

Northeast Arkansas Education Service Cooperative

The Northeast Arkansas Education Service Cooperative, Harding University, and 13 high-need member school districts have established an MSP 6th, 7th and 8th grade Common Core Algebra Initiative entitled *6th-8th Grade Algebra Common Core Interactive Initiative*. Participating school districts include the following: Corning, Greene County Tech, Hillcrest, Hoxie, Jackson County, Lawrence County, Marmaduke, Maynard, Paragould, Piggott, Pocahontas, Rector, and Sloan-Hendrix. The project is designed to address the need for teachers to be actively involved in implementation of the new Arkansas Common Core State Standards (CCSS). The Algebra Common Core Standards aligned to the existing algebra student learning expectations add new rigor and difficulties for middle grades students and teachers. Stronger content as well as pedagogical knowledge will be required to master Algebra in future years. This grant is a year 2 implementation grant for the project.

Forty-two 6th, 7th and 8th grade Algebra teachers in the 13 Northeast Arkansas Cooperative's member school districts will deepen their mathematical content knowledge of Common Core Algebra, develop interactive Algebra lessons, and integrate the lessons into their classroom instruction as a result of participation in this initiative. The primary goals for year 2 of the grant is to continue gaining content knowledge through the "unpacking" of the CCSS and by developing CCSS lessons and pilot testing lessons in their Algebra classroom during 2012-2013. Two five-day summer institutes for MSP teacher participants will be held in June and July, 2013 respectively. Through the "unpacking" process instructors will help teachers in grades 6-8 identify critical areas for algebraic instruction as specified in the CCSS. These areas are the basis for "big ideas" that teachers can use to build curriculum and guide instruction. As teachers identify learning progressions within the CCSS, they will focus on ways to support students' learning trajectories from one level of understanding to another. Teachers will participate in activities that encourage abstract thinking, give practice in symbolic representation, and foster reasoning.

The Northeast Cooperative's Planning Team and Assessment Team will gather data for an effective quasi-experimental evaluation design for the MSP initiative during 2012-2013. The Common Core aligned teacher content test was developed from LMT released items and incorporated into an on-line, secure test which was administered by the NEA Coop's internal evaluator during year 1 for pre-test and post-test to MSP participants and a control group of 48 middle school teachers. Two classroom observations will be conducted by RTOP (Reformed Teaching Observation Protocol-trained observers.

Data collection will include measuring teacher content knowledge utilizing the LMT Middle Grades Patterns, Functions and Algebra pre- and post -tests. MSP student achievement will be measured using the annual Arkansas Benchmark exams. The Reformed Teacher Observation Protocol will be used for classroom observation by university mentors. A summative evaluation of the work teachers do with Learning Progressions and unpacking the Algebra CCSS will be conducted yearly. All evaluation data will be incorporated into the Annual Performance Report.