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Pilot studies have led to a simulation design to engage teens with collaborative tasks from STEM careers. The simulation supports learning about collaboration skills, STEM career fields, and career navigation strategies for youth from underrepresented groups.

**Collaborative Research: Engaging Adolescents through Collaboration on Simulated STEM Career Scenarios and Mathematics Activities**

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Project type: Design and Development

Project Overview: We create and study virtual simulations of peer collaboration in STEM fields, designed for youth in informal learning environments. Practice with the simulations will help teens from underrepresented groups build collaborative skills and career interest in STEM fields, especially those that use mathematics and require strong teamwork.

**New Challenges & Next Steps**

Pilot testing alerted us to teens’ attention to all aspects of the simulation—settings, visuals, voices, storylines. We are pushed to optimize purpose for every aspect, presenting us opportunities to represent STEM careers in multiple ways. In the next year, we will apply our design to modules for four additional STEM career fields, and we will adapt and pilot outcome measures for initial evidence of effectiveness.

**Equity**

We present counter-stories of STEM professionals from underrepresented groups as career guidance using the Community Cultural Wealth framework.

Our Strategic Partners advise the simulation development to ensure relevance to pipeline programs for youth from underrepresented groups (Black, Latinx, rural).

**Lessons Learned & Insights Gained**

Focus groups conducted with teens in college and STEM pipeline programs heightened our appreciation of the value added through their interaction with stories and advice from our Career Partners, who are Black and Latinx STEM professionals. We are integrating career information, guidance on career navigation strategies, and feedback on the relevance of collaborative skills to STEM careers.