



EDUCATE • INSPIRE • EMPOWER



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Clackamas
EDUCATION SERVICE DISTRICT



AI in Action:

Scaffolding Success & Scaling Creativity

bit.ly/RAIN26



Introductions



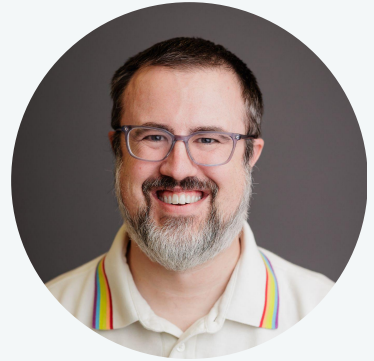
Erin Bray
MCREN
Facilitator



Laura Axon
Teacher Librarian, Portland PS



Emery Mitchem
Teacher, Centennial



Patrick Stenger
Teacher, Portland PS

What is MCREN?

Nurture and expand a high-quality pool of engaged educators who are reflective of student racial demographics in Multnomah and Clackamas counties.

Increase
Healthy Cultures
for educators in
Schools &
Districts

Increase
Educators
Sense of Efficacy
& Impact

How MCREN?



- **Funding Partner**
- **Technical Assistance**
 - Human-Centered Design
 - Continuous Improvement
 - Data Support
- **Networked Learning**

AI Educators Cohort Overview



Cohort Goal

To bring together a group of thoughtful educators to engage in deepening AI literacy skills, and grapple with ethical, responsible & innovative implementation across our regions.

Who's in the cohort?

- 16 School Districts across 2 counties
- 19 K-5 educators
- 13 MS educators
- 12 HS educators
- 3 librarians
- 4 special education teachers
- 4 Instructional coaches/TOSAs
- 1 Administrator

Made Possible by Partnership



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Grounding the Work: Teach AI Framework

AI literacy represents the technical **knowledge**, durable **skills**, and future ready **attitudes** required to thrive in a world influenced by AI. It enables learners to **engage**, **create** with, **manage**, and **design** AI, while critically evaluating its **benefits**, **risks**, and **ethical implications**.

[TeachAI AI Literacy Framework](#)

Four Domains of AI Literacy



Engaging with AI



Engaging with AI in daily life involves using AI as a tool to access new content, information, or recommendations.

- Recognize AI's role and influence in different contexts.
- Evaluate whether AI outputs should be accepted, revised, or rejected.
- Examine how predictive AI systems provide recommendations that can inform and limit perspectives.
- Explain how AI could be used to amplify societal biases.
- Describe how AI systems consume energy and natural resources.
- Analyze how well the use of an AI system aligns with ethical principles and human values.
- Connect AI's social and ethical impacts to its technical capabilities and limitations.



Creating with AI

Creating with AI consists of collaborating with AI in a creative or problem-solving process.

- Use AI systems to explore new perspectives and approaches that build upon original ideas.
- Visualize, prototype, and combine ideas using different types of AI systems.
- Collaborate with generative AI systems to elicit feedback, refine results, and reflect on thought processes.
- Analyze how AI can safeguard or violate content authenticity and intellectual property.
- Explain how AI systems perform tasks using precise language that avoids anthropomorphism.



Managing AI

Managing AI requires intentionally choosing how AI can support and enhance human work.

- Decide whether to use AI systems based on the nature of the task.
- Decompose a problem based on the capabilities and limitations of both AI systems and humans.
- Direct generative AI systems by providing specific instructions, appropriate context, and evaluation criteria.
- Delegate tasks to AI systems to appropriately automate or augment human workflows.
- Develop and communicate guidelines for using AI systems that align with human values, promote fairness, and prioritize transparency.



Designing AI

Designing AI empowers learners to shape AI through hands-on exploration of the data used by AI models and engagement with AI design decisions.

- Describe how AI systems can be designed to support a solution to a community problem.
- Compare the capabilities and limitations of AI systems that follow algorithms created by humans with those that make predictions based on data.
- Collect and curate data that could be used to train an AI model by considering relevance, representation, and potential impact.
- Evaluate AI systems using defined criteria, expected outcomes, and user feedback.
- Describe an AI model's purpose, intended users, and its limitations.



