

**2020 ASEE Annual Conference
Education Research and Methods Division
Distinguished Lecture**



**Talking the Talk and Walking the Walk:
How Our Publications Reflect the
Engineering Education Community**

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Professor of Engineering and Science Education at
Clemson University and Editor-in-Chief of the Journal of
Engineering Education

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Session W414, 2:00-2:30pm

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Dr. Lisa Benson



Lisa Benson is a professor of engineering and science education at Clemson University and the editor-in-chief of the Journal of Engineering Education. Her research focuses on the interactions between student motivation and their learning experiences. Her projects include studies of student perceptions, beliefs and attitudes towards becoming engineers and scientists, and their development of problem-solving skills, self-regulated learning practices, and epistemic beliefs. She is an American Society for Engineering Education (ASEE) Fellow, a member of the European Society for Engineering Education (SEFI), the American Educational Research Association (AERA), and Tau Beta Pi, and the 2018 recipient of the Clemson University Class of '39 Award for Faculty Excellence. She earned a B.S. in bioengineering (1978) from the University of Vermont, and M.S. (1986) and Ph.D. (2002) degrees in bioengineering from Clemson University.

Abstract

As members of a community of scholars, what we write about, and who we write about are artifacts of our culture; they reflect who we are collectively. The ways we collaborate on, review, and publish our work also reflect who we are. The engineering education community is unique: As students, educators, and researchers, we hail from other disciplinary backgrounds. We bring with us aspects of our “home” disciplinary cultures, including our expectations about sharing ideas, data, and authorship, our practices around building on and citing each other’s work, and the standards we set for our scholarship. The community around our relatively new discipline is establishing its own research agenda and its own culture with respect to communicating and acting on our scholarly work. As our community develops and grows, many of us are wary of bringing along excess baggage from our home disciplines—those sometimes hostile and oppressive aspects of engineering cultures—that make it difficult for students, early career faculty, and those from marginalized populations in engineering to survive and thrive. In fact, for many of us, negative experiences in our home disciplines (being overlooked for recognition or promotion, being harassed or patronized, being undervalued) served as the impetus for finding our way into engineering education. We are here not because we are looking to escape from the trappings of tradition, but to turn that tradition on its head to create a more open, just, and responsive culture.

Members of the engineering education community have the opportunity to question and explore important issues such as diversity, equity, professional formation, recruitment, complex

systems, classroom innovations, and emerging instructional technologies. Through our scholarship, we are poised to examine and change aspects of our culture that generate disparities based on gender, sex, race, ethnicity, and other bases for marginalization. Our publications serve as the voice of our scholarship; they are our call-and-response system as we read and respond to scholarship in our field and build on each other's work. Does our work—and our responses to others' work—take the form of action as well? Are we talking the talk and walking the walk?

As we explore important issues in engineering education, our work often makes the case for students to be reflective and intentional, open and willing to critically examine new ideas, empathetic and willing to take multiple perspectives into account. We write about how students grapple with so-called “wicked problems” in engineering. As a community of scholars, how are we grappling with wicked problems in engineering education? In what ways are we modeling reflective, intentional, and perspective-taking approaches as we educate students, conduct our studies, and effect change in engineering education?

In this talk, I will draw on my experiences as editor of the *Journal of Engineering Education* and as an education researcher to identify parallels between scholarship in engineering education and our approaches to transformational change in engineering education. In scoping out a few current topics in engineering education research, I will highlight—perhaps most importantly—the issue of access to engineering education scholarship and the ways our community reflects its values and beliefs through its scholarly work as well as its actions related to sharing and building on that work.

Past Distinguished Lecturers in the Education Research and Methods Division

Since 1980, the Educational Research and Methods Division of ASEE has sponsored the ERM Distinguished Lecture at the ASEE Annual Conference. The lecture provides an opportunity to hear thought-provoking new ideas by notable speakers, often from outside the engineering education community.

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