

Authentic Assessment in the Age of

AI

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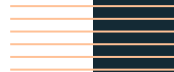
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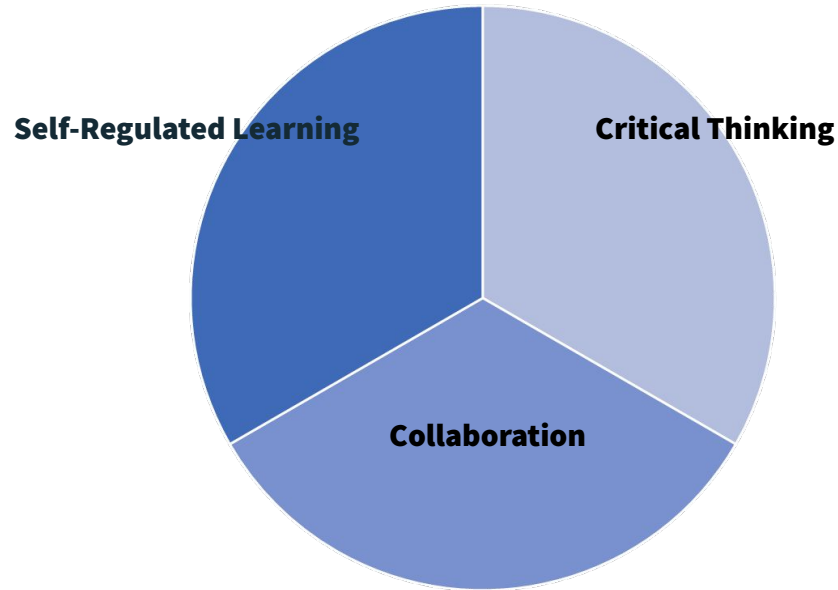
So what is authentic assessment?

Defining Authentic Assessment

- **Relevant**
- **skill**-based assessment that is **challenging**
- evokes **reflection** ,
- encourages **collaboration** ,
- and **transfers** to real-world contexts.

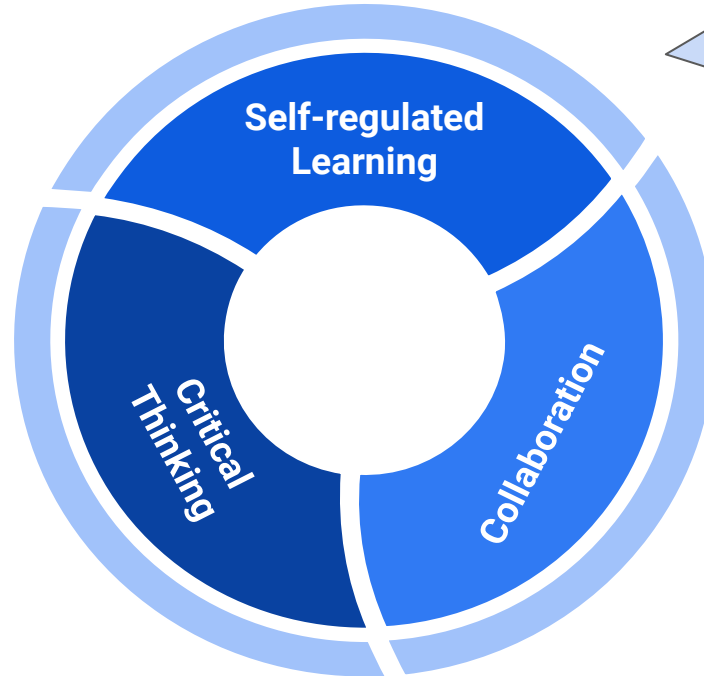


Skills Highlighted by Authentic Assessment



*This is in addition to the more discipline-specific, real-world skills that are **unique to each course and each student.***

