



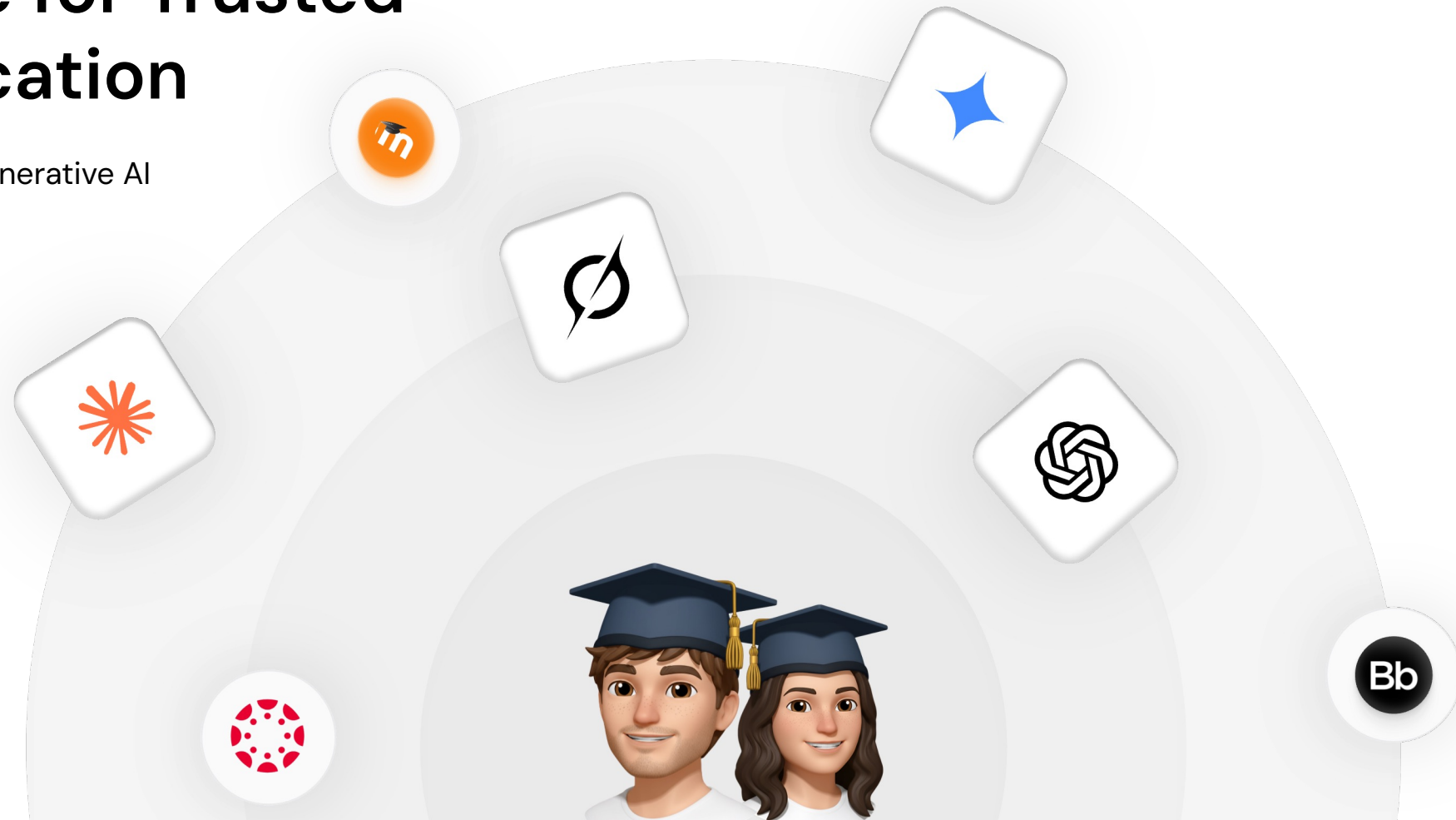
AI Infrastructure for Trusted Learning in Education

