

Authentic Assessment with AI

Breakout Session: 2:30-3:20p

Richard G. De Leon
Adlai E. Stevenson High School



Authentic Assessment with AI

How can students utilize AI as a tool to support their own authentic learning?

How can teachers design authentic assessment experiences that challenges students to think critically?

Introduction & Objectives

Introduction - Rick De Leon

- ELA (9th/10th)/Critical Thinking
- Lifelong Learner/Realistic Idealist
- Former Computer Science Major
- D&D/Cyberpunk/TTRPG Enthusiast

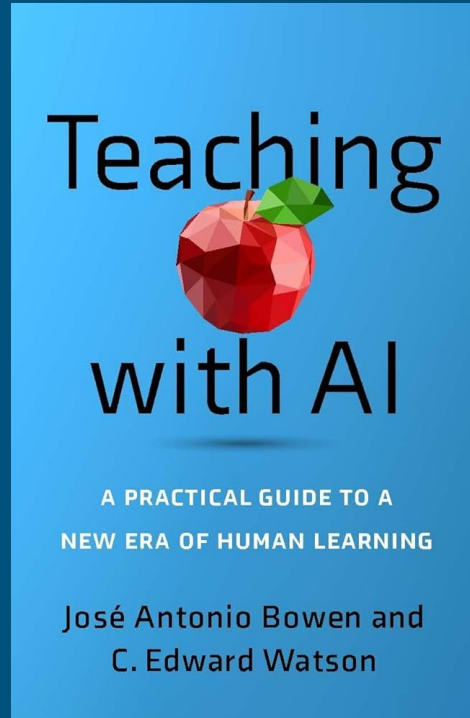


Breakout Session Objectives

- Aligning Project-Based Learning (PBL) and its Key Components with AI supports
 - Key Components w/
 - ELA Examples
- Integrating AI/Literacy into PBL
 - Supports and Limitations
- Brainstorming Activity and Discussion
 - Prompt, Generate, and Share!

What have I been reading...

Teaching with AI (2024)



Nothing in life is to be feared, it is only to be understood.
Now is the time to understand more, so that we may fear less.

MARIE CURIE, Nobel Laureate in Physics (1903)
and Chemistry (1911)

There is a great deal to understand about AI. Like the internet, AI is a technology that is going to change everything—and not just education.

The internet, and more specifically, the World Wide Web, fundamentally changed our relationship with knowledge: moving us from a world where knowledge was scarce (but mostly reliable) to one where knowledge was abundant (but largely unreliable). When this framing was first floated (Bowen, 2006), we were all using the internet on our desktops: the iPhone was yet to arrive. We could all appreciate the increased access to research materials and expertise, but we were already wary of the rise of unfiltered and sometimes sinister misinformation.

(Bowen & Watson, 2024, pg. 1)

WIKIPEDIA

The Free Encyclopedia

English

6,895,000+ articles

日本語

1,433,000+ 記事

Русский

2 004 000+ статей

Español

1.983.000+ artículos



3:00

Warm up Discussion

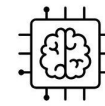
*True or False:
Students can use Wikipedia for research.*

Why bring AI into our pedagogy?

Digital Literacy >>> AI Literacy

“Even if we don’t think we teach digital literacy, we do. Kinda. We teach critical thinking and then hope our students will be as thoughtful and skeptical at doing web searches as we are.

The need for universal AI literacy is also an opportunity to integrate better skepticism, logic, and critical thinking across the curriculum.”
(Bowen & Watson, 2024, pg. 42-43).



AI LITERACY FRAMEWORK

1. HARDWARE & SOFTWARE

- Know which AI tool to use
- Use AI tools and features on phone/tablet/laptop/desktop



2. INFORMATION & DATA LITERACY

- Use AI to access new info and organize data
- Evaluate AI output
- Modify techniques to improve AI performance



3. COMMUNICATION & COLLABORATION

- Converse with AI systems and chatbots
- Manage and share AI content
- Determine whether/how to acknowledge AI
- Use AI in collaboration with others



4. CONTENT CREATION

- Use AI to create and personalize new content and adapt existing content
- Understand legal and ethical issues with AI datasets, models, and output



5. SAFETY

- Know risks and liabilities of AI tools
- Review privacy policies for data usage
- Manage risks to personal info and wellbeing
- Use AI in ethical ways and assess environmental impact



6. PROBLEM SOLVING

- Recognize errors and inconsistencies in outputs
- Identify and solve AI-related problems
- Use AI to create insights and improve processes
- Identify skill gaps and continually learn



7. CAREER COMPETENCIES

- Use and customize AI tools in specific field
- Understand and analyze AI content in specific field
- Combine industry expertise with AI analysis and processes





What are the key components of project-based learning?