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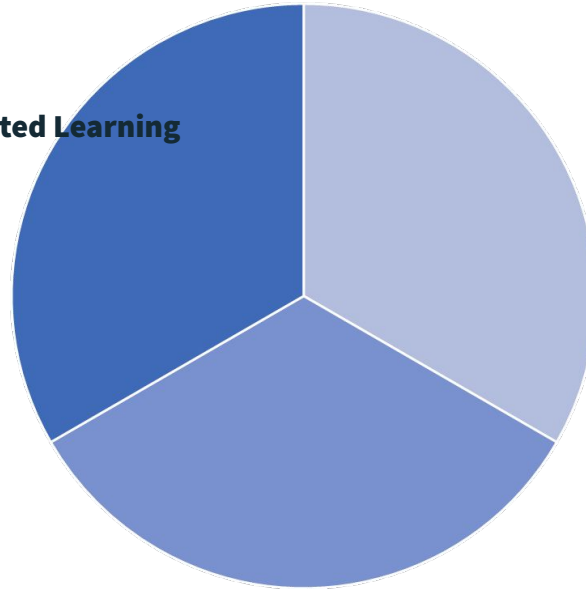


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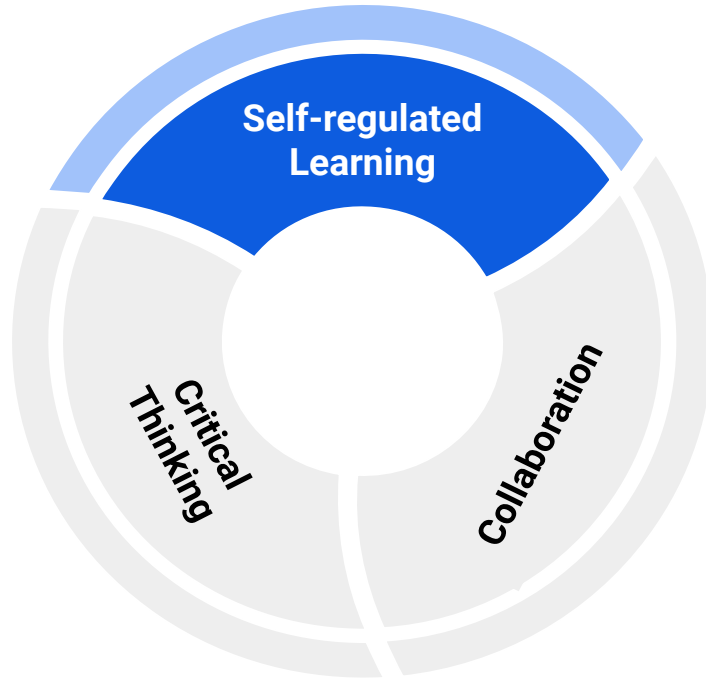
Skills Highlighted by Authentic Assessment

Self-Regulated Learning

- ❖ *Independent planning & monitoring*
- ❖ *Identify links between classroom and real world*
- ❖ *Utilizing feedback from self and others*

