

“ICAP: How to Promote Deeper Learning by Engaging Students Cognitively”

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ICAP is a theory of active learning that differentiates students' engagement based on their behaviors within the learning environment. ICAP postulates that *Interactive* engagement, demonstrated by collaborative dialogs, is superior for learning than *Constructive* engagement, indicated by generative behaviors. Both kinds of engagement exceed the benefits of *Active* or *Passive* engagement, marked by physically manipulative and attentive behaviors, respectively. This paper describes two five-year projects that attempted to translate ICAP into a theory of instruction for K-12 teachers, assessing both teachers' understanding, teachers' implementation, and students' learning. We show the limitation of teachers' overall knowledge transfer, and postulate why it is difficult to implement optimal co-constructive ways of collaborative or *Interactive* engagement. Ideas for how to salvage lecturing in college instruction will also be discussed.

SPEAKER BIO

Michelene (Micki) Chi is Foundation Professor and Regents' Professor at Arizona State University (ASU), and the Dorothy Bray Endowed Professor in the Mary Lou Fulton Teachers College at ASU. A cognitive and learning science researcher, Dr. Chi's Learning and Cognition Lab carries out three lines of funded research on how students learn. Dr. Chi has published widely and her work has been cited well over 50,000 times. She has received numerous awards, including the Distinguished Contributions to Research in Education Award from the American Educational Research Association in 2016, and the prestigious David E. Rumelhart Prize from the Cognitive Science Society in 2018. She is also an elected member of the National Academy of Education, as well as the American Academy of Arts and Sciences.