

1080-97-180

**Kathleen M Clark\*** ([kc1ark@fsu.edu](mailto:kc1ark@fsu.edu)), Florida State University, School of Teacher Education, 1114 West Call Street, Tallahassee, FL 32306-4459. *Historical Problems and Problem Solving: Potential Contributions to Mathematical Knowledge for Teaching*. Preliminary report.

Examining prospective secondary mathematics teachers' (PSMTs') efforts when they study the history of mathematics provides opportunities to determine whether their mathematical knowledge for teaching (MKT) is enhanced. In an effort to begin an investigation of this sort, I implemented a 'problem solving portfolio' assignment in a history of mathematics course to capture ways in which PSMTs engaged in solving problems found in historical sources during a history of mathematics course. Each PSMT selected ten problems that they previously solved in the course, presented their solution to each problem, and provided a reflection on how their work on each problem contributed to the ways that they considered the underlying mathematics addressed in the problem. In this talk I will share several of the problems that were most often selected by the PSMTs and highlight the common themes raised by them in their reflections. These themes will be used to construct a preliminary model of how such problem solving can contribute to MKT. (Received January 25, 2012)