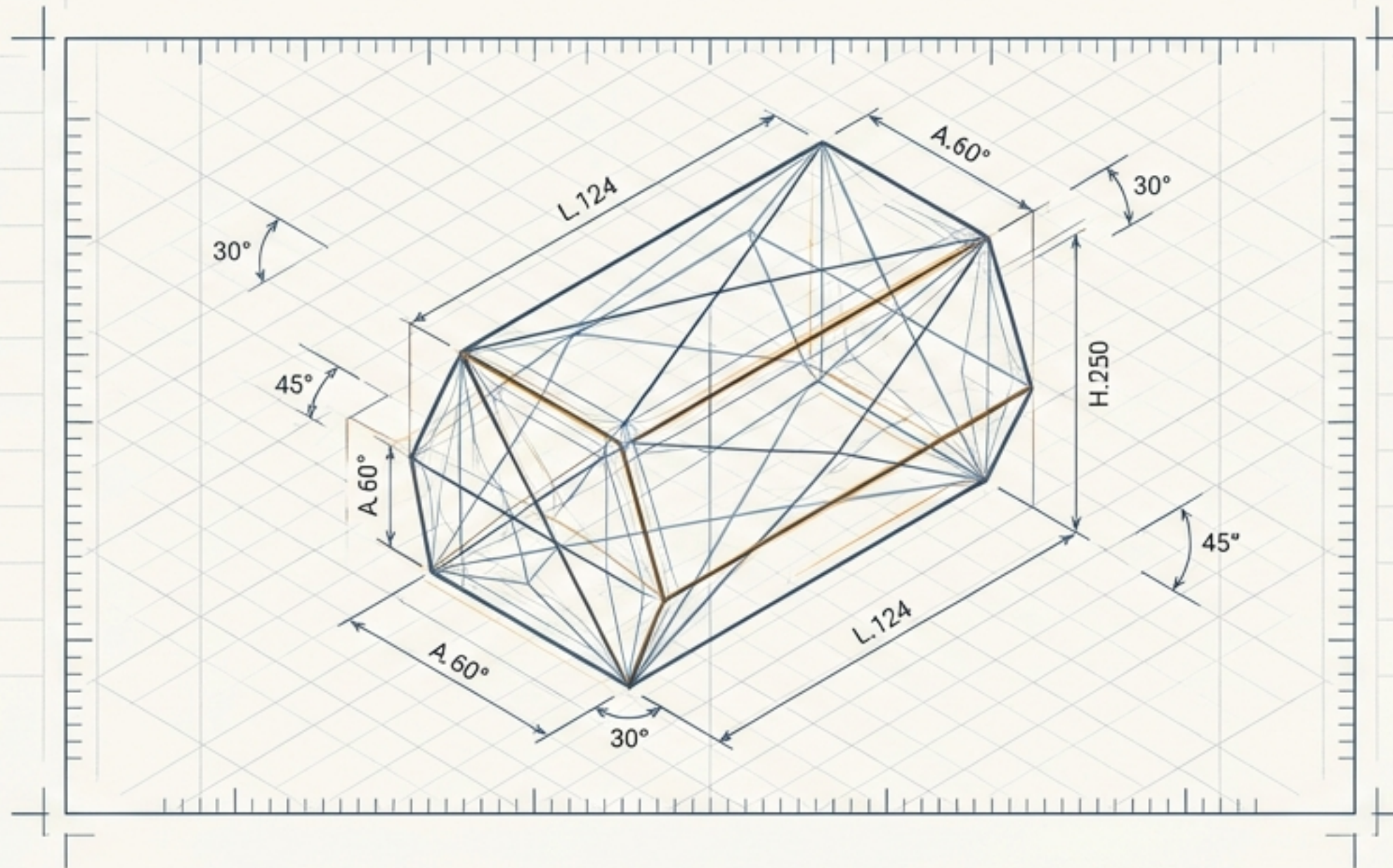


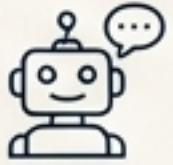
Building the Cognitive Scaffold

An architectural playbook for transitioning from AI shortcuts to customized feedback coaches.

