Coursemojo Quill

Bellwether

Built for Learning: How Coursemojo and Quill Use Artificial Intelligence to Build Literacy Skills

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Series Overview: The integration of artificial intelligence (AI) into ed tech tools has raised myriad questions about how such advanced technology can both ease burdens for students and teachers and facilitate deep learning. Building on Bellwether's prior work examining how AI could amplify productive struggle and how to measure the impact of AI-powered ed tech tools, this case study series showcases those concepts in practice by spotlighting select organizations and describing their design approaches, trade-offs, and implementation choices. The case studies in this series are drawn from interviews conducted with organization leaders in summer 2025, and each profiled organization reviewed its case study for accuracy in October 2025. **Learn more by reading Bellwether's Built for Learning series.**

A Case Study on Coursemojo and Quill

Introduction

Despite efforts and investments in reading and writing, approximately one-third of middle school and high school students only spend 15 minutes a day writing, well below the recommended dosage.[1] Too often, classroom assignments are static, feedback is delayed or uneven, and students who might thrive with timely nudges are left unsupported. At the same time, teachers shoulder an immense workload, curating materials, differentiating instruction, and motivating students, all while managing competing demands on their time. These challenges have left most students without the consistent feedback and practice they need to grow as readers and writers.

Coursemojo and Quill are two mission-driven organizations primarily serving elementary and secondary students and teachers by leveraging generative artificial intelligence (GenAI) to combat these challenges across the country. Both tools seek to combine rigorous texts and assignments with tailored feedback, and they share the same goal: to deepen student reading and writing while easing the lift for teachers without displacing the cognitive effort that underpins lasting skill development. Both Coursemojo and Quill:

1. **Preserve rigor in literacy learning.** Each organization intentionally limits AI's role in providing students with immediate answers, and instead push students to do the essential cognitive work. Both tools are designed to keep students actively engaged in drafting, revising, and iterating — the effortful processes that lead to stronger comprehension skills.

2. **Focus on feedback and iteration.** Each tool uses AI to provide tailored feedback that encourages students to revise rather than accept a first attempt. The iterative process builds and reinforces habits related to metacognition so that students build skills in reflection and managing their own learning.

3. **Elevate teacher judgment.** Neither platform is designed to replace teachers or end-to-end tasks entirely. Instead, the tools are used to synthesize and surface insights, provide additional opportunities for student practice, and sustain student motivation during independent work time. Teachers remain central to instructional decisions and interventions.

At the same time, the two organizations have taken distinct paths in creating AI tools through different design choices and areas of emphasis.

From Issue to Impact

Coursemojo and Quill tackle a persistent literacy challenge via feedback as a key lever for learning.

Both Coursemojo and Quill begin from a simple but powerful premise: Feedback is the hinge of learning. Research consistently affirms that when students receive timely, specific, and actionable guidance, they are more likely to revise their work, persist through challenges, retain learning, and develop enduring skills.[2] Both tools use technology to extend (not replace) teacher expertise; expert teachers design the content, feedback loops, and scaffolded practice while each tool scales the impact by offering nudges, prompts, and insights without displacing teacher judgment. As Peter Gault, the founder and executive director of Quill, put it, "Our theory of action is that when kids get really good feedback on their writing, they're better able to learn and build their skills."[3]

Coursemojo and Quill are rooted in evidence-based pedagogical practices.

Neither Coursemojo nor Quill aspires to be a comprehensive end-to-end instructional system. Their use cases are intentionally narrow and deeply tied to pedagogy. In each tool's writing support, the intended use is for the moment when students apply a lesson through independent practice in a culminating writing task, whether constructing a written response into text or crafting a precise, evidence-based sentence.

The role of the tool is not to teach but to nudge. The nudges can be in the form of encouragement (e.g., "That's a great observation!"), validation (e.g., "It's true that ..."), and adjusting feedback (e.g., "What do you think that means about ...?"). Teachers continue to lead instruction and circulate around the classroom, but students benefit from individual nudges that might otherwise not be possible in real time.