Project-based learning (PBL) is a dynamic approach to teaching where students actively explore real-world problems and challenges. Here are the key components that make PBL effective:

1. Challenging Problem or Question:

- **Central Focus:** At the heart of any project is a meaningful problem to solve or a

AI has arrived, and so has the need for AI Literacy!

“The World Economic Forum listed ‘prompt engineering’ as its number-one ‘job of the future’ in 2023...” (Whiting 2023)



what are chatbots in ai



All Images Videos News Forums Shopping Web : More Tools

AI Overview

An AI chatbot is a computer program that uses artificial intelligence (AI) to simulate human-like conversations with users:

How they work

AI chatbots use natural language processing (NLP) and machine learning (ML) to understand user queries and generate responses. They can interpret human language as it's written, and respond in real time based on existing data.

How they differ from standard chatbots

AI chatbots use large language models (LLMs) instead of traditional conversation flows and pre-programmed responses.

ChatGPT

Share

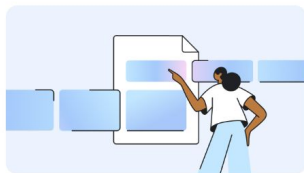


Write an essay on the novel *The Catcher in the Rye* using the following prompt: To what extent does adversity or disillusionment and an individual's ability to cope with disillusionment make an individual stronger or weaker?



In J.D. Salinger's *The Catcher in the Rye*, Holden Caulfield's experiences with adversity and disillusionment are central to his character development and ultimate emotional state. The novel explores how Holden's personal struggles—stemming from the death of his brother, societal hypocrisy, and the transition into adulthood—profoundly shape his worldview. The question of whether adversity and disillusionment make Holden stronger or weaker is central to understanding the novel's themes. While Holden's inability to cope with his disillusionment initially drives

Kickstart ideas, brainstorm activities, and differentiate content with the help of Gemini.



Outline a lesson plan

Now with AI, easily outline lesson plans for your class including learning objectives



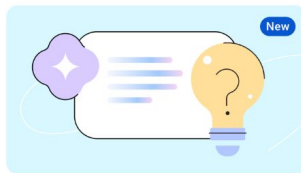
Generate a quiz

Generate a quiz and export to Forms, for use in or out of your class



Re-level text

Generate a new version of your text for any reading level using AI



Craft a compelling hook

Spark curiosity and engage your students with a compelling start for your class using AI

...and not only
has it arrived, but
so have AI tools
and assistants as
well...



Magic Tools

Raina (Chatbot)

Output History

Launch to Students

Love

Training

Share the Magic

MagicStudent Intro

Enterprise



Search Tools

MagicSchool

MagicStudent

Favorites [Change Order](#)

Professional Email
Generate a professional e-mail communication to colleagues and...

E-mail Responder
Generate a customized professional e-mail communication in response to...

E-mail Family
Generate a professional e-mail communication to families and...

Recommended For You ⓘ

Rubric Generator
Have AI write a rubric for an assignment you are creating for your...

Writing Feedback
Based on a custom criteria, have AI give areas of strength & areas for...

Text Dependent Questions
Generate text-dependent questions for students based on any text that...

AI Resistant Assignments
Receive suggestions on making assignments more challenging for AI...

Exemplar & Non-Exemplar
Have AI write exemplar & non-exemplar responses to specific...

Get More Recommendations

All Tools

Sort by Most Popular

All New Planning Content Questions Intellectual Prep Student Support Communication Community Tools Admin

Image Generator **HOT**
Generate and edit images with AI from Adobe Express.

Presentation Generator **HOT**
Generate exportable slides based on a topic, text, YouTube video, or any...

Text Rewriter
Take any text and rewrite it with custom criteria however you'd like!

A Future with Artificial Intelligence

3:00

There's been a lot of buzz recently about artificial intelligence.

AI—the ability of computers to solve problems like humans—can write poetry, essays, drive cars, and diagnose diseases. What will this technology mean for our future?

