Increase in Computer Science Attitudes is Not Moderated by Gender or Underrepresented Race/Ethnicity in STEM+C
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Introduction
Curated Pathways to Innovation (CPI) is a web-based app that curates STEM+C learning programs from different sources and encourages students to pursue these fields. Women earned roughly half of all awarded bachelor’s degrees in 2016, but only 19% of bachelor’s degrees in computer science. Further, underrepresented minorities (URM) earned only 22% of all science and engineering bachelor's degrees.

The aim of this study was to determine if students using CPI were encouraged to pursue STEM+C and if attitudes differed based on gender or URM status.

Research Questions
RQ1: Will computer science attitudes increase between survey administrations?
RQ2: Will gender and underrepresented status in STEM+C moderate the relationship between baseline and pulse computer science attitude scores?

Methods
1. Confirmatory Factor Analysis to confirm the factor structure of computer science attitudes
2. Paired t-test to determine if there was a change in computer science attitudes mean score between the administration of both surveys
3. Linear Regression with Moderation to examine if gender or URM status in STEM+C moderated the relationship between baseline and pulse computer science attitudes scores

Demographics
Total Sample Size:
N = 228
Gender:
Male = 113 (50.7%)
Female = 100 (44.8%)
Other = 10 (4.4%)
Underrepresented Race/Ethnicity in STEM+C
Yes = 187 (84.2%)
No = 5 (15.8%)

Results
- With respect to RQ1, a paired t-test for computer science attitudes indicates that the mean score significantly increased by 0.358 between the baseline and pulse administration (Table 3).
- With respect to RQ2, we found that there was no significant difference in fit by gender or underrepresented minority status using linear regression. (Figures 2 & 3).