By design, the tools act less like instructors and more like coaches. To do so effectively, both tools are grounded in pedagogy. Quill draws on pedagogy with explicit writing instruction, which influences how the tool's feedback connects back to explicit instruction in writing. Activities are embedded in rigorous content, and the process emphasizes revision.[4]

Coursemojo's approach is rooted in the rigor of high-quality instructional materials (HQIM), and the tool is intentionally aligned to specific English language arts HQIM, including reading comprehension and close reading of complex tasks. Research indicates that HQIM can have a meaningful impact on student outcomes,[5] yet implementing HQIM effectively at scale remains a challenge.[6] Coursemojo intentionally embeds the AI supports for both students and teachers in HQIM's texts and assignments, reinforcing coherence. As of the time of writing, though Quill's origin did not stem from HQIM, the organization does have plans in the near term to embed and align with the HQIM from curricula provider Fishtank.

Guided by learning outcomes and skills development, Coursemojo and Quill strive for quality over quantity or speed.

The emerging evidence of student learning from both organizations is promising. Coursemojo has the dual goals of increasing English language arts (ELA) achievement and teacher retention. Data from 2025 state assessments in Texas and Tennessee show statistically significant academic gains in pilot classrooms. For example, in Texas, students in Aldine Independent School District's Coursemojo pilot classes saw a 10-percentage-point gain in STAAR Reading on top of the districtwide gains, with greater improvements

for economically disadvantaged students.[7] Similarly, in Tennessee, Sumner County Public Schools students in pilot classrooms outperformed their comparison peers by 8 scale score points on the state's ELA assessment and were particularly effective at closing achievement gaps for students receiving special education services and economically disadvantaged students.[8] While the organization is still gathering data on its teacher retention goal, teacher satisfaction surveys indicate positive experiences using the tool in classrooms and helping to better implement their curriculum.[9]

In addition to student achievement outcomes, Coursemojo also monitors internal leading indicators of quality. For example, success is not merely defined by students' time spent on the platform but by an internal metric of the proportion of "high-quality responses" that show real progress and learning. This moves beyond accuracy to differentiate responses like "don't know" or inappropriate responses from effortful attempts.

Similarly, Quill has evidence of impact. In a randomized controlled trial conducted with the College Board, students using Quill improved their sentence construction skills by 71% relative to peers and retained these gains two weeks and two months later.[10] Further evidence from a Mathematica study indicated measurable growth in students' ability to revise sentences in response to feedback, with gains in essay writing quality.[11]

Using AI With Intention

Behind Coursemojo and Quill is a balance of human and machine roles.

In both Coursemojo and Quill's design philosophies, the guiding question is not what AI can do, but what AI should do. As a result, both systems equip teachers and developers to remain arbiters of quality and critical architects of curriculum and pedagogy. At the same time, AI serves in a constrained role to replicate and extend practice opportunities.

At Coursemojo, this philosophy is visible in its team's clear division of labor. Human educators write curriculum-aligned questions, create question-specific rubrics, and draft "back-pocket" prompts to anticipate common student misconceptions or next steps in reasoning. AI is then tasked with categorizing student responses against those rubrics and delivering targeted feedback in real time. This allows students to receive nudges during independent practice while ensuring the intellectual core of the lesson remains intact and coherent with HQIM. Teachers can use the real-time tools to conference strategically with individual students, see class-wide trends in student misconception with suggested discussion questions, and highlight exemplary student work for class discussion, reinforcing teachers' central role as decision-makers.

Quill embodies a similar balance. Its system is intentionally designed to avoid AI "doing the thinking" for students. To do so, Quill collaborates with a Teacher Advisory Council, a group of more than 600 educators from mostly Title I schools. Those educators help Quill build the training datasets embedded into the AI tools that ensure feedback for students is nuanced and targeted. Quill's curriculum team, working with these educators, sets the bar for quality and showcases exemplary feedback while the machine applies and scales the human judgment to individual student responses.[12]

Quill's "thick wrapper" prompting approach provides quality feedback to students.

Quill's thick wrapper approach is an example of how responsible design can shape AI feedback to be more precise, rigorous, and pedagogically aligned. Unlike "thin wrapper" tools that simply tell the AI model to withhold answers, Quill provides extensive scaffolding. For every prompt, Quill builds a dataset of 40 to 100 examples of student responses paired with exemplar teacher feedback. Quill's thick wrapper includes 5,000 to 8,000 words of explicit educator-written directions, sample responses, and teacher feedback. This context is designed to anchor the AI's output in real classroom practice and enables feedback to mirror expert coaching rather than generic commentary.[13]

Rather than improvising, Quill's AI tool is guided to prioritize substance: Students are pushed to elaborate on claims with evidence, revise vague or partial answers, or retry irrelevant responses. Rules also prevent the system from giving away answers or focusing prematurely on grammar. This structured prompting turns feedback into an iterative learning cycle, where students are expected to revise multiple times before arriving at a stronger response.

