Special Colloquium

Minding the Gap: A Comparison between Pre-service and Practicing High School Teachers Geometry Teaching Knowledge

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Abstract:

What knowledge is needed to be a successful mathematics teacher? Where do teachers acquire this knowledge? Research has shown that Mathematical Knowledge for Teaching (MKT) is necessary to be a successful teacher, but little research has been done in the secondary grade levels. Some researchers believe that individual subjects in mathematics require specific MKT skills. One subject of particular interest is Geometry because it is a field in mathematics which every student in the United States is required to study in order to fulfill high school graduation requirements. In this talk, I will discuss my study which compares the Geometry Teaching Knowledge between pre-service teachers and current high school geometry teachers. Data was collected via an online assessment developed by Herbst and Kosko (2014, *in Res. Trends in MTE*), a post-assessment survey, and interviews. I will present the development of the study, results of the study, and continued research conducted in a pre-service college-level Euclidean Geometry course. Please bring your smartphones, tablets, or laptops to participate in the presentation.

Keywords: Mathematical Knowledge for Teaching, High School Geometry

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