Building Institutional Confidence in Generative AI

Author: Mohd Qaiser Malik, Babson 25'MBA

Co-Author: Trond Undheim, PHD

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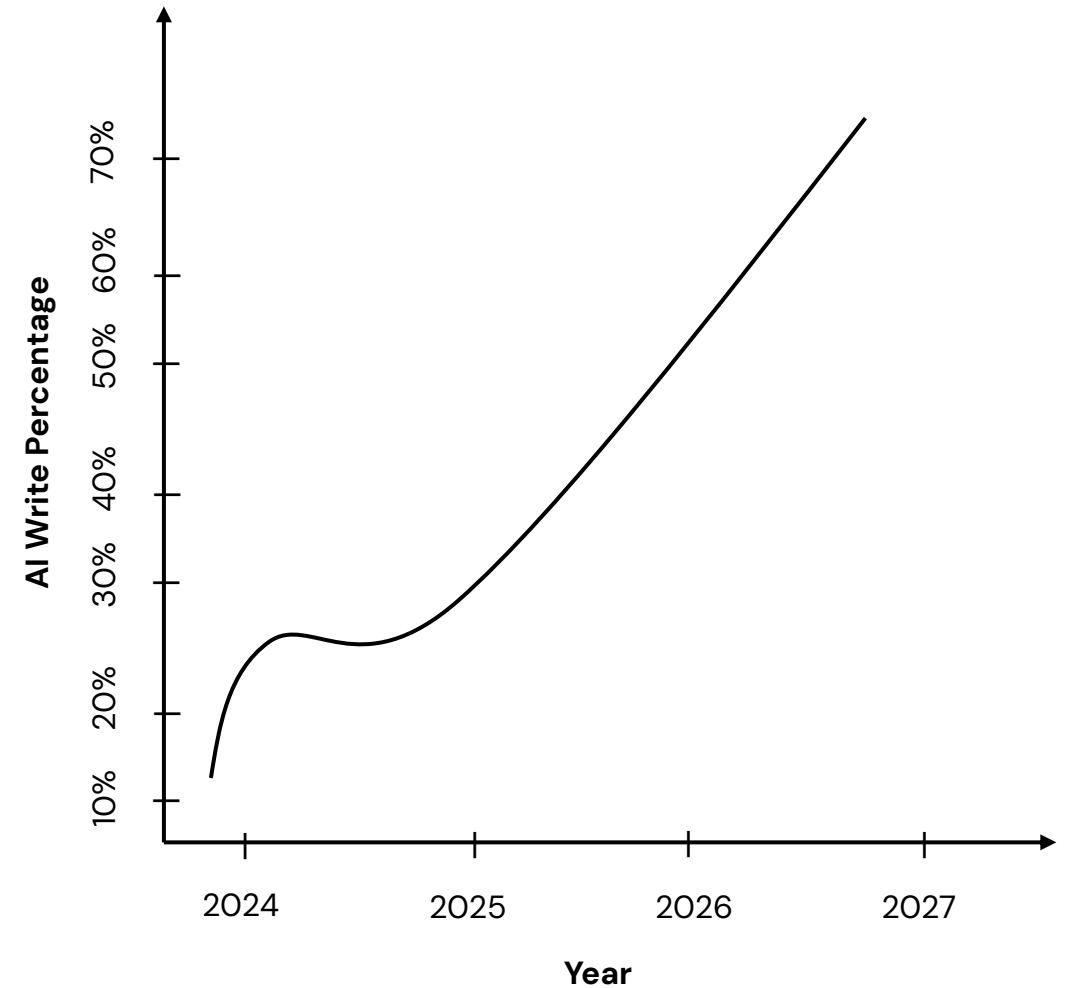


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Learning is changing and by
Year 2027, AI will write 80% of
students work

Artsmart AI (2025). AI in Education Statistics 2025.
<https://artsmart.ai/blog/ai-in-education-statistics-2025/>



🌟 The Trust Gap

Faculty worry: Can I trust what AI produces?

Students wonder: Am I still learning or just generating?

Administrators ask: How do we stay compliant and govern AI?

So, the real challenge isn't about technology adoption
it's about building trust in how we use it.



🌟 The Babson Pilot

We piloted an early AI Edtech Solution in my Alma Mater at Babson College

We wanted to explore how AI could support and enhance, not replace human learning.



The results became both a framework for **Trusted AI infrastructure** and a **working platform** called Answer in the spring of 2025.

🌟 Three Layers of Trust

Our framework has three simple layers:

Trust Layer – AI must be equitable, explainable and transparent.

Learning Layer – AI should enhance student confidence, not diminish it.

