

GOOD NEWS

FROM THE KENTUCKY CENTER
FOR MATHEMATICS



KCM TO BE PART OF MAJOR NSF GRANT

KCM was named a partner on a recent National Science Foundation (NSF) grant awarded to the University of Kentucky College of Education.

The \$599,845 grant was awarded to research, develop and implement ways of teaching mathematics that integrate equitable teaching practices. The project, entitled "Microlearning Mathematics Modules that Intersect Noticing and Equity," will have a direct impact on over 600 college students studying elementary education in Kentucky and parts of Ohio.

This research focuses on professional noticing in the classroom. An adult's perception varies from the way child understands mathematics. Comments and questions posed by students during a lesson provide clues about their understanding of what is being taught. Professional noticing takes place when teachers recognize these clues within student reactions and develop their responses accordingly.

KCM Faculty Associate Dr. Jonathan Thomas will take part in the research team on this grant, serving as a co-investigator. Dr. Thomas is also a faculty member in the STEM Education Department at the UK College of Education.

Researchers on the project have been putting together a system to help build professional noticing skills in pre-service teachers. In doing so, they have partnered with elementary teachers throughout the commonwealth. Classroom visits enable researchers to obtain video footage of professional noticing in action. These videos are then used to inform online modules, which pre-service teachers can utilize to better develop their professional noticing skills. These videos are also used to offer professional development to in-service teachers.

"The videos we created have been useful to teachers in training, and have also been rich in data for researchers to

interpret," Thomas said. "While they offered a creative and potentially transformative approach to the preparation of future elementary teachers, we noticed one area we felt needed further exploration. With this funding, we are now able to examine how professional noticing provides opportunities to consider equity issues such as access, participation, and positioning within the mathematics classroom."

While culture can be a valuable asset to the classroom, it can present unintentional inequalities among students. Teachers may assume the mathematical ability of a student based on factors such as ethnicity, race, socioeconomic status, gender, beliefs and creeds or their ability to speak the dominant language.

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**-JONATHAN THOMAS,
UNIVERSITY OF KENTUCKY,
KCM FACULTY ASSOCIATE**



This project is being designed in a way that will highlight equity issues that may arise during professional noticing in the classroom. This can inform an understanding of how students of differing backgrounds make sense of mathematics. Funding for the project has been given for three years, and will build upon research previously conducted by the team at UK's College of Education.