1011-97-287 Hortensia Soto-Johnson* (hortensia.soto@unco.edu), UNC Ross Hall 2240 A, Campus Box 122, Greeley, CO 80639, and Michele Iiams, Todd Oberg, Barbara Boschmans and April Hoffmeister. The Impact of KTEM on Preservice Elementary Teachers' Beliefs on Learning and Teaching Whole Number Operations.

Despite the efforts of many researchers, results of previously conducted studies indicate that preservice teachers' beliefs about mathematics and the teaching of mathematics are inadequate and highly resistant to change. The publication of Knowing and Teaching Elementary Mathematics (KTEM), by Liping Ma (1999) reiterated that changing the existing beliefs of all teachers was imperative. In KTEM, Ma stresses the need for teachers to have a deep understanding of elementary mathematics (both procedural and conceptual) and to refine their attitudes towards the students in the classroom so as to see them as active in learning and doing mathematics. In order to promote conceptual understanding of whole number subtraction and multiplication, to encourage reflection on the teaching of elementary mathematics, and to improve attitudes towards mathematics and the teaching of mathematics, five mathematics educators, who teach the preservice elementary teachers content course at five different institutions, required their students to read excerpts from KTEM. We demonstrate how KTEM impacts preservice teachers directly through the analysis of writing assignments over the readings and a subtraction and multiplication pre and post-test. (Received August 29, 2005)