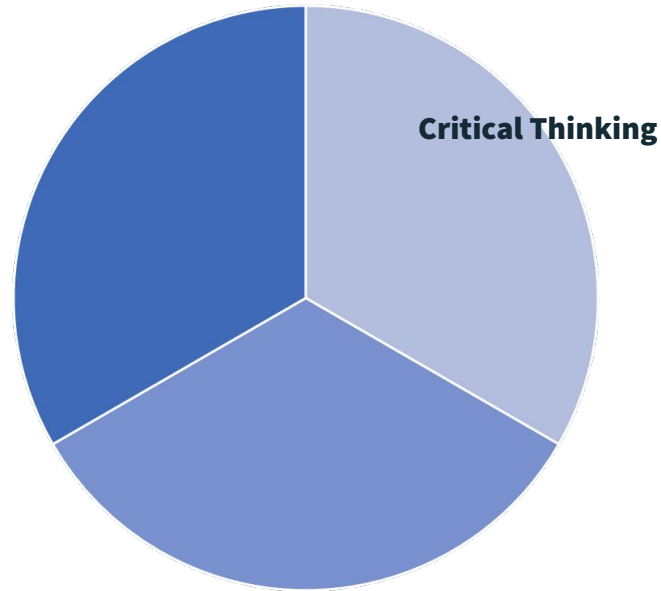


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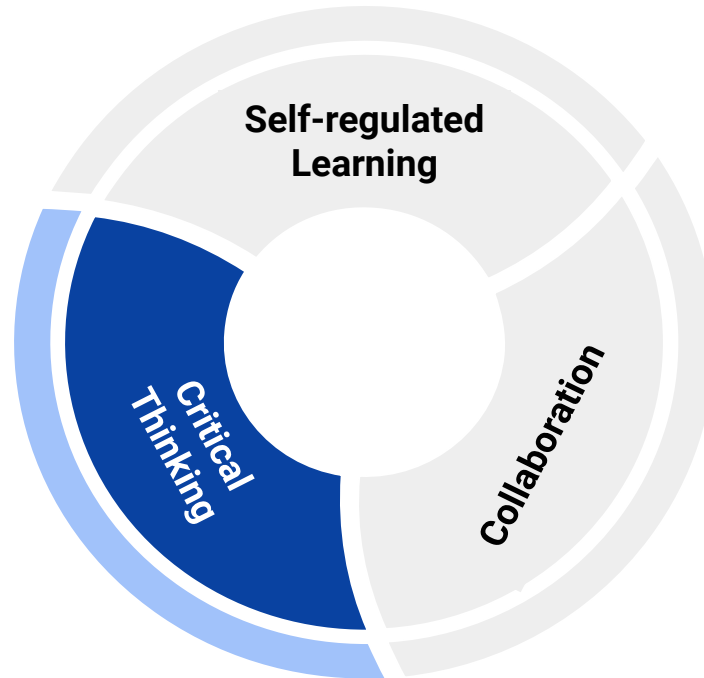
Skills Highlighted by Authentic Assessment



- ❖ *Cognitively challenging*
 - *Higher Bloom's levels*
- ❖ *Decision-making and problem-solving*
- ❖ *Transfer to real world, practical tasks*

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Bloom's Taxonomy Revisited

Use this table as a reference for evaluating and considering changes to aligned course activities (or, where possible, learning outcomes) that emphasize distinctive human skills and/or integrate generative AI (GenAI) tools as a supplement to the learning process.

All course activities and assessments will benefit from ongoing review given the evolving capabilities of GenAI tools.

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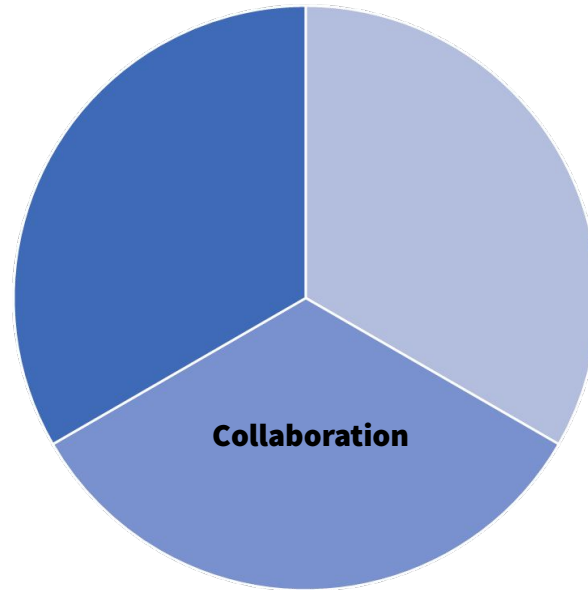
Distinctive Human Skills

How GenAI Can Supplement Learning*

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| CREATE | Engage in both creative and cognitive processes that leverage human lived experiences, social-emotional interactions, intuition, reflection, and judgment to formulate original solutions | Support brainstorming processes; suggest a range of alternatives; enumerate potential drawbacks and advantages; describe successful real-world cases; create a tangible deliverable based on human inputs |
| EVALUATE | Engage in metacognitive reflection; holistically appraise ethical consequences of other courses of action; identify significance or situate within a full historical or disciplinary context | Identify pros and cons of various courses of action; develop and check against evaluation rubrics |
| ANALYZE | Critically think and reason within the cognitive and affective domains; justify analysis in depth and with clarity | Compare and contrast data, infer trends and themes in a narrowly-defined context; compute; predict; interpret and relate to real-world problems, decisions, and choices |
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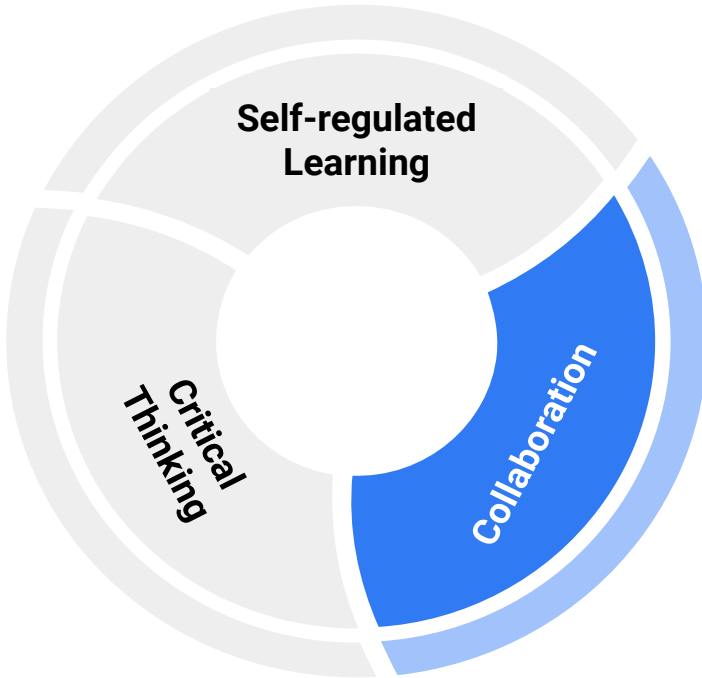
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Skills Highlighted by Authentic Assessment