Cohort Overview

Nov 6

In Person Session

Foundations of AI in Education

Jan 15

In Person Session

Assessments & Student Use of AI

March 12

In Person Session

Artifact Development and Collaboration

May 12

AI EDU Conference

Virtual Session

Practical Classroom Applications & Beyond

Virtual Session

AI Equity and Ethics

Virtual Session

Project Sharing

Dec 11

Feb 19

April 16



Teacher Project Spotlights

Writing Historical Narrative Graphic Novels

Laura Axon, , Portland Public Schools, Library
Media Specialist/Teacher Librarian

Middle School/ Project
Based Learning/
Elective Teacher
ELA, Social Studies,
Any subject matter

Students using Lumi Story Platform to create a historical narrative graphic novel. Students learn AI prompting to get the results they want to create the graphic novel.

Shareable links/Resources Created:
[No More Tools of the Week!](#) [Universal AI Literacy](#)



Reflection/Takeaways/Next Steps:

Student background knowledge is key to AI Use.

VIBE CODING APPS FOR SPECIFIC SKILLS PRACTICE

Patrick Stenger, PPS, 5th grade teacher

SHORT DESCRIPTION OF PROJECT:

Using Google Gemini Canvas, I have been creating games specific to the math skills we are covering each week. This has allowed me to provide students with additional practice with key skills.

Now that this has become an established routine, I am asking students to develop and submit proposals for their own math games, using specific math vocabulary, and collaborating to prompt revisions in Gemini.

This has both helped to support student automaticity with foundational math skills, and reduce the amount of time spent combating students attempting to access games during class time.



SHAREABLE LINKS/RESOURCES CREATED:



CLASSROOM
GAMES
LIBRARY

STUDENT
PROPOSAL
TEMPLATE

Examples are @ 5th,
but could be applicable k-12

Examples are @ 5th,
but could be applicable
k-12

Science Quest 2

Science Quest 2 is an educational JRPG where players explore maze-like floors, battle enemies by answering science questions, collect tools, and level up while searching for their missing teacher, Mr. M. The game blends classic dungeon exploration with NGSS-aligned science review to make learning part of the adventure. I built it for my students using vibe coding(its deeper than it looks). :)



Oregon's 8th grade science proficiency rate is about 31%. At the same time, science teachers have shifted to NGSS standards, which emphasize investigation and explanation rather than multiple-choice testing, while the state OSAS science exam is still roughly 65–75% multiple choice. **Science Quest 2** is a game designed for middle school students to review the wide range of concepts from grades 6–8 that are assessed together on that single exam.

Emery Mitchem, 6th Grade Science, Oliver Middle School, Centennial School District

One Bot, Many Voices: The Power of Teacher-Designed Adaptive Scaffolding

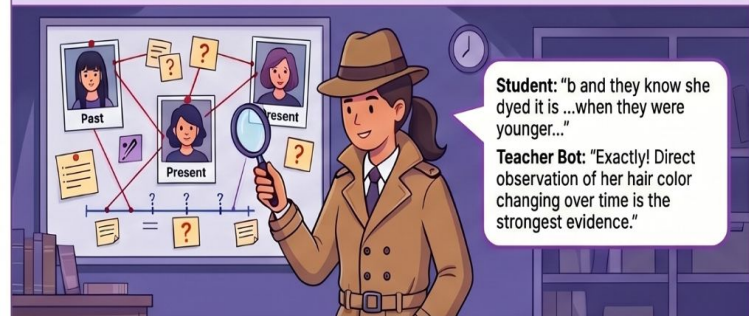
The Student Experience: Breaking Barriers for 504 Students



Student: "Inference"
Teacher Bot: "Perfect! You're doing amazing! 🌟 That's definitely an inference because you're making a smart guess..."

By anchoring the lesson in a VR horror narrative, the barrier of technical jargon vanishes. The student shifts from being overwhelmed to being fully immersed, using the chatbot's immediate "Perfect!" feedback to build a streak of success. This cognitive momentum transforms vocabulary exercises into an act of sense-making.

