Foregrounding the background: Task-design principles to support students’ construction of spatial coordinate systems

Dr. Hwa Young Lee
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1:00 pm in DERR 238
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Abstract: In this presentation, I will talk about two tasks I designed and used in a teaching experiment with four ninth-graders in which I investigated how students constructed and reasoned with coordinate systems in various spatial contexts. I will discuss the goals and design principles of the two tasks and the roles they played in the teaching experiment. Finally, I present my analysis of students’ mathematical activity in these tasks to illustrate two core mental activities I found critical for students’ construction of spatial coordinate systems.

Dr. Lee received her Ph.D. in mathematics education from the University of Georgia and is an Assistant Professor in the department of mathematics at Texas State University. Her main research interest is in building conceptual models of how students think mathematically—specifically, in the areas of spatial and quantitative reasoning—and in learning how teachers can facilitate and support their.

Next Friday, October 27: Zhaochen Song, Texas State University, Comparative Study of Middle School Math Teachers' PCK between the U.S. and China