



**SAN DIEGO**  
Community College District

# **REDESIGNING ASSIGNMENTS & RESEARCH IN THE AGE OF AI**

**RODRIGO GOMEZ, II&E**

**10/10/25**



## RODRIGO GOMEZ

**FACULTY SPECIALIST FOR EMERGING TECHNOLOGY,  
FULL PROFESSOR, MIRAMAR COLLEGE**

I have a passion for rhetoric, pedagogy, and poetry. I also maintain a keen interest in gamification, edtech, and web3 technologies, like artificial intelligence (AI), blockchain, and the metaverse--particularly in how they can make education more accessible, engaging, relevant, and impactful for students.





1

## **Reimagine Assignments in the Age of AI**

Examine how generative AI reshapes assignment design, including prompts, outputs, and evaluation.

2

## **Design Ethically Intelligent Assessments**

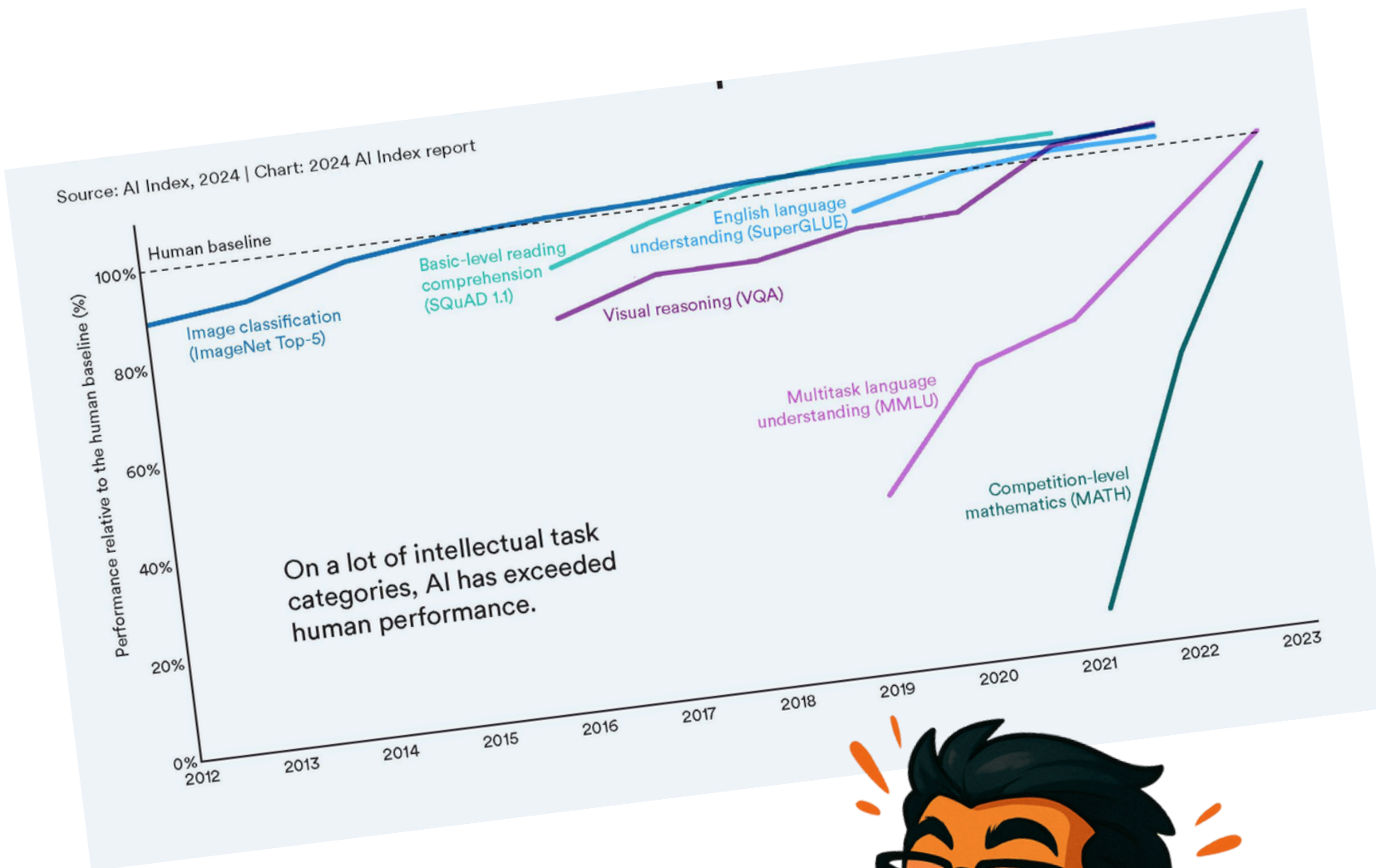
Redesign an assignment to either integrate AI use meaningfully or restrict it while preserving learning outcomes.

3

## **Empower Critical Research with AI Tools**

Engage with powerful emerging AI research tools to help students analyze, synthesize, and evaluate information.

