Math Autobiographies as a Tool for Developing Young Black Mathematicians

What brought you to this work?

Jackson: Working in a majority black population school, I've noticed that the students seem to like math more than reading, but often lack related confidence to solve math problems. It is very rare that students identify as Mathematicians. To create an equitable learning environment, we must emphasize not only analytical thinking, but also allow students to use their home, culture, and community in the teaching process.

Selmer: I am interested in working to create unbiased educational environments in which educators notice learner thinking in ways that draw on both cultural and mathematical knowledge. Shaasia and I are designing a series of activities that allow a teacher to learn about their students' past mathematical experiences, current identities as learners of mathematics, and family and communities' mathematical histories. Together we are interested in how educators use this knowledge in the equitable teaching of mathematics.

Research questions

What are the students' histories, stories, communities, realities when it comes to math? What are engaging activities to develop student's identities as Mathematicians? What are ways that educators can use their knowledge of students (histories, stories, communities, and realities) in support of mathematical learning?

Research plan

Students will complete a math autobiography and engage in a parent/family interview assignment. Students will also research different African American mathematicians that have contributed to the field of Mathematics. In addition they will learn about how people in their communities use math everyday. At the end of the school year, students will be able to identify themselves not just as readers but as mathematicians.

Working together

Working together has been wonderful because the open and honest communication has allowed for an amazing exchange of ideas, which has made the process of developing a math autobiography curriculum seem natural.