

How Creative AI Dialogue Can Restore Critical Thinking

THINK TANK WORKBOOK



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21st Century Learning AI Conference
Jakarta | November 2025



SEEDING WHAT'S BENEATH THE SURFACE

Choose ONE/TWO words that resonate with you:



Find a partner who chose the SAME word.

Discuss together:

- What does this word mean to you as an educator?
- Share an example of a student exhibiting this
- How are your interpretations different?

Notes:



THINK TANK NORMS

THIS IS A SOCRATIC SEMINAR, NOT A LECTURE

Participation:

- Participant talk: 70% | Facilitator talk: 30%
- All voices matter
- Build on others' ideas
- Question assumptions (including your own)
- It's okay to change your mind

Dialogue Guidelines:

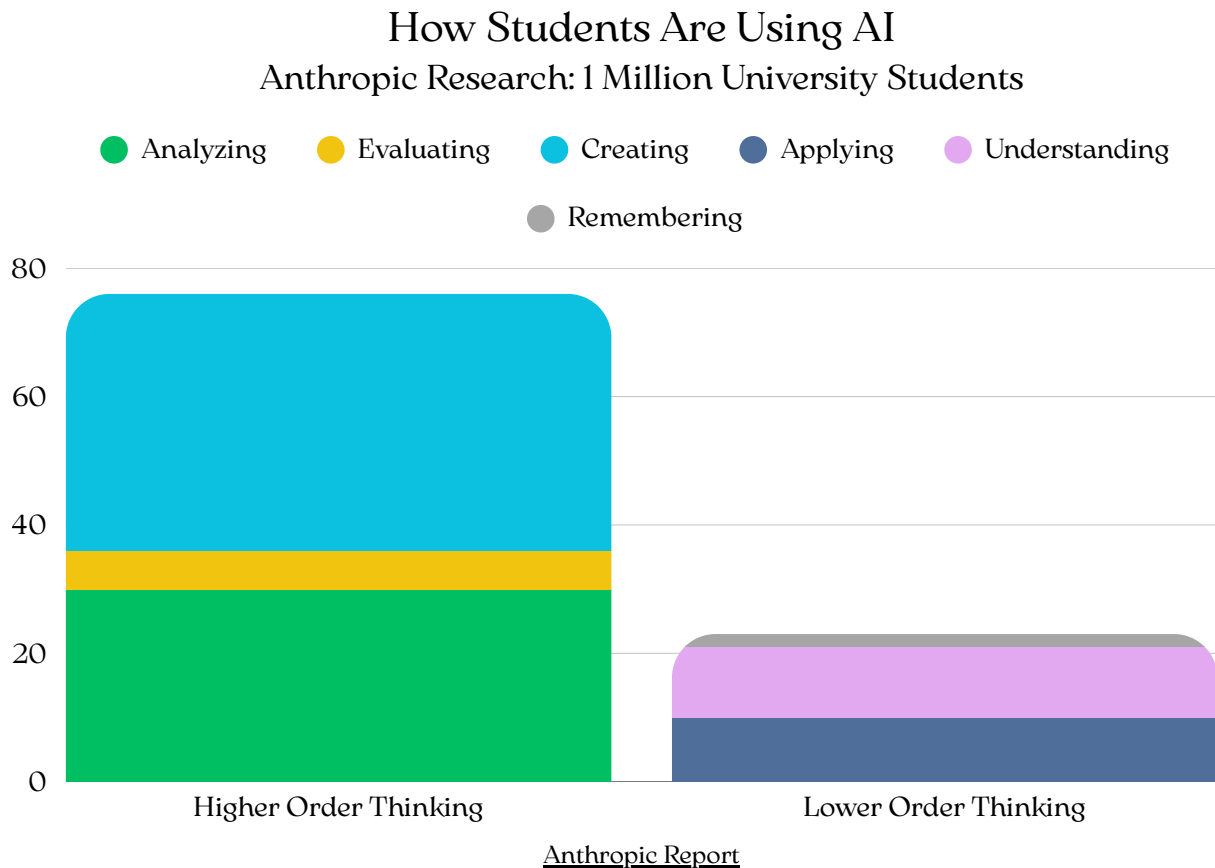
- Listen to understand, not to respond
- Use specific evidence in examples
- Respectful disagreement strengthens thinking
- Silence is thinking time

Our Work Today:

We are exploring how to use **AI as a thinking catalyst** that provokes and surfaces our unique expertise and experience.



