

Boosting Bootheel Mathematics

Project Title: Boosting Bootheel Mathematics

Project Director: Dr. Cheri Fuemmeler

Lead Institution: Southeast Missouri State University

Duration of Project: Three Years (Cycle-9 is the third year for this project)

Grade Level Focus: 4-8

Credit Hours to be Provided: Up to 6 graduate credit hours

Project Summary:

“Boosting Bootheel Mathematics” will serve the following Missouri Bootheel high-need school districts: Bernie R-XIII, Gideon 37, Malden R-1, Risco R-II, Scott County Central, and Lift for Life Academy a High-Need Charter School supported by Southeast Missouri State University. South Pemiscot County R-V will also be included in this project. St. Teresa School will be the project’s sole private school partner.

The need for math teacher professional development is supported by:

- MAP Data (2006-2008) revealing these schools experienced a downward trend in mathematics proficiency (grades 4 to 8).
- School leaders wanting to implement intervention strategies to improve both student proficiency and motivation.
- Needs assessment surveys indicating a desire for more professional development.

A cohort of grades 4-8 math teachers will participate in a five-day summer institute that will focus on strategies to boost student engagement/motivation, which in turn will increase student achievement. These strategies will include using an inquiry-based approach, problem solving strategies, assessment tools for both formative and summative assessments, data analysis for the purpose of driving instruction, and a deeper level of teachers’ content knowledge and pedagogical strategies. All strategies will be linked to Grade Level Expectations, Show Me Standards, and the NCTM Process and Content Standards. Participants will develop math lessons that integrate literacy and writing skills. The summer institute will be followed by:

- Six follow-up workshops during the academic year to collaborate and reflect on practice.
- Project instructor visits to school districts to coach and assist participants in implementing effective teaching practices.

Project instructors will also model lessons and effective teaching practices for pre-service teachers. This project will deliberately pursue administrator participation by offering an incentive to the schools for follow-up activities and/or purchase of materials to provide additional math resources.