# The AI Challenge in Education Today



As generative AI becomes increasingly more powerful and accessible, educators face a critical inflection point. Students are leveraging these powerful tools to complete assignments, often in ways that bypass traditional learning processes.

Faculty now confront multiple dilemmas:

- **Ban AI outright** = enforcement challenges & potential equity issues
- **Detection for AI** = high costs, limited efficacy, and student alienation
- **Integrate AI meaningfully** = demands redesigning assignments to preserve learning integrity

The solution requires thoughtful assignment redesign that balances academic rigor with technological reality.



# A.I in Education: Framing Questions

1. How is AI already shaping the future of my discipline—and what skills will my students need to thrive in it?
2. How should I be engaging with AI myself—so I can model lifelong learning and guide others with clarity and confidence?
3. What aspects of my course can be enhanced—not replaced—by AI to support deeper learning, critical thinking, or creativity?
- 4. How can I redesign assignments and assessments to emphasize process, reflection, and authentic problem-solving rather than final products that AI can easily replicate?**
5. How can we train students to use AI ethically, transparently, and responsibly within their field—and co-create norms that support that goal?
6. How can students use AI to solve real-world problems in their field, develop critical skills, and make meaningful contributions beyond the classroom?



# Redesign: A New Taxonomy



## 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.

Version 2.0 (2024)



This work is licensed under CC BY-NC 4.0

Distinctive Human Skills		How GenAI Can Supplement Learning*
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
APPLY	Operate, implement, conduct, execute, experiment, and test in the real world; apply human creativity and imagination to idea and solution development	Make use of a process, model, or method to solve a quantitative or qualitative inquiry; assist students in determining where they went wrong while solving a problem
UNDERSTAND	Contextualize answers within emotional, moral, or ethical considerations; select relevant information; explain significance	Accurately describe a concept in different words; recognize a related example; translate to another language
REMEMBER	Recall information in situations where technology is not readily accessible	Retrieve factual information; list possible answers; define a term; construct a basic chronology or timeline

\*AI capabilities derived with reference to an analysis of the MAGE framework, based on ChatGPT 4 as of October 2023. See Zaphir, L., Lodge, J. M., Liseo, J., McGrath, D., & Khosravi, H. (2024). How critically can an AI think? A framework for evaluating the quality of thinking of generative artificial intelligence. arXiv preprint arXiv:2406.14769.

In the Age of AI, it is **Human Intelligence** that we should emphasize

The key is seeing **Artificial Intelligence** as a tool for supplementing learning

# Redesign: Furze & Co's AI Assessment Scale

A five-point scale that can help educators determine the level of AI involvement in their assessments.

1	NO AI	The assessment is completed entirely without AI assistance in a controlled environment, ensuring that students rely solely on their existing knowledge, understanding, and skills You must not use AI at any point during the assessment. You must demonstrate your core skills and knowledge.
2	AI PLANNING	AI may be used for pre-task activities such as brainstorming, outlining and initial research. This level focuses on the effective use of AI for planning, synthesis, and ideation, but assessments should emphasise the ability to develop and refine these ideas independently. You may use AI for planning, idea development, and research. Your final submission should show how you have developed and refined these ideas.
3	AI COLLABORATION	AI may be used to help complete the task, including idea generation, drafting, feedback, and refinement. Students should critically evaluate and modify the AI suggested outputs, demonstrating their understanding. You may use AI to assist with specific tasks such as drafting text, refining and evaluating your work. You must critically evaluate and modify any AI-generated content you use.
4	FULL AI	AI may be used to complete any elements of the task, with students directing AI to achieve the assessment goals. Assessments at this level may also require engagement with AI to achieve goals and solve problems. You may use AI extensively throughout your work either as you wish, or as specifically directed in your assessment. Focus on directing AI to achieve your goals while demonstrating your critical thinking.
5	AI EXPLORATION	AI is used creatively to enhance problem-solving, generate novel insights, or develop innovative solutions to solve problems. Students and educators co-design assessments to explore unique AI applications within the field of study. You should use AI creatively to solve the task, potentially co-designing new approaches with your instructor.



Created at a time where educational institutions across the world were reaching for something to help with the immediate problems of AI & perceived threat to academic integrity.





# Redesign: AI-Resistant Assignments?



## Beyond "AI-Proof"

The concept of totally "AI-proof" assignments is unrealistic as tools evolve rapidly (UM Flint, 2025).

Instead, focus on AI-informed design that acknowledges AI capabilities while preserving meaningful learning.

## Authentic Learning

Emphasize personalized, process-oriented experiences that demand more than what AI can deliver: genuine engagement, reflection, and growth over time.

## Shift in Approach

Move from policing AI use to designing tasks that AI cannot easily replicate—assignments requiring genuine critical thinking, creativity, and application to personal contexts.