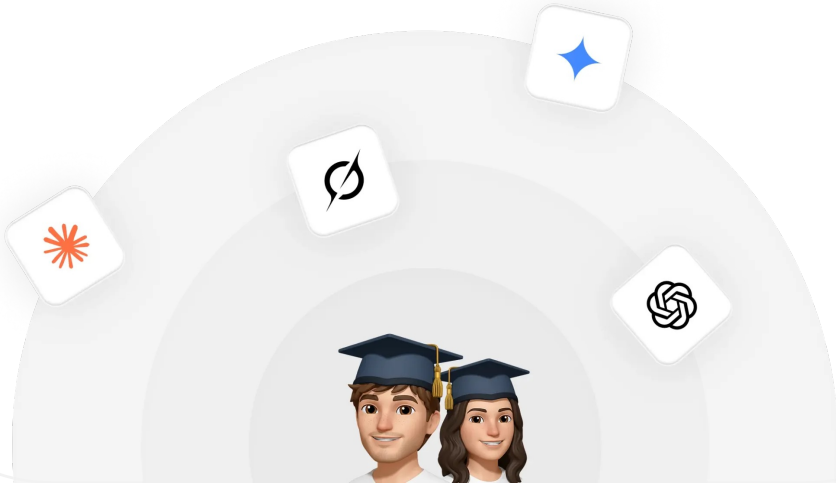
Governance Layer – Institutions must have oversight and governance.

These 3 layers became the backbone for our research.

🌟 Introducing Answerr – One Platform, 3 stakeholders

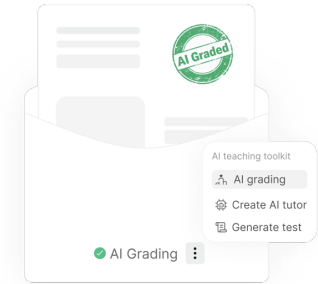
For Students

Access to multiple AI models in one place helping them learn how AI works, improve prompting , build assistants and agents, and even create their own AI products using unified APIs.



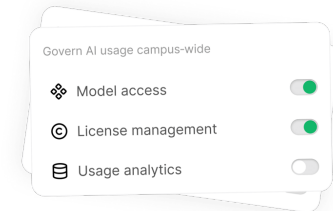
For Educators

Learning Provenance Metrics on how students interact with AI with abilities to **create 24/7 AI tutors, Grade with AI** and **create standardized test papers**



For Institutions

AI governance and compliance
(FERPA and COPPA compliant)
to safely manage AI adoption at scale.



🌟 Research Findings – Faculty

Faculty began to see patterns of Engagement

- 1– Raw Data Inputs
- 2– Query Analysis
- 3– Engagement
- 4– Learning Progress

Now they could understand how students explored ideas with AI, not just access the answers they produced.

