Building Collaborations for STEM Education Research

The 4 C’s in STEM collaboration creativity communication critical thinking.

Presenter: Dr. Christopher C. Jett
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Saturday, April 21, 2018
12:45 p.m.
Examine collaborative blueprint
Discuss relationship building
Explore different aspects of collaborations
List some advantages of collaborations
Touch on some personal examples and musings
Share best practices for building collaborations as a community
Collaborative Blueprint

Step 1: Identify potential collaborator.

Step 2: Reach out concerning the matter.

Step 3: Build an authentic relationship.

Step 4: Collaborate meaningfully.

Step 5: Assess and reflect.
Potential Collaborators

- Reach out early
- Offer to have a conversation
- Link the project to your research goals as well as their research goals
- Share a summary of relevant experiences
- Make certain they have a track record of doing things, especially in a timely manner
- Present a well-defined list of roles and responsibilities
Relationship Building

- Touch bases often
- Outline clear and agreed-upon objectives, expectations, norms, etc.
- Invite the collaborator to your STEM education site to give a presentation, talk, etc.
- Arrange to meet the collaborator at a conference or other meeting
- Schedule a planning session
- Volunteer to serve on a panel, as a reviewer, on a committee, etc.
Collaborators

- Keep the momentum going
- Know your limits
- Generate a task matrix
- Keep the lines of communication open, especially around project changes
- Establish trust through transparent processes
- Monitor and measure success
Advantages of Collaborations

- Share and align resources to collective goals
- Anticipate problems, barriers, etc.
- Resolve issues in a unique fashion
- Usher in different paradigms
- Utilize multidisciplinary approaches
- Assist with project deadlines, reports, etc.
- Foster reciprocal accountability
- Combine strengths
- Identify growth opportunities
- Leverage and expand existing programs
ABOUT ME:
I am a mathematics educator who works in a Department of Mathematics. In so doing, I teach mathematics courses for prospective K–16 mathematics educators. My research investigates the experiences of high-achieving African American male students in STEM disciplines. I am excited about the research and pedagogical possibilities associated with this work.

I’M INTERESTED IN THESE RESEARCH QUESTIONS:
› How might the experiences and insights of African American male STEM faculty members broaden the participation of this group in STEM?
› In what ways do holistic STEM faculty development programs address culturally relevant teaching?

I HAVE TO OFFER:
• Expertise in mathematics education
• Experience in qualitative research methods
• Experience teaching mathematics courses at different types of higher education institutions

I AM SEEKING:
• Opportunities to examine the experiences of African American male STEM faculty
• Opportunities to expand work on culturally relevant teaching to STEM faculty development in a more comprehensive manner
I am interested in research that seeks to broaden the participation of Black men in mathematics in particular and STEM in general. Given this emphasis, my research agenda is interdisciplinary in nature conjoining scholarship from STEM experts, social scientists, and education researchers. As such, my dream collaboration would be with an innovative scholar who critically examines race-related and gender-specific influences on STEM teaching and learning. I look forward to connecting with like-minded colleagues to advance such work in the field.
Musings about Collaboration

- Highlight any previous partnerships (what was learned)
- Mention any networks, consortia, etc.
- Start small (i.e., departmental PLC, college-wide research group, etc.)
- Build momentum as projects develop and evolve
- Trust your gut feelings and instincts
Sharing Best Practices

- Please share any best practices that have worked well for you in terms of collaboration.
- Please share any lessons learned regarding your collaborations with STEM education research projects.
- What additional questions do you have concerning building collaborations?
Good luck with finding your flock of collaborators!!!

Let’s get some grant money!!!