

1077-97-2781 **Oswaldo Daniel Soto*** (osoto85@hotmail.com), 3763 33rd St., San Diego, CA 92104. *Teacher Change in the Context of a Proof-Centered Professional Development.*

As proving is a central activity in the study of mathematics, a teacher's own proof schemes (in the sense of Harel and Sowder, 1998) enable and constrain her instructional approaches. Though it is acknowledged that teachers' knowledge of mathematics is a cornerstone on which their instructional practices are based (e.g., Ball and Bass, 2003), little research exists documenting professional developers' attempts to influence teachers' proof schemes and the results of these attempts. This case study examines the development of one teacher's proof schemes in the context of an NSF funded proof-centered professional development (PD). Specifically, the study asked, what changes were observed in one participant's proving and proof schemes as she participated in the PD? While the study focuses on the developments of one participant's proof schemes, it also describes the rich learning environment in which the development occurred. It was found that during the two intensive summers of PD, that the participant showed evidence of a transition from empirical to deductive proof schemes. (Received September 22, 2011)