

Wilbur D. Mills Education Service Cooperative

The Wilbur D. Mills Education Service Cooperative, Harding University, and sixteen high-need member school districts have established a 6th, 7th, and 8th Grade Common Core Geometry Interactive MSP Project. This project has been designed to address the need of teachers to be actively involved in the implementation of the new Arkansas Common Core Mathematics Standards (CCSS). 2012-2013 will be year 2 of the project's implementation.

Sixth, seventh and eighth grade Geometry teachers will deepen their mathematical content knowledge of Common Core Geometry, develop interactive Geometry lessons, and integrate the lessons into their classroom instruction over a three-year period.

- **Year II (2012-2013) Objective:** Forty-eight 6th, 7th and 8th grade Geometry teachers from 13 school districts will continue to gain content knowledge through the "unpacking" process, design and develop Common Core lessons, and pilot the lessons in their Geometry classrooms during the 2012-2013 school year.

Year I included intensive training of the CCSS Geometry "Learning Progression" process and "unpacking" process, which are the critical elements of the project which will result in the development of interactive lessons for Common Core 6th, 7th, and 8th grades in year II (2012-2013). The 48 MSP participants attended two Saturday orientation workshops in the spring of 2012. A ten-day Summer Institute will be complete by July 2012. Experienced mathematics professors from the University of Central Arkansas, Arkansas State University, and Harding University are leading the workshop and summer training activities.

In Year II (2012-2013) the project will continue to stress the development of Geometry content knowledge among participants and begin to explore in depth Common Core lesson design and development of interactive lessons. Emphasis will be placed on Geometric Thinking and applications. Two classroom observations of participants teaching specific Common Core Geometry lessons will be conducted by RTOP trained classroom observers. The second ten-day Summer Institute will be conducted in June-July, 2013 in the Harding University's Heritage Center facilities.

An external evaluator was employed to oversee the quasi-experimental evaluation design and implementation. The design has been established to compare participants and a control group of middle grade math teachers from the Northeast Arkansas Education Cooperative's member schools. The validity and reliability of a teacher content knowledge test was assured by the design of a 20-question Common Core Geometry pre/post test which is constructed for online, supervised administration. The questions are 6th-8th grade Geometry questions taken from the Middle Grades (6-8) LMT's released question files. The MSP Geometry Assessment Team aligned the questions with the Common Core (6th-8th) Geometry Standards to match the content knowledge which will be emphasized in the three-year project syllabus. The MSP participants' scores will be compared against the control group scores to measure the differences made on an annual basis.

Additionally, during Year II an online IMPAC evaluation questionnaire was designed to measure the qualitative aspects of the MSP year-long training sequence. This questionnaire will be completed by MSP participants at the final day of the 2012 Summer Institute.