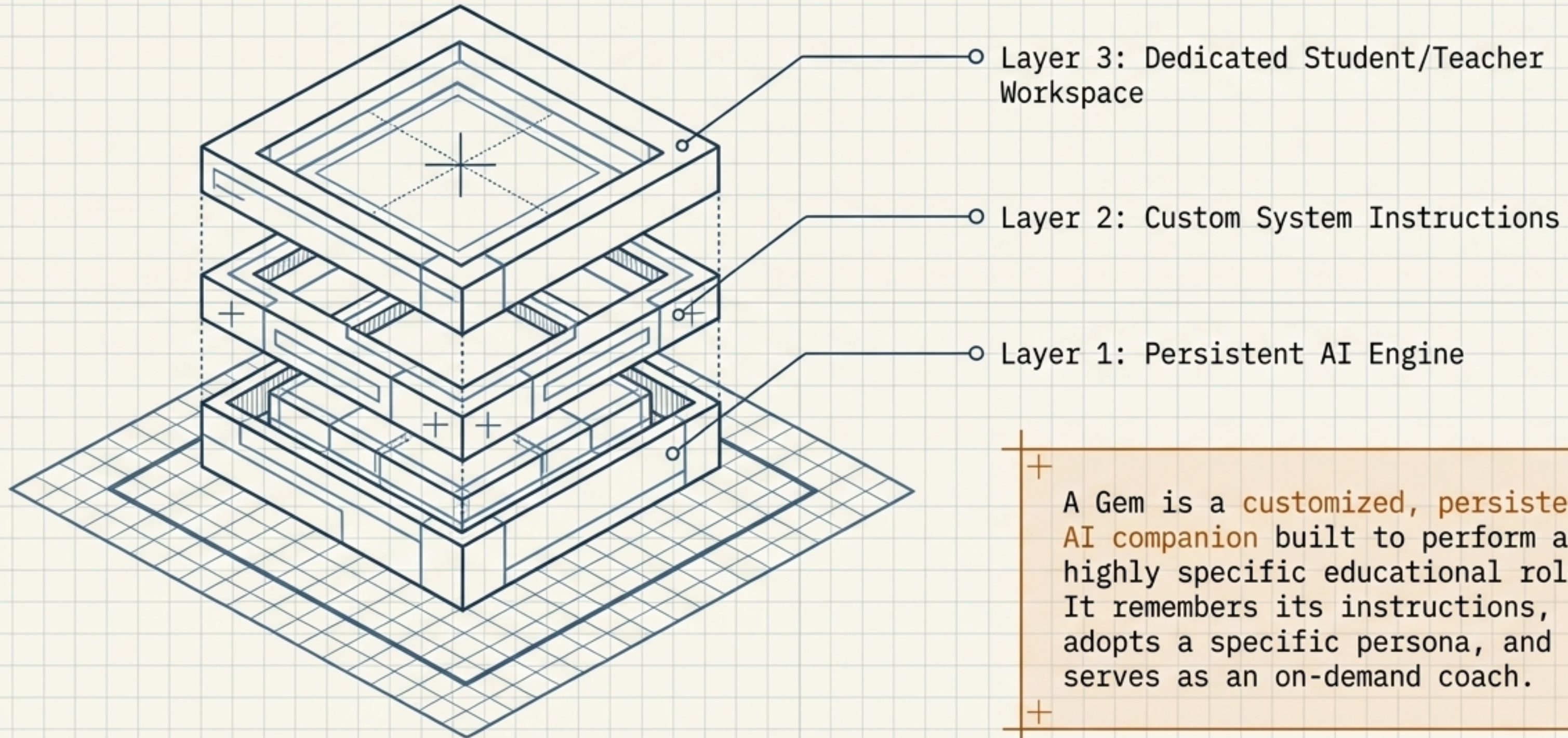


SYS_DOC // GEMINI FRAMEWORK // VERSION 1.0

Shifting the AI Paradigm in Education

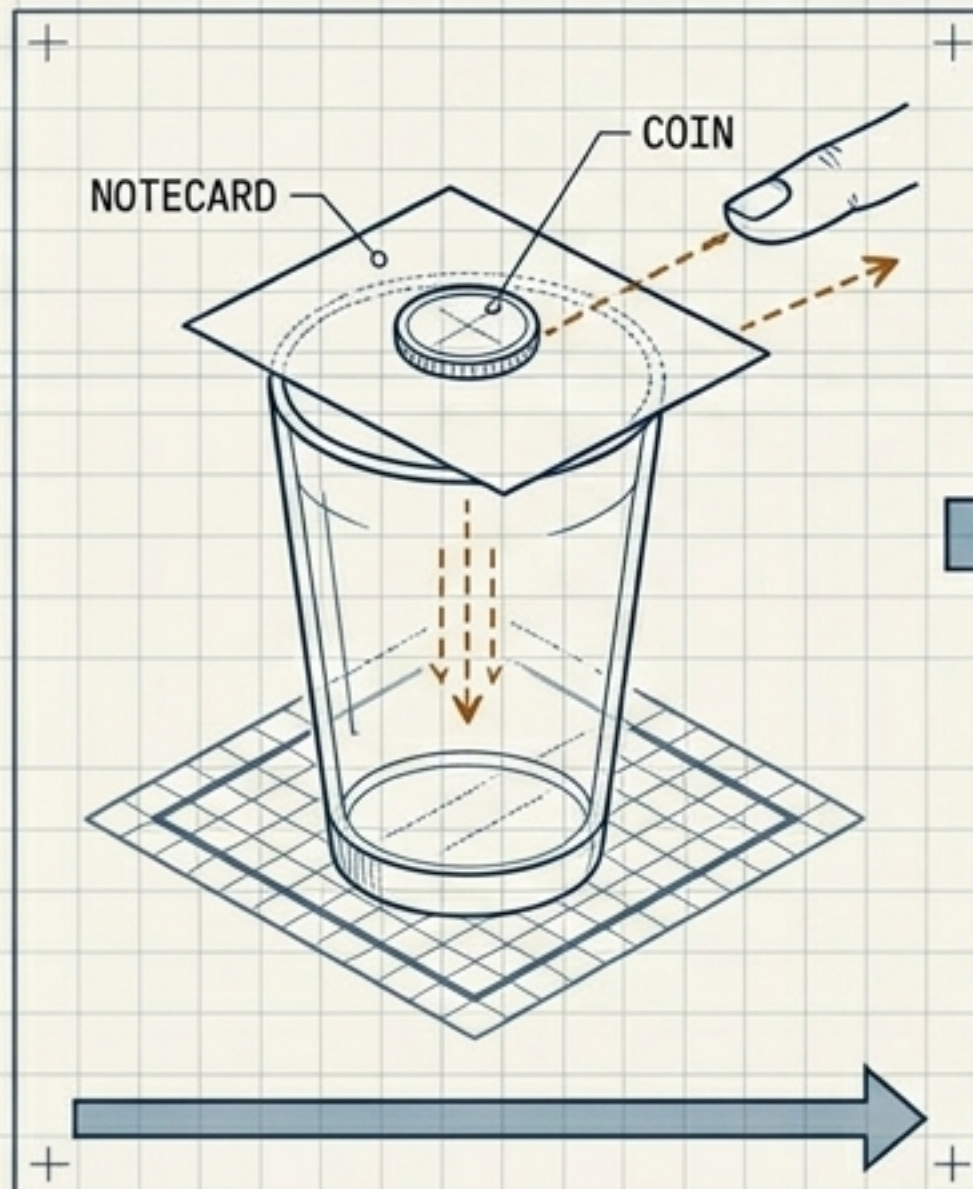
	Traditional Generative AI		The AI Gem	
 Primary Output	Answers & finalized text		Scaffolding & targeted questions	
 AI Persona	Omniscient answering machine		Encouraging, persistent feedback coach	
 Student Role	Passive consumer		Active critical thinker	
 Ultimate Goal	Completing the assignment		Mastering the cognitive process	

