

1056-Z1-1440

Kathleen M Clark* (drkclark@gmail.com), School of Teacher Education, 1114 West Call Street, Tallahassee, FL 32306-4459. *History as a meaning-making tool: Illuminating prospective mathematics teachers' knowledge of algebra.*

The use of history of mathematics in teaching has long been considered a tool for enriching students' mathematical learning. In the United States few research efforts have investigated how the study of history of mathematics contributes to one's mathematical knowledge for teaching. In this paper, I share the results of research conducted over four semesters in which I sought to characterize what prospective mathematics teachers (PMTs) understand about the topics that they will be called upon to teach in the future. In particular, I focus on how the study and application of the history of solving quadratic equations illuminated what PMTs know (or do not know) about an essential secondary school algebraic topic. Additionally, I discuss how the results signal important considerations that should be undertaken by mathematics teacher preparation programs with regard to connecting PMTs' mathematical and pedagogical knowledge, and their ability to engage in historical perspectives to improve upon their own and their students' understanding of solving quadratic equations. (Received September 21, 2009)