

The Crescendo of EML

Update 2.5

*mini-workshop experiences designed to **delight** and **surprise***

The science of student attention, the curious power of curiosity, the student perception of value — these are part of what is known as **Entrepreneurial Minded Learning (EML)**. Join national speaker and Kern Family Foundation Program Director Ranen McLanahan for novel, engaging, and transformative mini-sessions for your faculty and staff. This curated selection of topics is designed to **surprise** and **delight**, offering adaptable ideas to transform the classroom experience with unique, innovative methods that you won't see anywhere else in the world.

How this works

- Contact Ranen McLanahan (rmclanahan@kffd.org) to schedule in-person or virtual mini-workshops on your campus, complimentary of The Kern Family Foundation.
- Mix and match up to 5 topics from our modular 50-minute topical collection.
- Invite instructors to participate according to their availability and interests.
- Watch instructors be **surprised** and **delighted** by a selection of sessions that are 100% unique, engaging, and impactful.

How many people do you need for this program? The medium audience size is around 20, and the largest audience (thus far) has been 80. But for the right group of movers and shakers, a workshop as small as 10 can be transformative.

Sample Crescendo Schedule

9am	The Transformative Power of EM in the Classroom <i>All are welcome at this interactive session featuring unique perspectives, ideas, and methodology for what EML is and how it is so transformative for students, classrooms, and universities.</i>
10am	The Curious Power of Curiosity <i>Explore the two unique types of curiosity through interactive experiential learning activities and try out actionable classroom techniques that greatly engage students.</i>
11am	The Science of Student Attention with EML <i>A visual exploration of the neuroscience of human attention with experiential activities (through art and more) and EML intervention ideas that are applicable to any classroom.</i>
1pm	Adaptable Teaching Innovations from KEEN <i>KEEN is a highly collaborative network working to transform engineering education. What are some of the biggest ideas? And how can we adapt these for our own programs and classrooms? Explore some of the best ideas from KEEN and learn practical strategies to implement these adaptable teaching innovations.</i>

Crescendo Catalogue

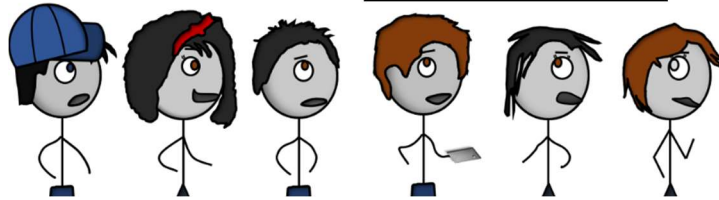
Please feel free to mix and match up to five sessions from our catalogue below. Each one offers participants unique, novel, and energizing perspectives on EM and EML.

The Transformative Power of EM in the Classroom

The KEEN network comprises over five dozen universities committed to transforming education through entrepreneurial mindset (EM) and entrepreneurially minded learning (EML). Since no university makes this commitment out of an overabundance of time, what makes these ideas so compelling? Try out innovation by bisociation, hear the Kern Family Foundation story, and discover the power in the value proposition of EML. This session is appropriate for participants at all EML experience levels.

The Curious Power of Curiosity

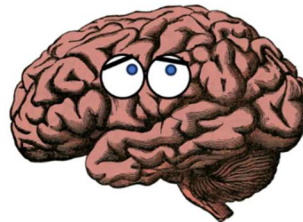
How often do we recognize the transformative power of a single curious question? This premier session offers actionable classroom techniques to nurture student curiosity. In this session, you'll engage in hands-on experiential learning activities to better explore your brain's mechanisms of curiosity and elevate your teaching by fully tapping into this essential human drive.



The Science of Human Attention

Student attention can be slippery to pin down. It flows and ebbs throughout the day, week, and semester. Sometimes, when we need to capture it the most, it becomes the most elusive and difficult. What are the mechanics behind human attention, and are there ways we can capture it consistently through EML? This highly experiential session explores the science of human attention in a variety of ways.

Without these Elements, we get Mind Wandering



Mind Wandering...

"...[is] in fact quite vigorous and consists of a mixture of freely wandering past recollection, future plans, and other personal thoughts and experiences that appear to be loosely linked."

Andreasen, N. C., O'Leary, D. S., Cizadlo, T., Arndt, S., Rezej, K., Watkins, G. L., ... & Hichwa, R. D. (1995). Remembering the past: two facets of episodic memory explored with positron emission tomography. *American Journal of Psychiatry*, 152(11), 1576-1585.

