

## Enhancing Early Math Skills to Achieve Long Term Success

Research shows “early math skills have the greatest predictive power [of later achievement], followed by reading and then attention skills.”<sup>1</sup> Further, economist James Heckman found that preschool is ultimately the best adult job training experience. High-quality early mathematics instruction is absolutely critical to Kentucky’s future. As such, the KCM (Kentucky Center for Mathematics) has partnered with the Erikson Institute, the nation’s premier graduate school in child development in Chicago, to provide high quality professional development for Kentucky preschool teachers. The EEMP (Erikson Early Mathematics Program) provides teachers, through a series of four learning lab experiences, with high-impact, evidence-based strategies and support for engaging preschool students in rich mathematics.

Over 100 Kentucky preschool teachers from nearly 40 different school districts are participating in the ongoing course. Participating teachers will have continued support from KCM and share their ideas with colleagues on a KCM online Forum. Additional offerings are being planned as requested by potential attendees.

Three KCM numeracy development specialists are independently leading the EEMP course under the direction of Erikson faculty. Plans are already coming together to add five more learning lab experiences next fall and three more Kentucky EEMP leaders.



(Above) Participating preschool teachers challenge each other as learners by naming attributes and sorting—rigorous experiences in algebraic thinking and pattern recognition. The activities teachers experience and learn during the EEMP learning lab are transferred to the preschool classroom where students can be similarly engaged and challenged. Participants leave with a research lesson they will independently implement and follow-up with group reflections at the next EEMP gathering.

**Participating teachers unanimously gave positive feedback upon the completion of the first of four experiences in the KCM/EEMP learning lab:**

*“It helped me to remember to push children to the next level in their learning process.”*

*“The activities were simple but profound in the amount of learning that can take place. The continuum loop of math learning was fascinating. I had not made the connection before between sets and algebra but it was an obvious connection.”*

*“It has really made me think about the opportunities I am not giving the students.”*

*“I learned that I am not going in depth enough with my lessons and some new ways to challenge my children.”*

<sup>1</sup> Duncan, G. and Dowsett, C., et. al. (2007). School Readiness and Later Achievement. Developmental Psychology, The American Psychological Association, 43(6), 1428-1446. Retrieved from <http://www.apa.org/pubs/journals/releases/dev-4361428.pdf>