

Culturally Relevant Math Instruction Practices for African American Students: A Literature Review of Promising Practices

What brought you to this work?

Robertson: This project matters to me because in my experience teaching math in Philadelphia Public Schools and now Pittsburgh Public Schools, African-American students perform well below their white peers. I would like to affect change by adding research-based methodology to my pedagogy in order to improve test scores.

Scott: In this challenging time in the United States of America, I would like to do my part to help our children reach their full potential. Pittsburgh has a long history of educational disparity between African American and White students. I have a strong interest in understanding students' educational experiences, improving their academic performance, and strengthening their confidence in their ability to perform well in STEM and other quantitative analysis courses.

Research questions

- 1) Would African American students benefit from a culturally oriented math class that introduces math concepts from a practical perspective, even before teaching math concepts? For example, if chapters one or two chapters of a math textbook presented the "Story of African Mathematics" whereby students would learn how the pyramids were built and math concepts employed to accomplish this feat.
- 2) What are the pedogeological differences between African American versus White math instructors who teach classes with predominantly Black students?
- 3) What are the pedogeological differences between African American instructors?
- 4) What role, if any, has social media and gaming played in the enhancement or detriment of a student's math skills? Is there a disproportionate effect on African American students compared to other students?

Research plan

We will complete a literature review to find applicable methods to add to John's pedagogy in order to improve math outcomes for K-8 African-American students.



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