- ❖ *Enhances learning & performance*
- ❖ *Essential workplace skill*
- ❖ *Individual accountability + mutual support*

Skills Highlighted by Authentic Assessment



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Authentic Assessment works! **...but there are barriers to implementation**



Logistics

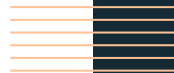



Attitudes

How can we overcome these barriers?

Modifying Authentic Assessment in Response to AI

- ❖ Enhancing Performance Tasks
 - Include LOs focused on uniquely human skills
 - Emphasize process over final product
 - Provide frequent opportunities for feedback and reflection
- ❖ Embracing AI within Assignments
 - Use AI to support students
 - Integrate and evaluate AI outputs in assignments
 - Recognize use of AI can make the assignment authentic





Getting more out of what you already have.

Scott Cohn , Associate Professor of

University



A recurring issue I've encountered in my non-introductory-level courses is finding engaging content that lacks assessment.

From a great book with limited instructor resources to no resources or no book at all.

So how can we get **more**?

Example: Sara's Story (from Straub, 2023)

When Sara Snodgrass found a lump in her breast, her first thoughts were of her aunt and mother, both of whom died after battling breast cancer. Sara recalled that after her aunt was diagnosed with cancer, she “went home, pulled all the curtains closed, refused to leave the house except for chemotherapy treatments, and allowed very few visitors. She waited for death” (Snodgrass, 1998, p. 3). Unlike her aunt, Sara was determined to continue her work as a university professor throughout her cancer treatment. Resolving that cancer would not interfere with her life, she also continued scuba diving, skiing, and other activities that flowed from her natural optimism, sense of self-mastery, and confidence

The original assessment:

Discuss in detail the interrelationships among the concepts of perceived control, self-efficacy, and health.



Boring enough to ask AI for the answer:

Perceived control, self-efficacy, and health are interconnected concepts that significantly influence individuals' behaviors and overall well-being.

Perceived Control

Perceived control refers to an individual's belief in their ability to influence or control outcomes. When people feel they have control over their lives, they are more likely to adopt healthy behaviors, cope with stress effectively, and maintain positive mental health.

Self-Efficacy

Self-efficacy, a related concept, is the belief in one's ability to successfully execute specific tasks or behaviors. It's a more specific form of perceived control, focusing on specific abilities rather than a general sense of control over life events.

Interrelationships and Impact on Health

The interrelationship between perceived control, self-efficacy, and health can be summarized as follows:

Perceived Control Enhances Self-Efficacy:

Positive reinforcement: When individuals experience success in controlling specific situations, it boosts their self-efficacy.

Reduced stress: A sense of control can help individuals cope with stress, which in turn, positively impacts health outcomes.

Proactive behavior: People with high perceived control are more likely to engage in proactive health behaviors, such as regular exercise, healthy eating, and seeking medical advice.

Self-Efficacy Promotes Health Behaviors:

Goal setting and achievement: High self-efficacy individuals set higher goals and are more persistent in achieving them.

Positive coping strategies: They are more likely to employ effective coping strategies to manage stress and adversity.