***The goal isn't to outsmart AI but to create assignments where using AI without thoughtful engagement delivers inferior results.***



# Redesign: From Product to Process

## Learning Is a Recursive Process

Deep learning is recursive—it requires revisiting ideas, revising thinking, and adapting with feedback. AI tools can make this process more visible by offering immediate input, generating variations, and prompting iteration. The focus shifts from completing tasks to refining thought.

## Why Process Matters

Prioritizing only polished work risks overlooking students' intellectual growth. Centering process values exploration, revision, and reflection. With AI, students can iterate ideas, test strategies, and build confidence in their thinking and decision-making.



## Assessment Must Evolve

If learning is to remain authentic in the age of AI, assessment must also evolve.

Grading could include the quality of engagement with tools—such as how well students prompted, revised, or reflected.

Assignments can ask for chat transcripts, prompt rationales, and annotations of AI input. These artifacts provide valuable insights into the student's decision-making and metacognitive development.



# Redesign: Imagining Assignments 2.0

**Language Arts**

A teacher uses AI to recommend reading materials that reflect students’ cultural backgrounds. The curated list features diverse authors, creating a more inclusive and engaging experience while encouraging personal connections to the texts.

**History**

Students explore industrialization by comparing AI-generated narratives from diverse global perspectives—like a factory worker in England, a farmer in India, and an artisan in China—broadening their understanding through cultural contrast.

**Algebra**

An AI tutor adapts problem sets in real time based on student progress. Struggling with a concept like quadratic equations triggers scaffolded hints, visuals, and group learning opportunities informed by performance data.


**Psychology**


Students examine AI-generated case studies of mental health scenarios, practicing diagnosis and evaluating ethical concerns. They compare their responses to the AI’s, fostering critical thinking about therapeutic methods and AI’s limitations.


**Visual Arts**


Students use AI tools like Midjourney or Adobe Firefly to generate poster designs inspired by movements like Art Deco or Afro-Futurism. They reflect on how visual styles convey cultural meaning and explain AI’s role in their creative process.


# Redesign: Sound Strategies

 **Grade the Chat:** Require students to submit excerpts of their AI conversations alongside assignments. Assess the quality of their prompts, iteration, and reflection. This provides a lens into their thinking and tool literacy.

 **Revise Rubrics to Include Process:** Integrate criteria for planning, drafting, AI usage rationale, and revision. Reward intellectual curiosity and iterative effort.

 **Collaborative Prompt Analysis:** Have students review and improve each other's AI prompts. This cultivates rhetorical awareness, precision, and ethical usage.

 **Critical Reflection Essays:** Ask students to write about how AI influenced their thinking—where it helped, where it misled, and how they verified or revised the output.

 **Process Portfolios:** Instead of a single product, students submit a folder of drafts, AI exchanges, and reflections to demonstrate learning evolution over time.





# Redesign: Policies & Agreements

AI Policy – Artificial Intelligence (AI) is one of the emerging web3 tools that promises to shake up both the academic and professional landscape. Regardless of how you feel about it, learning to use it well is an emerging and valuable skill. That being said, you can expect to use AI in my classes (ChatGPT and Midjourney AI, at a minimum). Please be aware:

- If you provide minimum prompts, you will get low quality results. You will need to refine your prompts in order to achieve better outcomes. This will take work.
- Don't trust anything AI (ChatGPT) says. Assume facts it gives you are wrong unless you know the answer or can check it with another source. You will be responsible for any errors or omissions provided by the tool. It works best for topics you understand.
- Any use of AI tools must be acknowledged. Please be sure to include a paragraph at the end of any assignment that uses AI explaining what you used it for and the specific prompts you used to get your results. Failure to do so is in violation of academic honesty policies.

## Sample Student Agreement for AI Use

AI can help me learn better and is important for my future, so I promise to use it the right way and make smart choices.

1. I will use AI tools responsibly and will not use AI in a way that could harm myself or others.
2. I will only use AI to support my learning and will follow my school's rules and teacher's instructions on when and how to use AI on an assignment.
3. I will be honest about when I use AI to help with assignments, and I will not turn in work that is fully created by an AI as my own.
4. If I use AI, I will review its work for mistakes.
5. I will check with my teacher when unsure about what is acceptable.

✳ Sample language when reviewing your class syllabus: AI tools may be used for brainstorming or preliminary research, but using AI to generate answers or complete assignments without proper citation or passing off AI-generated content as one's own is considered plagiarism.