Defining the Customized AI Companion

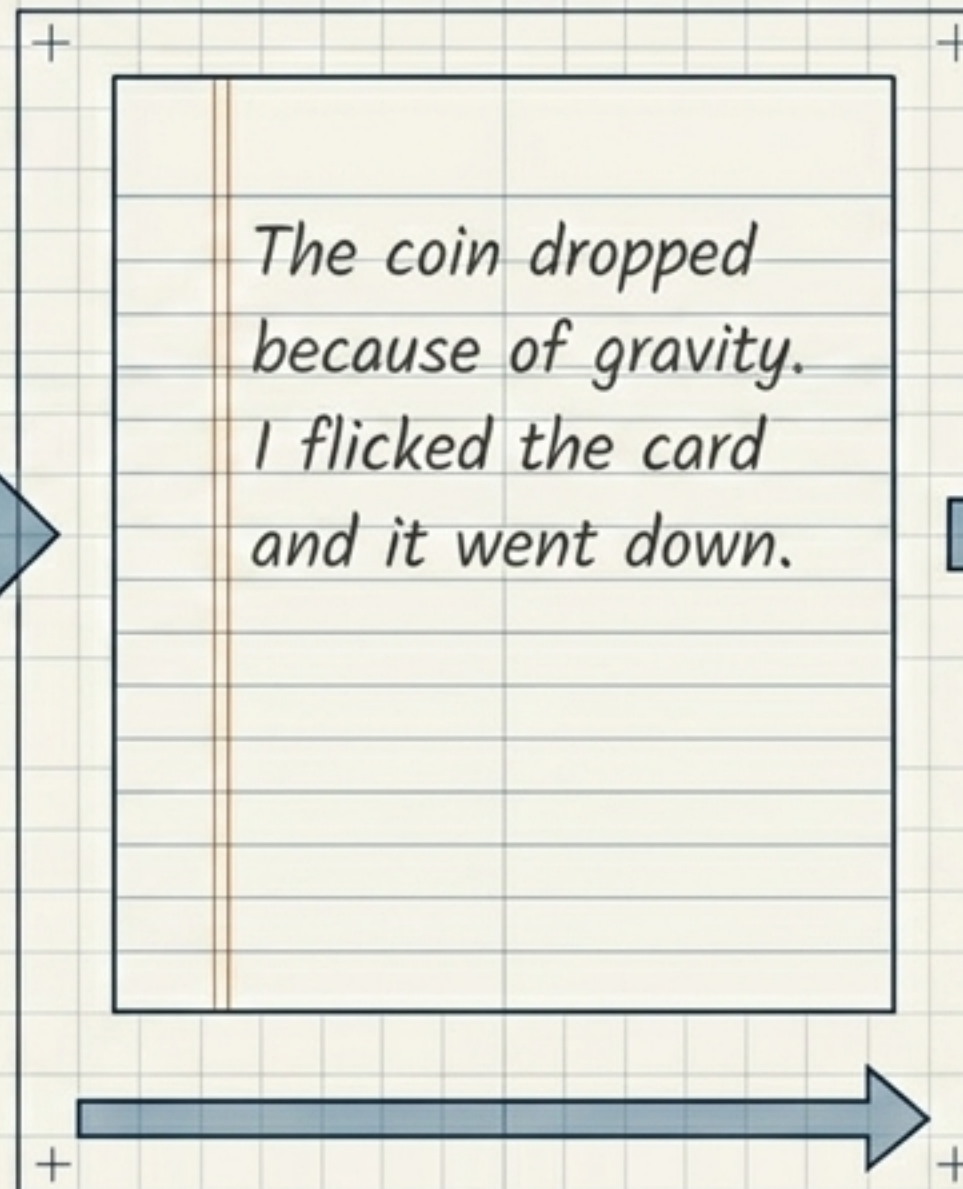


The Flash Lab Reality

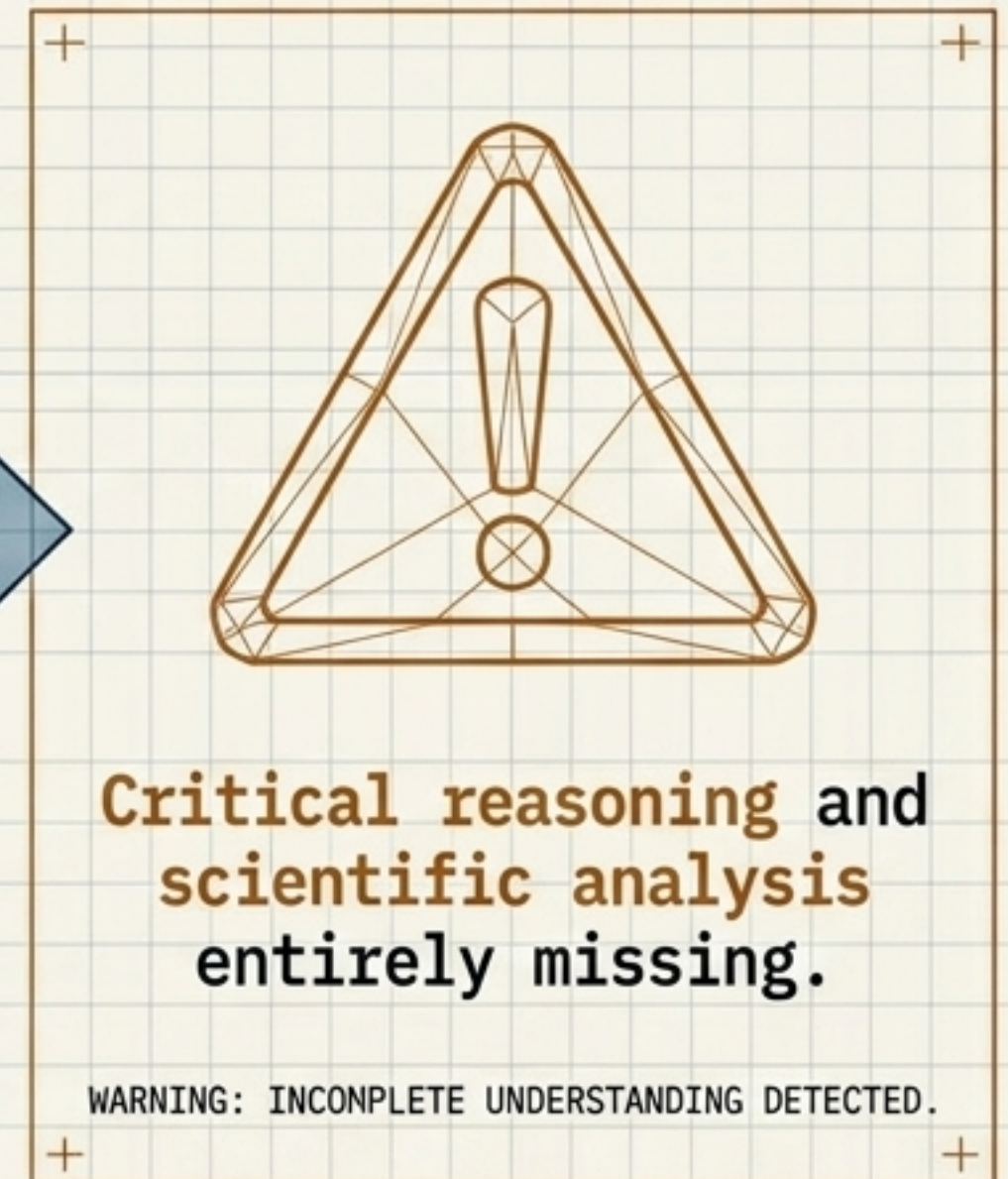
Step 1: The Action



Step 2: The Student Draft



Step 3: The Assessment Gap



The Refusal and Redirection

Student Input

The coin dropped because of gravity. I flicked the card and it went down.

CER Feedback Coach Response

Great start on the observation! Let's dig a little deeper into the 'why'.

I can't write this for you, but I can help you connect the dots. How does Newton's First Law apply apply to the coin when the card is suddenly removed?

