Reinventing the flipped classroom in education

How to use Engageli for active learning online

Education strategies are quickly evolving. But while technology has changed how we connect and work, teaching models haven't kept up. Instructors have largely continued teaching as they always have - delivering long lectures that prioritize content delivery over engagement. During the pandemic, they adapted those methods to virtual formats. Same lectures, same passivity, just delivered through a screen. Then many returned to traditional classrooms, sticking to the same live or hybrid models.

It's time to ask harder questions: Are we thinking too narrowly about modality? Are we missing an opportunity to create more enjoyable and effective learning experiences by blending AI with asynchronous, virtual, and live classrooms?

Too often, multimodal learning gets treated as a checklist: X number of videos, Y virtual sessions, Z in-person classes. And while small-group interaction is widely recognized as one of the most effective forms of active learning, it's still viewed as difficult to scale. To move forward, we need to shift the conversation, starting with the most important questions:

- How do people actually learn and consume information now?
- How can we reinforce knowledge retention over time?
- How does this all scale?

The flipped classroom model creates space for the kind of active learning that consistently improves student outcomes.

For Engageli's co-founder Daphne Koller, this challenge is personal. As the co-founder of Coursera, she saw how even the most widely accessed online courses struggled to keep learners engaged. Students would start strong, only to disengage in the face of passive video lectures and limited interaction. The technology scaled didactic delivery, but not connection or collaboration.

That insight sparked the creation of Engageli – a platform built not to replicate lectures, but to change how learning happens across modalities. The flipped classroom model offers a proven path for this transformation. By shifting content delivery outside the classroom and using live time for deeper engagement, it creates space for the kind of active learning that consistently improves outcomes.

But making this work, especially online, requires the right infrastructure. That's where Engageli's integrated platform comes in, combining course delivery, live learning, and analytics. For institutions ready to evolve beyond traditional approaches, Engageli offers the tools to fundamentally change how learning is delivered and experienced.

Why the flipped classroom model works

Traditional education prioritizes in-class lectures, with practice or review assigned as homework. But research shows this model often results in passive learning. Students spend live class time listening rather than interacting, leaving little room for collaboration.

The flipped classroom reverses this structure:

1. **Before class:** Students learn concepts through prepared materials
2. **During class:** Time is used for application, problem-solving, and collaboration
3. **After class:** Follow-up reinforces understanding

By introducing concepts through short, digestible learning chunks before class, this model frees up live class time for active learning. The result is greater participation and stronger knowledge retention. And when supported by the right tools, flipped learning can deliver measurable gains:

A 2020 meta-analysis published in *Educational Research Review* found that flipped classrooms led to a significant improvement over traditional lecture formats, with an average effect size of 0.50 – equivalent to moving a student from the 50th to the 66th percentile in performance.

Learning Stages	Traditional Challenges	Engageli Opportunities
Before class	• Content creation is time-consuming • No insight into student prep • Minimal interaction with materials • Students often arrive unprepared	• Quickly create interactive modules using existing videos • Real-time analytics on engagement & comprehension • Embedded quizzes, polls, & reflection prompts • AI tutors available for on-demand support
During class	• Passive lecture delivery • Low student participation • Group work is hard to manage online • No real-time insight into understanding	• Active learning tools encourage participation • Virtual tables support structured group work • Live engagement data to guide instruction • AI-generated polls & content
After class	• Recordings are static & passive • Little to no follow-up engagement • Few tools for review or clarification • Learning happens in isolation	• Playback rooms with note-taking, Q&A, & collaboration • AI-generated summaries tied to key moments • Access to AI tutoring • Peer interaction extends beyond live sessions

The impact of active learning online

Research shows that active learning drives significantly better outcomes than passive instruction. Consider the difference:

1.5x
Students in traditional lectures are 1.5 times more likely to fail compared to active environments

54%
Students in active learning environments score 54% higher on tests than lecture-based courses

2.5x
Students who interact actively are 2.5 times more likely to report excellent grades compared to lectures

13x
Talk time increases 13 times in classes with active collaboration

63%
Only 5% of learners participate in traditional lectures, vs. 63% in active session

16x
Non-verbal interaction increases 16 times in active environments

And these numbers aren't just theory. One university compared the same instructor teaching the same course across two platforms. Students using Engageli were twice as likely to earn A grades as those on a standard video conferencing tool. They were more engaged, more collaborative, and better prepared for assessments.

Why many institutions struggle to implement flipped, active learning

Despite the clear benefits, many institutions still default to lecture-first models. That's not because they don't value engagement – it's because they face real obstacles:

1. Creating flipped classroom content takes time
2. Most instructors lack support in designing and managing active learning environments
3. Tools are fragmented, requiring multiple platforms and manual work
4. There's little visibility into what's working or where students need help

Add to that the pressure to "get through the syllabus," and instructors often feel stuck. There's a perceived trade-off between deeper engagement and content coverage:

Is it better for students to retain 70% more of a course that's only 70% complete, or 30% less of one that's fully delivered?