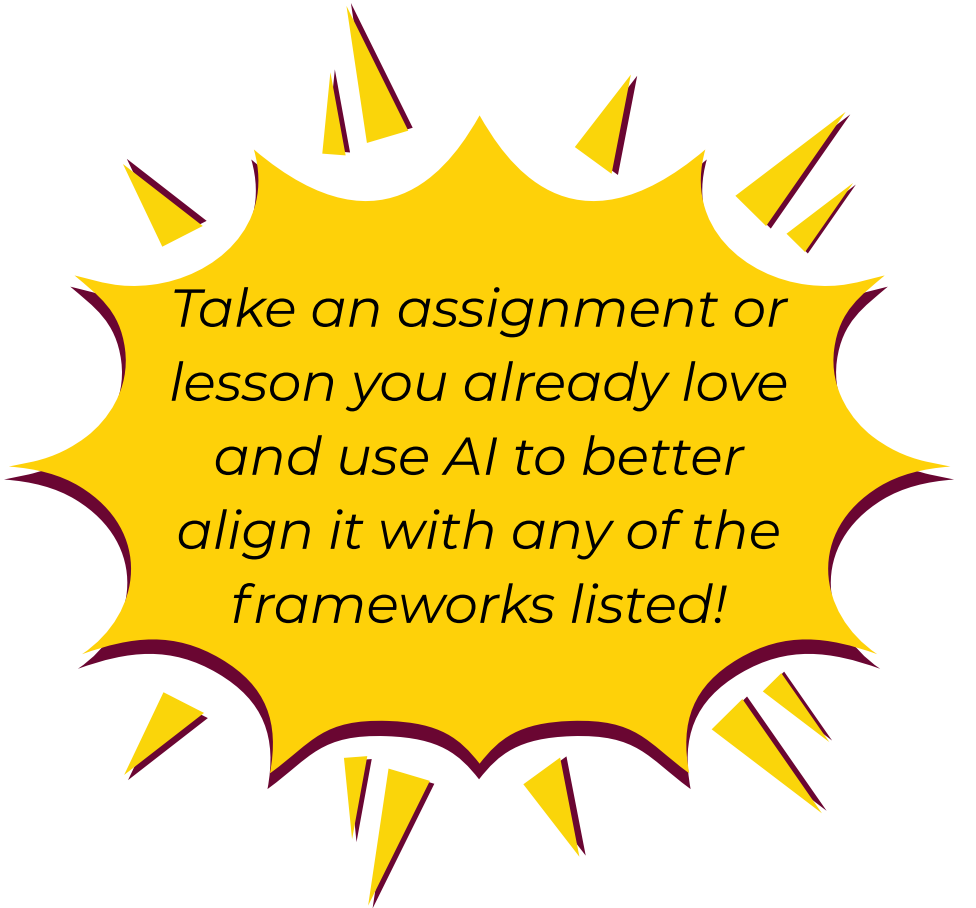
***Tag them in! They're ready to engage in these critical topics!***



# Redesign: Adapting Content

- **Project-Based Learning (PBL):** An instructional approach where students engage in real-world, meaningful projects that require critical thinking, problem-solving, collaboration, and various forms of communication.
- **Culturally Responsive Teaching (CRT):** A pedagogy that recognizes the importance of including students' cultural references in all aspects of learning, aiming to make education more relevant and effective for diverse learners.
- **Social-Emotional Learning (SEL):** An approach that focuses on the development of self-awareness, self-control, interpersonal skills, and responsible decision-making, essential for success in school, work, and life.
- **Flipped Classroom:** A pedagogical model where the traditional lecture and homework elements are reversed. Students first explore new content at home, often via video, and then apply that knowledge in the classroom through interactive activities.
- **Inquiry-Based Learning:** A student-centered method of education that involves exploring questions, problems, or scenarios rather than presenting established facts or portraying a smooth path to knowledge.
- **Competency-Based Education (CBE):** An educational approach that focuses on students demonstrating mastery of skills and knowledge at their own pace, rather than progressing through courses based on time spent in class.
- **Critical Pedagogy:** A philosophy of education that encourages students to question and challenge domination, and the beliefs and practices that dominate, advocating for the development of critical consciousness.

Regardless of discipline one of AI's best use cases is adapting content to individual needs and learning styles.



*Take an assignment or lesson you already love and use AI to better align it with any of the frameworks listed!*

# A.I in Education: Adapting Content



## How MoffettAI Can Help You Adapt!

### Expert Consultation

One-on-one assignment redesign support tailored to your specific discipline, learning objectives, and student population.