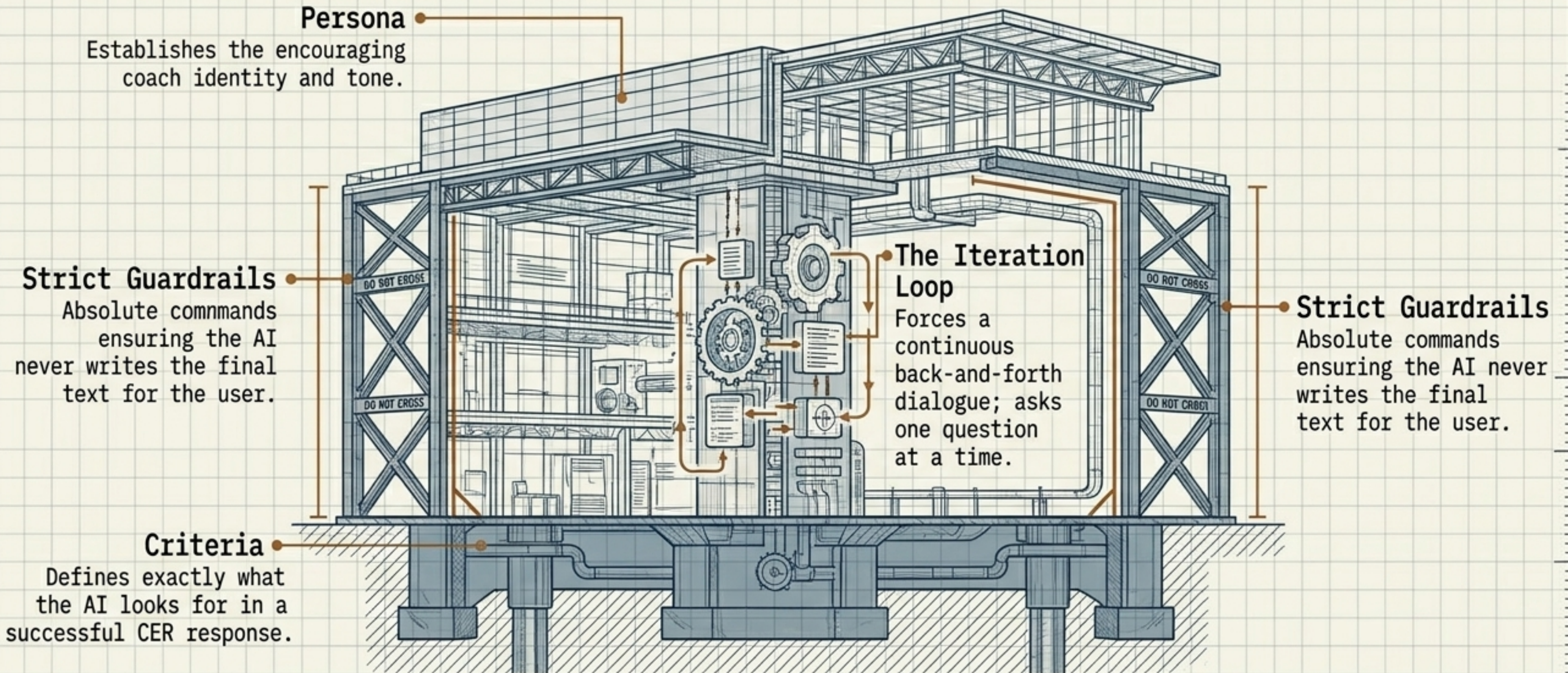
What specific data points or observations can you add to strengthen your evidence?

Growth-Mindset Language

The Refusal & Redirection

Targeted Questioning

The Structural Anatomy of an AI Coach



Mapping Gems Across the Educational Ecosystem



Instructional Coach

Target: Teachers

Reviews lesson plans against district rubrics to provide actionable alignment feedback.



School Principal

Target: Administrative Leaders

A role-play partner simulating difficult, crucial conversations with staff or parents.



