University of Central Arkansas: Mathematics Core Team Partnership

The *University of Central Arkansas: Mathematics Core Team – Grades 3-6 Partnership* is a partnership comprised of 30 teachers from school districts in central Arkansas, faculty from the Department of Mathematics at the University of Central Arkansas (UCA), the UCA STEM Institute, and the Arch Ford Education Services Cooperative.

The Mathematics Core Team (MCT) is a professional development project that explores key concepts of the Common Core State Standards in significant depths. The main goal of the project is to enhance teachers' content knowledge and teaching skills that prepare students for success in the CCSS mathematics. The MCT project will provide a long-term sustained high quality opportunity for participating teachers for a minimum of 100 contact hours during each year of the project. 2012-2013 is the second year of the project.

Professional development for teachers will be designed with a clear trajectory (i.e., learning progressions) of learning, including appropriate formative assessments to help guide the way and direct student learning. The goals of the partnership are:

1) Increase student performance in mathematics as measured on the adopted state measurements or other adopted exam in mathematics;
2) Students in the treatment classrooms will increase the percentage performing at proficient or above by at least 5% as compared to students in control classrooms as measured by scores on the State's Benchmark exam;
3) Increase teacher content knowledge and capacity to provide classroom instruction in number operations and algebraic reasoning through creating learning trajectories, developing formative assessments, and structuring assessments based on student instructional needs as measured by classroom observation and lesson planning strategies;
4) Increase teacher knowledge and capacity to provide classroom instruction in geometry and measurement through creating learning trajectories, developing formative assessments, and structuring assessments based on student instructional needs as measured by classroom observations and lesson planning strategies.

To evaluate the success of the project, a quasi-experimental design with a delayed treatment for the comparison group will be used. A comprehensive evaluation that will use formative and summative assessments and include both qualitative and quantitative measures for each program goals will be conducted by the external evaluation specialist. DTAMS (Diagnostic Teacher Assessments in Mathematics and Sciences) assessment instrument will be used to assess elementary and middle school teachers' content knowledge.