As an additional safeguard, Quill deploys seven purpose-built AI agents that work together to constrain the model's output. This introduces additional guardrails: Specialized AI agents review AI feedback so that it coaches rather than tells, flags signals of student frustration, or highlights relevant text passages for evidence gathering. This layered structure demonstrates how design can both preserve rigor and foster trust among educators.[14]

Internal benchmarks and review procedures can strengthen quality and accountability.

To increase the consistency and quality of AI feedback, both Coursemojo and Quill subject their systems to cycles of testing, evaluation, and teacher review. Coursemojo monitors success through internal benchmarks that go beyond surface-level accuracy. The organization tracks the proportion of "high-quality responses" generated by students, defined as answers that reflect effortful thinking rather than guesswork or disengagement. Teachers' surveys and unit assessments provide additional checkpoints, and developers routinely review transcripts of student–AI interactions to refine rubrics and improve prompts. This continuous loop of monitoring allows Coursemojo to maintain fidelity to HQIM while iterating toward greater effectiveness.

Quill has also institutionalized a comprehensive evaluation process. For every student task, Quill authors a custom benchmark evaluation dataset with more than 300 graded responses that are distinct from the training and prompt examples. The team then conducts A/B testing to compare different approaches. Furthermore, the process is complemented by human judgment: Quill's developers manually evaluate more than 100,000 student responses each year, and Quill's Teacher Advisory Council reviews tasks and provides multiple rounds of testing and feedback. Though resource-intensive, this iterative, multilayered process results in more effective AI outputs.

Amplifying Learning

Coursemojo and Quill show how AI tools can reinforce the cognitive processes that fuel students' literacy development. Their shared philosophy is that students must do the heavy lifting of thinking and writing themselves; feedback exists to sustain effort, sharpen reasoning, and reinforce productive struggle. Coursemojo and Quill demonstrate this possibility in a few ways:

1. **Emphasis on feedback and multiple student attempts reinforce productive struggle.** In both tools, students are expected to generate responses before receiving feedback. The AI does not supply direct answers but instead nudges students toward elaboration, revision, and evidence use. This ensures that memory and information processing are engaged, as students must actively encode and organize knowledge rather than passively consume it.

2. **Subtle nudges encourage motivation.** Both tools provide feedback that celebrates effort and encourages persistence. Instead of rewarding only for correctness, they recognize partial attempts and guide students toward stronger reasoning. This helps cultivate a growth mindset so that students develop the habit of iteration and persistence as part of learning.

3. **Structured practice reinforces attention and pacing.** Both tools default to several rounds of bite-sized feedback prior to moving forward (three for Coursemojo, five for Quill). If a student remains stuck, both systems eventually provide the correct answer along with a rationale so that the class can maintain pacing and continue with

the sequence of questions. These choices reflect an intentional balance: Giving answers too early would undermine productive struggle, but never supplying the answers risks stalling students in place and increasing disengagement. Both tools aim to sustain attention while attending to student motivation and ensuring the flow of instruction is not disrupted.

4. **Responses build habits of reflection and metacognition within each tool.** By asking students to reflect, revise, and try again, Coursemojo and Quill build habits of self-monitoring. Students learn to judge when their responses are incomplete, calibrate their own understanding, and apply literacy strategies across contexts.

Conclusion

Coursemojo and Quill exemplify how AI tools can extend, rather than replace, the human elements of teaching and learning. Both tools center feedback as the mechanism through which students build literacy skills, and both demonstrate that intentional layers of HQIM and pedagogically aligned prompting are necessary to achieve high-quality application. Coursemojo and Quill designs underscore the importance of intentional boundaries between human judgment and machine efficiency, offering examples for how educational innovation can preserve rigor and agency. ✦

Endnotes

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About Bellwether

Bellwether is a national nonprofit that works to transform education to ensure young people — especially those furthest from opportunity — achieve outcomes that lead to fulfilling lives and flourishing communities. Founded in 2010, we help mission-driven partners accelerate their impact, inform and influence policy and program design, and bring leaders together to drive change on education's most pressing challenges. For more, visit **bellwether.org**.

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