

## Oral and Written Assessments to Distinguish Construction/Co-Construction and Critique

### תקציר ההרצאה:

Chi (2009) distinguished learning activities in which students are overtly passive, active, constructive or co-constructive. She suggested that constructive learning differs from active learning, in that students build knowledge that goes beyond what they knew before. This can unfold in solo-construction such as in self-explaining or in co-construction. Co-construction encompasses discussions between two or more students that result in building new knowledge which can involve students critiquing each other, or elaborating each others' arguments. In this talk, we will discuss educational technologies that facilitate critical, peer-to-peer science learning accompanied by classroom-based research on critical speaking and listening.

Specifically, will discuss how to assess co-construction of scientific knowledge with evidence-based argumentation.

### רקע על המרצה:

Dr. J. Bryan Henderson received his Ph.D. from Stanford University in Science Education. He is interested in the utilization of educational technology to facilitate critical, peer-to-peer science learning. His classroom-based research on critical speaking and listening intersects with his psychometric development of assessments that gauge how students learn science through evidence-based argumentation. Dr. Henderson is currently an Assistant Professor of Learning Sciences at Arizona State University, for *ASU Centennial Professorship Award* where he is a recipient of the *Stigdor*. He is a Principal Investigator of outstanding teaching, leadership, and service on a collaborative research grant between ASU and UC Berkeley, funded by the National Science Foundation.