2 → 4.5

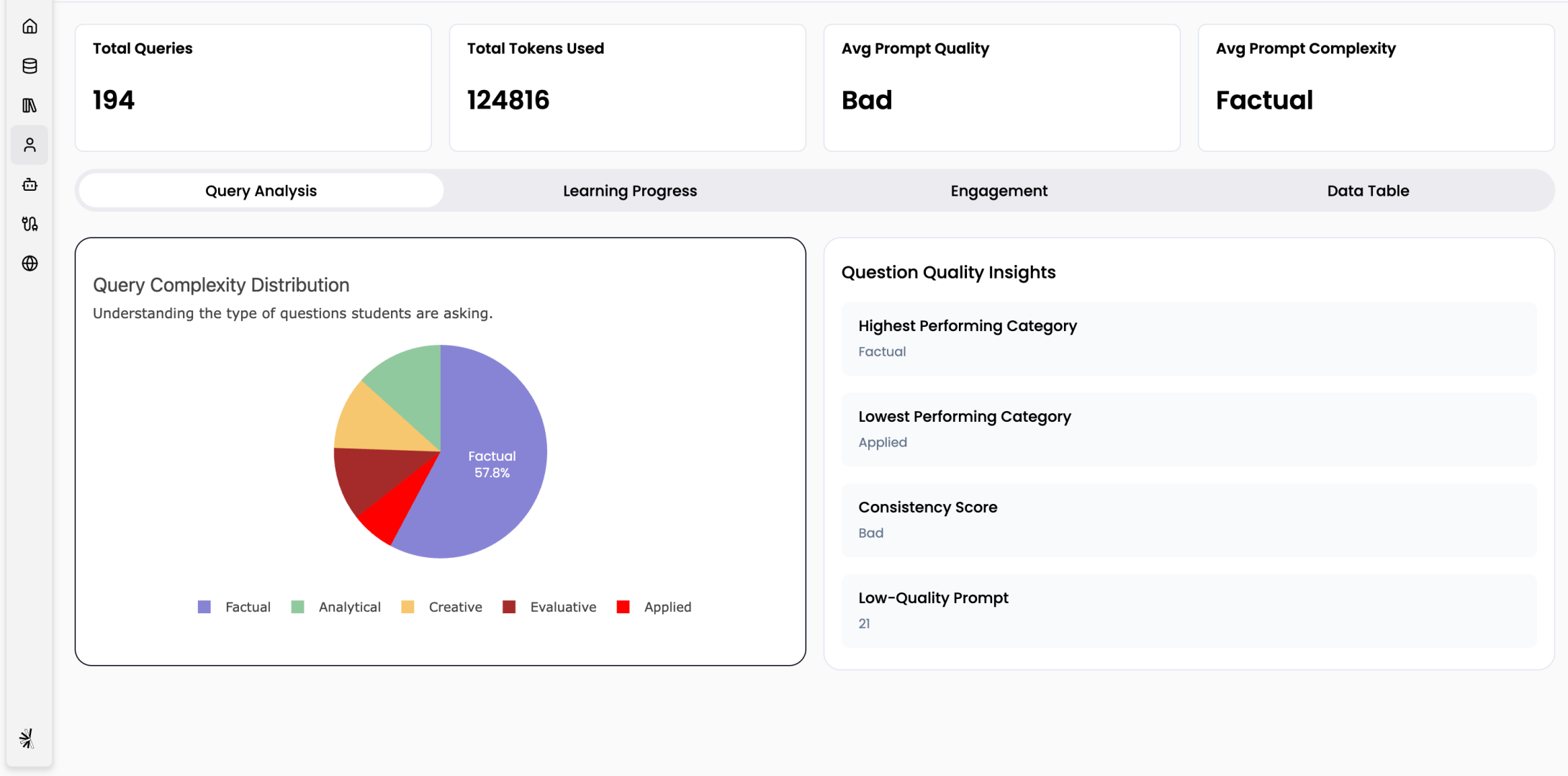
(Score out of 5)