Turn & Talk: *Respond to one of the following:*

1. What's one task you think would be hard for computers to do as well as humans? Explain.
2. Should there be laws to control the use of AI? Why or why not?
3. Imagine you're a kid in 2100. Describe how you use AI in your daily life.

ChatGPT



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., Lisee, 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.



Turn & Talk: *In what ways do your existing assessments require higher-order critical thinking skills...*

"We need to focus more of our grades on higher order Bloom thinking tasks and articulate what better (human?) work, writing, or thinking looks like."
(Bowen & Watson, 2024, pg. 153)

Project-Based Learning: An AI Overview

AI Overview

Learn more ⋮

Project-based learning (PBL) is a teaching method that engages students in real-world problems through projects that develop critical thinking, collaboration, and problem-solving skills: 🔗

- Student-centered: PBL is a learner-centered approach that involves students in the design, development, and construction of solutions to problems. 🔗
- Real-world problems: PBL projects can focus on academic, personal, or industry problems. Students work in groups to analyze problems and generate solutions. 🔗
- Interdisciplinary: PBL projects can cover multiple subject areas or curriculum strands. 🔗
- Collaborative: Students work together to find solutions and develop skills. 🔗
- Creative: PBL encourages students to be creative and work through difficult problems. 🔗
- Self-directed: PBL helps students develop self-directed learning skills. 🔗
- Authentic: PBL projects are authentic and engaging, and students respond to them with deep attention. 🔗

PBL projects typically involve the following steps:

1. Identifying a problem
2. Agreeing on a solution
3. Designing and developing a prototype
4. Refining the solution based on feedback 🔗



Project-Based Learning | Center for Teaching & Learning

Project-based learning (PBL) involves students designing, developing, and constructing hands-on...

 Boston University



Getting Started with Project-Based Learning

Project-based learning (PBL) actively involves students in their learning and prepares them for the world beyond...

 Columbia Center for Teaching and Learning



Project-based learning

Project-based learning is a student-centred methodology that engages students in developing...

 Institute for Teaching and Learning Innovation



Part I: Aligning with Project-Based Learning

Key Components of PBL:

- Real-world connection
 - Core to learning
 - Student voice & choice
 - Inquiry & innovation
 - Reflection
 - Critique & revision
 - Public product
- **Driving Question:** A *challenging, open-ended question* that guides the project.
 - **Core Learning:** Students identify the *knowledge and skills* required.
 - **Voice and Choice:** *Students have agency in their learning and project outcomes.*
 - **Inquiry and Innovation:** Encouraging exploration and *problem-solving*.
 - **Reflection:** *Personal growth & AI assistance.*
 - **Feedback and Revision:** Iterative process of *improvement*.
 - **Public Product:** *Sharing the final project with an audience.*

Part I: Aligning with Project-Based Learning

Catcher Process Paper for Coping with Disillusionment

Context: At the start of this unit, we asked, “How do we reconcile childhood illusion with reality?” This seemingly simple question invited us to consider issues of much greater complexity. For example, is it true, as Jules Romains asserts, that the world is “an enormous injustice”, and if so, how should one react? Is it better to “avoid pain” (Jefferson), or does suffering bring strength (Nietzsche)? Do illusions help (Bovee) or hurt (Emerson) us, and does education perpetuate (Sewell) or relieve (Carver) disillusionment?

The Problem: Throughout *The Catcher in the Rye* we will explore how disillusionment and adversity weakens and strengthens Holden and his ability to navigate the world, his relationships with others, and his own emotional responses. Is Holden stronger or weaker because of this journey, and ultimately what is the significance of his struggle?

Task: Using the entirety of J.D. Salinger’s *The Catcher in the Rye*, write an essay that responds to the question: **To what extent does adversity or coping with disillusionment makes the individual stronger and/or weaker and what does your conclusion suggests about dealing with adversity or disillusionment?** Choose an audience for your essay—other teenagers, parents, or teachers who witness a troubled teen’s journey.

Part I: Aligning with Project-Based Learning

Key Components of PBL:

- Real-world connection
- Core to learning
- Student voice & choice
- Inquiry & innovation
- Reflection
- Critique & revision
- Public product

What assessment would you update?

Consider an assessment that you could update/rework to align with PBL...