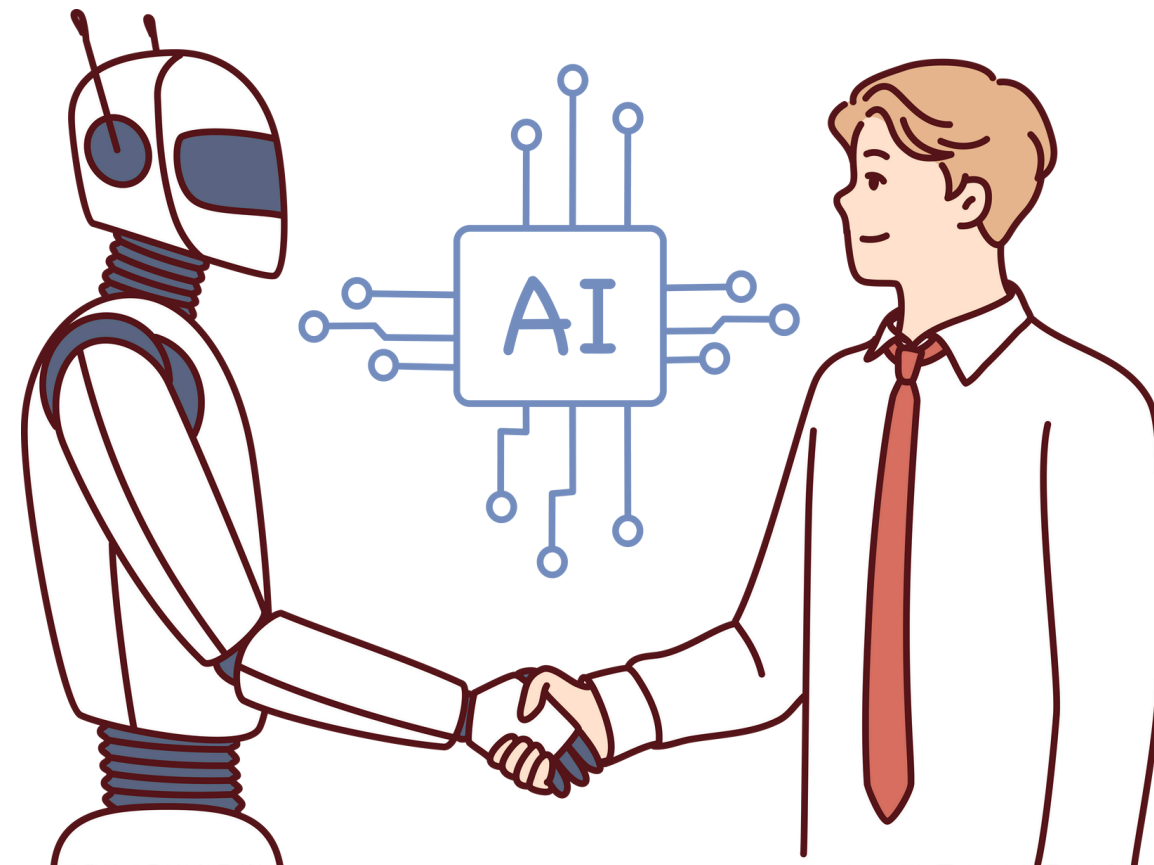
### Interactive Workshops

Collaborative sessions to develop AI-informed prompts, rubrics, and evaluation strategies with peer feedback.

### Curriculum Integration

Support for embedding ethical AI literacy into your broader curriculum, helping students develop critical AI evaluation skills.

# AI as a Research Partner



Institutional Innovation and Effectiveness





## Traditional:

Time-intensive, manual processes at every stage, from idea generation to drafting and citing.

Research is, after all, a process of inquiry where researchers enter into a conversation with other scholars. This requires careful reading, critical questioning, and synthesizing information.

## With AI Tools:

AI speeds up and simplifies multiple steps, offering new ways to brainstorm, find, and organize sources.

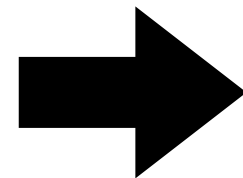


AI accelerates this process by acting as a conversation partner, suggesting relevant information and even helping us engage with complex materials. However, researchers **must still critically assess AI output.**



# Redesign: A.I for Stasis (Brainstorming)

**Example:** Student wants to write about about “Berzerk” (Manga), but isn’t sure where to start



I'm writing a paper on Berzerk manga by Kentaro Miura. Help me brainstorm topics and formulate a research question



## 1. Themes of Power, Corruption, and Sacrifice

- Explore how *Berserk* delves into the corrupting nature of power, particularly through characters like Griffith and his quest for dominance.

## 2. The Struggle Between Fate and Free Will

- Miura’s work often reflects on the tension between destiny and personal choice, particularly in the context of the Holy Night.

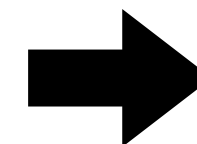
## 3. Mental Health and Trauma

- *Berserk* is deeply psychological, examining the trauma of its characters, especially Guts’ ongoing battle with PTSD.

## 4. Mythology, Religion, and the Supernatural

- The series incorporates various mythological and religious symbols, as well as an intricate supernatural world.
- **Research Question:** How does *Berserk* incorporate elements of mythology and religion to create its world-building, and how do these elements influence the narrative’s moral and ethical themes?