The Student Experience: Challenging TAG Learners with "Detective Mode"



Student: "b and they know she dyed it is ...when they were younger..."
Teacher Bot: "Exactly! Direct observation of her hair color changing over time is the strongest evidence."

In "Detective Mode," the TAG student moves beyond simple identification into the realm of theory-crafting and synthesis. Their voice evolves from choosing options to justifying complex conclusions—such as remembering a character's past hair color to prove a point—demonstrating mastery.

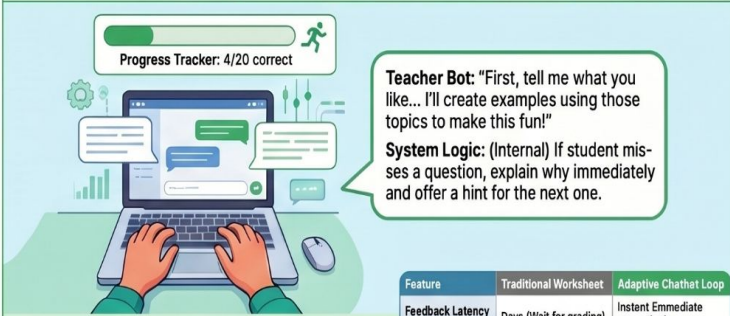
The Student Experience: Empowering ELL through Dual-Language Analogies



Student: "c (Cell, tissue, organ)"
Teacher Bot: "بسیار عالی! درست است ... Excellent! 'Cell, tissue, organ' is the correct order."

By engaging in high-level biological discourse through a dual-stream of English and Dari, the student navigates complex cell hierarchies using a familiar volleyball team analogy. This cultural bridge allows them to participate in deep scientific thinking without the delay of traditional translation tools.

The Engine: The Adaptive Feedback Loop



Teacher Bot: "First, tell me what you like... I'll create examples using those topics to make this fun!"
System Logic: (Internal) If student misses a question, explain why immediately and offer a hint for the next one.

The "Adaptive Feedback Loop" serves as the engine of transformation. A 20-minute review session becomes a high-frequency learning cycle. The student's voice is never silenced; they interest, correct misconceptions immediately, and self-assess in real-time.

Feature	Traditional Worksheet	Adaptive Chatbot Loop
Feedback Latency Loop	Days (Wait for grading)	Instant Immediate extraction
Cognitive Load	High S language/ Anxiety Barriers)	Targeted (Selffinding/Analogies)
Student Agency	Passive (Receiving a grade)	Active (Self-assessing in the moment)

Using Magic School that I can deploy a chatbot I have written myself, which transforms a static 20-minute review worksheet into a living, high-frequency loop where students who might get ten answers wrong are able to use the bot's immediate redirection to self-assess and master the concept in real-time. This becomes important because when I architect my own prompt to pivot between high-interest VR scenarios for 504 support and bilingual sports analogies for ELL inclusion, it creates a situation where every student is actively navigating their own path to mastery through a conversation that reflects my instructional voice rather than a generic task.

Don't let AI plan the thinking. Put it where students do the thinking.



AI should not replace the professional work of teaching.



When AI does the planning for us, teachers risk offloading the same cognitive work we are trying to preserve for students.



AI makes teaching tasks feel easier, but constant affirmation can weaken the reflection that keeps us responsive to students.



We cannot protect student thinking by outsourcing our own.

The goal is not faster lesson production.

The goal is deeper student understanding.

Don't let AI plan the thinking. Put it where students do the thinking.



Learning happens when students build understandings from the frameworks they already have.



AI can help reveal those frameworks, making differentiation and scaffolding more responsive.



After 19 years of teaching, this has reinvigorated my work.

AI is most powerful when it helps teachers and students access the frameworks for understanding that are already there.

RAIN Projects from Spring 2025



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AI Educators Cohort

Spring 2025 Cohort
Personal Projects



Questions?





2026-2027 Cohort Next Year!

[Complete this form to receive information when it's available](#)