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Sandra Richardson* (srichardson@vsu.edu). *The Interrelationship of Preservice Elementary Teachers' Beliefs About Rational Numbers.*

There is a pressing need to better prepare teachers to meet the mathematics education needs of the nation's culturally diverse students. To meet this need, research must address: What forms of knowledge and experiences do pre-service teachers need to develop into good mathematics teachers capable of working with diverse populations of students? This study aims to investigate the mathematics beliefs and development of understanding the concept rational numbers through pre-service elementary teachers' emerging pedagogical content knowledge during the course of a semester. A thorough conceptual understanding of rational numbers is pivotal to the success in the teaching of elementary mathematics. Specifically, the objective of the study is: to determine the algebraic beliefs of elementary pre-service teachers (EPSTs) and the relationship between their rational numbers beliefs and pedagogical content knowledge (PCK). The PCK framework lies at the core of bringing together knowledge about pedagogy and content as interconnecting factors affecting the development of effective teaching. (Received September 01, 2014)