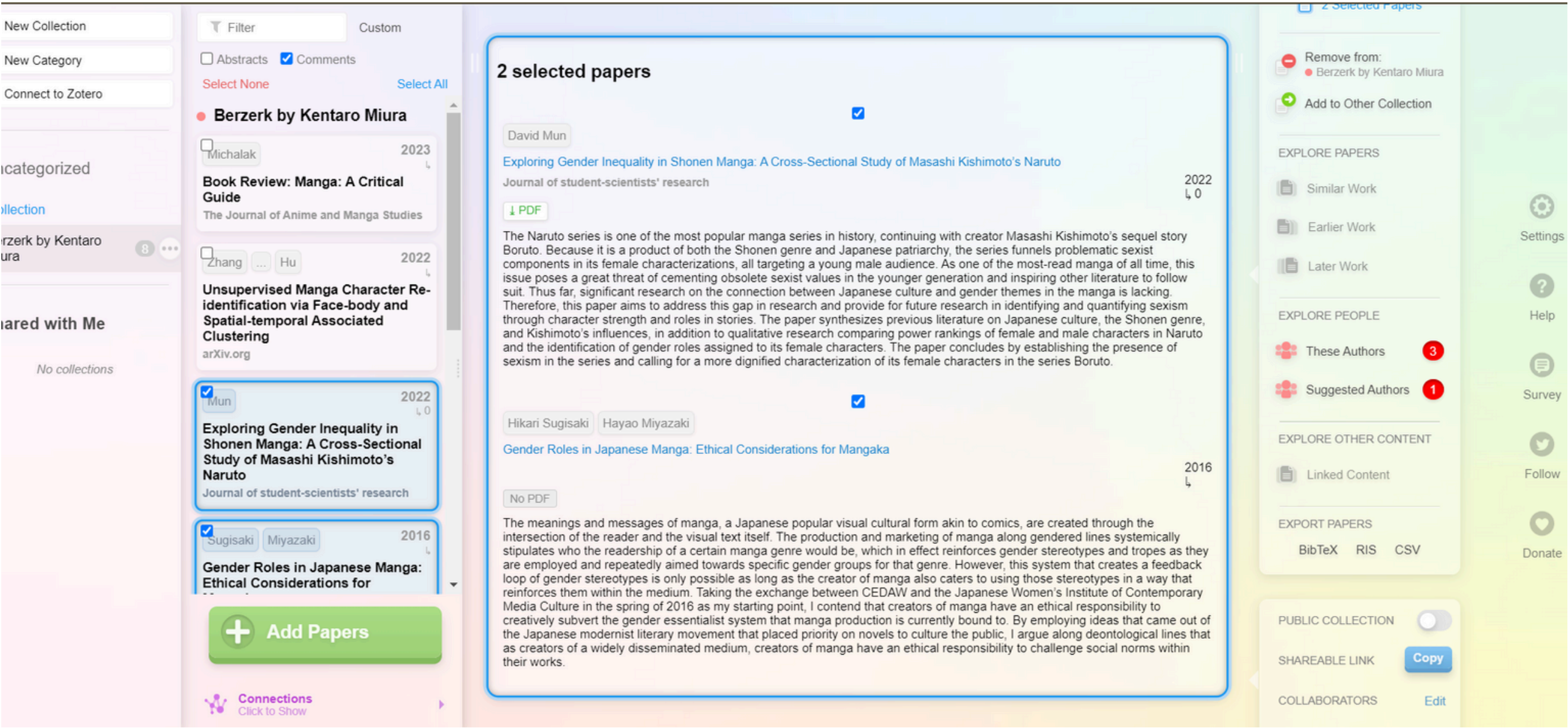
AI can assist in generating potential problems, providing points of view, and refining questions!



***How does Berserk challenge or reinforce traditional gender roles, particularly in its portrayal of masculinity and the treatment of female characters?***

# Research Rabbit

Builds research connections and creates citation maps, fostering Booth’s conversation with sources.





**Research Rabbit**

The most powerful discovery app ever built for researchers!

[researchrabbitapp.com](https://researchrabbitapp.com)

# Undermind

An AI assistant that carefully explores the scientific literature for you.  
Find exactly what you need, no matter how complex.

Research with

## Unprecedented breadth and depth

Send our AI to carefully review the literature related to your unique research topic.

Reads thousands of papers

Carefully evaluates paper relevance

Adapts search strategy recursively

Traverses the full citation graph

***“Condense weeks  
of research to  
minutes”***

**Undermind**  
Radically better research  
and discovery

**Radically better research and discovery**

Our AI assistant carefully reads hundreds of academic papers for you, finding exactly what you need, no matter how complex.

