

Meeting: 1003, Atlanta, Georgia, MAA CP W1, MAA Session on In-Service Training Programs For K–12 Mathematics Teachers

1003-W1-494 **A. Susan Gay*** (sgay@ku.edu), University of Kansas, Joseph R. Pearson Hall, 1122 W. Campus Road, Room 421, Lawrence, KS 66045. *A Partnership to Improve Middle Grades Teachers' Content Knowledge.*

A partnership between the University of Kansas and Topeka, KS Public Schools aims to increase middle grades teachers' understanding of mathematics with the further goal of improving students' mathematical achievement. With funding from the Kansas Mathematics and Science Partnerships Program, a ten-day summer institute attended by 19 middle school and upper elementary school teachers was conducted in 2004. The content focus for this first year is number systems and algebra. The team leading the project includes a mathematics education professor, an exemplary classroom teacher, a doctoral student, and the district mathematics coordinator. During the institute, activities were conducted in both large and small group settings, focused on important concepts in algebra and number systems, and emphasized the use of correct vocabulary and making sense of procedures and concepts. Pretest and posttest measures show improvement in teachers' knowledge of algebra concepts and procedures and knowledge of vocabulary terms for algebra and number concepts. Almost all of the teachers improved their feelings of confidence. School year activities include quarterly follow-up sessions and classroom observations for participants targeting the improvement of teaching skills and student achievement. (Received September 16, 2004)