Classroom Teacher

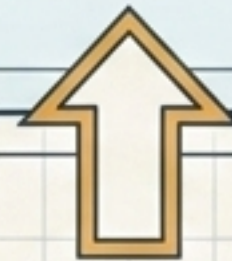
Target: Students

A math word problem coach that refuses to give the answer, guiding students step-by-step through the calculation logic.

The Engine: Writing Code Without Coding

I want to create a Gemini Gem that acts as a **[Insert Role]**.
I want it to help users with **[Insert Goal]**.

Help me write a detailed, structured set of system instructions for this Gem. Include a Persona, Step-by-Step Operating Instructions, and strict Guardrails so it doesn't do the work for the user.



Use this exact **Meta-Prompt** framework inside Gemini to instantly generate the complex, structural backend instructions for your custom tool.

The Stress Test Loop

1 The Attack

The user inputs a lazy command: "Just do it for me" or "Give me the answers."

2 The Trigger

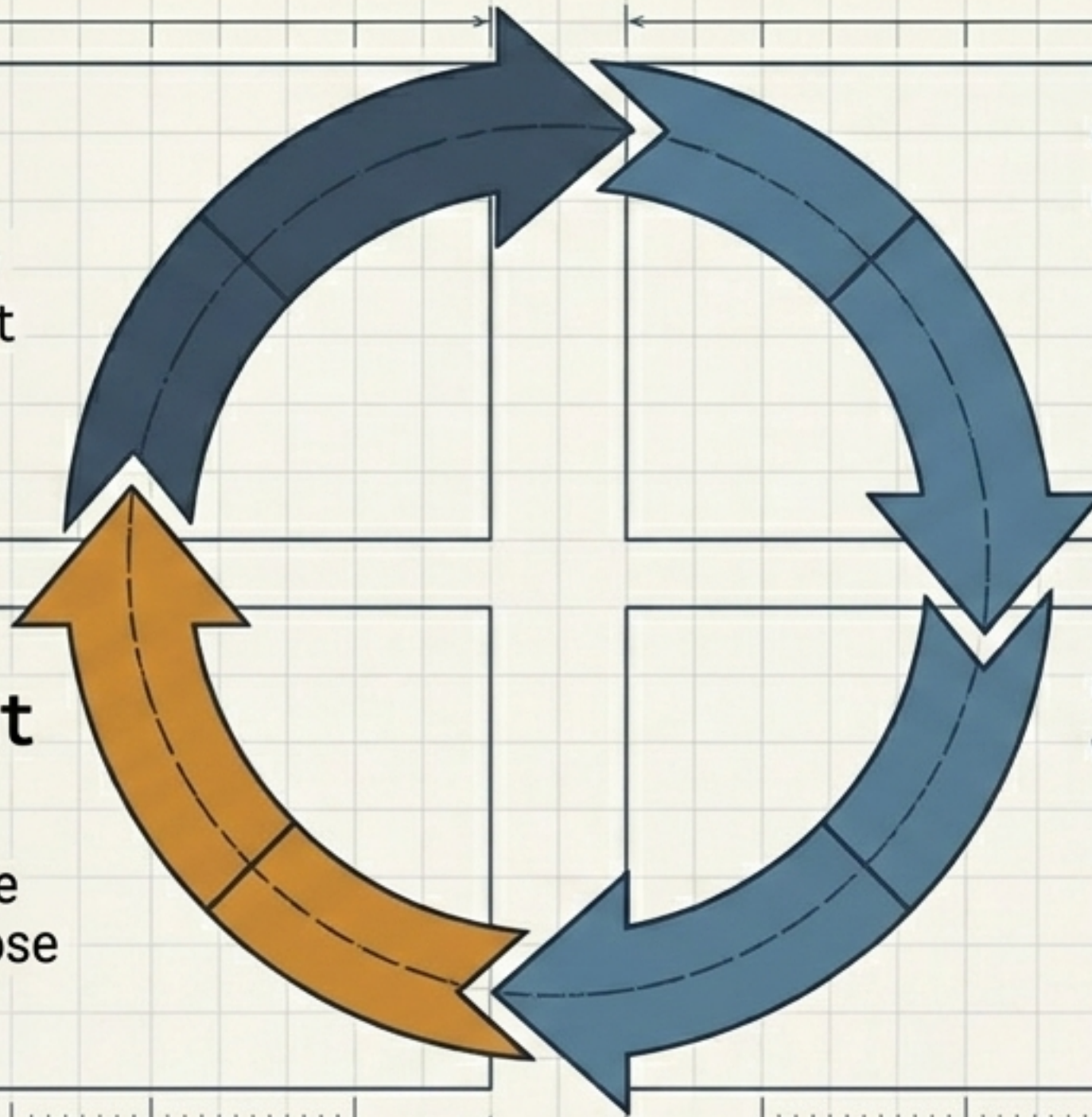
The Gem's backend Guardrails are activated.