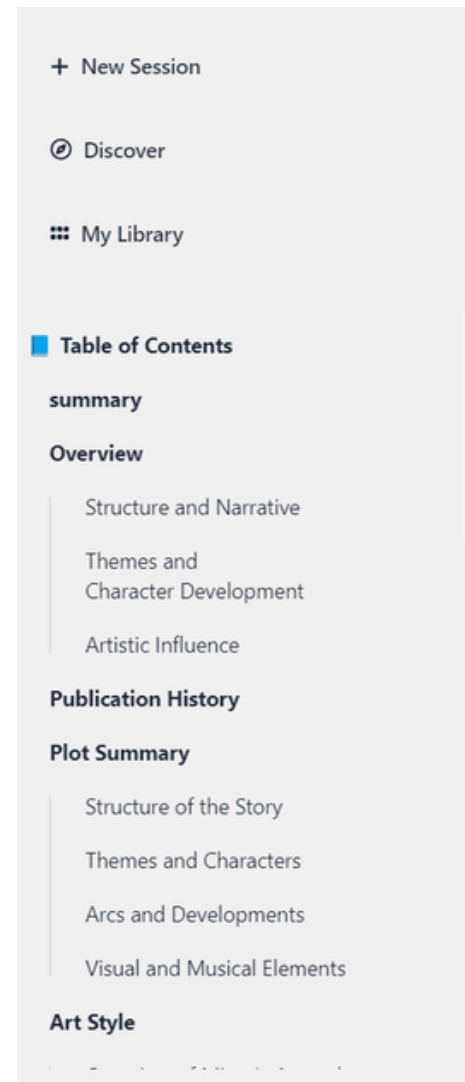
[undermind.ai](https://undermind.ai)



# STORM (Stanford University)

Synthesis of Topic Outlines through Retrieval and Multi-perspective Question Asking

Focuses on enhancing the pre-writing stage of research by automating the process of gathering references, generating outlines, and organizing information



- + New Session
- Discover
- My Library
- Table of Contents
  - summary
  - Overview
    - Structure and Narrative
    - Themes and Character Development
    - Artistic Influence
  - Publication History
  - Plot Summary
    - Structure of the Story
    - Themes and Characters
    - Arcs and Developments
    - Visual and Musical Elements
  - Art Style

STORM

Contact Us Bug Report

## Berzerk by Kentaro Miura

See BrainSTORMing Process

### summary

**Berzerk** is a critically acclaimed dark fantasy manga series created by Kentaro Miura, which first began serialization in 1989. Renowned for its intricate storytelling and profound exploration of themes such as ambition, power, and the human condition, *Berzerk* has significantly influenced the manga and anime landscape as well as popular culture at large.[1][2]. The narrative follows Guts, a lone mercenary driven by vengeance, as he navigates a brutal world rife with demons, moral complexities, and existential dilemmas, inviting readers to reflect on the nature of good and evil.[3][4]. Miura's artistry is another hallmark of *Berzerk*, characterized by detailed illustrations and a unique visual style that enhances the series' dark atmosphere and emotional depth. Critics have praised his ability to convey profound psychological and philosophical themes through both narrative and artwork, establishing *Berzerk* as a seminal work in the dark fantasy genre.[5][6]. The series' complex characters, each grappling with their own traumas and moral ambiguities, deepen its thematic resonance and invite nuanced interpretations among its readership. Despite its acclaim, *Berzerk* has not been without controversy, particularly regarding its adaptations. The 1997 anime series is celebrated for capturing the essence of the manga, while subsequent adaptations, particularly the 2016 series, faced criticism for their CGI animation and perceived shortcomings in emotional depth and pacing.[7][8]. These adaptations have sparked heated debates among fans about fidelity