3:00

Part I: Aligning with Project-Based Learning

Key Components of PBL:

- **Real-world connection**
- Core to learning
- Student voice & choice
- Inquiry & innovation
- Reflection
- Critique & revision
- Public product

Aligning *The Catcher in the Rye* with PBL:

- **Real-World Connection:** Students will relate Holden's disillusionment in relationships to their own experiences (text-to-self) or societal experiences (text-to world).
- **Driving Question:** *How do societal pressures and expectations influence our relationships and self-perception?*
- Students are encouraged to reflect on modern challenges with trust, loyalty, and authenticity in relationships, *potentially tying in issues of peer pressure, social media influence, etc.*

Part I: Aligning with Project-Based Learning

Key Components of PBL:

- Real-world connection
- **Core to learning**
- Student voice & choice
- Inquiry & innovation
- Reflection
- Critique & revision
- Public product

Aligning *The Catcher in the Rye* with PBL:

- **Core Learning:** Understanding disillusionment as a process (expectation, adversity, coping)
 - a. This project aligns with ELA goals such as analyzing character development, themes, and author's purpose.
 - b. Students will also build skills in critical thinking, literary analysis, synthesis, and developing media literacy
 - c. Students will critically analyze the novel's portrayal of disillusionment, developing coherent, well-supported arguments.

Part I: Aligning with Project-Based Learning

Key Components of PBL:

- Real-world connection
- Core to learning
- **Student voice & choice**
- Inquiry & innovation
- Reflection
- Critique & revision
- Public product

Aligning *The Catcher in the Rye* with PBL:

- **Voice and Choice:** Students have the freedom to incorporate their own experiences and/or societal observations, connecting with their choice of relationships (friends, family, etc.)
- Students can also choose a contemporary issue related to disillusionment (e.g. toxic relationships, social media vs. reality, etc.)
- Students can also choose how to present their final product (video, podcast, digital essay, interactive website, or blog)

Part I: Aligning with Project-Based Learning

Key Components of PBL:

- Real-world connection
- Core to learning
- Student voice & choice
- **Inquiry & innovation**
- Reflection
- Critique & revision
- Public product

Aligning *The Catcher in the Rye* with PBL:

- **Inquiry:** Students will generate questions such as: *How do different types of relationships impact personal growth? Can disillusionment be beneficial? How has technology changed the nature of relationships and authenticity?*
- **Innovation:** Students will incorporate AI tools for brainstorming, research, and organizing their ideas. They will engage in digital literacy, using AI to explore new ways of looking at literary analysis and social patterns, and even explore how AI might impact future relationships.

Part I: Aligning with Project-Based Learning

Key Components of PBL:

- Real-world connection
- Core to learning
- Student voice & choice
- Inquiry & innovation
- **Reflection**
- Critique & revision
- Public product

Aligning *The Catcher in the Rye* with PBL:

- **Human Reflection:** Students will maintain a digital reflection journal to reflect on their personal growth relating to their perspective on relationships, disillusionment, and authenticity.
- **AI vs. Human Reflection:** Students will also compare how AI tools shaped their ideas and analysis, noting the difference between AI insight and/or where personal reflections and the complexity of human emotions and relationships illustrate limitations with AI.

Part I: Aligning with Project-Based Learning

Key Components of PBL:

- Real-world connection
- Core to learning
- Student voice & choice
- Inquiry & innovation
- Reflection
- Critique & revision
- Public product

Aligning *The Catcher in the Rye* with PBL:

- **Feedback and Revision:** Students will engage in multiple rounds of teacher/peer/AI feedback on their analysis and presentation format to question and strengthen their arguments.
- **Growth Mindset:** The revision process will be emphasized, with students reflecting on how their work has improved over time and how constructive criticism and AI assistance have shaped their product.

Part I: Aligning with Project-Based Learning

Key Components of PBL:

- Real-world connection
- Core to learning
- Student voice & choice
- Inquiry & innovation
- Reflection
- Critique & revision
- **Public product**

Aligning *The Catcher in the Rye* with PBL:

- **Public Product:** Students will conclude the project by presenting their multimedia analysis to an audience beyond the classroom, such as parents, peers, or online communities, and are encouraged to engage with their audience.
- **Student Ownership:** By presenting to a public audience, students take ownership over their learning and work to create a polished final product, which empowers students to take pride in their work.

