WORKSHOP:

The Brain-Inspired Classroom: Evidence-Based Practices from Cognitive Science

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OBJECTIVES

1. To challenge common misconceptions about how the brain learns based on cognitive and affective neuroscience research;
2. Discuss six evidence-based principles from cognitive science that enhance learning, retention, and student engagement;
3. Reflect on our own teaching habits in light of cognitive neuroscience and consider areas for unlearning and growth;
4. To collaborate with peers to co-design practical changes to each one instructional routines using neuroscience-aligned strategies.

ABSTRACT

Are our teaching methods aligned with how the brain learns? I used to think mine were. But as I began exploring cognitive neuroscience in education, concepts like retrieval practice, spacing, and the limits of working memory challenged many of my assumptions. This journey has been eye-opening, and I'd love to share what I've discovered with you.

We all want our students to thrive much beyond the classroom and exams. When we teach in ways the brain learns best, we make learning more meaningful and we're all learning as we go. None of us have all the answers, but this session is just a gentle invitation to take the first steps, side by side to learn with each other, not alone. Cognitive and affective neurosciences suggest that many common teaching habits, like heavy lecturing or reviewing by re-reading, don't align with how memory works.

My invitation is to begin by busting common misconceptions and moves into exploring key learning principles supported by empirical studies. I will invite attendees to actively engage with cognitive challenges and design simple changes to our own instructional routines. Through bite-sized theory, hands-on demos, reflection exercises, let's combine quick theory bursts with collaborative practice focusing on six evidence-based practices from cognitive science that boost learning, memory, and student engagement.

I've designed this session to give educators research-informed tools they can use right away and keep the workshop interactive, energizing, and grounded in science. My goal is to organize this session in a way that it can equip educators with tools to teach in ways the brain actually learns. Expect a fun and interactive format that balances scientific rigor with creative application.