Faculty confidence (AI's role in teaching) **more than doubled**

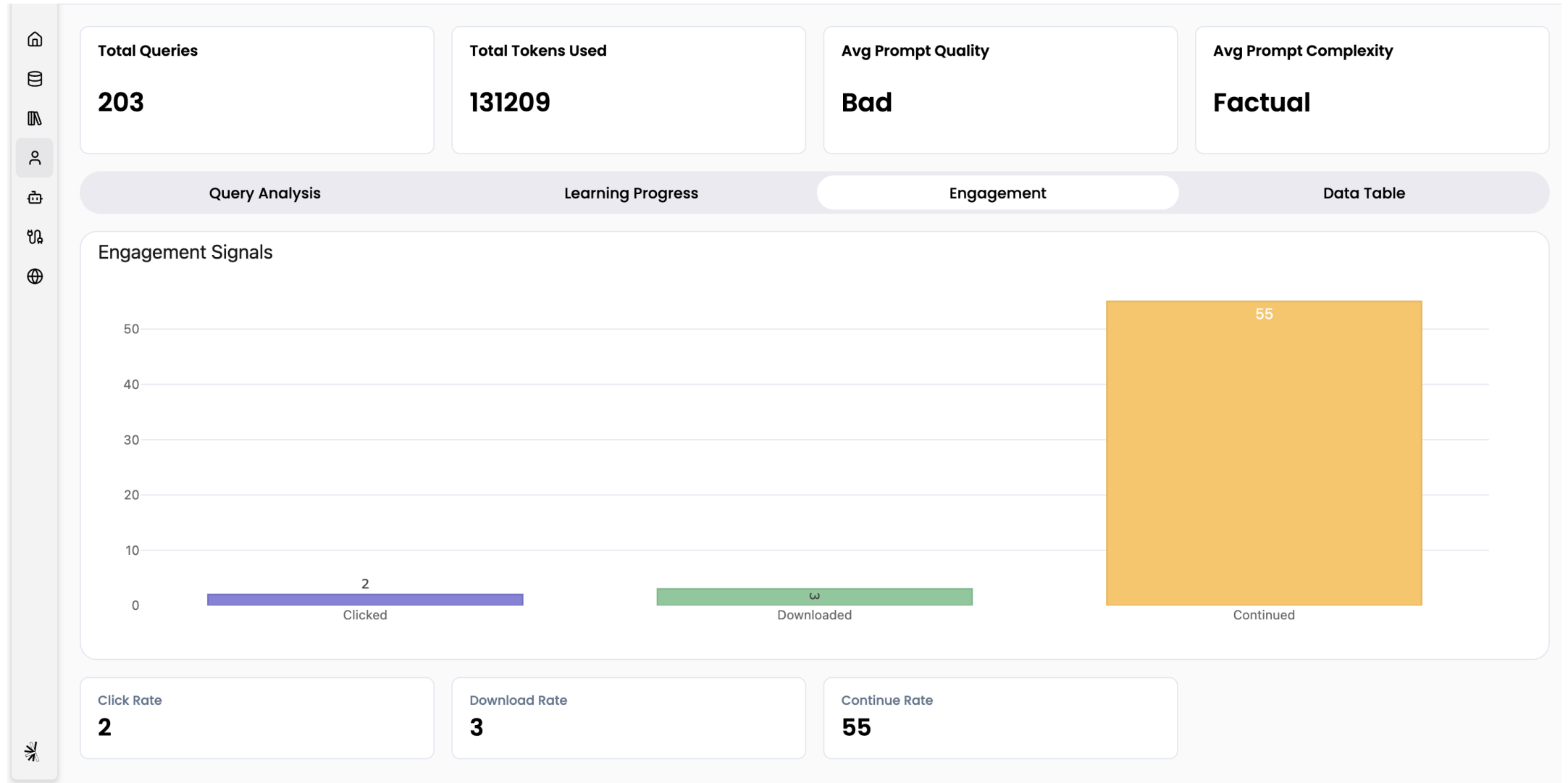
Pattern 1 – Raw Data Inputs

<div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div>	Total Queries		Total Tokens Used		Avg Prompt Quality		Avg Prompt Complexity	
	203		131209		Bad		Factual	
	Query Analysis		Learning Progress		Engagement		Data Table	
	Prompt	Quality Score	Complexity	Token Input	Token Output	LLM Used	Date	Time
	Assess the readability and efficiency of two ...	Excellent	Evaluative	15	725	claude-3-haiku-20240307	10/23/2025	9:22:25 PM
	Python example	Worse	Factual	2	226	gpt-5	10/23/2025	9:21:11 PM
	Make function.	Worse	Factual	3	558	claude-3-haiku-20240307	10/23/2025	9:20:29 PM
	Write a Python program that takes user inp...	Good	Applied	22	205	gpt-5	10/23/2025	9:19:36 PM
	How does the readability of for loops compa...	Good	Evaluative	5425	1148	gemini-2.5-pro-preview-03-25	10/23/2025	9:18:18 PM
	Why would you use a for loop instead of a w...	Good	Evaluative	4331	1072	gemini-2.5-pro-preview-03-25	10/23/2025	9:17:09 PM
	Code something.	Worse	Factual	3	87	claude-3-haiku-20240307	10/23/2025	9:16:03 PM
	Do a Python for student marks.	Good	Applied	7	819	claude-3-haiku-20240307	10/23/2025	9:15:27 PM
	Write a Python program that takes a list of s...	Excellent	Applied	28	244	gpt-5	10/23/2025	9:14:42 PM

