Supporting an inclusive teaching & learning community through the TXST Physics Learning Assistant program

Eleanor Close
Department of Physics, Texas State University

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Abstract: In the physics department at Texas State University, we are developing a Learning Assistant (LA) program [1] with reform-based instructional changes in our introductory course sequences. We are interested in how participation in the LA program influences LAs’ identity both as physics students and as physics teachers; in particular, how being part of the LA community changes participants’ self-concepts and their day-to-day practice. We analyze video of interviews with LAs as well as written artifacts from program applications, pedagogy course reflections, and evaluations [2]. Our analysis of self-concepts is informed by the identity framework developed by Hazari et al. [3, 4], and our analysis of practice is informed by Lave and Wenger’s theory of Communities of Practice [5, 6]. I will discuss the Learning Assistant model for course reform and teacher recruitment, our implementation of the model at Texas State, and themes of identity transformation emerging from our data. In addition to becoming more confident and competent in physics, LAs perceive themselves to have increased competence in communication and a stronger sense of belonging to a supportive and collaborative community; participation in the LA program also changes their ways of learning and of being students, both within and beyond physics.

Dr. Eleanor Close is an Assistant Professor of Physics at Texas State University in San Marcos. Before moving to Texas in 2011, she taught at Seattle Pacific University for eight years, where she had a joint appointment in the Physics Department and the School of Education. She is interested in community and identity development among physics students and how this relates to major and career choices; physics teacher preparation, including implementation and evaluation of programmatic reform; development of proximal formative assessment skills, including both noticing and valuing students’ thinking; and embodied cognition. Eleanor did graduate work at the University of Washington (M.S., Physics, 2003) and Seattle Pacific University (Ed.D., Curriculum & Instruction, 2009). Between receiving her B.A. in Physics from Bryn Mawr College and starting graduate school, Eleanor taught high school physics and physical science for three years in rural North Carolina.