Part II: AI Supports and Limitations - 70/30

AI Assistance/Supports:

- **Real-world connection**
- Core to learning
- **Student voice & choice**
- **Inquiry & innovation**
- Reflection
- **Critique & revision**
- Public product

AI Integration - Research and Content Development

- Brainstorming Guiding Questions
- Exploring Topics/Thematic Focus
- Research fundamental information/context
- Outlining/Structuring Content Development
- Designing visuals/multimedia elements

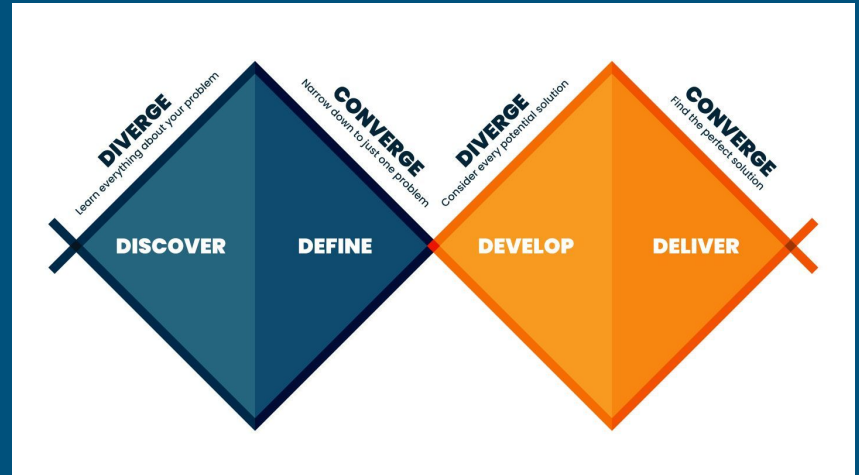
Scaffolding Support: We must consider how students might use AI tools to enhance their learning independently OR whether it would be more appropriate for teachers to guide this process...

Part II: AI Supports and Limitations - 70/30

AI Assistance/Supports:

- **Real-world connection**
- Core to learning
- **Student voice & choice**
- **Inquiry & innovation**
- Reflection
- **Critique & revision**
- Public product

“Since AI is such a prolific idea generator, it is especially useful in the divergent phases of the process” (Bowen & Watson, 2024, pg. 47).



Part II: AI Supports and Limitations

AI Limitations (Assistance Only):

- **Real-world connection**
- Core to learning
- **Student voice & choice**
- **Inquiry & innovation**
- Reflection
- **Critique & revision**
- Public product

Recognizing AI Limitations and Reliability

- **Creating** - Creativity? Originality? Maybe...
- **Evaluating** - AI struggles with understanding
- **Analyzing** - Misses context-specific insights

Promoting Critical Thinking

- Encourage students to evaluate AI content
- Foster reflection on process/decision-making
- Promote discussions on ethical use of AI

Part II: AI Supports and Limitations

AI Limitations (Assistance Only):

- **Real-world connection**
- Core to learning
- **Student voice & choice**
- **Inquiry & innovation**
- Reflection
- **Critique & revision**
- Public product

Recognizing AI Limitations and Reliability

- **Creating - Creativity? Originality? Maybe...**

“This ability to ‘hallucinate’ makes AI a terrific tool for creativity: it will put ideas and words together in ways that humans might never have done before.”
(Bowen & Watson, 2024, pg. 19)

“The potential for more creative humans and better thinking is the promise of this new partnership: it is in the iteration, the reflection, the back and forth, and the refined questions that thinking and creativity happen.”
(Bowen & Watson, 2024, pg. 77)

Part III: *What exactly do you want AI to do?*

Key Components of PBL:

- Real-world connection
- Core to learning
- Student voice & choice
- Inquiry & innovation
- Reflection
- Critique & revision
- Public product

Create, Summarize, Analyze, Elaborate, Reimagine, Explain, Identify, Translate, Transform, Transcribe, Resolve, Assemble, Argue, Monitor, Detect, Generate, Predict, Recommend, Brainstorm, Clarify, Combine, List, Compile, Make, Draw, Rephrase, Develop, Expand, Provide, Synthesize, Abridge, Explore, Invent, Write



"...moving students to use AI as part of a process means that we will need to both prompt and grade for process and rethink what we're expecting in terms of product."
(Bowen & Watson, 2024, pg. 157)