Partnering for STEM Learning for Children & Their (Future) Teachers

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Knox County Schools
Enduring challenge in math teacher education

Despite valuable opportunities to develop teaching practices, school-based experiences often contradict or fail to support university-based experiences in mathematics teacher education (Zeichner, 2010).

Reimagining school-based experiences demands bringing together various stakeholders – mathematics teacher educators, teachers, families, communities – to work towards a shared vision for mathematics teaching and learning (AMTE, 2017).
Bridging university, school & community

Partnership with University of Tennessee, Knoxville, Fair Garden Preschool & East TN STEM Hub

• Respond to community-identified needs for STEM learning opportunities
• Various events facilitated by prospective teachers of mathematics in elementary and/or secondary programs, doctoral students and faculty members from the university
• Designed to be a sustainable, long-term partnership
Partnerships for STEM Learning

University

Students

Teachers & Schools

Communities & Families
Family STEM Night

Prospective Teachers
Community engaged-teaching in elementary math methods

Students & families
Local business owners

Read Across America & STEAM

Prospective Teachers & Doctoral students
Community-engaged teaching in elementary math methods

Teachers & parent/guardians
Students

Book Club

University faculty member

Teachers, Principal & Instructional coach

Fair Garden & Community Collaborators
Reflect on engagement activities

- What was the potential of each activity to support STEM learning for historically marginalized students, either directly or indirectly?

- How did each activity benefit the different stakeholders?
Whole group discussion

How did engagement activities mutually benefit various partners from the university, preschool, and community?

What other opportunities exist for supporting children’s STEM learning within (or beyond) theses activities?
Thank you!

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