1035-U1-1156   **Karla Marie Childs*** (`kchilds@pittstate.edu`), Mathematics Department, Pittsburg State University, 1701 S. Broadway, Pittsburg, KS. *Research Results on the Relationship Between Graduate Teaching Assistant Instructor Expertise and Algebra Performance Of College Students.*

This longitudinal study examined the relationship between level of GTA instructional expertise, amount of GTA teaching experience, and academic performance of their college algebra students measured by course grades. College algebra grades for all students in classes taught by GTAs over six years and 43 sections were analyzed ($n = 2198$). The most salient result of the present study pertained to withdraws from college algebra. A chi-square analysis indicated there was a statistically significant relationship between GTA Training (Yes or No) and Years in GTA position (1 or 2) on withdraws from college algebra. Noteworthy in the present study is the fact that success in lowering the drop rate in the treatment group occurred when students were drawn from the same pool, exposed to the same content at the same pace, and followed the same placement scheme as students in the control group. In addition, the design of the research had controls in place to extract any influence of prior math knowledge. Results of the present study indicate that a well-planned program of support and professional development for graduate students in the role of teaching assistants combined with experience appears be a major factor in improving academic persistence for students in college algebra. (Received September 19, 2007)