Adherence to treatment: People with high self-efficacy are more likely to adhere to treatment plans and make lifestyle changes recommended by healthcare providers.

Health Behaviors Influence Perceived Control and Self-Efficacy:

Positive feedback loop: Engaging in healthy behaviors can lead to positive outcomes, reinforcing feelings of control and efficacy.

Improved physical and mental health: Better health can enhance self-esteem and confidence, leading to increased perceived control and self-efficacy.

In essence, perceived control and self-efficacy are mutually reinforcing. A strong sense of control empowers individuals to believe in their ability to influence their health outcomes. This belief, in turn, motivates them to engage in healthy behaviors, which further strengthens their perceived control and self-efficacy. This virtuous cycle contributes to improved physical and mental health.

By understanding the intricate relationship between these concepts, healthcare professionals and researchers can develop effective interventions to promote health and well-being.

First, why limit everyone in the course to a single story?

David's story:

David was a man of routine. He liked the predictability of his days – the morning jog, the quiet cup of coffee, the familiar hum of his office. But his routine was shattered when a persistent cough turned out to be a harbinger of something far more serious: lung cancer.

Amina's story:

Amina was a woman of extraordinary strength and resilience. Diagnosed with pancreatic cancer, she faced the challenge with unwavering determination. She delved into research, consulted with specialists, and explored alternative therapies, leaving no stone unturned in her fight against the disease.

Sven's story:

Sven, a man of quiet strength, faced a diagnosis of colon cancer with a stoic determination. He dove into the research, understanding the intricacies of the disease and the treatment options. He chose his doctors carefully, seeking those who combined medical expertise with a compassionate approach.

Enhanced assessment possibilities:

- **Starting AI Use:** Comparing and contrasting differences or identifying common themes in perceived control, self-efficacy and health between the different vignettes given to different groups.
- **Better AI Use:** Using those common themes identified by groups to compare personal examples of how perceived control and self-efficacy have affected the health of a loved one.
- **Full AI Use:** Examine ways of increasing feelings of perceived control and self-efficacy that students can share with others

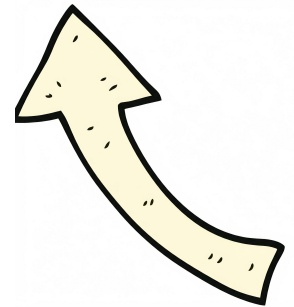
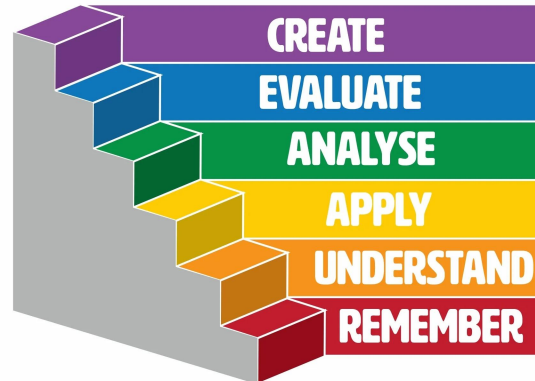


Enhanced assessment possibilities:

- **Best AI Use:** Develop a realistic plan to increase your own perceived control and self-efficacy, implement that plan, and reflect on the implementation of the plan.