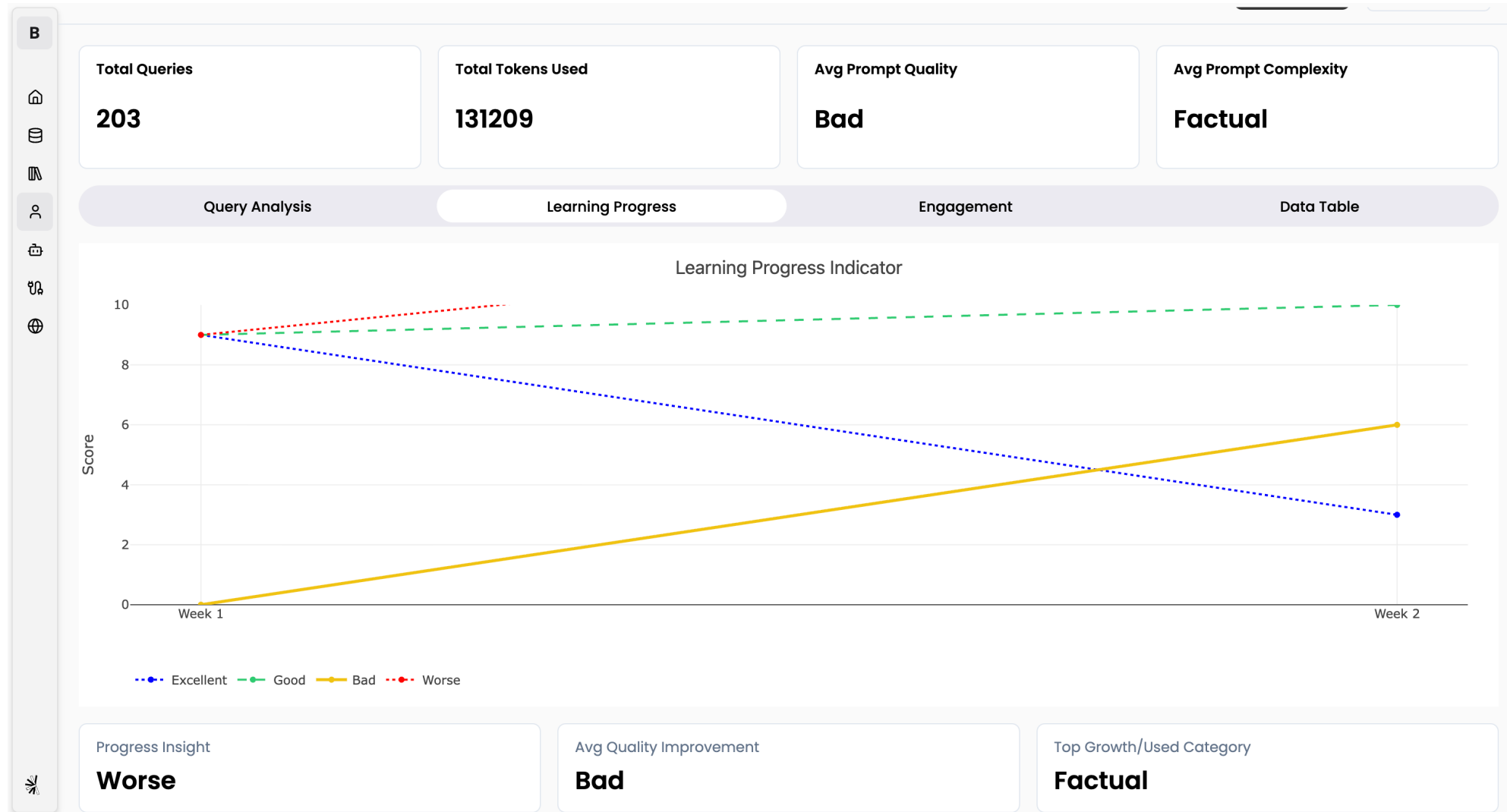
Pattern 2 – Query Analysis



Pattern 3 – Engagement



Pattern 4 – Learning Progress



🌟 Research Findings – Students

Students got equitable access to latest AI models in one place which increased their confidence.

They were not punished for using AI, instead they were guided to use it well.

10% → 33%

Student critical thinking (asking questions) tripled

Select a model

⚡ Auto

🌟 Claude

🌀 Grok

💠 Gemini

🌀 Open AI

GPT5

GPT 4o

o3-mini

🌟 Research Findings – Administration

Administrators gained visibility and AI governance into how AI was being used responsibly across courses, classes and the entire campus.

Govern AI usage campus-wide

- ❖ Model access ☒
- © License management ☒
- 🗄 Usage analytics ☐

In short, Trust Replaced Fear

🌟 Emergence of the “Learning Provenance” concept

It's the recorded story of how learning happens from the resources used, to the AI interactions, to the outcomes produced.

Instead of asking “Did AI write this?”

We begin to ask, “What was the learning path?”

This shift helps educators and institutions reclaim contextual authority, the **missing link in AI-enabled education**.

Our Research Takeaway

Learning is changing and

By embedding **trust**, **transparency**, and **governance** into AI learning infrastructure, we can:

1. Empower students to learn boldly
2. Enable educators to teach confidently,
3. Equip Institutions to govern responsibly.

Our findings indicate that education can reclaim its place in the AI age.

The shift from uncertainty to trust is possible, but we need input from a larger sample of students and educators to prove out our thesis.

