**1949526 Collaborative Research: DTI: Network Science for All: Positioning High Need Youth for Success in Pursuing STEM Pathways Kimberly A. S. Howard, khoward@bu.edu & Alexandra Oliver-Davila, alex@sociedadlatina.org**

Increasing high need youth pursuing STEM pathways through network science and career lessons  
Project type: DTI  
Project start/end date (years only): 2020 - 2024  
Project URL: [https://sites.bu.edu/careerdevelopmentlab/2020/05/15/sociedad-latina/](https://sites.bu.edu/careerdevelopmentlab/2020/05/15/sociedad-latina/)

<table>
<thead>
<tr>
<th>Strategies</th>
<th>Insights &amp; Achievements</th>
<th>Reconsiderando:</th>
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</thead>
<tbody>
<tr>
<td>Addressing real-world issues (e.g. COVID-19) through the network science lens</td>
<td>Increased self-efficacy and clear future goals (see next slide)</td>
<td>What have you needed to reconsider? <em>Evaluation strategies to increase participation rates and meaningful responses</em></td>
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<td>Building STEM identity through personalized career development curriculum</td>
<td><strong>A PSA video</strong> on the COVID vaccine created by youth</td>
<td>What have you been able to creatively overcome and how? <em>Interactive activities (c.f. surveys) using comic strips and videos</em></td>
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<td>Partnering with Sociedad Latina and across different departments at BU (Physics, Education, and Government &amp; Community Affairs)</td>
<td>Collective impact: 44 BPS students, 40 BPS educators, and 79 rural high schools in Ohio and NY</td>
<td>What are you still grappling with? <em>zoom fatigue</em></td>
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<td>Presented at 2 conferences; held 2 webinars; 2 papers under review</td>
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**Goals - Pretest**

- Good grades
- Middle school completion
- College degree
- High school completion

**Goals - Posttest**

- Banker
- Learning about animals
- NASA
- Pediatrician or artist
- Soccer player
- College entrance
- High school completion
- Own a business

**Network Science Club**

- Introduction to Network (N=6, \( \eta^2=0.75 \))
  - Pre: 2.58
  - Post: 3.67
- Network Operation (N=10, \( \eta^2=0.03 \))
  - Pre: 2.6
  - Post: 2.93
- Network and Diseases (N=6, \( \eta^2=0.21 \))
  - Pre: 2.78
  - Post: 3.56

**Career Lesson**

- Career Exploration (N=8, \( \eta^2=0.45 \))
  - Pre: 3.2
  - Post: 4