A real-world use case: flipped learning with Engageli

Engageli resolves this dilemma – not by asking instructors to choose, but by making learning more efficient. When students arrive to class already familiar with key concepts, instructors spend less time re-teaching and more time applying. When AI tutors provide just-in-time support, fewer learners fall behind. And when analytics pinpoint areas of confusion, class time becomes more focused and productive.

The result isn't a trade-off between coverage and depth. It's multiplying the impact of both.

Engageli brings together everything instructors need to implement a flipped classroom – content creation, live engagement, AI-powered support, and actionable analytics – all in one unified platform:

- **Engageli Studio:** AI-powered tools for transforming videos into interactive microlearning modules
- **Virtual Classroom:** A collaborative environment designed for real-time active learning, including peer discussion, role play, and simulations
- **Engageli AI:** Intelligent features that personalize learning through AI-generated tutors, content support, and engagement insights
- **Engageli Analytics:** Real-time and post-session data that reveal comprehension gaps, participation trends, and learning outcomes

Before class: create and deliver microlearning modules

An instructor uses Engageli Studio to:

- Upload a recorded lecture, presentation, or video on your class topic (or record one directly in the Engageli platform).
- Let Studio's AI segment the content into topic-aligned micro-lessons.
- Automatically embed polls, quizzes, activities, and reflection prompts at logical points.
- Add supplemental materials like PDFs, articles, videos, podcasts, guided practice, or quizzes.

These modules are assigned to students ahead of class, allowing them to learn foundational concepts at their own pace. Students interact with the content on their schedule, using embedded tools to ask questions, check understanding, and take notes that persist into the class session.

AI tools in Engageli Studio:

- **Learning Pal**, Engageli's AI tutor, answers questions and reinforces key ideas by pulling from your module content.
- **AI-generated summaries** help learners quickly review content.
- **Real-time analytics** show completion rates, engagement patterns, and comprehension gaps.

Bridging pre-work and live learning with analytics

Engageli connects pre-class work with live teaching by giving instructors detailed insights into how students engaged with the prep materials:

- Which topics students struggled with most
- Where they spent extra time or replayed content
- Who completed the work and who may need support

Instructors can then:

- Start class with polls or discussions focused on tricky concepts
- Group students strategically for peer learning
- Adjust plans in the moment based on areas of confusion
- Follow up with students who need extra help

During class: active learning in the virtual classroom

Instead of starting the live class with assumptions, instructors have a clear, data-backed plan. Class time can then be used for:

- Discussion and Q&A to clarify misconceptions.
- Collaborative problem-solving and activities in small groups using virtual tables.
- Active learning exercises like live polling, shared whiteboards, role playing, case studies, or scenario-based tasks.

Instructors use Engageli's engagement indicators to monitor participation at the individual and group level, jumping into table discussions as needed or redirecting attention in real-time.

AI tools in the live class:

- **Quick polls** are generated dynamically based on class discussions or shared content.
- Instructors receive **live analytics** on talk time, chat activity, and nonverbal cues, allowing them to adjust their teaching accordingly.
- **AI-generated summaries** of the last 5 minutes of the session help learners stay on-topic and avoid missed content.

After class: reinforce and retain

After class, the session recording is automatically turned into a self-paced asset through Engageli's collaborative playback room. Students can revisit the class session at any time using the same link. This supports review for those who attended the live class, plus allows students who missed the session to catch up. While in the playback room, students are supported by AI tutoring, persistent notes, Q&A, and polls, and AI summaries.

Instructors can follow up by:

- Creating highlight clips and short recaps using Engageli Studio to reinforce difficult concepts or clarify misconceptions.
- Embedding polls, quizzes, and reflection prompts into review modules, turning playback into an active learning experience.

Students can engage with recorded sessions in individual or group playback rooms, where they can take notes, ask questions, and collaborate, extending the value of the live session.

AI tools in the playback room:

- Playback rooms feature **AI-generated notes, summaries, and insights** tied to specific timestamps for fast, targeted review.
- **AI tutors** provide personalized content review and answer student questions based on what was said in class.
- **Engagement analytics** on learner completion, engagement, and understanding carry through to the asynchronous session.

Together, these tools close the loop on learning: students preview content before class, engage actively during, and reinforce knowledge after – all with real-time insights for instructors on who's engaging, what's working, and where support is needed.

The flipped classroom payoff

Only 5% of students actively participate in traditional lectures, versus 62.7% in active learning sessions.

The flipped classroom model may take some initial planning, but the long-term payoff is significant. Instead of re-teaching the same content in the same way, instructors can shift their focus to where it matters most: helping students apply, analyze, and retain what they're learning.

For students, this structure supports better outcomes. They get more control over the pace of learning, more opportunities for feedback and interaction, and more tools to reinforce their understanding. And institutions benefit from stronger engagement, improved performance, and a more scalable model for active learning.

Whether you're teaching large lectures or smaller seminars, Engageli's integrated tools make it easier to put this model into practice without adding complexity or additional tools to your workflow.

Ready to flip your classroom?

If you're already using Engageli's virtual classroom, Studio – powered by Engageli's AI and analytics – is the missing piece that makes flipped learning easier to implement and scale. You can start creating interactive modules in minutes and transform how your students engage with your course content.

Try Engageli Studio today and measure the difference in your classroom.

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