## 1163-97-396

Cynthia O Anhalt\* (canhalt@math.arizona.edu), Department of Mathematics, 617 N. Santa Rita Ave., Tucson, AZ 85721, and Ricardo Cortez, Mathematics Department, 6823 St. Charles Ave., New Orleans, LA 70118. Examining MKT in Mathematical Modeling through PSTs' Participation in Simulations of Practice. Preliminary report.

Research in prospective teachers' MKT development specific to mathematical modeling is gaining momentum. Curriculum across K-12 calls for modeling, and teacher preparation needs to be inclusive of modeling in both content and pedagogy courses. The [MODULE(S)2] project has developed a modeling curriculum for teacher preparation that includes simulations of practice (SoP) in which PSTs solve a modeling problem, and then enter a simulated teaching space and record their thinking by videotape or in writing. These SoP experiences aim to reveal PSTs' thinking on student-developed models and planning discussions on the mathematics and contextualization of student results. We present an SoP analysis on the decreasing area of the Sioux Reservation land modeling task, which explores different methods for finding the area of land in connection to the injustice deeply rooted in the treatment of indigenous people in the U.S. Preliminary results indicate that PSTs do not consider inclusion of critical discussions in relation to the problem context, unless asked explicitly. This leads to questions about critical social issues as problem contexts, and explicit attention to teacher pedagogical preparation in structuring discussions around the contextualization of the mathematical results. (Received September 07, 2020)