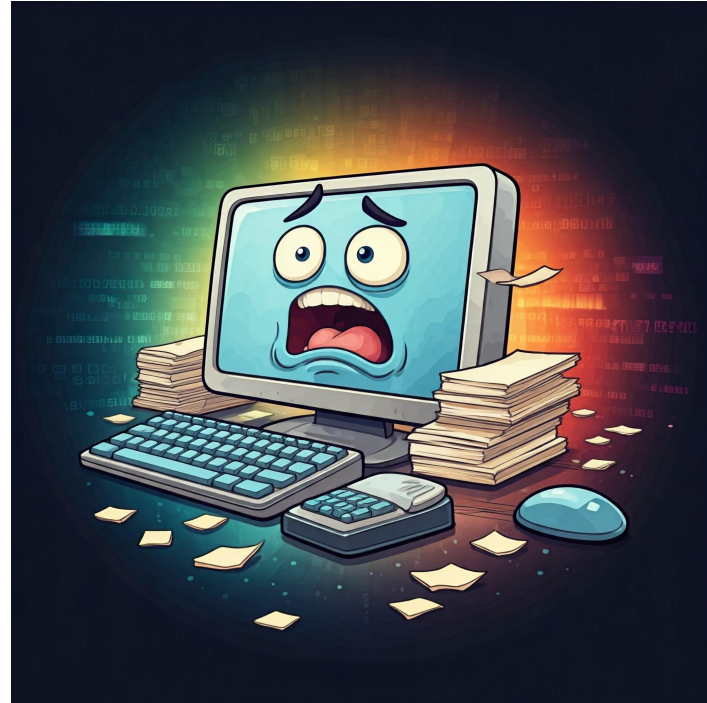


BLOOM'S TAXONOMY



Does AI have the answer:

“As a large language model, I don't have personal experiences in the same way a human does. However, I can provide you with a hypothetical example.” (Gemini)



What's an assignment that you currently use that can be modified in a similar way?

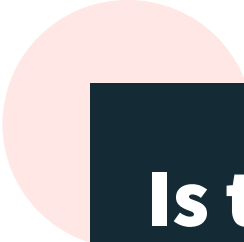
(short answer)

How might the learning outcomes be revised?

(short answer)


Where could AI be used (or misused) while completing the assignment?

(short answer)

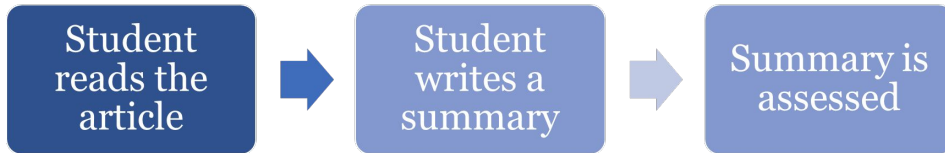


Is this the end of our favorite assignment?

Lisa Blue , Director of Artificial Intelligence
Strategies, Eastern Kentucky University



Scholarly Article Summary, Pre-AI



Scholarly Article Summary, Post-AI



Questions to Consider:

1. Which assignments are most vulnerable to being completed with AI?
2. Has this assignment lost its meaning, given AI capabilities?
3. Does this assignment still make sense for this course?
4. If the assignment is retained, how will the learning outcomes need to shift?

Traditional
Education

Value Lost

***Previously
Impossible***

AI-Infused
Education

**Rapid AI
Advances**

Redesigning Your Assignment

1. Think of an AI vulnerable assignment. List the learning outcomes.

GenAI Capabilities



Redesigning Your Assignment

2. How might students use AI tools while working on this assignment?

Hint: You can pick more than one!

- a. Generating content or responses
- b. Brainstorming ideas or concepts
- c. Conducting research for relevant information
- d. Reviewing and editing their work for clarity
- e. Other ways?

Redesigning Your Assignment

3. How might AI undercut the goals of this assignment?

Pick your *top* concern.

- a. Promoting reliance on AI for completion
- b. Oversimplifying complex topics or hallucinations/inaccuracies
- c. Reducing originality in student work
- d. Compromising the development of critical thinking skills
- e. Other ways?

How can you mitigate this?

Redesigning Your Assignment

4. How might AI *enhance* this assignment?

Pick your *favorite*.

- a. Improving accessibility for diverse learners
- b. Offering insights or alternative perspectives
- c. Helping to structure and organize information
- d. Assisting in finding relevant sources or references
- e. Other ways?

Where would students need help figuring that out?

Bloom's Taxonomy Revisited

5. Where were your learning outcomes, **prior** to adjusting for AI capabilities?

(target question)

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Bloom's Taxonomy Revisited

5. Where are your learning outcomes now?

(target question)

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Redesigning Your Assignment

6. Focus on the process. How can you make the assignment more meaningful for students? How can we support them more in the work?