THE INVERSION CRISIS



How Students Are Using AI

Anthropic Research: 1 Million University Students

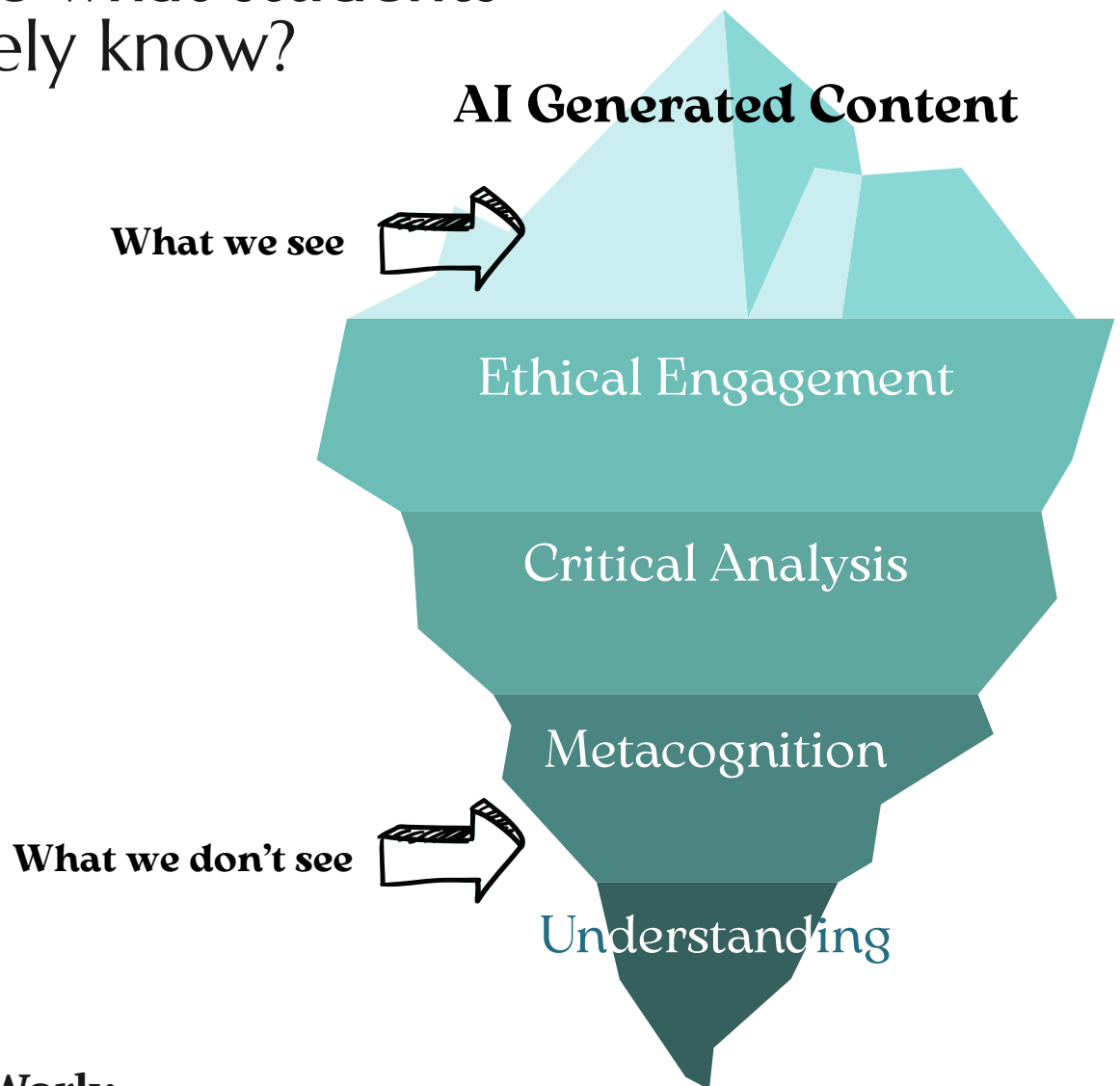
- 40% use AI for Creation
- 30% use AI for Analysis
- 10% use AI for Understanding
- 2% use AI for Remembering facts

The Pattern:

- 50% of interactions are "Direct" (minimal engagement)
- STEM fields: 36% cognitive outsourcing
- Students are trying to build a roof with no foundation



How do we use AI to surface what students uniquely know?



Today's Work:

1. Experience the Difference

Generate generic AI output, then compare to expertise-driven dialogue

2. Design Dialogue Structures

Create approaches that surface student expertise and lived experience



SEE, THINK, WONDER

Essay A

Standardized testing has been a central element of educational systems for decades, used to compare students, evaluate schools, and inform policy. Yet the narrow snapshot these tests provide often fails to capture the full range of student learning and can distort what schools teach. Schools should move away from high-stakes standardized testing and adopt more holistic assessment methods—such as portfolios, performance tasks, and sustained teacher evaluation—because these approaches produce richer information about student learning, reduce inequities caused by test-centered systems, and encourage deeper, more meaningful instruction.

First, holistic assessments reveal skills that multiple-choice tests cannot. Standardized exams typically emphasize rote recall and the ability to answer quickly under pressure, but real-world success depends on critical thinking, creativity, collaboration, and the ability to apply knowledge over time. A well-curated portfolio, project, or presentation shows how a student formulates questions, revises work, and connects ideas across disciplines. For example, a science portfolio that documents experimental design, data analysis, and iterative revision gives a teacher far more insight into a student's scientific reasoning than a single timed test on content facts. These richer data support instruction tailored to each learner's strengths and gaps.

Second, replacing high-stakes standardized tests with holistic measures advances fairness...



