**Innovation in the Heartland: Enhancing Teacher Effectiveness in Rural Missouri and Kansas**

**Abstract**

We propose **Innovation in the Heartland: Enhancing Teacher Effectiveness in Rural Missouri and Kansas** to build upon eMINTS' strong history of improving rural teacher effectiveness and student achievement by extending our professional development (PD) program. We will enhance teacher effectiveness in **58 high needs** (at least 50% free and reduced-price lunch-eligible [frpl] student population) and **rural** (designated with locale codes 32, 33, 41, 42, or 43) **middle schools** (a variety of population combinations that incorporate grades 7 and 8). We will reach about **406 teachers and 26,796 students** over the five years of the project. Our project will increase academic performance while increasing problem-solving ability, self-regulation skills, and academic and STEM mindset for rural 7th and 8th grade students.

We address **Absolute Priority 1 - Supporting Effective Teachers** by providing a school-based program of Evidence-Based PD; **Competitive Priority 2 - Promoting STEM Education** by helping teachers integrate authentic engineering design tasks across core subject areas as students solve problems in their rural communities; and **Invitational Priority - Micro-credentialing** using a system of electronic badges for eMINTS district affiliate trainers as they implement effective adult facilitation strategies.

**The project is designed around three goals** of 1) Increase the number of rural teachers using highly effective teaching strategies, 2) Increase academic achievement in mathematics, ELA and science for 7th & 8th grade students in high-needs rural schools, and 3) Implement a tiered support system for an efficient/ effective eMINTS Instructional Model. eMINTS is one of few PD programs with data to support the chain of evidence from delivery of a specific PD program to changes in teacher practice and positive impact on student achievement. eMINTS is research-based, interactive PD with in-class coaching guiding teachers to implement rigorous standards in a way that creates highly engaging, student-centered learning communities. eMINTS students tackle real-world problems, collaborate on projects, are savvy consumers of information and producers of new knowledge. In this project, students will collaboratively identify problems impacting their own rural communities, analyze potential solutions, and target and defend the best solutions.

**Project partners** include the eMINTS National Center at the University of Missouri (MU) College of Education and Dr. Johannes Strobel, a professor with the MU School of Information Science and Learning Technologies. MU undergraduate students will mentor the middle schoolers and provide a connection to a large university for isolated rural kids. Regional PD Centers and Rural School Consortia in Missouri and Kansas (Missouri State University Agency for Teaching, Leading and Learning, Greenbush Southeast Kansas Education Service Center, and Southwest Plains Regional Service Center) will support nearby project schools. The Missouri and Kansas Departments of Education will advocate for the program. Additional partners include our evaluator, American Institutes for Research and our match partner KCAV.