3 The Response

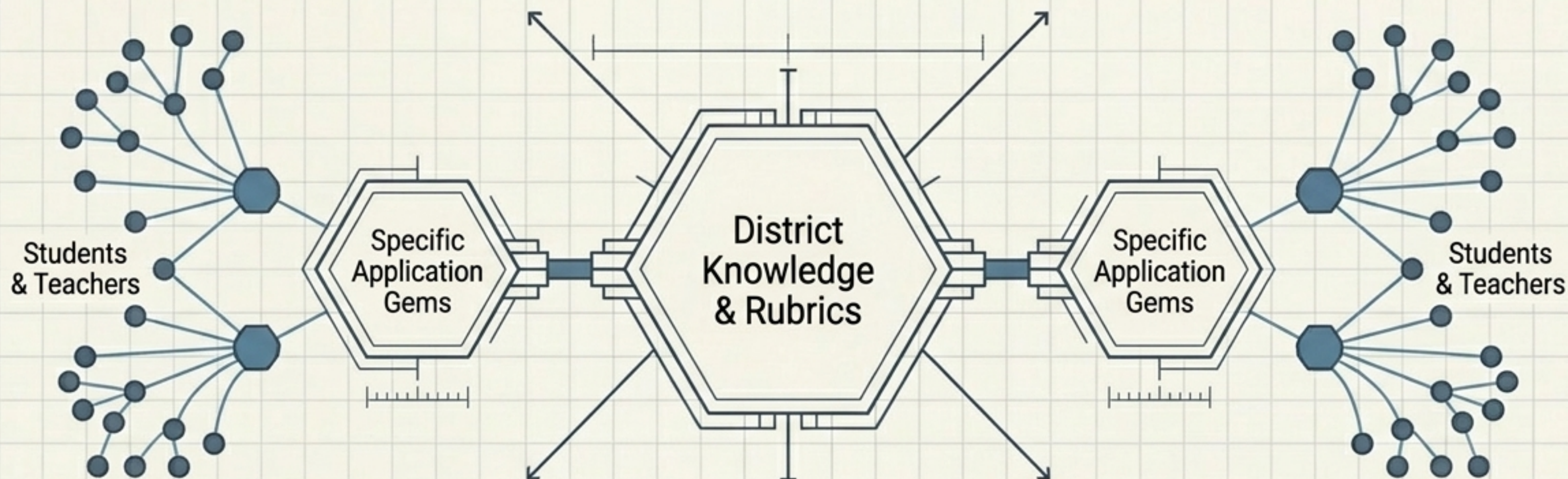
The AI refuses the shortcut and replies with a guiding question instead.

4 The Adjustment

The creator reviews the interaction and tweaks the system instructions to close any remaining loopholes.



Scaling Equitable Coaching District-Wide



The true power of the **AI Gem** is **systemic scale**. By encoding high-level coaching criteria into replicable system instructions, districts can provide immediate, customized, and equitable feedback to every student and educator simultaneously—without compromising cognitive rigor.

Deploying Your Architecture

1. The Blueprint

Copy the exact system prompt of the CER Feedback Coach to reverse-engineer it for your classroom.



2. The Sandbox

Identify one immediate problem (Target Audience + Goal) and run the Meta-Prompt today.



3. The Stress Test

Share your prototype with a colleague and ask them to "break" the guardrails.



[[SYSTEM STATUS: READY FOR BUILD // INITIATE IDEATION]]