Reforming mathematics education is a complex task. A teacher’s practice is an indication of what he or she believes about mathematics and mathematics learning. As a mathematics teacher educator, I am interested in developing curriculum that encourages prospective K-8 teachers to adopt the tenets of mathematics education reform and reflect those tenets in their teaching. In particular, I am interested in providing experiences that will foster an appreciation by prospective teachers for children’s mathematical thinking. In this session, I will present the major findings of a study that investigated how clinical interviewing of children, a learner-centered task used in an undergraduate mathematics education course, influenced prospective teachers’ mathematics education ideas and intended teaching actions. Each prospective teacher in the course planned, conducted, and analyzed two clinical interviews with a child focusing on a mathematical topic. In-depth, phenomenological interviews were the primary source of data for evaluating the project with each prospective teacher interviewed at the beginning of the semester, after participants conducted their first interview, and the end of the semester. Documents and participant observations were secondary sources of data. (Received September 26, 2006)