Deep Engagement Tools for Corporate Virtual Education

Lessons from Brandeis University's Online Discussion Analysis for Training Optimization

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Online education and training is efficient and convenient, but is it engaging? To earn and keep the attention of learners, instructors have to use every trick in the book. The engagement solutions for asynchronous, self-paced learning are different than those for live-online, synchronous classes. Corporations use both modalities today, and live-online classes are important in high-value customer segments.

What Is Deep Engagement?

Traditional metrics like completion rates or seat counts no longer satisfy executive demands for measurable outcomes. Deep engagement in our definition means that the learner is not just in attendance, but paying attention so that they can interact with the content presented. This interaction is measurable and can be managed.

Learner behaviors during a class session can yield granular signals—talk time, chat participation, interaction with content and instructor, peer-to-peer exchanges, and so on. Here, too, traditional metrics fall short. We need more nuanced signals to understand learner motivation and potential.

Fortunately, technology is enabling powerful insights. Learning management systems (LMS), Zoom integrations, and analytics dashboards powered by AI can now capture and visualize learning data in actionable ways. The tools for measuring deep engagement online are still new, being developed mostly since the pandemic and with the ubiquity of Zoom.

Engagement Dashboards Used in Academia

Brandeis University researchers have been developing tools to measure participant interaction in live-online business school classes since 2020. Classes were usually 80 minutes to 180 minutes long, with 10 to 50 students, and taught by the case or discussion method. Pilot tests on dozens of courses with hundreds of students have shown how dashboards of engagement metrics can improve teaching. What topics or pedagogy spark engagement? Who is most engaged? Who is disengaged?

As an example, *Figure 1* shows how the Brandeis team visualizes the dynamics of discussion in one 60-minute learning session. This example included 15 attendees on a live Zoom session, with one main presenter (Bob Smith—fake names but real conversation data). The goal was to present the engagement tools to teacher colleagues.

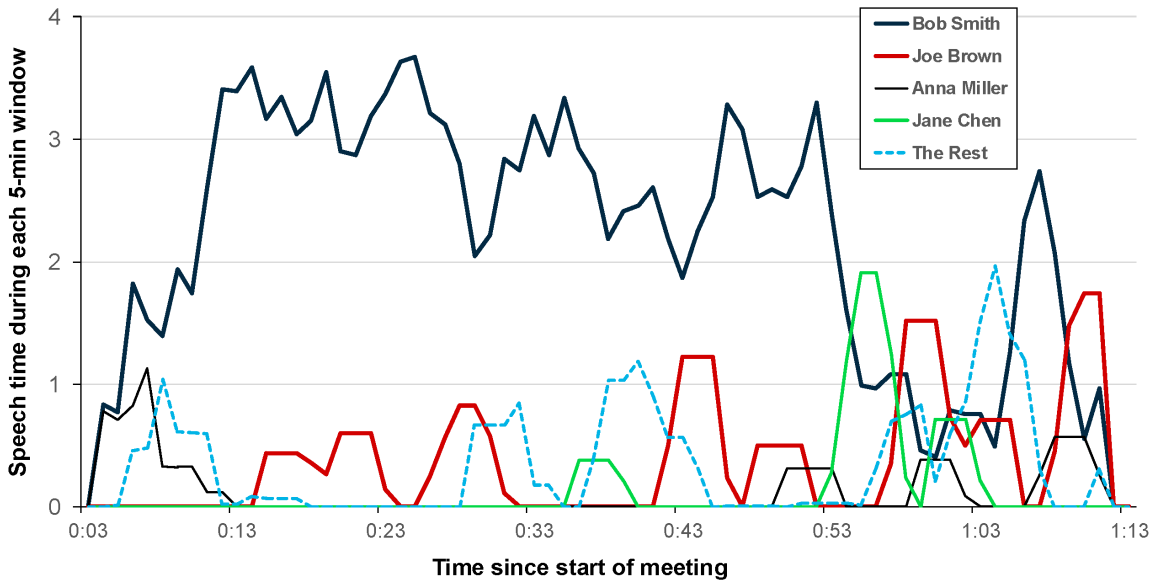

Figure 1. Class Dynamics. Speech time of speakers in moving five-minute windows during a 60-minute session.

We can see that the meeting starts with introductions by several speakers, followed by 40 minutes of Bob Smith lecturing, but with questions and discussion from Joe Brown and others. The meeting ended with a highly interactive segment during which Jane Chen, Anna Miller, Joe Brown, and several others spoke. The degree of interactivity varies visibly, which helps instructors see how the session went, what sparked debate, and how much each participant contributed. We can see accurately who spoke, when, who interacted repeatedly, who was silent, and more—which is useful for student feedback.