SEE, THINK, WONDER

Essay B

In an era where artificial intelligence can instantly provide facts, solve problems, and compose essays, the role of assessment in education must evolve. While standardized tests have long served as a way to measure growth and guide instruction, they fail to capture a student's ability to apply knowledge in real contexts. I learned this lesson when Lucca walked into my classroom with a behavioral file the size of a book and a reputation for disrupting traditional learning. Within days, I discovered what his test scores and behavioral reports had missed: a seven-year-old who could accurately recreate the Doarchi spiraling tower from memory and grasp compound interest after a single explanation. Assessment should focus on the process of learning as well as the product, evaluating transferable competencies like critical thinking and communication alongside academic standards. For this reason, schools should shift toward more holistic assessment methods, using standardized testing only as part of a balanced model.

The primary purpose of assessment should be to understand how students learn and grow, not simply to rank them by a numerical score. Standardized tests provide a consistent metric of content knowledge, but they cannot reveal whether students can use that knowledge effectively in authentic situations. Lucca's standardized assessments would have labeled him as inefficient, yet when I allowed him to trace his classmates' bodies inside a life-size anaconda he'd measured with meter sticks, or incorporate literacy into his building projects, his learning accelerated dramatically. Holistic assessments such as portfolios and performance-based tasks allow educators to see how students apply learning in real-world contexts. This is particularly important as AI takes on more roles in content delivery, making human skills like problem-solving, divergent thinking, and creative disruption—the very traits Lucca demonstrated—even more essential.

Equity is a major concern in both systems...



SEE, THINK, WONDER

YOUR OBSERVATIONS:

SEE: What do you notice about how each essay begins?

THINK: What does Essay B tell you about the writer that Essay A doesn't? What expertise appears?

WONDER: What questions must the writer have answered to surface that expertise



THE DIALOGIC LEARNING MODEL

AI AS THINKING CATALYST

THE QUESTION THAT CHANGED EVERYTHING:

"Can you provoke me with 10 questions I can answer that will ensure this essay reflects my professional expertise, perspectives, and personal experiences?"

AI's Role:

- Fast processor generating provocative questions
- Catalyst that accelerates articulation of existing expertise
- Tool that surfaces tacit knowledge through dialogue

Human's Role:

- Expert with lived experience, perspective, contextual knowledge
- Source of unique insights AI could never generate
- Driver of the conversation's substance and direction

The Result:

AI's processing speed serves human expertise. Dialogue surfaces what only this person could know. Final product reflects genuine perspective, not generic arguments.

Dialogic Learning Prompts for Students





YOUR TURN – SURFACE YOUR EXPERTISE

PROMPT

"Should schools eliminate standardized testing in favor of more holistic assessment methods? Write a 5 paragraph essay and take a position on this question. Use reasoning and examples to support your argument."



SCAN FOR DIGITAL COPY OF
PROMPT AND QUESTIONS

Dialogic Process:

- Step 1 (Optional): Generate quick version with no dialogue - see what generic looks like (2 min)
- Step 2: Ask AI: "Can you provoke me with 10 questions that will ensure this essay reflects my professional expertise and experiences?"

OR use the [10 ready-made questions](#) → **NEXT PAGE**

- Step 3: Choose 3-5 questions to answer through dialogue with AI (8 min)
- Step 4: Let AI generate your expertise-driven essay (2 min)
- Step 5: Read what you created - how does it compare?

Notes:



10 QUESTIONS TO SURFACE TEACHING EXPERTISE

Choose 3-5 questions to answer. You don't need all 10.

★ MOST CONCRETE - START HERE IF UNSURE

1. What's your personal experience with standardized testing as an educator? (What have you observed, administered, or struggled with?)
2. Describe a specific student whose learning wasn't captured by traditional assessment. What did you know about them that tests missed?
3. What assessment methods have you actually used in your classroom? Which revealed the most about student learning?
4. Can you give a concrete example of when standardized testing failed (or succeeded) to capture student learning?
5. What would critics of your position say, and how would you respond to their concerns?

ADDITIONAL QUESTIONS FOR DEEPER REFLECTION

1. What makes you uncertain about your position? Where do you see legitimate complexity in this issue?
2. In your specific teaching context (grade level, subject, school type, country), what unique assessment challenges do you face?
3. What equity issues have you personally observed related to how students are assessed in your school or system?
4. How has your thinking about assessment changed over your teaching career? What specific experiences shaped that change?
5. What have your students told you about how they experience being assessed? What insights have they shared?

TIP: Answer these questions IN your conversation with AI. Let it ask follow-up questions and probe deeper. That's where your expertise surfaces.



IMPLEMENTATION COMMITMENT

Individual Reflection:

Any new dialogic approach you could test next week?

What kinds of assignment would lend well to this activity?

What unique expertise would your students bring to that topic?



CONNECT & CONTINUE THE DIALOGUE

We don't need to control AI to writing better prompts.
Let's use it as a thinking catalyst to surface the unique
expertise and perspective each student brings from lived
experience.

**AI processes fast. Humans know things AI doesn't.
Dialogue brings them together.**



Connected  Classroom



Dialogic Learning Prompt
Library with Rationales



CONNECT with TIMOTHY AT
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