each specific standard within an assignment, with final grades based on the number or type of standards successfully completed, effective for assessing multiple discrete skills.

Specification-Grading

- Involves grading assignments based on whether they meet a set of clear, high-level specifications, with final grades determined by meeting specs on related bundles of assignments

Competency-Based Grading

- Assesses students' mastery of specific skills or competencies, emphasizing learning and growth through multiple assessments and opportunities for reassessment.

Mastery-Based Grading

- Assesses students on their ability to demonstrate understanding and proficiency in specific learning objectives, focusing on their progress and mastery rather than traditional letter grades.

Contract-Grading

- Involves students signing agreements with instructors that outline the specific tasks and performance levels required to achieve grades, often negotiated individually and tailored to each student, like specifications grading.

Labor-Based Grading

- A type of contract grading that focuses solely on the amount of work a student completes, without judging the quality, often used in writing classes to shift the power dynamic and encourage the development of successful writing habits.

Ungrading

- Umbrella term for alternative grading practices that focus on feedback rather than grades, often involving regular student meetings to discuss progress, and represents a broader philosophy of challenging traditional grading systems and addressing their issues.

1

Solid Foundation

Growth Mindset
Personalized Learning
Intrinsic Motivation
Goal Setting
Metacognition



IN FEEDBACK LOOPS WE TRUST



**CLEARLY
DEFINED
STANDARDS**



**HELPFUL
FEEDBACK**



**MARKS
INDICATE
PROGRESS**



**REATTEMPTS
WITHOUT
PENALTY**

3

HIGH EXPECTATIONS



How AI can help with alternative grading practices

1. Brainstorming: [See this example](#)
2. "Thinking like a teacher"
3. Assignment review
4. Drafting specifications & standards
5. Assignment instructions & descriptions
6. Checking for clarity and student confusion



Key Takeaways

- “All assignments are AI assignments”
- AI can support assessment design, but it still needs to be grounded in evidence-based practices.
- AI can save time, which we can use to make our assessments more robust, clear, and authentic.



Reflect & Apply

1. What's one assessment you currently use that might need a redesign in light of AI?
2. How could you incorporate student voice, choice, or real-world relevance into an upcoming assessment?
3. What are some ways you could incorporate an alternative grading practice into a current assignment?
4. What is one AI prompt or strategy from today that you want to try this summer?



References & Resources

Bertram Gallant, T., & Rettinger, D. A. (2025). *The opposite of cheating: Teaching for integrity in the age of AI*. University of Oklahoma Press.

Bowen, J. A., & Watson, C. E. (2024). *Teaching with AI: A practical guide to a new era of human learning*. Johns Hopkins University Press.

Clark, D., & Talbert, R. (2023). *Grading for growth: A guide to alternative grading practices that promote authentic learning and student engagement in higher education*. Routledge.

Levy, D., & Pérez Albertos, A. (2024). *Teaching effectively with ChatGPT: A practical guide to creating better learning experiences for your students in less time*. Amazon.

Hardman, P. (2024, October 24). *Redesigning instruction & assessment in the age of AI* [Post]. LinkedIn. https://www.linkedin.com/posts/dr-philippa-hardman-057851120_ai-aied-assessment-activity-7251910623582654464-NXpl

- [An Alternative Grading Glossary - by David Clark](#)
- [Finding common ground with grading systems](#)
- [Assessment Reform for the Age of Artificial Intelligence, with Jason Lodge – Teaching in Higher Ed](#)
- [Prompt Library – AI for Education](#)
- [Guide to Integrating Generative AI for Deeper Math Learning](#)