Use of data like this may look similar to sentiment or content analysis in AI-assisted sales applications, but the Brandeis toolset does not measure content at all. Even so, the pattern of discussion shows the engagement of learners and the effectiveness of the pedagogy.

To see other ways in which data like this is used in the Brandeis business school context, see this *Harvard Business Impact* article.

From Engagement Data to Business Results

How can you leverage such engagement data to increase instructor-led training (ILT) revenue, improve learning outcomes, and accelerate product adoption? The sweet spot for these tools is live-online sessions such as Zoom classes. This teaching modality continues to have a key role in any corporate education portfolio — it is more cost-effective than in-person modalities, and more engaging than self-paced, asynchronous methods.

Optimizing Delivery

Analytics can reveal degrees of **instructor talk dominance**—where instructors might be over-talking, limiting learner participation, and inadvertently driving up the cost per learner.

Armed with this insight, organizations can shift some content to self-paced modules. This reduces instructor hours, while still preserving—or even enhancing—learner engagement through live formats.

And instructors can learn to be more interactive in their sessions. The engagement data gives concrete feedback to coach instructors.

Driving Revenue and Product Adoption

You can also begin identifying **talk champions** with the engagement data. Highly engaged learners usually speak frequently, ask insightful questions, and often help their peers. They can become product advocates, community leaders, and even targets for upselling.

Engagement profiles also enable the creation of **personalized learning paths**, which are tailored experiences driven by data significantly increase learner satisfaction and foster greater "stickiness" with your product.

Finally, dissecting the deep engagement data allows for **proactive support** (*Figure 2*). Disengaged learners can be targeted with outreach, reducing churn and boosting renewal rates.

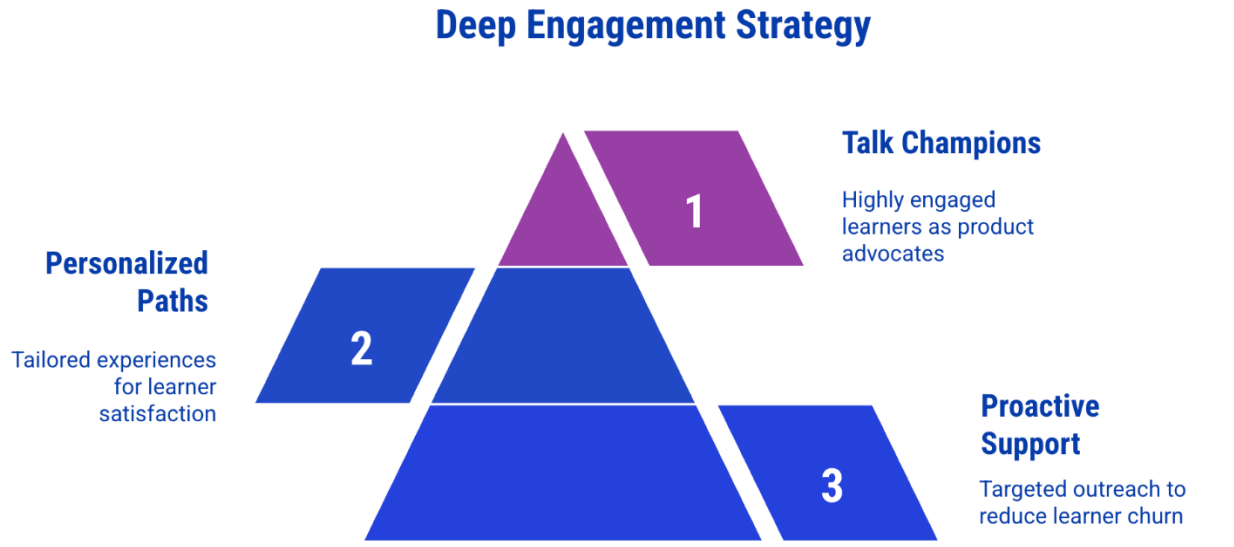

Figure 2. Deep Engagement Strategy. How deep engagement strategy can inform content development, customer support, and product sales.

Conclusion: Data Analysis Drives Effective Education

For a while now, successful training executives have stopped asking "Did people complete the course?" and have started asking "Which learning behaviors predict

customer success?" Instead of defending training budgets, they're proposing increased investment based on measurable ROI. The next step for enterprise education is clear—more and more companies will use data to transform their services into revenue growth engines.

With the rise of AI, the efficiency of online learning is increasing, as AI agents and tutors can help self-paced learners. But there is often no substitute for interactive conversation with a live instructor and with peers. In-person, live-online, and hybrid classes will remain at the core of corporate training, especially for the highest and most profitable segments.

Data analytics are the key to boosting effectiveness and impact of all these methods of learning. In live-online classes, reliable dashboards can be used to boost engagement, promote business outcomes, and gain the loyalty of learners and users.

About the Authors

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