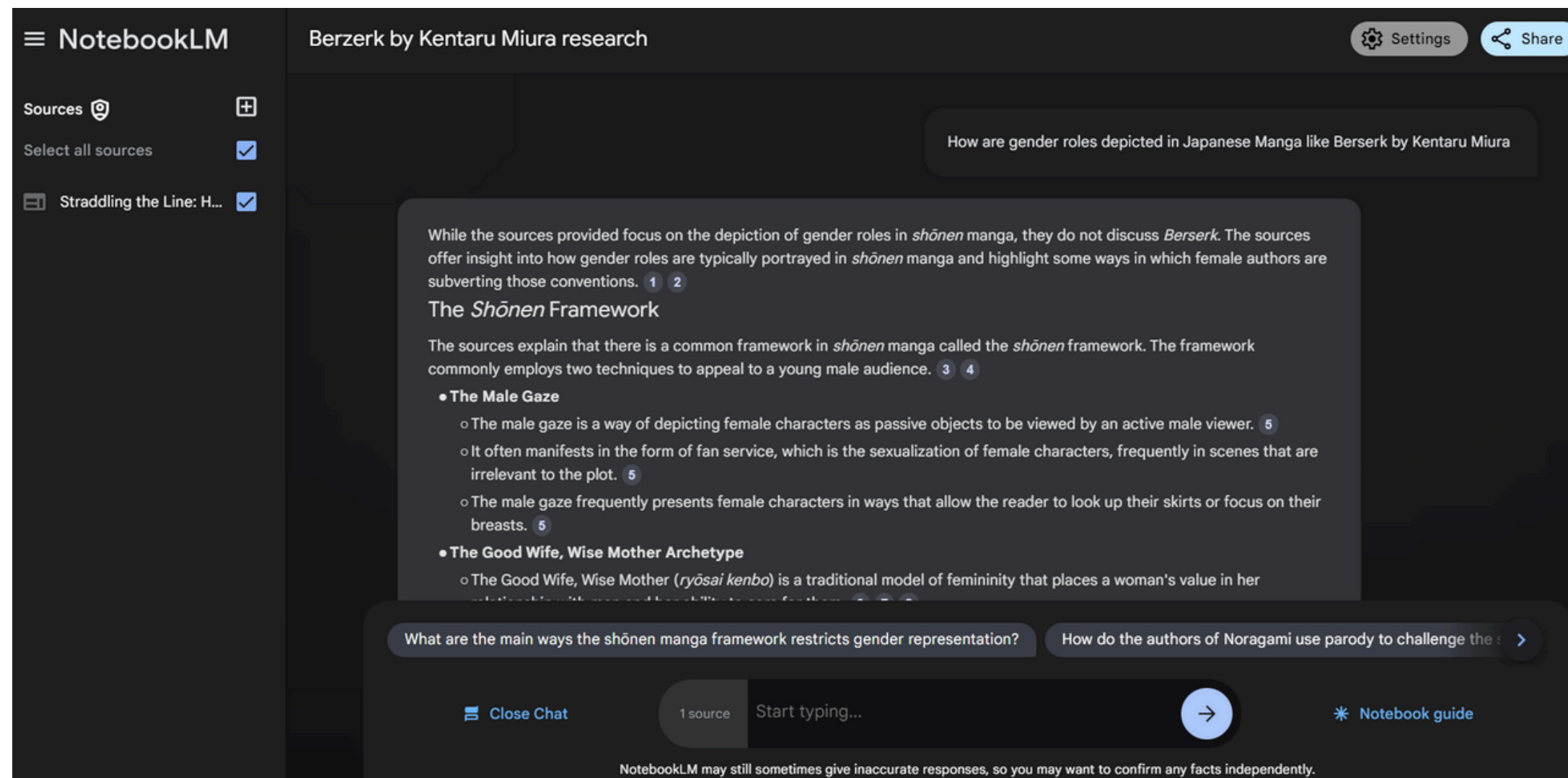
<https://storm.genie.stanford.edu/article/berzerk-by-kentaro-miura-189091>

Institutional Innovation and Effectiveness



# NOTEBOOK LM

Allows you to upload research materials and request instant summaries, highlight key sections, or ask specific questions about the content



- Interactive Summaries
- Personalized insights based on what you're looking for in a text
- Contextual Engagement: passive reading into an active dialogue

<https://notebooklm.google.com/notebook/727d749d-e0c2-4ff7-9eb0-5325437e6b40>

# Drafting & Revising

**Traditional:** When it comes to drafting and revising, this part of the process remains unchanged. Students are still required to deeply engage with their sources, critically analyze them, and craft a coherent argument

**With AI Tools:** While AI can assist in earlier stages like outlining and summarizing, the drafting and revision process should set AI tools aside.



## Citing Sources (Check official citation resources)

**Traditional:** Here, too, not much changes. Research is built on the credibility and proper acknowledgment of sources. Citation is not just a technical requirement but an ethical obligation in the scholarly conversation.

**With AI Tools:** AI assists in managing citations and ensures proper formatting, but it remains the researcher's responsibility to verify accuracy and adherence to style guides.



# Recap: Pitfalls to Avoid

## **Prohibition Without Enforcement**

Banning AI outright is often ineffective; students may simply circumvent rules (UD blog, 2025). Focus on designing assignments where AI use without understanding is disadvantageous.

## **Ineffective Check-ins**

Progress check-ins without clear guidance or purpose can multiply AI use opportunities. Ensure each checkpoint has specific learning objectives and assessment criteria.

## **Over-reliance on Detection**

Relying solely on AI detection software leads to false positives, mistrust, and an adversarial classroom environment. Detection should be one small part of a larger strategy.

## **Superficial Personalization**

Over-personalization alone doesn't deter AI use if prompts are underspecified. AI can easily generate responses that appear personalized without depth.





# Conclusion & Q&A

*Transparently Integrate or  
Restrict AI Use to Match your  
approach to your learning goals:*

## Integration Approach

- Clearly communicate when and how AI tools may be used (Cornell CTI)
- Teach students to critically evaluate AI outputs and improve them
- Require documentation of AI interactions and improvements made
- Focus on AI as a first-draft tool requiring substantial human refinement



Use integration when you want students to learn with AI; restriction when you need to assess what students can do without AI.

## Restriction Approach

- Create intentional "AI-free moments" for authentic assessment
- Use handwritten components or in-person activities
- Implement controlled environments for high-stakes assessments
- Focus on skills development that requires human judgment and creativity



# Q&A

## SURVEY





# THANK YOU

SAN DIEGO  
CITY COLLEGE

SAN DIEGO  
MESA COLLEGE

SAN DIEGO  
MIRAMAR  
COLLEGE

SAN DIEGO COLLEGE OF  
CONTINUING EDUCATION

Institutional Innovation and Effectiveness