The Student Perception of Value

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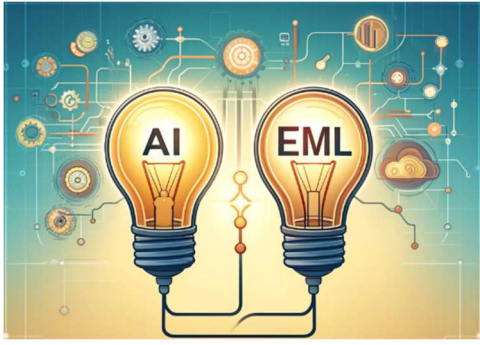
- welcome to a most unusual restaurant
- but is a classroom like this restaurant?
- leveling up the engineering bread
- adaptable recipes

The Student Perception of Value

If different students care about different things, what does that mean for creating value in the classroom? Learn about the student perception of value and how we can use it to create teaching leverages for ourselves and our topics.

Adaptable Teaching Innovations from KEEN (new!)

KEEN is a highly collaborative network working to transform engineering education. What are some of the biggest ideas, and how can we adapt these for our own programs and classrooms? Explore some of KEEN's best ideas and learn practical strategies to implement these adaptable teaching innovations.



AI and EML for the Classroom (new!)

This workshop explores AI classroom innovation methods. Explore our “poor man’s” AI training prompts to generate deeply compelling questions for any discipline. Experiment with our Entrepreneurially Minded Learning (EML) combinatory methods to create instant, novel teaching innovations that show students the opportunity, impact, and value for any topic. Discuss the critical role of adaptability in higher education as new and ever-more-powerful AI tools

are released. For this workshop, you’ll need access to a current AI platform, such as ChatGPT, Copilot, or Gemini.

The Surprising Consequences of Self-Awareness

Did you know there are two distinct types of self-awareness and that these can be understood entirely independently of each other? Does an increase in expertise and power make someone more self-aware or less self-aware? Learn about the four categories of self-awareness, how they can change the trajectory of a career, the surprising consequences of expertise and power, and data-driven recommendations for what this means for you and your students.



These next two topics are more advanced and are recommended for a second Crescendo event or as a virtual lunch-and-learn scheduled in the months following a face-to-face workshop day.

The Less-Stress Grading Structure

Does the grading structure you choose matter? For example, can the choice of a grading structure:

- Emphasize learning rather than merely passing tests, quizzes, and exams?
- Improve general assessment accuracy?
- Increase the percentage of on-time student submissions?
- Substantially reduce the instructor's grading workload?
- Easily provide students with useful, instant feedback?
- Get the lower quartile to *actually look at* where they made a mistake on homework?
- Reduce student stress throughout your entire course?

Come learn about this novel method, the theory behind it, and the lessons learned from its implementation.

The EML Intervention Creation Workshop

How do you change the way students think (i.e., enhance mindset) while teaching technical skills? This highly interactive session will present rules of thumb, ideas, and methods for creating your own EML interventions.



Other Sessions in Development (available sooner by special request)

- A Student-Friendly Approach to the Ill-Defined Problem of Communication
- A Novel Approach to Academic Integrity through Professional Identity Development
- The Vital Importance of Having Fun when Teaching
- Innovative Innovations: Practical (and outside-the-box) Teaching Ideas and Structures
- The Science of Solidarity with EM classroom applications
 - Applied lessons from McLanahan's 2019 book *The Science of Solidarity*

About the Speaker

Dr. A. L. Ranen McLanahan, Program Director and national speaker for the Kern Family Foundation, started his career in 1999 working on a floating factory ship in Alaska. After that, he researched CFD and then MEMEs at Washington State University before serving as faculty for 12 years with the UW-Platteville Engineering Partnership. During that time, McLanahan co-founded a community R&D innovation center, 3DC, to develop intellectual property with students. In subsequent years, his consulting company, Critical Flux LLC, collaborated with industry on research endeavors and professional training. In 2016, Ranen was invited to give a workshop to the Wisconsin State Legislators at the state capitol. Topics from this workshop became his 2019 book, *The Science of Solidarity*.



Throughout his career, Ranen has earned multiple awards, honors, and nominations for his teaching, outreach, and innovations.