(short answer)

The Redesigned, Post-AI Scholarly Article Summary

Full AI Use

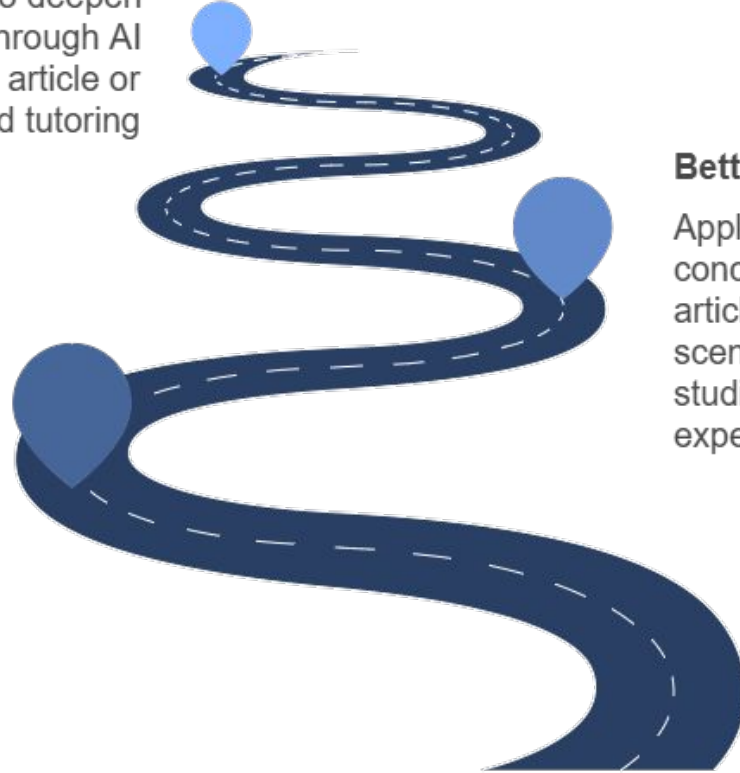
Student reads the article,
then uses AI to deepen
understanding through AI
interrogation of the article or
AI-assisted tutoring

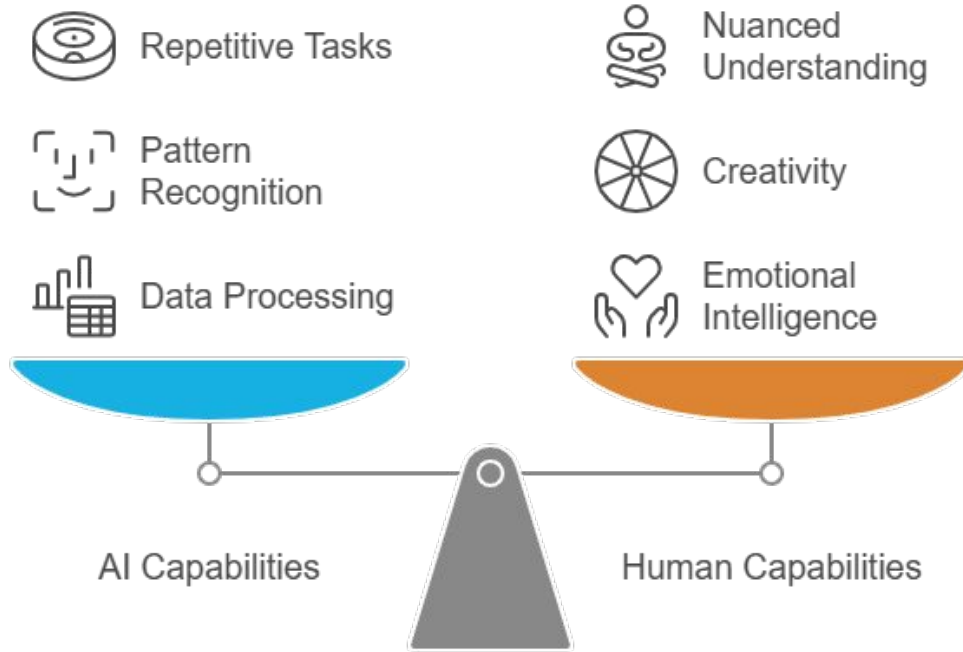
Better AI Use

Applying key
concepts from an
article to real-world
scenarios, case
studies, or
experiments

Minimal AI Use

Engaging in a
structured debate
using AI-generated
summaries





It's time to move beyond the "humans of the gaps" mindset and embrace a future where human value is recognized independently of AI capabilities.

Our children's future isn't about competing with AI. It's about being so unapologetically human that the question of working for or against AI becomes irrelevant.

Dan Fitzpatrick - The AI Educator
newsletter; 15 September 2024



Q & A





[macmillanlearning.com](https://www.macmillanlearning.com)